Plants for a Future
A resource centre for edible and other useful plants

Contact Details Email: webmaster@pfaf.org Tel: 01208 872 963

Español

Plants For A Future is a resource centre for rare and unusual plants, particularly those which have edible, medicinal or other uses. We practice vegan-organic permaculture with emphasis on creating an ecologically sustainable environment using Perennial plants. We have two pieces of land, in Devon and Cornwall, where we demonstrate our agricultural principles and carry out research into interesting plants and hold various educational activities. For a brief introduction to the ideas behind Plants For A Future have a look at our intro leaflet.

Database

The Species Database contains details of 7380 plants and has extensive details on edible, medicinal and other uses of plants together with information about their cultivation and habitats.

Search for Plant name: ☐ Search

Search Pages: UK, US, Australia, Download.

The Permaculture Plant Database is a developing project which also incorperates our data. You can also find info from the database at Gardenbed.com.

Leaflets

We also have many Leaflets on plant use and useful plants covering: Edible Uses, Non-Edible Uses, Plants for particular habitats, well as several leaflets on interesting plants and four Checklists of plants suitable particular applications. We are also in the process of writing 400 medicinal fact-sheets about specific plants for an example

Site Contents
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  - US Search
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- Demonstration Gardens
- The Book
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- FAQ

Leaflets

General
- Perennials
- Health
- Vegan-Organics
- Why Plants?
- Conservation Gardening

Edible Uses (8)

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Checklists
- Groundcover
- Hedges
- Shelterbelts
- Edible Trees and Shrubs

Other Leaflets (8)

of one of these see the fact-sheet on Maca.

If you don't know where to start than you can read our introduction leaflet or the old version which has a bit more details on the plant side of things.

Plant Research and Demonstration Gardens
The next exciting phase of the PFAF project is the creation of an Blagdon Plant Research and Demonstration Gardens on a new site on our land in Devon. We gained planning permission on the site in June 2000 and work is progressing on constructing a visitors centre and demonstration gardens to exhibit hundreds of unusual edible plants. We have already held several events on the site including several Plants For A Future gatherings. Please don't just turn up, give us a ring on 01208 872 963/0845 458 4719 to arrange your visit, we are currently very short on staff and are only able to accept visitors ate certain times such as the two woodland working weekends 30/11/02-1/12/02 and 14/12/02-15/12/02. Have a look at the Photo Album to see how the site is progressing.

The Book
Plants For A Future: the book, is out now. This contains lots more info of the sort you find here, as well as personal anecdotes, 24 pages of colour photos and thorough appendices. It is available from Permanent Publications price £19.00 inc. p&p, 320pp or direct from us.

Join Friends of Plants For A Future
Friends of PFAF is our membership scheme. Members receive regular newsletters and discounts on the book and other services. Membership is only £10. We are currently trying to find 1000 friends as this will help ensure our financial security. So your membership right now would greatly help the project and ensure that our important message reaches as many people as possible.

Volunteering
We are happy to accept volunteers at both site, but please contact us first to arrange suitable dates. To volunteer at our new Devon site and help build our visitors center and gardens ring 0845 458 4719. To volunteer at our Cornwall site where our large existing plant collection is ring 01208 873 554. You might also want to see our volunteering page for more details.

Financial Help Establishing a demonstration gardens does not come cheep and we need all the financial help we can get. There are many ways to help including

- Sponsoring a tree
- Affinity schemes with Internet and phone service providers
- For UK residents you may find the CAF system easier
- Long term loans would really help us secure our long term future. For info on all these schemes see our fundraising page.

Online donations

You can make secure online credit card donations to Plants For A Future using the the following :

PayPal DONATE

PayPal from anywhere in the world.

donate now

Charities Aid Foundation (CAF). For UK residents. Great if you want to make a Gift Aid donation. If you make a donation through CAF then please send us an email so we know who made the donation.

The Phone Coop

sign up to the phone coop

We have joined up with The Phone Co-op, an ethical and environmentally responsible telephone service provider, to offer our supporters a great deal on their phone calls. The Phone Co-op neutralises all CO2 emissions generated by your phone calls through its partnership with Climate Care (www.climatecare.org). By using The Phone Co-op, you save money, help us to raise funds and use a green and ethical telecom provider. By using our Affinify number, 009, then Plants For A Future will receive a small commision on calls made. Sign Up

The phone co-op offers

1. Savings of around 25-50% on standard UK local and national rates and up to 84% on international calls.
2. There are no set up charges and there is no dialling prefix necessary for customers with a BT line.
3. Internet Services: flat rate internet access and broadband access are also available.

More about us
The project consists of a registered charity and a workers coop. The early history of the project is discussed in History page as well as a page on our background and history taken from the newsletter. More recent events are discussed in the Demonstration Gardens page. There are also some rather old documents outlining our Aims and Ideals and information about the Community. Contact and legal information can be found below.

Catalogue
At some time in the future we hope to run a plant catalogue feature many of the unusual plants your will find in these pages. For a taster of what you might find have a look at old catalogue. We also compiled a list of Plant Suppliers, a set of pointers to places where you can find interesting plants.

Mailing list and Discussion Groups
We just started an electronic mailing list this will be a forum for discussion on the topics of unusual edible plants, forest gardening and all the topics we cover. Regular news about the project will also be posted.

Comments can also be added to each page on our website, these are useful if you have plant specific information you would like to add. For an index of all the comments added so far see the discussion lists page.

Stop Press:

Courses for 2004 at The Field in Cornwall

- Winter Salad Garden - Day 1, 11/April/04.

Introduction to winter salad plants and Plants For A Future.

- Winter Salad Garden - Day 2/3, 17 & 18 April. Planting our the winter salad garden.
- Winter Salad Garden follow up sessions (PFAF) . Sat 23/May/04, Sat 19/June/04 Sat 10/July/04. Each of these sessions will be 5 hours long.
- The Bountiful Woodland Edge Garden: Autumn - Dates to be arranged..

For more details on any of these events please contact Phil James on 01208 873623.

Monthly gatherings at our Devon site

A series of mothly gatherings are being held at our Devon site on the second weekend of each month throughout 2004. The focus of these will be on the creation of a new "Welcome Garden" which will be the first garden people see when they come on site and demonstrate may useful plants. The gathering will run from miday on Friday to midday on Monday. All are welcome to come at any time during the weekend. Please contact Rich webmaster@pfaf.org 01208 872 963/07813 067250 for details.

The dates are 17/18 April 2004, 8/9 May,12/13 June, 10/11 July, 14/15 August, 11/12 Sept, 9/10 Oct, 13/14 Nov, 11/12 Dec.

Past highlights

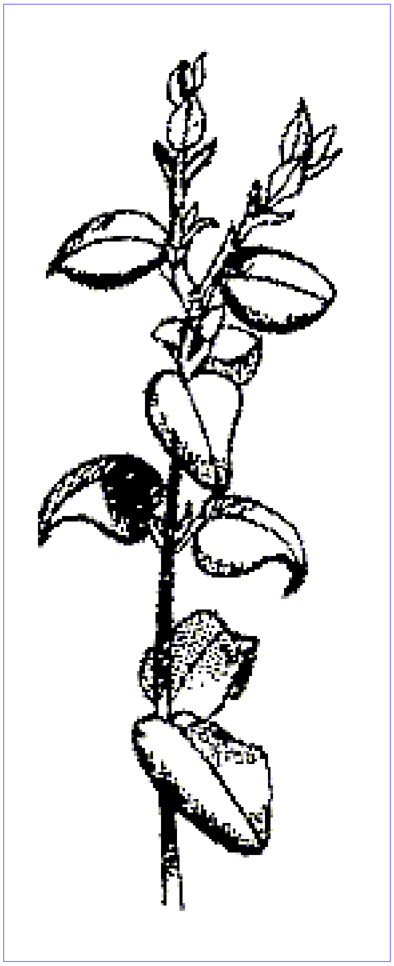
- March 04. Application submitted to Awards For All for a grant to cover the construction of a welcome garden, and conducting a wildlife survey.
- Winter 03/04 Major coppicing and woodland work has been carried out on the woodland at the Devon site, including the resteration of a neglected coppice the planting of 500 new trees and repair of the dear fencing.
- Jan 03 A new entrance and car park have been constructed at the Devon site.
- A major grant for £25,000 was received from the Devon And West Somerset Key Fund in Sept 2001.

This was to help establish infrastructure and facilities at our Devon site.

- Over 200 people visited the Devon site in 2002 and took part in a number of events and workshops. Our photo album shows some of the activities.
- A very successful stall at BBC Gardeners World in June '01.
- June 2000. After a three year battle we obtained planning permission for a temporary visitors centre at the Blagdon site.

For full details of what has been happening see the The latest news from PFAF

Leaflets on plant use



1. Introduction to Plants For A Future (Nederlands, Dansk).
2. Old introduction (slightly more details on plants). (Esperanto, Italiano, Español, Francais, Nederlands, Dansk).
3. Why Perennials? (Italiano, Español, Dansk). The arguments for growing perennial plants instead of annuals.
4. Plants for Health (Español). We also have 300 factsheets on medicinal plants available to Friends of PFAF.
5. Vegan-Organics (Español). A practical guide to healthy plants and soils without animal manure or artificial chemicals.
6. Why Plants? (Esperanto (ISO-3) Español). The moral and ecological arguments for a plant based economy.
7. Conservation Gardening (Español)).

Edible Uses

1. Alternative Food Crops (Español).

2. Fruit: Food of the Gods (Español)
3. Alternative Fruits (Español)
4. Alternative Root Crops
5. Green Gold - The Leaves of Life!
6. Alternative Edible Leaves
7. Winter Salads
8. Staple seed crops from perennials
9. Vegetable Oils

Non-Edible uses

1. Alternative Lighting: Plant Oils and Waxes
2. Fibre Plants
3. Soap Plants

Plants for particular Habitats

1. Pioneer Species trees good for establishing a woodland.
2. The Edible Lawn (Español).
3. Edible Ornamental Plants (Español).
4. The Edible Pond and Bog Garden
5. Edible Shrubs (Español).
6. The Urban Garden (Español).
7. Woodland Garden Plants
8. Ground cover plants.
9. Hedges and their use (Deutsch)
10. Plants for Problem Places North facing walls and deep shade
11. Conservatory Plants
12. The Potted Garden Useful Plants you can grow in pots or containers. NEW

Plant Portraits

Leaflets devoted to particular rather useful plants

1. Allium Species The Perennial Onions (Español)
2. Allium ursinum Wild Garlic (Español).
3. Amelanchier Alnifolia Juneberries
4. Apios Americana The American Groundnut
5. Arbutus unedo The Strawberry Tree
6. Asclepias species The Milkweeds
7. Caragana Aborescens The Siberian Pea Tree
8. Cornus Kousa Japanese Dogwood
9. Crataegus Species The Hawthorns
10. Dioscorea batatas The Hardy Yam
11. Elaeagnus x ebbingei A Plant for all Reasons
12. Ginkgo biloba The Maidenhair Tree
13. Hemerocallis Species The Daylilies
14. Hippophae salicifolia Willow-leaved Sea Buckthorn
15. Malva Moschata Musk Mallow - Great for Salads
16. Oxalis deppei Iron Cross Plant
17. Sassafras Albidum
18. Viola Odorata Sweet Violet

Checklists

These list a large number of plants with particular uses and include information on growing conditions.

1. Checklist of plants suitable for ground cover
2. Checklist of plants suitable for hedging and windbreaks
3. Checklist of trees and shrubs suitable for shelterbelts
4. Edible Trees and Shrubs Hardy in Britain

Factsheets

We have 300 factsheets on medicinal plants available to Friends of PFAF. An example of one of these is Maca.

Other leaflets

1. Animal Abuse in today's society
2. Housing Co-ops
3. (Un) Ethical Financial Investment/Management
4. Some examples of Good permaculute project

The following articles, as well as several of the Plant Portraits, have been taken from Friends of Plants For A Future newsletter:

1. Introduction and history of PFAF.
2. Obtaining plants
3. Garden visits - Kew
4. Gardening tips - seed sowing
5. The Garden of Love, a visit to Robert Hart's Forest Garden (Nederlands: De Tuin Van Liefde)

In general the articles will appear on the Web site a year after they appear in the Newsletter.

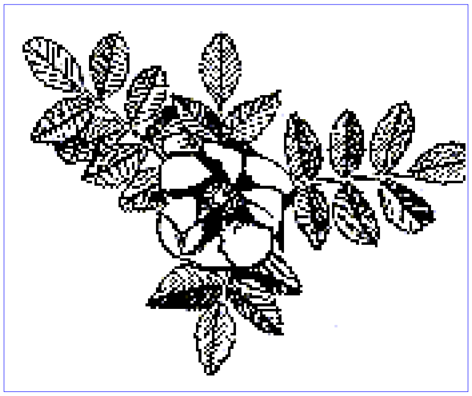
Friends and Relations

We ocasionally get articles from other like minded people which we think are worth reading.

- Agriculture and World Views: An Inquiry Into Shifting Ecological Paradigms Liz Turner. Part of an MSc disertation which contain a large section on Plants For A Future.
- Weeds as a future source for human consumption a report on the uses of weed plants in South America.

The July '97 issue of the Permaculture Magazine (no. 15 July '97). Has an article by Ken of PFAF called Plants to Pigout On! which covers his favorite unusual fruits. There is also extract from the book *Living Lightly - Travels in post-consumer society* by Walter and Dorothy Schwarz which features our project available on the Global Ideas Bank.

Links



Main Links Page

Including: Permaculture, Sustainable Agriculture, Other Systems, Organics, General Gardening, Rare Plants/Heritage Seeds, Interesting Plants, Books Stores, Herbs and Medicinal Plants, Soaps, dyes and the uses of plants, Wild plants, Communities and Eco-villages, Vegan Stuff, Genetics, Green Building, Green and Environmental, Other interesting sites.

News Groups and Mailing Lists

One of the best ways for finding answers to specific queries is to ask others on the internet, There's a lot of knowledgeable people out there.

Databases, Botany and Photos

Various places where you can find more information about specific plants: Ethnobotany, Databases, Photos and pictures.

UK Permaculture Organisations Offline

Lots of addresses of useful UK groups.

Suppliers

Places world wide where you can find interesting plants (🇫🇷 Fournisseurs de Plantes, Francais rather out of data).

Other Links

Other Links to non plant related sites, and reciprocal links.

New Links

Recent additions to the links page.

Dr Dick's Home Page

My own home page has links to UK eco-activist, Taoism, Tai-Chi and Feng Shou and Maths.

HTML Resources

Some pages I've written with resources for web-site design.

Translation

We'd like to break down the Anglo-centric domination of the world in any way possible. Hence if you would like to help in translating these pages into other languages please contact us at pfaf@comp.leeds.ac.uk. Much respect to Leonel who has been very busy doing the Spanish translations and is happy to take other translation work.

- PFAF Página Personal, Español
- Plantas para un Futuro - Introducción
- La Historia de PFAF, Español
- Centro de Investigación Botánica de Blagdon y Jardines de Demostración, Español
- Objetivos e Ideales de PFAF, Español
- PFAF - La Comunidad, Español
- Vegan-Orgánica Los principios básicos, Español
- ¿Porqué perennes?, Español
- ¿Porque plantas?, Español
- Cultivos alimenticios alternativos, Español
- Plantas para la Salud, Español
- Frutas aternativas, Español
- Frutas - Alimento de los Dioses, Español
- Jardinería de conservación, Español
- El jardín urbano, Español
- Plantas ornamentales comestibles, Español
- Arbustos comestibles, Español

- El prado comestible, Español
- Especies Allium - Las cebollas perennes, Español
- *Allium ursinum*, El Ajo silvestre, Español
- Introduction, Esperanto (ISO-3 varianto)
- Kial Plantojn? Esperanto (ISO-3 varianto)
- Introduzione, Italiano
- Perche Piante Perenni?, Italiano
- Des plantes pour un futur - Introduction NEW
- Fournisseurs de Plantes, Francais
- Planten Voor Een Toekomst - Inleiding, Nederlands NEW
- Planten Voor Een Toekomst - Inleiding, Nederlands
- De Tuin Van Liefde, Nederlands
- Eco Village, Nederlands
- Hecken und ihre Nutzung, Deutsch
- Planter for en Fremtid - introduktion, Dansk
- Planter for en Fremtid - new introduktion, Dansk
- Hvorfor flerårige, Dansk
- Konserverende havebrug, Dansk
- Hvorfor Planter?, Dansk
- Planter for sundhed, Dansk

Contact

- The main contact point for the project is currently our site in Devon: Plants For A Future,
  Blagdon Cross,
  Ashwater,
  Beaworthy,
  Devon
  EX21 5DF,
  England
  Telephone 01208 872 963
  Please enclose a stamped addressed envelope when writing.
- You can contact me the web-master at webmaster@pfaf.org
- Our Education centre in Devon can be contacted on 0845 458 4719 or +44 1409 211 694.
- If you want to contact the Cornwall site you can ring 01208 873 554.
- If you want to speak to the charity trustees you can ring us on 01208 872 963.

If you have a general question about plant then try our mailing list. You may well get a quicker-better answer here than through email or writing.

Please see the Frequently Asked Questions (FAQ) first before writing as this can answer a lot of your questions. In particular I should point out that I (Rich Morris) do not actually live on the either of the Plants For A Future sites. Hence theres certain things which I can't really help with and you would be better writing to main site:

- **Catalogue Orders** I can email you when the new catalogue comes out. But you might be better writing to the project and they will send you a printed version when it comes out.
- **Database Requests** I can tell you where to find the database via ftp and also send it on CD-ROM of floppy disks. I can help with any problems you get running it. Please see the getting hold of the database leaflet before inquiring. Note: we cannot send out disks unless the postage and packing cost is covered, donations are also appreciated.

- **Plant Information** I don't know that much about plants, so I can't give expert advice. I do know my way round the web so I can sometimes help find other info about a plant. The real experts are at the address above. However they have a massive backlog of mail to answer, so expect a wait. If you want priority service try our Garden and Plant Advisory Service.
- **Volunteers and Visitors** If you want to visit the project or volunteer, write or phone either the Devon or Cornwall Addresses depending on which site you want to visit, and they will arrange a time with you.
- **Charity Business** I am a Trustee of the charity and I am happy to receive inquiries about this.

Legal Info

Plants For A Future is a charitable company limited by guarantee, registered in England and Wales. Charity No. 1057719, Company No. 3204567, Reg. office 1 Lerryn View, Lerryn, Lostwithiel, PL22 0QJ, England. There is also a workers co-op who carry out many of the day to day tasks. All the information on the web-site is Copyright (C) Plants For A Future, 1996-2002.

Web-sites

Theres now a confusing array of web sites for the project:

- www.pfaf.org - Our own domain name. This just redirect to the Leeds sites below.
- www.pfaf.org.uk - An alternative domain name.
- www.comp.leeds.ac.uk/pfaf/ - The actual site where the pages are hosted.
- www.scs.leeds.ac.uk/pfaf/ - An alias for comp.leeds.ac.uk. This used to be our main URL.
- www.ibiblio.org/pfaf/ - The US mirror of the database.
- www.permacult.com.au/pfaf.html - The Australian mirror of the database.

When referring to the whole web-site you should use www.pfaf.org if you want to refer to particular page you need to use www.comp.leeds.ac.uk/pfaf/ followed by the name of the page, for example www.comp.leeds.ac.uk/pfaf/D_search.html is the main database search page. If pfaf.org sites wrap the whole site in a big frame and you don't get to see the full URL's for each page. If you want to see the full URL click on this link which remove the surrounding frame. The School of Computer Science at Leeds recently changed its name to School of Computing hence the change from scs.leeds to comp.leeds old urls referring to scs.leeds will still be valid but its better to use comp.leeds.

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Pictures Copyright PFAF.
HTML version prepared by Rich Morris - Home Page - Contact Info
Last modified: Oct 20, 2002.
Some rather out of date stats information can be found on theStats page.

Nice one to School of Computer Science at Leeds Uni for the web space. DO NOT contact the school for any queries relating to Plants For A Future. See the awards page for other credits.

Would you like to Sponsor this page or perhaps take out some advertising? These and other options may soon be available.

Supported by Devon and West Somerset Key Fund DEVON & WEST SOMERSET KEY FUND and the Naturesave Trust

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(You can copy, distribute, display this works but: Attribution is required, its for Non-Commercial purposes, and it's Share Alike (GNUish/copyleft) i.e. has an identical license.)
We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

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Back to Plants For A Future home page.

The Species Database

One of the major projects of Plants For A Future has been the compilation of the Species Database. This contains details of nearly 7000 plants, all of which are either edible, have medicinal properties or have some other use such as fibres, oils or soaps. For each plant the database contains details of the uses of the plants, as well as information on the environment it will grow in, and cultivation details.

The database can be searched on the web at three sites *School of Computer Science in Leeds* in the UK, *ibiblio at UNC* in the US and Environmantal Sollutions in Australia. Many thanks to all sites for the space.

We are in the process of putting the database on CD-ROM this will be much like the web version but with over 500 plant pictures on it. Its in beta test at the moment and you can download a copy from the ftp site.

The full database is available in Microsoft Access 2.0 format, either via snail mail from PFAF or via ftp from me. ASCII text and other formats may also be available. See How to get hold of the database for more details. You can even set things up so you have your very own version of the web database search engine running at home.

- Search UK US Australia
- Sample Pages
    - Rosa Rugosa
    - Myrtus Ugni
    - Asphodeline Lutea
    - Drimys Lanceolata
    - Lilium Lancifolium
- Help
    - Main Headings UK US

  - Edible Uses UK US
  - Medicinal Uses UK US
  - Other uses UK US
- How to get hold of the database
- Bibliography UK US
- Families of Plants in the Database UK US
- Common names of Plants in the Database UK US
- Other features of the Access 2.0 version
- The ascii Version for the very brave.
- How the web version of the database works.

Ken Fern the compiler of the database writes:

"The information contained in this database has been collected over a number of years from research in libraries, visits to Botanical and other gardens in Britain and, to a much smaller degree at present, from our own experiences of growing the plants. It contains details on more than 6700 species and, until the end of 1992, this was kept in written records. Obviously, it is very difficult to find all the specific information one requires from about 4,000 sheets of A4 paper, no matter how hard you try to build up an index system, and so it was decided to transfer the information to a computer database program using an IBM compatible computer. Having been totally computer illiterate until the middle of 1992, I must apologize for any inadequacies you might find in the way the information is presented in the database, and for the lack of a user-friendly interface to guide you through it - hopefully through continual improvement these matters will be gradually improved."

A previous WWW interface to the database was the *Plant Tracker* put together by our good friend Lee Flier unfortunately the service provider had too pull it because it was being too heavily used. But many thanks to Lee for all the work she put in.

If you happen to be an ISP and would like to host a mirror version of the database please send us an email and help increase the coverage of this important resource.

Back to Plants For A Future home page. Search Page: UK, US.

Plant information taken from the Plants For A Future - Species Database.
Copyright (c) 1997-2000. Last Update: Feb 2000.
WEB search engine by Rich Morris - Home Page
Plants for a Future, The Field, Penpol, Lostwithiel, Cornwall, PL22 0NG, UK.
`www.pfaf.org` - Contact Info

Plants for a Future
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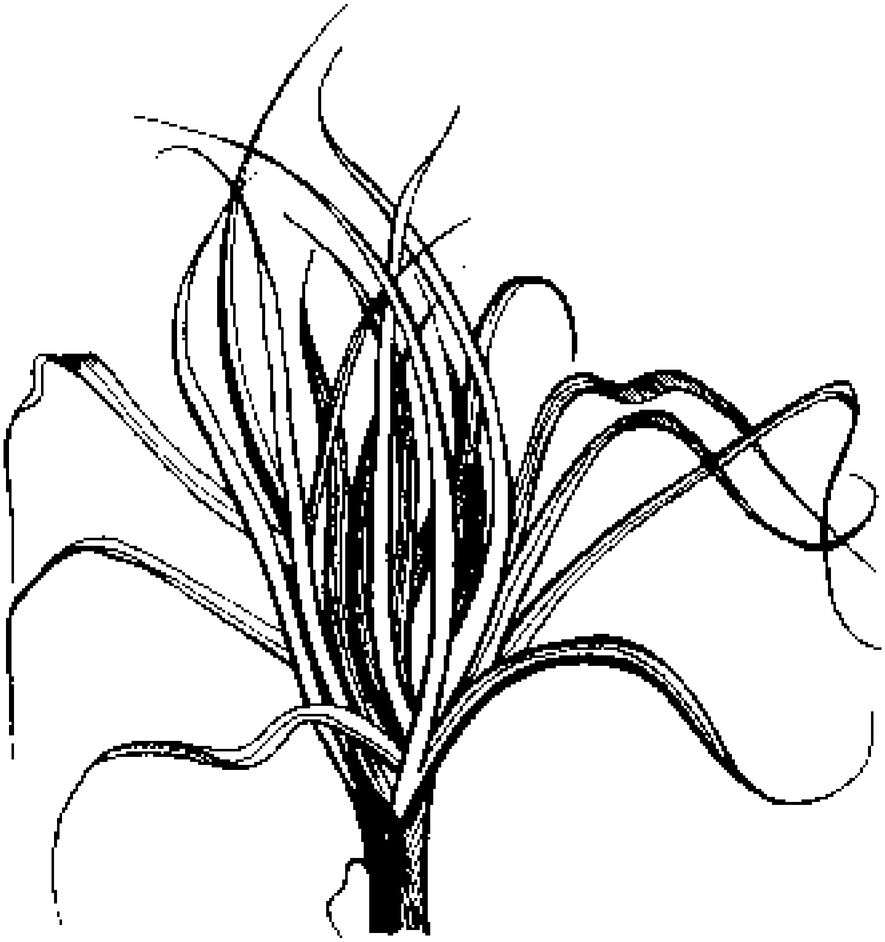
Back to Plants For A Future Home Page. Jump to Database Intro.

This is a sample page from the Plants For A Future Species Database, and is an example of one of the 7000 useful plants which you'll find in it. This plant also features in the Catalogue. Note: I've chosen these particular examples because they are the plants I've got pictures for, the database as a whole does not contain picutures.

Asphodeline lutea



Common name:	King's spear	Family:	Asphodelaceae
Author:	(L.)Reichenb.	Botanical references:	50, 200
Synonyms:	Asphodelus luteus.		

Known Hazzards:	None known
Range:	S. Europe - Sicily.
Habitat:	Dry grassland[50], rocky and stony places[45], usually on limestone[187].

Habit:	Perennial			Decid/Ever:		Rating:	4
Height:	1.00	Width:	1.00	Hardyness:	7	Growth rate:	
In leaf:		Flowering time:	6 - 7	Seed ripens:	7 - 9	Scented:	1
Flower Type:	H	Self-fertile:		Pollinators:	Insects		
Soil:	LMH	Well-drained:	1	Heavy clay:	0	Poor Soil:	0
pH:	ANB	Acid:	0	Alkaline:	0	Saline:	0
Shade:	SN	Moisture:	DM	Wind:	M	Drought:	0
Nitrogen fixer:	0						
Wildlife:	0						
Pollution:		Frost tender:	N				

Edible Uses

Leaves, Root, Flowers.

Root - roasted. This food was highly valued by the ancient Greeks, who roasted the roots like potatoes and ate them with salt and oil or mashed them with figs[2, 183]. The roots are not very thick but are abundantly produced and have a nice nutty flavour[K]. They can be harvested at any time of the year, but are best used when the plant is dormant in late summer and early autumn[K]. They do not store well and should be used within a few weeks of harvest[K]. Young shoots - cooked[K]. They smell less than pleasant whilst cooking but have a fairly bland flavour[K]. Some people find that they have a very pleasant flavour[K]. The plant comes into growth in late summer and the autumn, the young shoots can be harvested in moderation all through the winter[K]. Flowers - raw. A delightful sweetness, they are a very decorative and tasty addition to the salad bowl but should be used as soon as possible after harvesting because they soon start to decompose[K]. The flowers are very short-lived and are best picked in the late afternoon - thus you can enjoy them visually during the day and gastronomically in the evening[K]. There is also said to be a double-flowered form[245], which will have twice the quantity of petals, though we do not know its name[K].

Medicinal Uses

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in ordinary garden soil[1, K], tolerating partial shade[200]. Requires a well-drained soil[42, 134], doing well in sandy soils[188]. Prefers a deep rich soil[111]. Prefers a soil that is not too rich and a warm sunny position[200]. Plants are hardy to about -15°c[187]. A very ornamental plant[1], though it looks very untidy in late summer when it dies down after flowering[K]. It seems to be very wind resistant, tolerating maritime exposure on an exposed site in Cornwall[K]. The flowers are sweetly scented[245]. Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - sow March/April in a greenhouse and only just cover the seed. Germinates in 1 - 3 months at 15°c[134]. Once the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring. Division in spring or autumn, with care since the roots are easily damaged[1]. Ensure each division has at least one growing bud[200]. We have found that this can be successfully divided throughout the growing season so long as it is watered in dry weather[K].

Scent

Flowers: Fresh

The flowers are sweetly scented.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal PayPal DONATE

Readers Comments on this page:

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page. Jump to Database Intro.

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HTML version prepared by Rich Morris Home Page - Contact Info

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A resource centre for edible and other useful plants

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Due to all the work which needs doing on the Eco-Village at the moment, we will not be running the catalogue at the moment. However, we are busy propigating plants to get ready for a new catalogue to be release in the Autumn '98. These pages are just intended as a guide for the type of plant which may appear in the new catalogue.

A

960177 *Achillea ageratum* **Mace**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Perennial to 60cm tall. Flowers mid to late Summer.
Succeeds in most soils but prefers a well-drained soil in a sunny position or partial shade. Will tolerate drought. The leaves can be used as a flavouring in soups and stews, or to make a herbal tea.

960001 *Achillea erba-rotta moschata* **Musk milfoil**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 20cm tall. Flowers early Summer.
An easily grown plant for a well-drained soil and a sunny position. It tolerates poor soils, drought and maritime gardens. It has been used to treat various liver, kidney and digestive disorders.

960002 *Achillea millefolium* **Yarrow**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 60cm tall. Flowers mid-Summer.
A native of British grasslands, tolerating both poor soil and drought. An ideal companion plant to grow in a lawn, it can also be used as a ground cover, though it spreads rather aggressively. The young leaves are a bitter but healthy addition to salads. Along with the flowers they can be made into a tea. The plant can also be used as a flavouring and preservative for beer etc., whilst a liquid plant feed can be made from the leaves and the flowers are an essential ingredient of 'Quick Return' herbal compost activator. Yellow and green dyes are obtained from the flowers. Some caution is advised in using this plant since it can occasionally cause photosensitivity in some people.

960003 *Achillea ptarmica* **Sneeze-wort**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 60cm tall. Flowers Summer to Autumn.
An easily grown plant, preferring a sunny position and well-drained soil. The leaves make an acceptable addition to salads, but sneeze-wort is mainly used medicinally to treat cuts, digestive

disorders etc. The dried powdered leaves are used as a sneezing powder to clear the nasal passages. The leaves are also used as an insect repellent.

960004 *Agastache foeniculum* **Anise hyssop**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1 metre tall. Only hardy in southern Britain. Flowers in Summer.
A plant for a sunny position in a well-drained soil. It may need protection from slugs in the spring. Anise hyssop has delicious leaves that are sweet with a strong taste of aniseed. They make a wonderful addition to salads, can also be used as a flavouring in cooked foods, and make a very pleasant herb tea. The leaves are one of our favourite munches when working on the land. The flowers are an absolute magnet for bees and butterflies.

960184 *Allium ampeloprasum babbingtonii* **Babbington's leek**
£2.00 How is it supplied? 5 Tubers When is it supplied: Winter? Yes Summer? No
Hardy bulb to 1.8m tall. Flowers late Summer.
It prefers a sunny position in a light well-drained soil, but can tolerate clay. A good companion in the garden, it grows well with most plants, especially roses, carrots, beet and chamomile, but inhibits the growth of legumes. All parts of the plant can be eaten. We especially like eating the bulbils which are produced in the summer. The leaves, which are often available in winter, have a nice leek flavour. The older leaves are best cooked. The juice of the plant is used as a moth repellent. The growing plant is said to repel insects and moles.

960103 *Allium canadense mobilense* **Wild garlic**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 45cm tall. Flowers early Summer.
A plant for a sunny position in a well-drained soil. The leaves have a mild garlic flavour and can be eaten raw or cooked. They are available from early spring until the autumn. The flowers have a stronger flavour and can be used as a tasty and decorative addition to salads whilst the bulbs, though small, have a strong onion flavour. The growing plant is said to repel insects and moles, though our moles have not read the same books as us.

960144 *Allium cepa 'Perutile'* **Everlasting onion**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 60cm tall. Does not normally produce flowers.
Best grown in a sunny position in a well-drained soil. Said to be slug-proof, but we lost hundreds of plants to them in one wet summer. This is possibly the most productive of the onions. Its leaves taste like spring onions and are usually available all year round, even in quite cold winters. You can either chop off the leaves, or use the whole plant like a spring onion. The juice can be rubbed on the skin as an insect repellent, used as a rust preventative, or used to clean copper or glass. It is also supposed to be a remedy for baldness and get rid of freckles. You can get a yellow-brown dye from the skin of the bulbs. A spray made from boiling water and the onions is meant to increase the resistance of other plants to diseases and parasites.

960185 *Allium cepa proliferum* **Tree onion**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 1.2m tall.
An easily grown plant, though it prefers a sunny position in a light well drained soil. The tree

onion is a genuinely perennial form of A. cepa (the cultivated onion) that is sometimes grown in the herb garden for its edible bulbils. Plants rarely if ever produce seed, instead the flowering head is comprised of a number of small onions or bulbils. By no means a heavily productive plant, though the bulbils are very well flavoured. Its main problem is that slugs seem to be attracted to it and can eat to death even well-established plants. The bulbils have a strong onion flavour and are often used as pickled onions or added to salads. The bulbs and leaves can also be eaten.

960085 *Allium cernuum* **Nodding onion**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 45cm tall. Flowers mid-Summer.
An easily grown plant, preferring a sunny position in a well-drained soil. This is one of the nicest tasting and prettiest alliums we are growing. The flowers are delicious to look at and also to taste with a strong onion flavour. They make an excellent decoration in salads. The leaves, which can also be used in salads or as a flavouring in cooked foods, are available from Spring until the Autumn and are a little milder than the flowers. The growing plant is said to repel insects and moles.

960131 *Allium fistulosum* **Welsh onion**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 60cm tall. Flowers Summer.
A very easily grown plant, preferring a sunny position and a well-drained soil. Look out for slug damage in wet seasons. The leaves and bulbs have an onion flavour and can be used as a spring onion substitute or as a flavouring in cooked dishes. A very productive plant, it will usually stay green in mild winters and so can often be harvested all year round. The growing plant is said to repel insects and moles.

960005 *Allium neapolitanum* **Daffodil garlic**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Bulb to 30cm tall, Hardy in the milder areas of Britain. Flowers mid-Spring.
A very easily grown plant, so long as it is given a sunny position and a very well-drained soil. It will usually self-sow and also produces many new bulbs each year. It is not happy if temperatures fall much below -5 c. This is a beautiful flowering plant, it comes into growth in the autumn and the leaves can be harvested in moderation all through the winter. They have a lovely sweetness with a mild garlic flavour and can be used raw or cooked. The flowers make a delightful addition to salads and the small bulbs can be used like onions. The plant dies down in early summer and won't be seen again until the autumn.

960104 *Allium ramosum* **Chinese chives**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 50cm tall. Flowers late Summer.
An easily grown plant for a sunny position and a well-drained soil. The bulb and the leaves, which taste like a cross between chives and garlic, can be eaten raw or cooked. The flowers, which have a stronger flavour, make a good garnish for salads. The growing plant is said to repel insects and moles.

960186 *Allium sativum 'Serpent Garlic'*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes

Bulb to 60cm tall. Not hardy in the north of Britain, though it can be grown as an annual there. Garlic succeeds in most soils but prefers a sunny position in a moist light well-drained soil. The bulb is liable to rot if grown in a wet soil. A very good companion plant in the garden, it grows well with most other plants, especially roses, carrots, beet and chamomile, though it inhibits the growth of legumes. We find this cultivar superior to normal garlic since it produces bulbils on the flowering stem. These have the same flavour and can be used in the same way as garlic bulbs. Although they are smaller than the bulbs, they have the advantage that you don't have to dig up the plants, and can leave the plant in the ground to increase. The juice from the bulb can be used as an insect repellant, to ease the pain of stings as a fungicide and even as glue for glass.

960086 *Allium schoenoprasum* **Chives**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 30cm tall. Flowers in Summer.
One of the easiest of plants to grow, succeeding in most well-drained soils and tolerating considerable neglect. Chives make a good edging to plant beds. A commonly grown herb plant, chives can supply their mild-onion flavoured leaves for most months of the year. These can be used raw or cooked, in salads, as a garnish, flavouring etc. For maximum yields, make sure that you harvest the plants regularly since this will ensure a regular supply of young leaves. Chives are a very beneficial addition to the diet and are a good source of sulphur and iron. They also have fungicidal properties and are effective as a spray against scab, mildew etc., whilst the juice can also be used as an insect repellent.

960247 *Allium schoenoprasum 'White'* **Chives**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
See Allium schoenoprasum above.
This is a white flowered form of Chives.

960187 *Allium triquetrum* **Three-cornered leek**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Bulb to 35cm tall. Only hardy in the milder parts of Britain. Flowers spring to early summer.
It prefers a rich moist but well-drained soil and grows well in light moist woodland. The bulbs should be planted fairly deeply. It grows well with most plants, especially roses, carrots, beet and chamomile, but it inhibits the growth of legumes. All parts of this mild onion flavoured plant are edible, and are especially useful since they are harvested in the winter and spring. The picked flowers can remain fresh for several weeks and make a lovely salad garnish.

960087 *Allium tuberosum* **Garlic chives**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 30cm tall. Flowers late Summer to Autumn.
An easily grown plant for a sunny position in a well-drained soil. All parts of this plant can be eaten raw or cooked, having a flavour rather like a mild garlic. The leaves are available from early spring to late autumn and, if you dig up a clump in late summer and keep it in a warm sunny position, then it will continue to grow all winter and provide its edible leaves. The flowers have a stronger flavour and make a very decorative addition to salads. The growing plant is said to repel insects and moles.

960188 *Allium ursinum* **Ramsons**

£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy bulb to 30cm tall. Flowers early summer.
This plant prefers woodland conditions in a moist well-drained soil, and can then be invasive, but because it dies down in summer other plants can grow in the same space. The bulb needs to be planted fairly deep. All parts of the plant can be eaten. A milder flavour than garlic, the leaves are a very welcome salad in the middle of winter. The flowers have stronger flavour and this gets even stronger as the seeds ripen. The bulb has a fairly strong garlic flavour, though it is quite small and fiddly to harvest. The small green bulbils are used as a caper substitute. The juice of the plant has been used as a general household disinfectant.

960189 *Aloe vera* **Aloe vera**
£3.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 80cm tall. Not very cold-hardy outdoors in Britain, it is best grown in a pot outdoors in the Summer and put in a greenhouse for the Winter, or on a sunny windowsill. Flowers early Summer.
Aloe vera is a fairly well known herbal preparation, it requires a very well drained soil and sunny position. It makes an excellent treatment for burns and other skin disorders and is often available in proprietary herbal preparations. The leaves are cut transversally at their base and the liquid that exudes from this cut is dried and used medicinally. Alternatively, the leaves can be cut in half along their length and the inner pulp rubbed over the affected area of skin. This has an immediate soothing effect on all sorts of burns.

960006 *Aloysia triphylla* **Lemon verbena**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Tender deciduous shrub to 3 m tall. Flowers late Summer.
A plant for the mildest areas of Britain, it can also succeed against a sunny wall in other areas such as London, though it general it is best grown in pots and taken into a greenhouse for the winter. It requires a reasonably fertile well-drained soil.The leaves have a delicious scent and taste of lemon and can be used to make a herbal tea or as a flavouring in salads and fruit salads. Try growing it near a doorway so that you brush past it when going in or out. This will release the scent which will repel midges, flies and other insects.

960190 *Althaea cannabina*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 1.8m tall. Flowers Summer to early Autumn.
A very easily grown plant, it prefers a rich moist soil in a sunny position but will suceed in almost any soil. It will even hold its own amongst coarse grass. A fibre can be obtained from the stem, which has been used for making fine fabrics and paper.

960088 *Althaea officinalis* **Marsh mallow**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 1.2m tall. Flowers late Summer.
Despite its common name, this easily grown plant grows best in dry to moist soils and is drought resistant. It requires a sunny position.The leaves have a bland flavour and mucilaginous texture, they can be used raw or cooked, though we find the cooked leaves rather slimy. In small quantities they can be used to thicken soups in much the same way as okra. The root can be eaten raw or cooked, though it is rather tasteless. The root can also be roasted to make the sweet 'marshmallow'.

An egg- white substitute can be made from the cooking water, and a tea from the flowers. Chewing the root is a good way to clean the teeth and can also be given to teething children. Fibre, glue and oil can also be obtained from the plant.

960176 *Amelanchier alnifolia* **Saskatoon**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Hardy deciduos shrub to 4m tall. Flowers in spring.
It prefers a rich loamy soil in a sunny position or semi-shade, but thrives in any soil that is not too dry or water-logged. Plants are fairly lime tolerant, and they also grow well in heavy clay soils. The juneberry is one of our favourite mid-summer fruits. About the size of blackcurrants, they can be eaten raw or cooked. Soft and juicy with a few small seeds in the centre, they have a very nice sweet flavour with a hint of apple in the taste. The fruit can also be dried and used as raisins or made into pemmican. The fruit is rich in iron and copper. The main draw-back to juneberries is that birds adore the fruit and will often completely strip a tree before it is fully ripe, but since this species usually only grows to about 2 metres tall it is fairly easy to protect the fruit. The leaves can be used as a tea substitute. The plants have a spreading, suckering root system and are used in windbreaks for erosion control. The hard, straight grained, tough wood can be used for tool handles etc. The wood can be made even harder by heating it over a fire and it is easily moulded whilst still hot.

960192 *Anredera tuberosa*
£2.00 How is it supplied? 5 Tubers When is it supplied: Winter? Yes Summer? No
Perennial climber to 2m.
This is a climber that supports itself by twining around the thin branches of other plants. It requires a well-drained humus-rich soil and a position in full sun or good indirect light, and will tolerate drought. We have very little information on this plant. The top growth is almost certainly not frost-hardy, though plants have continued growing in a polyhouse when other sensitive plants have died back as a result of frost damage. The roots are likely to be hardier and, especially if well mulched, should survive most winters outdoors in the milder areas of the country. They are unlikely to survive sharp or persistent frosts. It should be possible to harvest the roots in the autumn after the top growth has been killed by frost and then store them in a cool but frost-free place for the winter, planting out in late spring (perhaps starting them off in a greenhouse beforehand). It has a pleasant tasting root, once it has been well baked, though the texture of the raw root is rather less than desirable (it has gained the name snot root with us!)

960193 *Aralia racemosa* **American spikenard**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 1.8m tall. Flowers early summer.
It is an easily grown plant, succeeding in sun or part shade in any fertile soil in a sheltered position. the plants are said to be hardier if grown in poor soil. It will grow well by water. The young shoots can be used as a potherb. The large, spicy root is used in soups and can be used to make 'root beer'. The small fruit can be eaten raw or cooked and can also be made into a jelly. The root has a very good reputation as a medicinal herb, it is related to ginseng and has been used to treat a variety of disorders.

960159 *Armoracia rusticana* **Horseradish**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes

Perennial to 1 metre tall.
Prefers a sunny position in a well-drained soil, producing the best quality roots in rich soils, though they should not be too rich in nitrogen. A good companion plant for potatoes, it is said to deter eelworm.The root has a strong hot flavour and is used to make horseradish sauce. The strongly-flavoured young leaves are also edible, either raw or cooked. The root has many medicinal uses, especially related to bacterial infections and the digestive system. A tea made from the root is used as a fungicide against brown rot of apples.

960102 *Artemisia abrotanum* **Southernwood**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy deciduous shrub to 1.2m tall. Flowers in Autumn.
An easily grown shrub for a sunny position or light shade. Succeeds in most well-drained soils, tolerating poor soils.The bitter tasting young shoots can be used a as a flavouring for cakes etc. or as tea, though we prefer the non-food uses of the plant. These include using it as a low hedge - when planted in the orchard it will help to repel fruit tree moths. Rubbing the fresh plant on to your skin will protect you from insects for an hour or two. When dried, it lasts from 6-12 months as an indoor insect repellent. You can make a yellow dye from the branches and a hair tonic/conditioner from an infusion of the young shoots.

960106 *Artemisia dracunculoides* **Russian tarragon**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 1 metre tall. Flowers early Autumn.
An easily grown plant for a well-drained soil in full sun or light shade. Spreading freely when well-suited, it can become invasive.The leaves can be eaten raw or cooked, though they are not of the best quality and certainly not a patch on the closely related French Tarragon. The flavour does improve somewhat as the plant matures. The oily seed is also edible, though it is very small and we have yet to seed it produced in this country. Both the growing and the dried plant repels insects.

960160 *Artemisia dracunculus* **Tarragon**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 60cm tall. Flowers late Summer.
Best in a warm sunny position, it dislikes heavy or wet soils, otherwise it is not too fussy and is hardier when grown in a soil on the poor side.The leaves are an excellent flavouring in salads or cooked foods, having an aromatic flavour with a hint of aniseed. Both the growing and the dried plant repels insects, whilst an essential oil is used as a flavouring and in medicines.

960008 *Asphodeline lutea* **King's spear**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 1 metre tall. Flowers early Summer.
Very easily grown in a well-drained soil and a sunny position. Plants die down in the summer and can leave a bit of a hole behind them until they start regrowing in early autumn.The roasted, nutty flavoured roots of this Sicilian plant was highly valued by the ancient Greeks, who roasted them like potatoes and ate them with salt and oil or mashed them with figs. The young shoots are available all winter and can be cooked - they smell disgusting when being cooked, but have a rather bland flavour. The flowers have a delicious sweet flavour and look really good in a salad.

960009 *Atriplex halimus* **Sea orach**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 2m tall, Hardy in the milder areas. Flowers in Summer.
Easily grown in a well-drained reasonably light soil and a sunny position, it is hardier when growing in relatively poor soils and is drought tolerant. It makes a good hedge and is very tolerant of maritime exposure.The leaves have a wonderful salty flavour. We use the shoot tips in salads, and this harvesting is all that is necessary to grow the plant as a hedge. We also steam young shoots that are about 10cm long and use them like spinach - they retain their crispness and make an excellent vegetable. The seed can be ground and used to thicken soups or make bread.When used as a food crop, this plant should only be grown organically since it can concentrate harmful nitrates in the leaves when artificial fertilizers are used.

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A resource centre for edible and other useful plants

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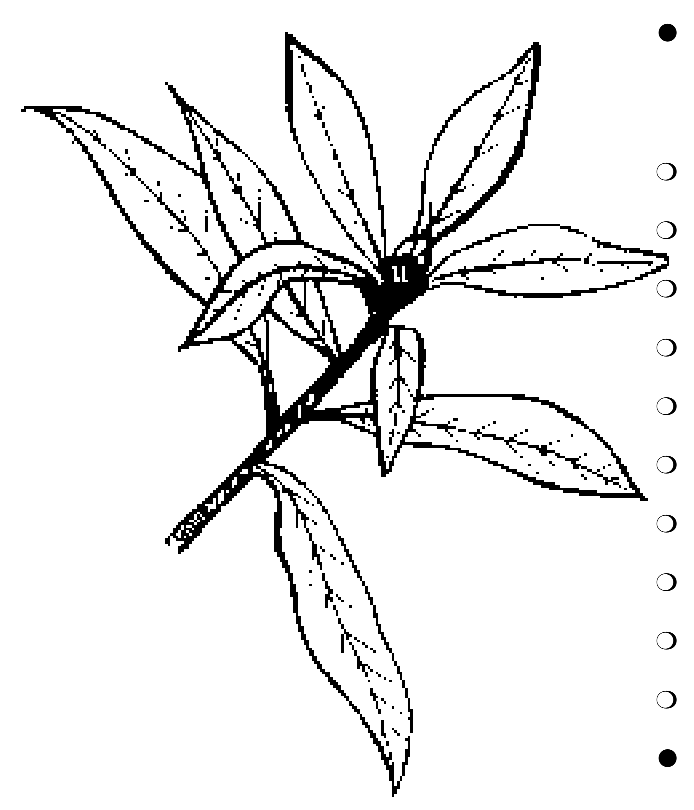
Unfortunatly we have not got the time to run a plant catalogue at the moment, but for your delication here is our old catalogues. These contain a list of 200 or so of our most interesting plants and are an interesting read. We do hope to get a new catalogue running at some thime in the future. If you would like to be kept informed when a new catalogue is out then send me an email webmaster@pfaf.org and I'll let you know when it comes out. You might also like to have a look at our list of suppliers which has some pointers to other places you can get the plants.



- **Full Index:** Providing more detail of the cultivation and uses of the plants. Listed alphabetically by Latin name.
    - A
    - B-C
    - D-E
    - F
    - G-L
    - M-N
    - O-P
    - R
    - S
    - T-W
- Checklist growing conditions and other information about the plants.

How We Grow

We grow our plants by vegan-organiac methods. This is a system of cultivation which tries to be in harmony with nature as much as possible. It means using no artificial or animal fertilizers and no pesticides or herbicides of any sort. Instead we use techniques such as companion planting, green manuring and encouraging natural predators of plant pests to create a balanced ecosystem. It also means using no animals either as food or as labour and no method that deliberately harms any animal. Also we advocate a diverse system of growing plants. No more huge fields of single crops, but a wide range of plants growing side by side with an emphasis on perennial species. For example, one can try to emulate a woodland by growing fruit and nut trees underplanted with shrubs, climbing plants and herbaceous woodland plants. By careful selection of species it should be possible to produce a wide range of edible fruits, seeds, leaves and roots throughout most of the year. Many other possibilities exist, even on a fairly small scale in a garden by using food plants in hedges, in water and bog gardens, in flower beds and even as part of a lawn.

However, we cannot afford to export our valuable compost so we have to buy in compost for propagating the plants in this catalogue. This compost is organic but probably contains some animal products.

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Suppliers

See the Main Links Page for other links. See below for Partner nurseries, Where to look for suppliers and Other Catalogues.

Partner Nurseries

Plants For A Future is not currently running a catalogue, we are however working with three partner nurseries who can supply many of the plants mention on this site. If you would be interested in becoming a partner nursery then please get in touch.

These suppliers are:

Wildwood Nurseries (WW)

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Email: lorna@macace.co.uk
Phone 01409 261324 Fax 01409 261324
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03

Forever Trees Nursery (FT)

Denbury Road
Ipplepen
TQ12 5TR
Phone 01803 814098 Distribution: UK
How to order: Direct from Forever Trees
Last Updated: Feb 04

Cool Temperate Nurseries (CT)

39 Maple Avenue, Beeston, Notts NG9 1PU
Tel & Fax: 0115 917 0416 Email: philcorbett53@hotmail.com

Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03

The plants available are:

Latin Name	Common Name	Supplier
Abutilon vitifolium	Indian mallow	WW
Acer campestre	Field Maple	CT
Actinidia deliciosa	Kiwi	CT
Agrostemma githago	corncockle	WW
Ajuga reptans	bugle	WW
Alchemilla xanthochlora	lady's mantle	WW
Allium neapolitanum	daffodil garlic	WW
Allium sativum	serpent garlic	WW
Allium schoenoprasum	chives	WW
Allium tuberosum	garlic chives	WW
Allium ursinum	wild garlic, ransoms	WW
Alnus cordata	Italian Alder	CT
Alnus glutinosa	Alder	CT
Alnus glutinosa	alder	WW
Alnus incana	Grey Alder	CT
Alnus rubra	Red Alder	CT
Amelanchier canadensis	Juneberry	CT
Amelanchier canadensis	Juneberry	WW
Amelanchier lamarckii	Apple serviceberry	CT
Aquilegia vulgaris	granny's bonnet, columbine	WW
Arctium lappa	burdock	WW
Ligustrum vulgare	Wild Privet	CT
Lonicera periclymenum	honeysuckle	WW
Lotus corniculatus	Birdsfoot Trefoil	CT
Lunaria annua	honesty	WW
Lysimachia vulgaris	yellow loosestrife	WW
Lythrum salicaria	purple loosestrife	WW
Malus domestica	Apple	CT
Malva sylvestris	marsh mallow	WW
Melissa officinalis	lemon balm	WW
Mentha x gracilis	ginger mint	WW
Mentha x piperita citrata	eau de Cologne mint	WW
Mespilus germanica	Medlar	CT
Monarda didyma	bergamot	WW
Morus nigra	Black mulberry	CT
Nigella damascena	love in a mist	WW
Oenothera biennis	evening primrose	WW
Origanum vulgare	Wild Marjoram	CT

Armoracia rusticana	Horseradish	WW
Arum italicum	lords and ladies, cuckoo pint*	WW
Arum maculatum	lords and ladies, cuckoo pint*	WW
Asplenium scolopendrium	hart's tongue fern	WW
Atriplex halimus	Saltbush	CT
Berberis darwinii	Darwin's barberry	CT
Berberis thunbergii	Japanese barberry	CT
Betula pendula	Birch	CT
Buddleia davidii	butterfly bush	WW
Caltha palustris	marsh marigold	WW
Campanula rotundifolia	harebell	WW
Caragana arborescens	Pea Tree	CT
Caragana brevispina		CT
Cardamine pratensis	lady's smock	WW
Carex	pendulous sedge*	WW
Carpinus betulus	Hornbeam	CT
Castanea sativa	Sweet Chestnut	CT
Castanea sativa	Chestnut	CT
Centaurea scabiosa	greater knapweed	WW
Chamaemelum nobile	chamomile	WW
Convallaria majalis	lily of the valley	WW
Cornus kousa chinensis	Japanese dogwood	CT
Cornus mas	Cornelian Cherry	CT
Cornus sanguinea	Dogwood	CT
Cornus sanguinea	dogwood	WW
Corylus avellana	Hazel	FT

Origanum vulgare	oregano	WW
Parthenocissus quinquefolia	Grapevine	CT
Peltaria alliacea	garlic cress	WW
Pinus cembra	Arolla Pine	FT
Pinus cembra		FT
Pinus pinea	Nut Pine or Stone Pine	CT
Pinus sylvestris	Scots Pine	CT
Pinus sylvestris	Scots Pine	CT
Polemonium caeruleum	Jacob's ladder	WW
Polygonatum multiflorum	Solomon's seal	WW
Polygonum bistorta	bistort	WW
Populus nigra	Black Poplar	CT
Populus tremula	Aspen	CT
Prunella vulgaris	self-heal	WW
Prunus armeniaca	Apricot	CT
Prunus avium	Wild Cherry	CT
Prunus avium	Cherry	CT
Prunus cerasus austera	Morello cherry	CT
Prunus domestica	Plum	CT
Prunus insititia	Damson	CT
Prunus padus	Bird Cherry	CT
Prunus persica	Peach	CT
Prunus persica nucipersica	Nectarine	CT
Prunus spinosa	Blackthorn	CT
Pseudosasa japonica	Metake Bamboo	WW

Corylus avellana	Hazel	CT
Corylus avellana	Hazel (Giant Nut)	FT
Corylus maxima	Hazel	CT
Crataegus arnoldiana	Hawthorn	CT
Crataegus laciniata	Hawthorn	CT
Crataegus monogyna	Hawthorn	CT
Crataegus monogyna	Hawthorn	CT
Crocosmia aurea	monbretia	WW
Cydonia oblonga	Quince	CT
Digitalis purpurea	foxglove	WW
Dipsacus fullonum	teasel	WW
Dryopteris filix-mas	male fern	WW
Echium vulgare	viper's bugloss	WW
Elaeagnus angustifolia	Silver Russian Olive	CT
Elaeagnus angustifolia		CT
Elaeagnus umbellata	Autumn olive	CT
Elaeagnus x ebbingei		CT
Euonymus europaeus	Spindle	CT
Euphorbia	wood spurge	WW
Fagopyrum dibotrys	perennial buckwheat	WW
Fagus sylvatica	Beech	FT
Fagus sylvatica	common beech	WW
Fagus sylvatica	Beech	CT
Ficus carica	Fig	CT
Filipendula ulmaria	meadowsweet	WW
Fragaria	Chillean Strawberry	CT
Fragaria vesca	Wild strawberry	CT

Pyrus communis sativa	Pear	CT
Pyrus pyrifolia culta	Asian Pear	CT
Quercus ilex	Holm Oak	CT
Quercus ilex ballota	Holm Oak	FT
Quercus petraea	Durmast Oak	CT
Quercus robur	Oak	CT
Quercus robur	Upright Oak	CT
Rhamnus cathartica	Buckthorn	CT
Rhamnus frangula	Alder Buckthorn	CT
Rheum x cultorum	Rhubarb	CT
Ribes		CT
Ribes divaricatum	Worcesterberry	CT
Ribes nigrum	Blackcurrant	CT
Ribes sativum	Whitecurrant	CT
Ribes sativum	Redcurrant	CT
Ribes uva-crispa	Gooseberry	CT
Ribes x culverwellii	Jostaberry	CT
Robinia pseudoacacia	Black Locust	CT
Rosa canina	Dog Rose	CT
Rosa pimpinellifolia	Burnet rose, wild rose	WW
Rosa rugosa	Ramanas rose	WW
Rosa rugosa		CT
Rosmarinus officinalis	rosemary	WW
Rubus species	Bramble	CT
Rubus fruticosus	Blackberry/Bramble	CT
Rubus idaeus	Raspberry	CT

Fragaria x ananassa		CT
Fraxinus excelsior	common ash	WW
Fraxinus excelsior	Ash	CT
Galium odoratum	woodruff	WW
Galium odoratum	Woodruff	CT
Geum rivale	water avens	WW
Hebe	hebe midsummer beauty	WW
Hedera helix	ivy (golden, common)	WW
Helleborus	Corsican hellebore	WW
Helleborus	Hellebore 'Snowden'	WW
Hemerocallis fulva	day lily	WW
Hippophae rhamnoides	Sea buckthorn	CT
Houttuynia cordata	Tsi	CT
Humulus lupulus	golden hop	WW
Hyacinthoides nonscripta	bluebells*	WW
Hypericum androsaemum	tutsan*	WW
Hypericum perforatum	St John's Wort*	WW
Ilex aquifolium	common holly	WW
Iris pseudacorus	yellow flag iris*	WW
Juglans nigra	Black Walnut	CT
Juglans regia	English Walnut	FT
Juglans regia	Walnut	CT
Laurus nobilis	Bay	CT
Leycesteria formosa	Himalayan honeysuckle, pheasant's berry	WW

Rubus loganobaccus	Loganberry	CT
Rumex acetosa	Wild Sorrel	CT
Rumex acetosa	French sorrel	WW
Salix	twisted willow	WW
Salix 'Bowles Hybrid'	biomass willow	WW
Salix alba	White Willow	CT
Salix alba vitellina	Golden Willow	CT
Salix caprea	Goat Willow	CT
Salix cinerea	Grey Willow	CT
Salix daphnoides	violet willow	WW
Salix daphnoides	Violet Willow	CT
Salix exigua	Coyote Willow	CT
Salix fragilis	Crack Willow	CT
Salix viminalis	osier	WW
Salix viminalis	Osier	CT
Sambucus melanocarpa	black elder	WW
Sanguisorba minor	salad burnet	WW
Saponaria officinalis	soapwort	WW
Scrophularia nodosa	figwort*	WW
Silene dioica	red campion	WW
Sorbus aucuparia	Rowan	CT
Symphytum officinale	comfrey	WW
Tanacetum parthenium	feverfew	WW
Taxus baccata	Yew	CT
Tilia cordata	Small leaved Lime	CT
Toona sinensis	Flamingo	CT
Ulex europaeus	gorse	WW

Viburnum lantana	Wayfaring Tree	CT
Viburnum opulus	Guelder Rose	CT
Vinca minor	periwinkle	WW
Viola odorata	sweet violet	WW
Vitis amurensis	Grapevine	CT
Vitis vinifera	Grapevine	CT

Affiliate Programs

We are a member of the following affilate programs. If you decide to buy from them then we will get 10% commision. We can make no guarentees theat they grow plants in a sustainable manner.

Palms
Cycads
Bamboo
Exotic
Plants
THE PALM CENTRE

Where to look for suppliers

In a ideal world we would have our catalogue up and running and you would be able to get all the plants you want from us. Unfortunatly we're looking for people to run the catalogue right now. In the meantime here are a few few starting points.

Have a look at the list of groups running Heritage Seeds/Seed Saver programs on the main links page.

A few hints and tips on how the people at PFAF managed to get hold their plants can be found in the Friends of PFAF newsletter article: Obtaining plants.

Cornucopia an excellent book which lists lots of suppliers of every type of plant you could imagine. US only. Available from Yankee Permaculture Publications (see below) and lots of other sources.

In the UK try the Royal Horticultural Society's The Plant Finder will tell you all you need to know. This is available as a book on CD-ROM and also on the web.

Also in the UK the Henry Doubleday Research Association publish *The Fruit and Veg Finder* which complements the plant finder and concentrates on hard to find varieties. (HDRA, National Centre for Organic Gardening, Ryton on Dunsmore, COVENTRY, CV8 3LG. Tel. (01203) 303517)

And then theres The Seed Search has details of where you can get 43,000 different seeds. Worldwide but UK based.

The Permaculture Activist has a big list of Seed Resources and Plant Nurseries. US only. Includes Open Pollinated and Organic seeds.

Permanent Publications Classified Adds Have a few UK based seed and plant suppliers.

The *The Garden Seed Inventory* editor, Kent Whealy, of which the Essential Whole Earth Catalogue says "This is an alphabetical listing of each and every variety of non-hybrid vegetable seed for sale by seed houses in the US and Canada. That's 5,785 varieties from 239 wholesale and retail seed companies". unfortunately it's now out of print, but you might be able to find a copy.

Some UK suppliers of British Native-Origin Plants & Seeds (mainly wild flowers) are listed on the Flora-for-Fauna web-site.

Flora Locale have a list of specialist growers who supply British native plants. Their site also has lots of other resources about Native Plants.

TreeTrader: "Don't know which nurseries grow the native trees of the seed origin that you want to plant? Find them at treetrader along with all the woodland contractors/suppliers you need to create or enhance your woodland."

New Plant Page Put together by the New Ornamentals Society, this list a whole stack of *new* cultivars of ornamental plants, with links to of suppliers and links to articles about the plants.

ECHO (Educational Concerns for Hunger Organisation) is a Christian group who supply small quantities of seeds which are normally not commercially available. They only supply to third world development organisations though, but they do have a list of other seed sources.

Seed and Plant Sources A host of emails compiled from various mailing lists about places to get seeds and all sorts of exotic plants.

Yankee Permaculture Publications YankeePerm@aol.com publish a database, available on disk or as print-out called the Permaculture Supplier List with 887+ entries. About 2/3 of which suppliers of plant propagation materials such as seeds, root-stocks, container plants, bare-root stock, etc. Lots of other more specific info as well.

GardenNet has a large list of US based garden catalogues.

Other organisations which may be worth trying to contact include the North American Fruit Explorers (NAFEX), Northern Nut Growers Assn (NNGA) and the Temperate Bamboo Quarterly (TBQ) Bamboo Yellow Pages. (Thanks to Yankee PP for this).

A possible place to start is: The Andersen's Horticultural Library's Source List of Plants and Seeds. Andersen Horticultural Library, Minnesota Landscape Arboretum 3675 Arboretum Drive Box 39, Chanhassen, MN 55317 Lists approximately 59,000 plants and seeds from 450 retail & wholesale outlets in the US and Canada willing to ship interstate. Book costs dollars 39.95 (Thanks to S.C.Webb for this).

Not quite plants but Suppliers of Beneficial Organisms in North America list 143 commercial suppliers of 130 beneficial organisms, soon to be searchable on the web.

In Holland try Flowerweb which has lots of dutch importers exporters and growers, who all have web sites. Didn't spot any interesting plants though.

Gardening-uk Big list of on-line catalogues.

HerbNET's SOURCE list Info on a few suppliers of herbs.

Findplants.com trade only database which requires registration. Supposedly has a database for sourcing live plants.

Catalogues

Heres some catalogues which people have recommended, and others I have found on the web and some thaken from the PFAF book. All this information is unfortunately rather out of date.

UK

Note if you live in the US and are thinking of ordering plants from the UK its best to check if they have a licence to export to the US, otherwise they will need to jump through all sort of hoops and get Phyto-sanitry certificates and such like.

Chase Organics

> *Everything for the Organic Gardner* UK based, organic seeds & plants. Linked to the HDRA.
>
> The Organic Garden Catalogue, Coomland Hoses, Addlestone, Surry, KT15 1HY. Tel 01932 820958

Agroforestry Research Trust

> Have lots of plants and seeds of interest to the permaculturalist.

Future Foods

> Fairly good range of roots, fruits, mushrooms, greens and grains.

Gnostic Garden

> Entheobotanical Seeds Plants and Spores, may have some of the more exotic medical plants, with erm specialised uses.

Nutwood Nurseries

> Have many nut trees including Monkey Puzzle
>
> School Farm, Onneley, Nr Crewe, Chesire, CW3 9QJ England. Tel +44 1782 750913.

Thomas Etty Esq Heritage Seedsman & Bulb Merchant.

> The new seed catalogue contains over 500 heritage vegetable varieties listed from medieval times until 1950. They also list flowering plants for the same period. Their list of heritage flowering bulbs also covers the period 1440 to 1950.

Butterworth's Organic Nursery

Lots of organic apple varieties for the harsher climes in the UK.

The Willow Bank

Lots of willows, plus some information about all their uses.

Abbey Ethnobotanicals

Good range of Sacred/Medicinal plants, with lots of unusual species.

Buckingham Nurseries

Seem to have a good range. Especially good for hedging plants/Trees.

Terre de Semences

1400 varieties of Organic Seeds, very committed to organics and bio-diversity.

Plant Sources

The following are mentioned in the Plants For A Future book.

Arbor Exotica

The Estate Office, Hall Farm, Weston Colville, Cambridgeshire, CB1 5PE. (01223) 290328.

Many Trees including *Juglans ailanthifolia cordiformis* and *Zanthoxylum americana*.

Burncoose and South Down Nurseries

Gwennap, Redruth, Cornwall, TR16 6BJ. (01209) 861112.

Very good general range with many unusual species.

Cally Gardens

Gatehouse of Fleet, Castle Douglas, Scotland, DG7 2DJ.

Unusual perennials and some rare shrubs including *Aralia cordata* and *Cyperus esulantus*

Clive Simms

Woodhurst, Essendine, Stamford, Lincolnshire PE9 4LQ. (01780) 55615.

An excellent range of unusual fruiting plants and nut trees.

Drysdale Gardens Exotics

Bowerwood Road, Fordingbridge, Hampshire, SP6 1BN. (01425) 653010.

A good range of Exotics, including *Ephedra* spp. and a huge range of Bamboos.

Greenway Gardens

Churchston Ferrers, Brixham, Devon, TQ5 0ES. (01803) 842382.

Smilax aspera plus many unusual trees, especially from South America.

Hall Farm Nursery

Harpswell, Gainsbrough, Lincolnshire, DN21 5UU. (01427) 668412

Wide range of shrubs and trees including *Berberis lycium* and *Crataegus arnoldiana*.

Hardy Exotics

Gilly Lane, Whitecross, Penzance, Cornwall, TR20 8BZ. (01736) 740660.

A good range of plants for mild countries, there is also a more limited range for gardens nationwide.

Hartshall Nursery Stock

Hartshall Farm, Walsham-le-Willows, Bury St. Edmunds, Suffolk, IP31 3BY. (01359) 259238.

Wide range of trees and shrubs including *Malus baccata mandschurica* and *Pinus cembroides*.

Hoecroft Plants

Severals Grange, Wood Norton, Dereham, Norfolk, NR20 5BL. (01362) 844206.

170 species and cultivars of grasses including *Elymus canadensis*.

Jacques Amand Ltd

The Nurseries, Clamp Hill, Stanmore, Middlesex, HA7 3JS. (0181) 954 8138.

Rare and unusual bulbous plants including *Dentaria diphylla*, *Lilium* species and *Streptopus roseus*.

Jungle Giants

Plough Farm, Wigmore, Herefordshire, HR6 9UW. (01568) 86708.

An excellent range of bamboos.

Kenwith Nursery

The Old Rectory, Littleham, Bideford, Devon, EX39 5HW. (01237) 473752.

Good range of conifers including *Pinus albicaulis*.

Kingsfield Conservation Nursery

Broadenham Lane, Winsham, Chard, Somerset, TR20 4JF. (01460) 30070.

Native plants and seeds inc. *Conopodium majus* and *Glyceria fluitans*.

Langthorn's Plantery

High Cross Lane West, Little Canfield, Dunmow, Essex, CM6 1TD. (01371) 872611.

A wide range of plants inc. *Fagopyrum dibotrys* and *Lycium barbarum*

Mallet Court Nursery

Curry Mallet, Tauton, Somerset, TA3 6SY. (01823) 480748.

A wide range of trees and shrubs inc. *Cephalotaxus harringtonia nana*.

Mickfield Fish and Watergarden Centre

Debenham Road, Mickfield, Stowmarket, Suffolk, IP14 5LP. (01449) 766425.

Pond and bog garden plants inc. *Zizania aquatica*.

Mount Pleasant Trees

Rockhampton, Berkeley, Gloucestershitre, GL13 9DU. (01454) 260348.

An excellent range of trees inc. *Crataegus azerolus* and many cultivars of *Ginkgo biloba*. This nursery produces very high quality native trees for woodland planting.

Mrs Susan Cooper

Firlands Cottage, Bishop's Frome, Worcestershire, WR6 5BA. (01885) 490358.

Many rare and unusual trees inc. *Gleditsia japonica*, *Pinus armandii* and *P. cembra edulis*.

Poyntzfield Herb Nursery

Balblair, Black Isle, By Dingwall, Ross & Cromarty, Scotland, IV7 8LX. (01381) 610352.

An excellent range of herbs, medicinal plants and seeds.

Read Nursery

Hales Hall, Loddon, Norfolk, NR14 6QW. (01508) 46395.

Excellent range of Citrus fruits and other uncommon plants inc. *Bomarea edulis.*

Salley Gardens

Flat 3, 3 Millicent Road, West Bridgeford, Nottingham, NG2 7LD. (01602) 821366.

An excellent range of herbs and medicinal plants inc. *Asclepias* species and *Osmorhiza claytonnii*.

Spinners

Boldre, Lymington, Hampshire, SO41 5QE.

A wide range of plants, their list has included a hermaphrodite form of *Actinidia deliciosa*, *Dioscorea japonica*, *Diospyrus lotus*, *D. virginianna*, *Hydrangea serrata amagianna* and *Smilax china*.

Stone House Cottage Nurseries

Stone, Kidderminster, Worcestershire, DY10 4BG. (01562) 69902.

A good range of climbing plants which can be seen growing in their gardens.

Thornhays Nursery

St. Andrew's Wood, Dulford, Cullompton, Devon, EX15 2DF. (01884) 266746.

A good range of fruiting trees including *Crataegus arnoldiana*, *C. durobrivensis*, *C. schraderiana*, *Sorbus devoniensis* and many West Country apple varieties.

Trevor Scott

Thorp Park Cottage, Thorp-le-Soken, Essex, CO16 0HN. (01255) 861308.

A good range of grasses inc. *Beckmannia cruciformis*, *Elymus canadensis* and *Hierochloe odorata*.

Westwood Nursery

65 Yorkland Avenue, Welling, Kent, DA16 2LE. (0181) 301 0886.

Hardy orchids.

The Royal Horticultural Society's Plant Centre

RHS Garden, Wisley, Woking, Surry, GU23 6QB. (01483) 211 113.

A wide and constantly changing range of plants.

Seed Sources

These seed sources have also been taken from the Plants For A Future book.

B & T World Seeds

Paguignan, 34210 Olonzac, France

Also a UK office: Sally Holt, Little Whitnell, Nether Stowey, Bridgwater, Somerset, TA5 1JE.

An amazing list of over 45,000 species and varieties downloadable from the web.

B & D Davies

2 Wirrel View, Connah's Quay, Deeside, Clwyd, Wales CH5 4TE.

An execllent range of coniferous trees.

Chiltern Seeds

Bortree Stile, Ulverstone, Cumbria, LA12 7PB.

Over 4,000 species of plants in a descriptive catalogue.

Chris Chadwell Seeds

81 Paraunt Road, Slough, Berkshire, SL3 8BE.

A botanist who can supply a range of seeds from various countries in the world. It is also possible to obtain wild-collected seeds by subscribing to one of his expeditions.

Future Foods

PO box 1564, Wedmore, Somerset, BS28 4DP.

This company specialises in alternative food plants and have an excellent range of seeds and tubers.

Alpine Garden Society

AGS Centre, Avon Bank, Pershore, Worcestershire, WR10 3JP.

An excellent seed list available to members.

Hardy Plant Society

Little Orchard, Great Comberton, Near Pershore, Worcestershire, WR10 3DP.

An excellent seed list available to members.

US

Pure Land Ethnobotanicals

Pure Land, 2310 S. Green Bay Rd., Suite C-PMB-163, Racine, WI 53405-4954,

A large herbarium supplying seeds, including over 200 rare species. Also supply extracts and essential oils.

Future Forest Nursery

60 odd trees suitable for agroforestry. Lots of seeds as well.

Perennial vegetables Seed Company

www.perennialvegetable.com
P.O. Box 608, Belchertown MA 01007 | (413) 529-0678
Has a good selection of about 100 Perennial vegetables seed.

Oregon Exotics Nursery

1065 Messinger Road, Grants Pass, Oregon 97527 USA
Tel: 1-(541) 846-7578 Fax: 1-(541) 846-9488
[www.exotic fruit.com](http://www.exoticfruit.com)

Lots of unusual fruits including Chinese fruit trees, Himalayan food crops etc.

American Rock Garden Society

PO Box 67, Milwood, New York, 10546

An excellent seed list available to members.

[Horizon Herbs]()

Lots of Medicinal/Ayurvedic/Chinese herb seeds

[Abundant Life Seed Foundation]()

Open Pollinated seed, inc heirlooms, medicinal herbs, Pacific North West Natives. Non-profit and into seed saving.

P.O. Box 722, Port Towsend, WA 98368. Tel (360) 385-5660

[Nichols Garden Nursery]()

Herbs, Rare Seeds and Wildflowers

1190, North Pacific Highway, Albany, Oregon, 97321-4580. Tel (541) 928-9280

Burpee Heirlooms

Hairloom Vegtables & Flower seeds

300 Park Avenue, Warminster, PA 18991-0008. Tel 1-800-888-1447

River View Herbs

Lots of Herbs

Maitland Greenhouses, P.O. Box 92, Maitland, Hants County, NS, BON 1TO. Tel (902) 261-2274

One Green World

28696 S Cramer Rd. Molalla, OR 97038-8576 Phone # 503-651-3005 FAX # 800-418-9983

has several different varieties of Sea Buckthorn (they call them Sea Berry), Medlars, Quinces, Pawpaws, Persimmons, Aronias, Cornelian Cherries, Goumis, Honeyberries (Lonicera kamchatika), Kiwis, Magnolia Vine, and so on.

Mellinger's

2310 W. South Range Rd. North Lima, OH 44452-9731 Phone # 800-321-7444

Specialize in 'out of the ordinary' fruit bearing plants.

[Legendary Ethnobotanical Resources]()

Big list of plants and seed, contains Uncommon Ethnobotanical plants, which you can buy from them.

[Drysdale Seed Co]()

A big catalogue of lots of unusual plants.

[World Wide Exotic Seed Co]()

Chinese Medicinal Plant, Fruit & Nut Trees, Rain Forest Plants, Native American Plants, etc.

307-C Friendswood Drive Friendswood, TX 77546 Phone: (281) 648-7445 Fax: (281) 648-7448

Seeds of Change

provide organic open-pollinated seeds for veg, herbs and edible flowers. Nothing particularly exotic though.

St Lawrence Nurseries

Offer Northern Climate Fruit and Nut Trees, again useful for US visitors.

The Great Exotic Seed Company

This seed company has all sorts of unusual varieties that are hard to find anywhere else - and they have a great website and online catalogue, too. The link (http://www.gen.com/exoticseeds/) seems to have withered away.

P. O. Box 37 Mt. Mourne, NC 28123 Phone: (704) 559-5978

Stokes Tropicals

Banana's, Ginger, Pineapples. More concentration on ornimental rather that edible uses.

Lewis Bamboo Grove

Cold Hardy Bamboo.

Perennial Vegetable Seed Company

Some more unusual plants including Improved Dandelions.

Forestfarm Plants

A good range of edible and medicinal plants including many of our favorites and plants for erosion control, ground cover and hedging.

Peruvian Journey Ethnobotanicals

Supply plants and seeds for rituals and altered states.

ECHO a Christian non-profit organization whose mission it is to network with community leaders in developing countries to seek hunger solutions for families growing food under difficult conditions. Have a good selection of unusual plant seeds.

Elsewhere

New Zealand PlantFinder

Lets you search many different NZ plant catalogues for plants.

Ben Gaia

New Zealand supplier who's got some interesting trees and New Zealand native rain-forest plants.

Native Nursery

Has a good selection of Australian Native Plants

Daley's Nursery

Offers "one of the largest and most diverse ranges of Subtropical Fruit and Nut trees in Australia. The stock line also includes rainforest and regeneration tubestock and ornamental flowering trees."

Ecos Design

Have a good list of AU seed suppliers.

Vida Verde

Spanish supplier of seeds for unusual edible plants. Many interesting plants suitable for growing in the UK. They grow organically and specilise on hairloom seeds.

Magic Garden Seeds

Mit unserer Website möchten wir Ihnen interessante Pflanzen vorstellen, die in verschiedenen Kulturen eine bedeutenden Rolle spielen und spielten. Das können Heilkräuter aus dem Amazonasgebiet sein oder eine bedrohte regionale Kohlsorte aus Norddeutschland. In unsere, Online-Shop finden Sie eine Vielzahl ethnobotanischer Raritäten - Heil- und Zauberpflanzen rare Gemüsearten...

Herbs and Spices

The following sell the end product rather than the plants or seeds. Hambleden Herbs Court Farm, Milverton, Somerset. TA4 1NF. United Kingdom Tel : (01823) 401205 Fax : (01823) 401001
E-mail : info@hambledenherbs.co.uk

Readers Comments on this page:

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page. Back to Main Links Page.

This ones distinctly anti-copyright, steal as you wish, give credit if you like, and send lots of copies to MAFF.
HTML page prepared by Rich Morris Home Page - Contact Info
Last modified: Aug 27, 1999

Plants for a Future
A resource centre for edible and other useful plants

Back to Plants For A Future home page.

Permaculture Links

The problem with lists of Links is that they just seem to grow and grow. So it's come to the time when I've had to zone the links. Below you'll find the following sections.

- Permaculture (UK, Europe, Africa, Middle East, Latin and South America, Australia/New Zealand, North America.)
- Sustainable Agriculture.
- Organics.
- General Gardening.
- Other Systems including biodynamics and natural farming.
- Trees and Agroforestry
- New Crops and other wonderful plants
- Rare Plants/Heritage Seeds.
- Herbs and Medicinal Plants.
- Soaps, dyes and the uses of plants.
- Foraging, wild plants and wilderness advocates.
- They Just Don't Fit other interesting sites including Hemp, Trees, Compost and Botany.
- Places you can get books from.
- Vegan Stuff
- Genetics and Pesticides
- Communities and Eco-villages.
- Green Building
- Green and Environmental.

A couple of others have split off into their own pages:

News Groups and Mailing Lists

One of the best ways for finding answers to specific queries is to ask others on the internet, Theres a lot of knowledgeable people out there.

Databases, Botany and Photos

Various places where you can find more information about specific plants: Ethnobotany, Databases, Photos and pictures.

UK Permaculture Organisations Offline

Lots of addresses of useful UK groups.

Suppliers

Places world wide where you can find interesting plants (Fournisseurs de Plantes, Francais rather out of data).

Other Links

Other Links to non plant related sites, and recriprocal links.

New Links

Recient additions to the links page.

Dr Dick's Home Page

My own home page has links to UK eco-activist, Taoism, Tai-Chi and Feng-Shou and maths.

And if you really want more links the Internet Directory for Botany has nearly 3000. The internet mining company has two interesting and comprehensive sections: Vegtable Gardening and Herbs For Health. The AgriSurf! Agricultural Web Index looks promising, a searchable index to over 6000 agricultural sites. Study Web has a vast selection of links to Agriculture, Botany, Organics etc. Scott's Botanical Links An archive a *Botanical Link's of the day* dating back to 1996.

Bugs

If you find any out of date links here please let us know webmaster@pfaf.org.

Permaculture: Must See Sites

I've tried to index by region: UK, Europe,Africa, Middle East, Latin and South Ammerica, Australia/New Zealand, North America.

Probably the best place to start for permaculture information is the Permaculture FAQ, which lists most sites and organization as well as introducing some of the concepts behind the subject.

Another must see is InterGarden put together by the Lawrence London, the chap who created the Permaculture mailing list. Contains lots of material culled from the various news groups and mailing lists with answers to everything.

A big list of permaculture groups world wide can be found on the Permaculture Actavist website

site.

International Permaculture Conference has the full text of its proceedings on the web, with lots of papers about all aspects of permaculture.

A Permaculture Primer by Dan Earle and Sue Hutchins describes the principles, components, concepts, resources and the associated movements of permaculture.

Netscape Open Directory Netscapes Open Directory project, where anyone can be a editor for a directory page, could turn into one of the best search engines about. The permaculture page looks promissing, and they put us at the tippy-top.

The PermaCulture Wiki and the Permaculture Permacuture, Forest Gardening and Organic Gardening sections in the WikiPedia both which are colabrative encyclodia type things.

Permaculture Projects by region

UK

See also UK Permaculture Organizations Offline and Communities and Eco-villages for other UK projects.

PermaWeb good source info on UK permaculture.

Permaculture Association (Britain) The main UK group for Permaculture, has details of Courses and Events in the UK, and details of services the Association can offer UK groups.

Permanent Publications Publish the UK based Permaculture Magazine. The site contains details of the mag, their book catalogue, and UK Forrest Gardening projects and regular permaculture news and several interesting articles reprinted from the mag. Their Earth Repair Catalogue of 230 permaculture and related books can also be browsed online.

Agroforestry Research Trust researches into temperate agroforestry and into all aspects of plant crops. Lots of info on different types of agroforestry. You can order lots of plants, seeds and booklets from them.

Zone Zero a break-away group from Plants For A Future. Seeking to establish a pioneering vegan permaculture low impact settlement somewhere in the Southwest. May the force be with them!

Earthcare garden design and construction. More friends of Plant For A Future. They specialise in forest gardens/woodland gardends/veganic gardens and edible landscapeing.

Primal Seeds a wonderful campaigning site, not really permaculture but focuses on bio-diversity and food security. Offers a good critique of the monoculture practices. With news, actions etc.

Green Adventure South London project, with lots of good eco-permaculture stuff going on. Community Orchards being one example. An inspiration to all.

Naturewise North London project which has set up two forest gardens in an Urban environment. Run lots of Courses.

Edible Bristol Project - its all happening in Bristol which has a very active permaculture group. The focus here is on urban agriculture with a few pages describing their own urban forest garden and links to other urban ag. sites. Bristolians may also be intrested in Kebele a vegan cafe, the site features lots of news from the Bristol area.

South East Essexs Organic Gardners featuring Permaculture a Beginners Guide a cartoon intro to permaculture. And a whole bunch of photos of permaculture in action on the authors garden.

Brighton Permaculture Trust. It looks like they are an active group with regular meetings.

Graig Arw Permaculture This South Wales community could turn into something exciting, if only they can raise the money to get some land.

Permaculture design at Tir Penrhos Isaf A project in Snowdonia, Wales which has been going for about ten years. Among the many intresing articles are one on yields which actually shows that Gorse can be a useful plant.

Ragman's Lane Farm One of the premier permaculture sites in the UK with a big range of courses on offer.

East Suffolk Permaculture One of these days the PFAF site will look as good as this. They have all sort of Suffolk type info, meetings, annual gathering, newsletters, links.

Middlewood A permaculture project based near Lancaster. Pictures of the various projects they undertake. The project has a strawbale visitors center where the run courses and a camping barn which you can rent.

Oakwoods Native Plant Foundation South Wales project, into wild flowers, conservation and education. Have a catalogue.

The Living Village Trust Building a 40 house eco-village in Bishops Castle Shropshire on land with planning permission and owned by the Trust. It might be possible to work as a volunteer. A very abitious project which could become a landmark project.

Permaculture in the Mersey Basin You could almost call the Basin my second home, this lot run courses through the area.

New Leaf Scottish group creating a new sustainable eco-village somewhere south of the Grampian hills and north of the Cheviots.

The Natty Trust a community network based in the Brighton area who are buying land for use in a permaculture fashion by members of the trust. Hold regular gathering for members of the trust.

Turners Field Another pioneering permaculture project, in Somerset, run lots of courses.

Tinkers Bubble "An environmentally sensitive human settlement, Tinkers' Bubble is a working example of sustainable living." Bassed in Somerset Tinkers' Bubble has sucessfully chalanged planning law and now have five years to show how low impact housing can intergrate sucessfully with sustainable agriculture. The web page has details of the book "Low Impact Development" by one of the main movers Simon Fairlie. You might also find some good info in Chapter 7!

Permaculture farm and campsite an interesting project in Cwmpencraig, near Drefach Felindre in Dyfed, Wales.

Steward Community Woodland A project in Devon being set up to demonstrate the value of integrating conservation woodland management techniques (such as coppicing and natural regeneration) with organic growing, traditional skills and crafts and low-impact sustainable living.

Vegan Organic Trust Vegan-organics is any system of cultivation that avoids artificial chemicals and sprays, livestock manures and animal remains from slaughter houses. Alternatively, fertility is maintained by vegetable compost, green manures, crop rotation, mulches, and any other method that is sustainable, ecologically viable and not dependent upon animal exploitation. This will ensure long term fertility, and wholesome food for this and future generations.

Becontree Organic Growers London based co-partnership of local people working to revitalise disused land by promoting and respecting natural ecosystems. Very basic site.

National Association of Farmers' Markets. A Farmers' Market is one in which farmers, growers or producers from a defined local area are present in person to sell their own produce, direct to the public. All products sold should have been grown, reared, caught, brewed, pickled, baked, smoked or processed by the stallholder.

Federation of City Farms and Community Gardens have details of lots of City Farms all across the UK many of these you can visit.

Edible Ecosystems in Sustainable Agriculture A Study of Permaculture in Britain an online MA dissretation which provides a good review of the current state of permaculture in the UK. Contains site visits of several projects in the UK.

Wholesome Food Association a UK-wide food labelling scheme designed to encourage smaller-scale food growers and producers to supply local customers with wholesome, chemical-free produce, identified by a widely-recognised symbol. Offers a good alternative to the Soil Association.

Alotment regeneration iniative ARI aims to get more people - individuals and community groups - growing on urban allotments. It will do this by: Promoting and supporting innovation and good practice in allotments management through technical support and advice, site visits, information materials and networking events. Projecting a positive and active image of allotments Raising the profile of allotments with the Government, local authorities and the public.

Dial House Trust - A Centre for Dynamic Cultural Change birth place of the band Crass this centre in Essex has been a focus for much radical activity in the past 30 years. And its now getting right into permaculture.

Tir Penrhos Isaf We have been working at Penrhos (or Benthros, as it is known locally) since 1986 and been living here since February 1992 when we gained temporary planning permission from the Snowdonia National Park. Over that time we have continued to develop our permaculture design for the holding through the practical application of the ethics and principles of permaculture.

This Land Is Ours - A Land Rights Campaing for the UK

Self Willed Land An excellent site with a lot of good thoughtful articles about permaculture, woodland gardening and farming. Of particular interest is the article about self-willed land - the rewilding of open spaces in the UK about the need to allow true wilderness to develop again in this country.

Europe

See The European Permaculture Directory for links to projects throughout Europe.

The EcoForest Garden Trust a British group who run a raw food eco-village in Southern Spain which seems to be thriving. Site has a a good set of links to rawfood and permaculture projects.

Spanish Permaculture Lots of stuff on permaculture in Spain all in Spanish.

Permacultura-es El portal de permacultura en lengua española.

The Permaculture Research Institute Denmark. Still under construction when I last looked (Sept 00) but look prommising.

La Mohea permaculture in semi-deserts in Spain. Run working holidays, and courses.

Guía Verde has lots of good plant links with a Spanish flavour (not particularly permaculture or or organic though). In English and Spanish.

Sunseed Desert Technology is a research project in Spain dedicated to developing sustainable sollutions for Arid lands. These include solar stills for purifying water, Underground greenhouses and researching trees and shrubs for desert reclamination. They run an extensive working volunteers program. I've been to visit in '89 and can highly recomend the place.

Vida Verde next door to Sunseed in Almeria provience, Spain. They run a good catalogue of seeds for unusual edible plants.

Phil Rooksby has just set up project in Allariz, Ourense, Spain and is looking for contacts out there. See his message in the Global Contacts section of our message board for more details.

Permacultura Montsant, Spanish project in Tarragona, pages in Spanish.

The Organic Centre "Ireland's Centre for Information, courses and workshops on organic gardening and farming."

Beau Champ eight hectares in the Dordogne, France. Into community, permaculture and alternative technologies. Some friends spent an good few months there and came away impressed. Run lots of workshops and visitor weeks. (Version Française)

Yggdrasil A Belgian Project.

Die Permakultur Akademie: A new (Jan 2002) Permaculture Academy for the german speaking countries Germany, Austria and Swizerland. They will work in cooperation and with a similar concept as the Permaculture Academy of Britain. One of our aims is to issue a course programe for german speeking course.

permakultur austria Info about the group in Austrian plus contacts in Germany and Austria, and some other permaculture stuff (most in German).

Austrian Permaculture (German Language Site)

The German Permaculture Association (German Language Site)

Agricultura Ecológica a page in Spanish with lots of good links to spanish and world wide info. (also in English).

The Earth Village Network an International foundation based in Holland which is setting up eco-village permaculture projects. They already have one site in the foothills of the French Pyrenees.

Ecotopia Permaculture Francais, Belgium contacts.

Rudina Permaculture Research Institute Converting a refugee camp in Macedonia into a Permaculture demonstration gardens. Run lots of courses including a Permaculture design Course in Sept 2000.

The website of L'Academie Bretonne de Permaculture.

NORSØK sitt hovedmål er å fremme utviklinga av økologisk landbruk. A Norwegien institute who work for increased knowledge and the further development of ecological (organic) agriculture, thus contributing to the implementation of a sustainable society.

Africa

Berg-en-Dal Sustainable dryland permaculture project. Nice site about this South African eco village.

Permaculture a group based in South Africa. Good for local contacts.

Permaculture Training Centre of Uganda (still under construction).

Eco Carabane Center On a island just south of Senegal, workshops, permaculture, Aquaculture etc.

PermaGhana promotes Permaculture in Ghana, do a lot of training in schools and the community. Has a very fancy front page which chrashes netscape.

Red de Permacultura Palmera . Permaculture in the Canarias (in Spanish). Also see Agri-Tourism in La Palma, Canarias (in English).

The S.E.E.D Project - South Africa Focussing on environmental education in townships nead cape town.

Middle East

The Green Kibbutz Group / Israel Pc Group Israeli group with a reforestation project and several courses.

Kibbutz Lotan, on the road to becoming an ecological community/ecovillage. May be the current contact for above? They are running a green apprenticeship program.

Latin + South America

Educación Ecológico. Permacultura, Agricultura Orgánica, Ecología. Mexican group, run courses , have a chat room, and some articles in Spanish and English. Permaculture In Cuba

A list of Brazilian permaculturalists can be found Here

Asociación Gaia An eco-village in Argentina. Page also in Español

Mexico Child Link a farm for children with learning dificulties run on permaculture principals.

Australia/New Zealand

Permaculture New Zealand A New Zealand-based e-mail list, to keep in touch about courses and other permaculture information.

Gaia Trees are a New Zealand-based nursery based on permaculture principles. Their site includes some information on native rainforest hardwoods, medicinal uses for native plants and trees, and species information. Their on-line garden centre includes a plant search.

Atcros The Web version of the Australian Tree Crops Sourcebook. Lots of info on different organizations in Australia and around the world. Plus some lists of common names and oil yielding plants.

Permaculture International A journal for PC. The site feature info on the mag, a good international directory of PC organization, a mail-order catalogue of Books etc (not plants though), some eco news, and a few articles from the mag.

Permaculture Global Assistance Network A group trying to build international cooperation in the permaculture community. Lots of links and info about the project.

Permaculture Visions An Australian Permaculture design company. The site contains general PC info, seed-saving, IS0 14000 (an environmental quality standard!) etc. Perhaps the most interesting page is Permaculture Plants which lists lots of different tropical plants and their uses.

Permaculture material on WWW and the Internet An embryonic page put together by Dwayne Jones-Evans.

Permaculture Research Institute Set up by Bill Mollison, run various courses.

Rosneath Farm is an eco-village development in south-west Western Australia. It is at an exciting stage; the first houses for residents and the first village infrastructure are being built over the first six months of 2000. As at July 2000, there are 41 blocks available for sale.

Holmgren Design Services in Vistoria, David Holmgren is one of the founders of Permaculture.

Permaculture Design have some very interesting projects in Madagascar, India and Sount Africa.

North America

Gardening As An Anarchist Plot Brilliant site with loads of organic/holistic/permaculture friendly garden ideas & techniques plus pages titled 'The Year of the Urban Terracist' and instructions on downloading your own dinosaur.

Permaculture Drylands Institute focuses on permaculture concepts and designs for arid lands, with a heavy focus on New Mexico and Arizona, publish a quarterly newsletter and run design courses.

Permaculture The Earth New site which should soon (12 Nov 97) have some on link forums. Got a good deal with amazon.com where you get permaculture books through them.

International Institute for Ecological Agriculture Have a Farm, Run Courses, and a good list of US PC groups, and a recomended reading list.

The Permaculture Actavist A US based magazine with lots of interesting PC stuff, the site itself contains a few articles, plus lots of other resources.

Permaculture and Sustainable Living & Livelihood is the home of a number of interesting groups, and lots of articles. Plus related material on Cooperatives, Agriculture and Horticulture, Architecture and Community etc.

Sustainable Living News An online newsletter of sustainable and permaculture info, its becoming *Reader Written*.

Occidental Arts and Ecology Center combining permaculture with a educational center. They are very well established with 10 full time staff and a budget in the $100,000's. One day we may be able to follow their example.

A Permaculture Primer offers a good introduction to permaculture, covering many aspects. Its also has a good list of books and other resources.

Garden O Vegan Want a groovy project in a gourgeous spot? Then check out this Hawaiian project. Plus there good mates of ours.

Dreamtime Village A Wisconsin project. Especially into Endarchy, hypermedia and radical education.

Lost Valley Education Center An Oregon based project permaculture with a spiritual perspective. Run lots of courses.

Heathcote Intentional Community Have a permaculture demonstration site and run some courses.

Larry's Page has info on permaculture design software, and a few Californian projects.

Permaculture Hot Spots A good set of links.

Permaculture Institute of Northern California

La'akea Permaculture Gardens Hawaii (Good set of links).

FUTPLEX A brand new web based chat room for permaculture. Also have a look at Colabrative Efforts which is gathering information on Sustainable Living from all over.

The Password: Organic Gardening Some interesting links to organics, permaculture, compost, help full bugs, etc.

Sustainable Farming of Central Minnesota. The mission of this group is to promote the use of environmentally and economically sound agricultural practices and to ensure a healthy future for family farms and all of the people of central Minnesota.

Central Valley Permaculture Group Just a set of links at the moment, but watch this space.

Sustainable Agriculture

Sustainable agriculture's kind of like permaculture but different. To sus it out you could have a look at some of these.

Sustainable Agriculture Resources on the Net Lists various newsgroups and site devoted to sust-ag.

Sustainable Agriculture Network a network of US groups involved in sustainable agriculture. Have a lot of very good publications, fund research and run a mailing list.

ILEIA Centre for Information on Low External Input and Sustainable Agriculture A welth of information, including a good literature database, lots of links. Publish a quarterly magazine. Strong emphesis on developing countries.

Sustainable Farming Connection Lots and lots of useful information for the farmer.

Food First The Institute for Food and Development Policy/Food First and the Transnational Institute. Articles relevant to small-scale farming and global productivity, as well as a vast list of links to human rights/ sustainable agriculture/ global solutions sites. A brilliant resource on the academic end of things.

The US Department of Agriculture's Alternative Farming Systems Information Center has lots of interesting resources covering just about everything.

The University of California's Sustainable Agriculture Research and Education Program has lots of books, video's etc, plus a few web resources notable mentioning cover crops. The have an interesting page on How to Find Agricultural Information on the Internet.

The Tropical Ecological Farm An interesting site and an interesting project.

The World Sustainable Agriculture Association A few articles of a global strategy perspective.

International Journal of Agricultural Sustainability (ISSN:1473-5903) An academic journal on the subject.

Sustainable Trees and Shrubs A big list of plants and the types of conditions they thrive in. Particularly suitable for Southern New England (USDA Hardiness Zones 7a - 5b) and concentrates on low maintenance plants.

Mulch-Based Agriculture GroupTheir motto is *Sustainable Agriculture With A Sense of Humus* Have extensive citations bibliographies.

Have a look at Living on the Earth with Bill Duesing a collection of articles first appearing on his weekly show on American Public Radio. They make a good read.

The Farm A nice graphical interface to lots of links about things of interest to sustainable agriculture.

Educational Concerns for Hunger Organization A Christian organization who provide technical support to third world development groups. They specialize in urban gardening, and providing seeds and information. There's lots of useful info hidden throughout their site.

Henry A. Wallace Institute for Alternative Agriculture Independant research institute, publish alternative agriculture news and several discussion papers.

Organics

I suppose you could say permaculture is to organics as vegan is to vegetarian. Hence there's lots of organic sites out there here's a sample. So for those of you who don't fancy Soya milk ...

MidNet Organic UK based, have info on UK organizations, and some hints and tips. Plus an organic garden tour. And other UK based resources.

Don't Panic Eat Organic The home page of an organic farmer in California, who's into growing Cherimoya a exotic fruit. His page is the best I've found for Organic

WWOOF: willing workers on organic farms. Want to learn what organic farms are all about by volunteering? Click here. Projects in 16 countries. Also see (WWOOF KOREA, Australia, New Zealand, Canada).

Soil Association Premier UK group which certifies organic food. Comprehensive set of leaflets on all sorts of stuff.

Organic Trade Services a good resource for all in the organic industry in the UK. Includes: a comprehensive listing of producers and suppliers, news and events. Aimed more at buisnesses than consumers.

GaiaOne Knowledge Systems Lots of info on the Canadian Organic Scene, Organic Standards, Farmers Markets, Organic Growers, Events etc, and an online report on Transition to Organic Farming.

Organic Gardening from Sierra Pelona Press A good fun site, with lots of tails about organic pest control, with readers letters and stuff like that, makes for a good read.

Canberra Organic Growers' Society A useful resource for Australian visitors, listing seed suppliers, organic organizations, and lots of other goodies.

There's as UK based Organic Gardening Mailing list To subscribe send a message to: majordomo@steamradio.com with 'subscribe organic-l (your full email address)' in the body of the message.

Gardening

... and gardening is like meat eating. Still they have their uses.

One Green World US based on-line catalogue with wide variety of edible plants, nut and fruit trees, and plant products. No particular emphasis on organic cultivation. Several good books on edible plants, though.

Chelsea Physic Garden founded by the Society of Apothecaries in 1673 in order to promote the study of botany in relation to medicine, then known as the "physic" or healing arts. As the second oldest botanic garden in England it still fulfills the traditional functions of scientific research and plant conservation and undertakes to educate and inform as well as to provide the amenity of a walled "secret" garden in the heart of London.

Sensory Garden Project A garden designed specifically to be *Positive About Disabled People*. To stimulate the senses and provide a haven of peace, a place to chill-out and unwind from the stress of modern living. Run by North Staffs MS Society.

Guía Verde has lots of good plant links with a Spanish flavour (not particularly permaculture or or organic though). In English and Spanish.

Jayne's Dragon Links to resources for various plants.

Garden Web A big site with listings of plants societies, businesses and other groups. Lots (50ish) of online forums which have a good amount of traffic.

GuardenGuides Good links, plus some info on Herbs. Have details of a couple of hundred Annuals, Bulbs, Perennials, Vegetables and Herbs.

GardenNet looks quite a good site with lots of info on gardening, including a comprehensive list of catalogues.

Gardening.com Quite a good site with a well organized set of links. They've also got an on-line database of plants, unfortunately they concentrate on pretty looking ones with nice flowers and no uses.

Virtual Garden Giant site: 3000 species database, searchable list of links, big plant catalogue etc.

Kernxotica a site dedicated to exotic plants in Cornwall.

Northern Pond A site all about ponds, with lots of links to more aquatic fun.

Journal of New Rare and Unusual Plants seems to concentrate more on ornamental species. But might be worth a look. The latest update has lots of article taken from the magazine.

Lesbian gardens some interesting stuff on the origins of plant names, plus various garden tours and chat rooms.

Backyard Gardener Nice site with articles on several different aspects of gardening, including Bog Gardens, Herb Gardens. Each page features a list of plants suitable for that environment.

Earth and Tables A fair selection of resources for Gardners and Cooks, includes a discussion list.

Daydreamer Gardens have some links to water garden web-sites.

Just Gardening quite a lot of forums for gardening discussions plus a few articles.

Other Systems

The Bio-Dynamic Association "Biodynamics is part of the work of Rudolf Steiner, known as anthroposophy -- a new approach to science which integrates precise observation of natural phenomena, clear thinking, and knowledge of the spirit." Here this is applied to agriculture and they seem to be particularly keen on soil health.

Also check out the UK site on Bio-Dynamic Association of Great Britain, the UK-based version of the above. Lots of information about training, supplies including seeds and other Biodynamic equipment, a very comprehensive book list, and an on-line version of the "Star and Furrow", the journal of the BioDynamic Association. Also a few links to other biodynamic sites, anthroposophy and organic gardening.

MOA Natural Farming Another system devised in Japan by Mokichi Okada which seeks to "to respect nature and to adopt its providence as a standard" and "to bring out the natural strength and great ability of living soil".

The Fukuoka Farming Website an outgrowth and extension of The Fukuoka Farming Mailing List, created as a place where people interested in Masanobu Fukuoka's revolutionary method of sustainable agriculture can network and share resources. On this website the terms agriculture, farming, and gardening are considered to be synonymous and interchangeable, differentiated only by the size of implementation.

International Nature Farming Research Center All in Japanese, based around Fukuoka's system.

Masanobu Fukuoka Interview in In Context magazine.

Light Writings has more on Fukuoka's system and lots about seed balls. Plus annoyingly short pieces on lots of other systems.

Biointensive Agriculture dates back 4000 years in China, and includes Double-Dug Raised Beds, Intensive Planting, Composting and Companion Planting. Reports of very high yields. Catalogues of rare seeds also available on the web site.

The Forest Garden Program Promotes Analog Foresty, which is not far off the PFAF ideal. There are now 35 villages in Sri Lanka practicing the scheme.

Biological Control A good site about bugs eating bugs. Lots of links.

Remineralization: grinding up rocks and putting them on your plants. Reported to have amazing effects recreated the state of soil just after and ice age. See the Remineralise The Earth web site. You can read about it at InterGarden or Turtle EyeLand Phill Madeley has written a Thesis on the subject, which contains a good introduction, an experiment using Lettuces and also a good set of Links and references.

The Future is Abundant Most of an on-line book of the same title, this seems to have a lot of inspiration from Fukuoka and Permaculture may also have reference to companion planting.

Keylines a system where the contours of a path of land are analyised to pick the best places for placeing swales, lakes, trees roads, water courses etc. Also see here. The Keyline Plan is a complete book by P A Yeoman on the subject.

Precision farming is getting a bit of a rep these days. Basically its about using lots of high tech monitoring to assess just what nutrients you need to add to get the best growth. Not entirely in keeping with the organic way but it may attract some conventional farmers. The Centre for Precision Farming is a reasonable starting point also have a look at The Grain Supply Update which mentions it briefly.

Trees and Agroforestry

The-Tree aims to share information about the many different facets of knowledge about trees: Trees and the Environment, Cultivation, Extensive Tree portraits of British Trees, Tree Medicine, Permaculture and Agroforestry, Woodcrafts, Myths and Folklore, Philosophy, Customs and Culture inspired by trees, Forestry news from around the world and lots more!

The Overstory a free e-mail agroforestry journal for practitioners, researchers, professionals, and enthusiasts. 93 Issues to date with many an interesting article.

US Association for Temperate Agroforestry has info on the Key concepts of Agroforestry: alley cropping, windbreaks, riparian buffer strips, silvopasture, and forest farming. Plus Links.

Agroforestry Research Trust researches into temperate agroforestry and into all aspects of plant crops. Lots of info on different types of agroforestry. You can order lots of plants, seeds and booklets from them.

Home Orchard Society Publish a newsletter on orchards, website has a few interesting articles.

Forest, Farm, and Community Tree Network FACT Net was an international network of community groups, development workers, tree breeders, researchers, students, and farmers. These 2,000 partners in 100 countries shared an interest in the use of multipurpose trees to improve the soil, protect the environment, and enhance the well-being of farm families and other land users. Through extension, communications, and research, FACT Net provided the skills and resources needed to introduce, improve, and manage multipurpose trees successfully. Has a good selection on factsheets on many tree crops.

UDSA National Agreoforestry Centre part of the USDA has a good range of practical publications about Agroforrestry, Alley Cropping and Forest Farming. Including such clasics as *Marketing Speciallity Forest Products*. Its good to see these ideas being promoted by government agencies.

Temperate Agroforestry Homepage "Agroforestry encompasses all of the ways that trees and shrubs, intentionally integrated into agricultural land-use systems, provide tree products and protect, conserve, diversify, and sustain vital economic, environmental, human, and natural resources." Commercially minded but some useful info.

Davies and Company are forest specalists and their web-site contains lots of intresting articles including several on Agroforestry and Tree Crops

Atcros The Web version of the Australian Tree Crops Sourcebook. Lots of info on different organizations in Australia and around the world. Plus some lists of common names and oil yielding plants.

International Tree Foundation For over eighty years the International Tree Foundation has been planting and preserving trees around the world. ITF is a registered charity and does not receive government funding. We have 2,500 members who come together via our county branches and at regular events. They plant trees in their local communities and raise funds for tree planting in the most fragile environments of the world. Our member schools help foster a love of trees in their pupils and we help by providing resource packs, activities and competitions for their students and our younger members. Our aims are to plant and preserve trees and to educate people about the value of trees. Our projects worldwide have ranged from planting Jubilee Woods in the United Kingdom to reforesting the foothills of the Himalayas and to planting a green belt around the Sahara.

Sustainable Trees and Shrubs A big list of plants and the types of conditions they thrive in. Particularly suitable for Southern New England (USDA Hardiness Zones 7a - 5b) and concentrates on low maintenance plants.

The Willow Bank A couple of pages about willows and their uses.

International Oak Society lots of info on Oaks (US centric).

Own-root Fruit Tree and coppice Orchard project advocating the use of non grafted fruit trees.

Hedges' News A very nice newsletter about hedges. In English and French.

PFRA Shelterbelt Centre A Canadian federal tree nursery that promotes economic security, rural development and agricultural sustainability by producing hardy trees and shrubs for prairie farmers and other eligible clients. The Centre also conducts applied research on tree related issues including tree improvement, planting technology, weed control, pest control and agroforestry.

Arboricultural Information Exchange UK centric site with lots of news clipping on tree related issues and a good set contacts and links.

Keslick & Son have composed some useful info about the care of trees.

British Trees A Good resource for info about British Trees.

Rare/Unsual Plants/Heritage Seeds

In the interests of bio-diversity and a more interesting diet here's some contacts. There's lots of silly government rules restricting what seeds your allowed to sell (in the UK you can only sell registered plants and registrations costs a packet) heritage seed programs are an attempt to get round these rules and maintain a wide genetic base.

A Good intro to the subject at The Mining Company

A good set of links to seed saving can be found at Seed Saving Resources

A Manifesto for Seeds a good radical read.

Rural Advancement Foundation International is a Canadian NGO which is concerned about the loss of genetic diversity - especially in agriculture - and about the impact of intellectual property rights on agriculture and world food security. They have lots of articles about patenting of genotypes and other such dastardly deeds.

A good number of articles about seed saving plus links to other groups can be found on the Garden Diversity page.

Seed Savers Exchange A US based organization with 8000 members saving old-time food crops from extinction.

The Seed Saver Network Australian Group who been doing the seed saving thing for a long time, publish a handbook on growing traditional varieties of food plants (not online) and have a few international projects.

Heritage Seed Curators Association A group who save seeds from unusual and rare species, in order to maintain bio-diversity.

Why Save Seeds? more Australian info also has some legal info.

In the UK the Henry Doubleday Research Association does a similar task. (Main HDRA page.)

Flora localeaim is to protect indigenous wild UK plants and plant communities from introduced species.

Heritage Fruits Group Whose mission is to Find, Document and Conserve Old Varieties of Fruit Trees in South East Australia. Are developing a list of all the Heritage Fruit varieties in SEA.

The Abundant Life Seed Foundation is a non-profit organization in the State of Washington into preserving and distributing native and naturalized seed. They have a network of growers and a World Seed Fund which sends hairloom seeds overseas.

Seeds of Texas Seed Exchange The name says it all.

California Rare Fruit Growers Have a database of 200+ rare and unusual edible plants. They also run a seed bank (members only) and publish a magazine.

Rare Fruit News Online a newsletter/ mailing list for Rare Fruits.

Algy's Seed Exchange a bulletin board dedicated to swapping seed.

A Grandmother's Garden Interesting site where the author has preserved many old varieties of flowering plants and vegetables. You can get lots of seeds from him. Some good links as well.

Wylie House has some info on Heirloom Gardening, complete with a good bibliography.

Santa Barbara Heirloom Seedling Nursery This lot sell a good range of seeds.

California Native Plant Society Extensive site focussing in endangered plants in California, with details of same. Plant identification quiz's, Kids pages, etc.

Heirloom Gardens More stuff on Hairlooms, plus a few other seed providers, including Native Seeds/SEARCH who do Native Indian seed.

David Ford in PA has a free service to exchange seeds. It is not commercial and he does not sell the member list. To subscribe simply send a blank e-mail with the work SUBSCRIBE in the subject to seed@bigfoot.com.

Solomon Islands Planting Materials Network Makes avaliable non-hybrid seed of food crops used by village subsistence farmers.

ECHO a Christian non-profit organization whose mission it is to network with community leaders in developing countries to seek hunger solutions for families growing food under difficult conditions. Have a good selection of unusual plant seeds.

Envirotech A good list of links to to Seed Saver resources. Added 2003.

Seeds from Bulgria seed swap / seed exchange A good range of 100+ seeds.

New Crops and other wonderful plants

For lists of online database of plant information see Databases.

Southern African New Crop Research Association Still in construction but has some info on interesting plants in their newsletters.

New Crop Resource Online Program A university department researching lots of new crops, they have massive amounts of detailed info about lots of plants, plus loads of links and lots of other goodies. Seems to be growing rapidly.

Australian New Crops Project A good resource center. Info on new crops, links, research, confrences etc.

International Centre for Underutilized Crops based in the UK, but planning to move south. Very detail info on a number of intresting crops. Run a mailing list.

The Lost Crops of the Incas an online version of this classic book featuring: Achira, Ahipa, Arracacha, Maca, Mashua, Mauka, Oca, Potatoes, Ulluco, Yacon, Kaniwa, Kiwicha, Quinoa, Legumes, Basul, Nunas- Poppomg Beans, Tarwi, Peppers, Squashes, Capuli Cherry, Cherimoya, Goldenberry (Cape Gooseberry), Highland Papayas, Lucuma, Naranjilla- Lulo, Pacay- Ice-Cream Beans, Passionfruits, Pepino, Tamarillo (Tree Tomato), Quito Palm and Walnuts. The format consist of gif images so leave a lot to be desired, but it is searchable.

Some plants are so cool they have whole web sites dedicated to them.

For the Future - the Persimmon Tree Interesting article about the amazing uses of the wild persimmon. Also a recipe for Lye soap.

Neem Foundation All about Neem *Azadirachta indica*. An Indian tree which is know to control Malaria, Cancer and AIDS, combat desertification and deforestation, reduce excessive global temperature and even help in population control. ALso Health Library plus lots of others with a yahoo search.

Jatropha System An Integrated Approach of Rural Development in Tropical & Subtropical Countries Focuses on Erosion control, Women promotion, Rural income generation, Renewable energy production. Seems to be bassed around a particular plant Jatropha curcas which can be used as a hedge and for oil.

Jiaogulan (China's Imortality Herb). In 1976 a Japanese researcher, looking for a sugar alternative, studied a perennial weed known for its sweetness. He discovered an herb with many qualities similar to ginseng, even though unrelated as a plant. This event sparked years of scientific research on jiaogulan, praised in China as xiancao, the herb of immortality, revealing it to be a powerful adaptogenic and antioxidant herb with many therapeutic qualities. These studies led to jiaogulan's use as a prescription medical treatment in many hospitals in China. A book about the plant is avaliable.

Some of you may be interested in the use of Hemp for fibers or oils or in medicinal and industrial uses. I've a few reservations about the plant, as it could become another cash crop farmed on a large scale and the hype its receiving may divert attention from the many other useful plants which appear here, plus I've been told it quite a greedy plant taking lots of nutrients from the soil. Anyway if you do want to find out some of the uses of hemp have a look UK Cannabis Internet Activists.

Pinenut Page some info on pinenuts.

Home Mushroom Cultivation with Hydrogen Peroxide a bit of an FAQ on the subject. See his links page for other mushroom sites.

Mucuna is it's being hailed as the miracle bean. It produces 100 tonnes per hectare of plant matter. Some grow it as a green manure, some feed it out with the crop to animals, some use the bean seed in bread mixes. A few links BBC article, photo,seed suplier.

Herbs and Medicinal Plants

herbs.startwebseite.net a good starting point for herbal browsing, lots of links and a thriving discussion board. In English and Dutch.

The Alternative Nature On-Line Herbal An excellent set of links to other herbal sites.

Medicinal Plants and Herbal Medicine Massive database of medicinal plants, regularly updated. Also database of Samoan plants. Includes information on chemical constituents of plants, medicinal uses, global distribution and biological characteristics.

Henriette's Herbal Homepage Lots of good herb related stuff, including Herb FAQ's archives of various newsgroups.

HerbNet A giant site, with links to all kinds of herb related stuff, including links to: medicinal plants, courses, events, plants in fact everything herbal.

Algy's Herb Page Lots of stuff about herbs, including Algy's Seed Exchange a busy bulletin board dedicated to swapping seed and overcoming the governmental-agribusiness restrictions on what plants we are allowed to sell.

Southwest School of Botanical MedicineThis is a good site. Lots of pics of herbs and other plants plus articles and classic texts on botanical medicine.

Laurie Lacey's Wild World of Plants A very nicely done page with info about several interesting medicinal plants.

Wolfspirit's Apothecary Forum A beautifully designed site with loads of information about herbal preparations, uses, concoctions. Ample links with "weird stuff" sites.

Wise Weeds Herbs, Aromatherapy and Earth-Based Healing. Mainly a site for ordering herbal products, but several herbalism, organics and alternative remedy links. Also an on-line herbals newsletter.

United Plant Savers Their mission is protect native medicinal plants of the United States and Canada and their native habitat while ensuring an abundant renewable supply of medicinal plants for generations to come. Have an at risk list of Medicinal Plants plus a newsletter with lots of intresting articles.

Herbage A database of information about medicinal uses of plants, site has details of about 200 of the more common plants.

Horizon Herbs have details on about 200 herbs.

the Herb Society (UK) Details on the society and some articles on medicinal herbs.

National Institute of Medical Herbalists (UK) Will soon have a list of praticioners in the UK.

The Herb Society of America a non-profit organization dedicated to promoting the knowledge, use and delight of herbs through educational programs, research, and sharing the experience of members with the community. The Society is committed to protecting our global environment for the health and well-being of humankind and all growing things. They encourage gardeners to practice environmentally sound horticulture. The Herb Society of America does not give advice on the medicinal uses of herbs, but many of our members are interested in ethnobotany and the medicinal uses of plants. Their website includes herb profiles and information about HSA projects, programs, research grants, publications, events, and library resources.

The National Herb Centre UK visitors centre for Herbs. Also do research.

Botanical.com list 800+ types of herbs taken from a 1931 Herbal book.

Mining Company: Herbs for Health Lots of herb resources here, and regularly maintained.

Rainforest Medical Foundation highlights some of the medicinal uses on rainforest plants. Useful herbal medicine links. Plus articles taken from their magazine. The Dec 98 edition as an article about the founder of Ethnobotany.

RainTree Pharmacy to the World, Details of about 100 Rainforest medicinal plants, good links. Also sell various extracts.

Weeds and Wild Things A weekly column, with a good set of links.

Herbal Hall 'Possibly the Internet's most complete library for Herbs..' Not quite but still worth a look.

Howie Broursters Home Good set of herb links, and up to date as well. Some interesting articles as well.

Herba Italica Italian herbal site (in Itallian).

La Red Mexicana de Plantas Medicinales, Aromáticas, Condimenticias y Cosméticas está conformada por cinco grupos de productores ecológicos de los estados de Tlaxcala (Cuaxomulco, Teacalco, Aztatla, Tepeyanco) y Puebla (Zapotitlán de Salinas y Yeolixtlahuaca) así como por técnicos, asesores y consultores con formación en las ciencias biológicas, argonómicas y sociales. Promueve la conservación ecológica, el manejo sustentable, la certificación botánica, el cultivo orgánico, el procesamiento, el control de calidad y el comercio justo de más de 150 especies de nativas y extranjeras con alta demanda local, nacional e internacional. Estos recursos herbolarios tienen importancia en fitoterapia, acupuntura, homeopatía, aromaterapia, cosmetología, microdosis, medicina alópata, industria alimentaria y mercado orgánico.

Susun Weed's Herbal medicine resources for women's health, a few articles and a good set of links.

British Association of Holistic Nutrition and Medicine a not for profit organization dedicated to the scientific research and promotion of holistic methods of animal management, nutrition and medicine.

Soaps, dyes and the uses of plants

Pretty soon after these pages went on line I got an email asking how to make soap, and I was stumped. Its taken almost a year but I found a useful page in the end. I'm still interested in finding other pages on the uses of plants.

National Non-Food Crops Centre "Provide a single, independent and authoritative source of information on the use and implementation of non-food crop products and technologies in the UK. The Centre will disseminate scientific and technical information on these issues as widely as possible in order to increase knowledge and understanding, to initiate and facilitate technology uptake and to meet the Government's and society's wider objectives for sustainable development." (Dec 03).

Soap Making Past and present soap making.

Everything You Wanted To Know About Soap But Were Too Afraid To Ask a brief history of soap.

Files about soap making Including an FAQ.

Algy's Herb Lore + Crafts has list of colours you can get from different plants, and a few links for soap/dyeing/incense.

Northern Groves Bamboo catalogue with detailed information about different bamboo species, as well as several bamboo links and instructions on how to care for them. There is also a bamboo discussion site at Giant Grass for sharing information on all the wonders of Bamboo for landscaping, construction, musical instruments, and food.

There's a couple of mailing lists you may find interesting.

Weaving (mostly weaving): e-mail to majordomo@quilt.net with 'subscribe weaving' or 'subscribe weaving-digest' at the message. Amy Norris manager AmyFibre@aol.com

DyersList: e-mail to DyersLIST-request@list.emich.edu with the words

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SUBSCRIBE
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The Fiber Resources Page the best place I've found to start looking for links to fibers, dyeing and spinning.

BEnTroS details of a database all about bio-engineering in the tropics, i.e. for uses like erosion control, reclamation, soil conservation, re-vegetation.

Candle Cauldron A good starting point for finding out about candles, but nothing much on using vegetable waxes.

Willow Pool Designs Bunch of folk who sell willow products online but also run some interesting courses in willow. Some beautiful photographs of willow installations, advice about living willow dwellings, and tips on planting and growing willow. For details of their courses, see Willow Pool Courses.

Agro Tech Fibers Produce a regular newsletter about agricultural fibers, a few sample issues, but you will have to pay for the rest.

Sustainable Transformation of Rural Areas (SuTRA) is a Programme Unit of the Society for Innovation and Development, Indian Institute of Science, Bangalore. Since 1997, SuTRA has been implementing a rural development project in a cluster of 8 semi-arid villages of Karnataka State. In the process SuTRA has put together technologies to empower farmers in semi-arid tropical areas to manage their local natural resource base of land, water and sunshine in a sustainable way. SuTRA is technologies when linked together provide solutions to the main problems that farmers in semi-arid tropical areas face - water and energy, and help them to triple their land based income.

Wild Plants

There's lots of yummy stuff out there, such as 'Chicken in the Woods' a bracket fungus which has both the taste and texture of chicken. But watch what you take you: there's been a bit of a fuss in the UK over lots of posh London restaurants sending out teams to get the rarest mushroom and decimating the populations.

Wild Ones Native Plants, Natural Landscapes. Promote the establishment of native communities around homes and businesses, using ecologically sound practices. Have some good info on Native Eco-regions, ie. growing plants native to your region. Publish a regular journal for subscribers.

The Edible Wild Kitchen has lots of good articles on Edible WIld plants with lots of recipies. Good link section and home to a very active email group WildForager.

The Forager Home Page A good place to start looking for info on wild foods.

Wild Plants Beautiful photographs to aid identification of wild plants.

The Natural-List Online shopping site. All products are foraged. Main interest in medicinal, wild food and crafts.

The Wild Herb Kitchen Lots of recipies for wild plants, including botanical information on their distribution and history.

Wildman Steve Brill Excerpts from his book on harvesting wild plants and info on half a dozen plants.

Dining on the Wilds Good set of links, big list of edible plants (but no details), and details of the courses they run.

The Wilderness a UK based project promoting wild unmanaged nature. Well radical.

The Wild Flower Page Lots of good UK based info in wild flowers, including bibliography, places to see wild flowers, conservation organizations, lists of plants protected in the UK, common names of plants and a good set of links. The news section is very good revised monthly with lots of articles.

Also check the Ethnobotany Cafe mentioned above.

The School of self-reliance has a wild plant of the week and some wild food advocacy. One of the few survivalist pages which isn't all about guns. They are in the process of moving to a new site self-reliance.net includes a wild edibles chat room.

Wildlife Need Habitat Off-Limits To Humans! Full on human free wilderness advocacy.

Wild Food Forager's of America Publish a monthly newsletter (free subscription required) which goes into detail on a particular wild plant. There is also a forum where the topic of the month can be discussed.

Self Willed Land An excellent site with a lot of good thoughtful articles about permaculture, woodland gardening and farming. Of particular interest is the article "self-willed land - the rewilding of open spaces in the UK" about the need to allow true wilderness to develop again in this country.

Book publishers and suppliers

There quite a few people out there selling lots of good permaculture and related books. *Don't forget the Plants For A Future, Edible and Useful Plants for a Healthier World* and several other good books are avaliable from us.

Permanent Publications UK based, their Earth Repair Catalogue of 230 permaculture and related books can also be browsed online.

Eco-logic Books UK based, sell a wide variety of gardening, permaculture, AltTech and related books.

Rodale Institute BookStore US Based, Good set of Permaculture Books including *Plants For A Future*

The Permaculture Activist in the US has a good range of books.

Yankee Permaculture Publications Lots of good pc books including, The International Permaculture Species Year Book, The Resources of International Permaculture (2000+ resources), The International Permaculture Solutions Journal, Permaculture Design Course Pamphlets & Robin Newsletter. The courses run by Elfin Permaculture are listed at ASSN Home Page - ELFIN Soil and Health Library A free public library offering an online of books on holistic agriculture, holistic health, self-sufficient living, and personal development. Most of the titles in this library are out of print. It it includeds such clasices as Yeomans Keyline plan.

Permaculture The Earth Got a good deal with amazon.com where you get permaculture books through them.

A Permaculture Primer offers a good introduction to permaculture, covering many aspects. Its also has a good list of books and other resources.

Permaculture Resources Based in New Jersey and New Mexico, have a large book catalogue, and list of events in the US.

The University of California's Sustainable Agriculture Research and Education Program has lots of books, video's etc, plus a few web resources notable mentioning cover crops.

The Fresh Network UK based network of Raw Food fans, with good set of links and lots of books on the subject.

Native Nursery Has a good selection of books on native Australian plants.

Intermediate Technology Publications Has a wide range of books in intermediate technology, and related issues. Has big sections on agriculture and permaculture. You can order online from them.

Some good bibliographies can be found on the Intergarden Site here here and here.

Courses

BSc Herbal Medicine Degree at Middlesex University, UK Not quite the right URL, but.

They just don't fit

Some interesting sites which go beyond the bounds of my classifications.

Soil and Health Library a selection of articles and online books on Radical Agriculture, Voluntary Simplicity and spiritual issues. The Ag section has about 20 titles ranging from texts from roman times to talks by Lady Eve Balfour (founder of organics) and Yeomans on keylines.

Ecological Engineering has been defined as "the design of the human society with its natural environment for the benefit of both". Ecological engineering integrates various existing environmental fields such as classical ecology, agro-ecology, and restoration ecology. The skills of these fields are used to design low-impact systems for waste treatment, food and energy production, habitat restoration and other benefits.

Water Recycling Massive site dedicated to water recycling, research, waste-water systems, irrigation, water conservation. Many databases around the world for research, and a comprehensive links page. Some ace pictures of innovative water recycling projects around the world.

Energy Efficiency & Renewable Energy Network (EREN) A look at what US govt officials are up to, and various projects in the States. A detailed overview of Advanced Integrated Pond (AIP) Systems as well as other pioneering projects. A wee bit of a PR job but lots of good info.

The SWAMP Project Much less scary than the Blair Witch Project. A non-profit cooperative agency of Parks Canada, involved in research into cold climate use of Constructed Wetlands for wastewater treatment.

If you want to talk to people about gardening and the sacred connection we have to the earth through organic cultivation and foraging, try joining the mailing group at Spirit Garden

Madagasan Vegetation A tour through the the different habitats in Madagascar. With lots of info on how to find out just how many plants there are.

The Wildlife Trust UK group, big on creating wildlife reserves etc. particularly liked Southwark.

New Millennium Gardening A soon to be out newsletter covering permaculture, Heirloom varieties

Ark Institute Well into food self-sufficiency, and food security (i.e. the think we could be in deep shit nosh wise). Publish lots of books and the Grain Supply Update which has lots of interesting stuff about how well different crops are doing.

Smallholders Webring UK based, but mainly devoted to animals. Quite into self-sufficiency.

The City Farmer Lots of stuff on Urban Agriculture. In the UK you might want to have a look at The National Federation of City Farms

Compost Guide Instructions on how to compost, which materials to use, and how to deal with common composting problems.

RotWeb all you ever wanted to know about compost. The Compost Resource Page is another good resource on the subject with discussion groups and info on vermicomposting, compost toilets etc.

Humanure is a complete online book about composting human waste.

Community Compost Network Live in a city, don't know what to do with all your organic waste? Well the community compost network is for you.

The Slow Food Movement an international response to the effect = fast food has on our society and life. It questions the validity of the fast food philosophy as an unconscious credo that erodes our culinary = heritage in the guise of efficiency.

The Pollination Scene Lots of info about bees an pollination.

Oxford Bee Company has info about the Red Mason Bee, Osmia rufa which has great potential as a managed pollinator. They also sell nest kit to encourage the bee.

The Problematical Subject of Microclimatology An interesting piece of UK mirco-climates. (To see click on the Useful Bit). Quite a nice catalogue of unusual ornamentals to go with it.

Not forgetting that esential reading matter: Compost Toilet World Actually a very good site on the subject with worldwide lists of suppliers, consultants etc.

Flower Sense An interesting article describing how plants respond to light, touch, smell and sound. Much is on the level of proteins and genes but it does emphasize how rich plants reactions are.

Minerals Nothing to do with plants at all, but heck its my web page. A really nice guide to all the minerals your likely to find.

Bioneers a fancy web-site with a good set of links to sustainable agriculture, natural design and all sorts.

Agrodesierto A page devoted to arid zone development and permaculture with some useful info on arid plants. Mainly in Spanish.

Kernxotica 'Ihe only website dedicated to the culture of tropical and exotic flora in Cornwall'.

Genetics and Pesticides

Primal Seeds a wonderful campaigning site, not really permaculture but focuses on bio-diversity and food security. Offers a good critique of the monoculture practices. With news, actions etc.

Pesticide Action Network North America Campaigns against the use of pesticides and for sustainable agriculture. Lots of good info on the Dirty Dozen Pesticides and lots more.

Living in a GM world a special feature in New Scientists magazine on the whole GM thing. Lots of good articles highlighting some of the possible consequences.

Other Genetic Engineering sites (shamelessly stolen from Cornerstones Links page).

Physicians and Scientists for Responsible Application of Science and Technology - The best, easy to understand, breakdown of the genetics issue that I've seen (go to the open letter link)

Genetic Engineering Network - Info and Direct action information point against Genetic Engineering

Super Heroes Against Genetics - Catch up on some of the Super Hero's actions

One world Genetic Engineering site - Good links

Communities and Eco-villages

For some strange reason a lot of permaculture stuff seems to happen in small communities or in eco-villages (larger communities). Don't ask me why dsmirke?

You might like to have a look at our page on Housing Co-ops.

The Eco Village Information Service and International Communities websites are the best starting place. Between then they list most of the interesting projects going.

The Global Eco-Village Directory Global listing of Eco-Communities and similar set-ups, search is by region. Also some good information about visiting eco-villages, and several links. Because it's a global site the individual country detail leaves a bit to be desired - tends to list only the communities everyone knows about!

The definitive guide to UK communities is Diggers and Dreamers, which lists 80+ UK communities. Available from Edge Of Time and maybe elsewhere.

Living Lightly Travels in Post-Consumer Society. A book detailing lots of intresting communities and groups (PFAF included). Inspiring.

Cornerstone Housing Co-op is a groovy place just round the corner from me in Leeds. Lots of radical groups are based there and they have a good set of links, especially to the co-operative movement. Their resource centre can now be found at Cornerstone Resource Centre.

Zegg a German eco-village project which seems to be sucessful. Oneday PFAF will be like this. (Also in German).

Stepping Stones housing co-op, and Upstart Workers co-op. A new venture in the Why valley. Consisting of lots of people who helped get Cornerstone going.

Catalyst Colective Know loads about how to set up workers and housing co-ops.

Radical Routes A co-op of co-op's who's members include Cornerstone, Catalyst.

The Natty Trust a community network based in the Brighton area who are buying land for use in a permaculture fashion by members of the trust. Hold regular gathering for members of the trust.

A Raw Food Eco-village is being set up by the The Fresh Network in Spain.

A few more with Web presence are listed at Co-Construction but this is a bit out of date.

In the UK housing Co-ops are a good way to start you can have a look at our own page or some one else's.

You might also like to have a look at this community come eco-village: Findhorn Foundation a Scottish spiritual community famous for growing massive veg. And Redfield in Buckinghamshire. and EarthBallance A sustainability Center/community in Northumberland.

And then there's Christiania Probably the largest alternative communities going, and its right in the heart of Copenhagen to boot. An inspiration to us all.

Parliamentary State Graciosa A small newly formed independent state on the west cost of Africa.

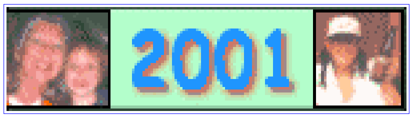
Vegan and Raw Food Stuff

The Vegan Organic Horticultural/ Agricultural Network (VOHAN) UK-based vegans. Produce a newsletter with several friendly articles about veganism, organic gardening and other stuff.

Vegan Views is a UK magazine started in 1975 by a group of vegans who wanted to make contact with others interested in creating a more harmonious way of living based on veganism. The website has a well maintained news section lots of articles and good links to other Vegan groups.

The Movement for Compassionate Living Some interesting articles and other info on all things vegan.

Center for Vegan Organic Education a US based non-profit education and research organization that teaches people about healthy, sustainable, and compassionate vegan organic gardening techniques.



National Vegan Festival September 16th, 2001, London. The essential gathering for UK vegans.

Vegan Village Best starting point for UK vegans.

Vegan Society UK

Vegan Outreach A few interesting articles.

The Fresh Network UK based network of Raw Food fans, with good set of links and lots of books on the subject. They also are building a Raw Food Eco-village in Spain.

The EcoForest Garden Trust a British group who run a raw food eco-village in Southern Spain which seems to be thriving. Site has a a good set of links to rawfood and permaculture projects.

Empowering Detox retreats and Health courses in Spain: Home Colonics, Juice fasting, Yoga, Meditation, Nutrition & TLC. Tel: (0034)-678-014-534, info@home-colonics.com,www.home-colonics.com.

Making Waves A Vegan Guest House in St Ives, Cornwall. Good friends of Plants For A Future.

Towards Common Ground; Permaculture and the Vegan Way an essay on the relationship between permaculture and veganism.

Solent Vegitatians and Vegans Veggie group based in Southhampton, good supporters of PFAF.

Green Building

Underground (earth berm and earth sheltered) Homes A good starting point for exploration into underground homes. There's lots of interest in these at PFAF and Lee Flier who was first to put the database online has got an Earthship.

Built Environment Network UK group focusing on green building, architecture and planning. Site has a dozen or so articles of various aspects of same. Inc Walter Segal Self-Build, Straw Bale, etc.

Low Impact News UK group into low impact living, stawbales, eco-villages that sort of stuff.

Cob Cottage Company seems to have some good info on Cob building.

Association for Environment Conscious Building UK based. Reasonable Links, very extensive reading lists, and UK contacts.

British Straw Bale Building Association Info about the group.

Yahoo's Sustainable Construction has a good few places to start.

Natural Building Resources Has a good overview of the main natural building methods.

Timber Framers Guild of North Ammerica Heaps of info.

Green and Environmental

The bigger picture, beyond the garden.

Primal Seeds a wonderful campaigning site, not really permaculture but focuses on bio-diversity and food security. Offers a good critique of the monoculture practices. With news, actions etc.

Low Impact Living Initative a UK non-profit making organisation dedicated to helping protect the global environment by researching and promoting sustainable, low-impact alternatives to various aspects of everyday life. We believe that by incorporating these ideas into their lives, people can help protect the environment, improve their quality of life and save money. Run courses and have information on Biodiesel, Compost toilets, Solar electricity, Solar hot water, Straw-bale building etc.

BioRegional Development Group: founded on the green ideal of local production for local needs. The Group takes a market-led approach to sustainable development and promotes the application of appropriate technology.

Environmental Organization WebDirectory probable the best directory to environmental organization on the web.

Plymouth Alternative News: a webring linking and promoting Plymouth websites that feature culture, music, arts, self-activity and politics.

Plymouth Alternative News
Ring Owner: Jeff Baxter Site: Plymouth Alternative News

PREV LIST RANDOM JOIN NEXT

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Envirotech-ist A good set of environmental links.

OneWorld an online media gateway to inform a global audience about human rights and sustainable development. Has sections on news, jobs, campaigns and events. There are editions for every part of the world.

Women's Environmental Network a very active UK group campainging on environmental and health issues from a women's perspective. Two of their campaings are especially relavent local food promoting locally grown food and genetic engenering.

The Appropriate Technology Source book very comprehensive list of AT resources.

Aboriginal Living Skills School A self-proclaimed "let's-get-ready-for-Y2K-as-best-we-can" site, with numerous links to environmental, seed-saving, heirloom seeds, appropriate technology and other sites.

LetsLink UK Lets stands for Local Exchange Trading Schemes, which lie half way between a barter system and normal money. They are normally base in local communities and offer an alternative to the old jobs/dole dilemma.

Resurgence Magazine has been publishing articles that promote creativity, ecology, spirituality and frugality for the last 30 years. Resurgence questions trade without responsibility and the sanity of money without morality. (UK based).

GreenLine magazine. A good radical green read. Has some online articles and a big diary of UK green events and demos.

Intermediate Technology Founded in 1966 by Dr E.F. Schumacher, author of Small is Beautiful,,IT believes that sustainable development is achieved only if the participants in the process are its architects. It regards 'development' as a process of increasing people's economic power by improving their access to technologies appropriate to their skills, incomes and environments.

The Solar Cooking Archive Shows you how to make a solar cooker for only two dollars! Very practical alt-tech.

Managing Wholes a frequently updated set of articles on whole system design, esp forestry and sustainable agriculture.

Sustainable Agriculture Food and Environment a UK umbrella group of farmers, environmental, consumer, animal welfare and development organizations, working towards Sust Ag.

This Land Is Ours UK land rights campaign not afraid of ocuppying a bit of land and growing food on it. Celebrating 350 years of the Diggers. And includes "Defining Rural Sustainability : Fifteen Criteria for Sustainable Developments in the Countryside together with Three Model Policies for Local Plans.

Quoditch Moor A nature reserve near to PFAF's Devon site, its got some on the Culm grassland that we have.

Howard Lyman Interview The story of a man who turned from buying $1,000,000 worth of agro-chemicals a year to an organic advocate. Part of the McSpotlight site.

In Context Magazine 44 onlines issues of a sustainable living magazine, with articles ranging from Cyber-Activists to Sustainable Habitats.

The UN's report on the state of the planet can be browsed online at United Nations Environment Programme: Global Environmental Outlook The book contains a wealth of information about global environmental trends and potential future action.

My Home Page I've got quite a few eco-links to UK activists here, you will also find some maths and taoisms links.

Readers Comments on this page:

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page. Back to Main Links Page.

This ones distinctly anti-copyright, steal as you wish, give credit if you like, and send lots of copies to MAFF.
HTML page prepared by Rich Morris Home Page - Contact Info
Last modified: Aug 6, 2000

Plants for a Future
A resource centre for edible and other useful plants

Back to Plants For A Future home page. Back to Main Links Page.

News Groups and Mailing Lists

On other pages:

Main Links Page

Including: Permaculture, Sustainable Agriculture, Other Systems, Organics, General Gardening, Rare Plants/Heritage Seeds, Interesting Plants, Books Stores, Herbs and Medicinal Plants, Soaps, dyes and the uses of plants, Wild plants, Communities and Eco-villages, Vegan Stuff, Genetics, Green Building, Green and Environmental, Other interesting sites.

Databases, Botany and Photos

Various places where you can find more information about specific plants: Ethnobotany, Databases, Photos and pictures.

UK Permaculture Organisations Offline

Lots of addresses of useful UK groups.

Suppliers

Places world wide where you can find interesting plants

Other Links

Other Links to non plant related sites, and recriprocal links.

New Links

Recient additions to the links page.

Dr Dick's Home Page

My own home page has links to UK eco-activist, Taoism, Tai-Chi and Feng-Shou and maths.

One of the best ways to get answers to specific questions is to ask on a news group or mailing list. Here's a few. The rec.gardens.ecosystems FAQ also has a good list of news-groups and mailing lists .

Plants For A Future Mailing list

We now have our own Plants For A Future Mailing list at yahoo. This has regular news updates about the project and discussion about useful plants. It's fairly low trafic at the moment, but well worthwhile. Apologies for the advertising, but you don't have to enter a password to read the messages- Hooray! To subscribe visit http://groups.yahoo.com/group/pfaf

We also have a set of discussion boards which are linked in with our web pages and database.

Newsgroups

Usenet Newsgroups seem to have suffered a decline over recent years, but try these: -

alt.sustainable.agriculture lots of interesting discussion plus a few announcements and spam's.

rec.gardens.ecosystems A brand new group as of 8/5/97. Which has a promising and detailed FAQ.

A whole host of newsgroups about permaculture and related topics can be found on the news host *news.metalab.unc.edu*. More details Below.

own.eco.permaculture another permaculture news group. Not very well distributed but dejanews has it.

alt.permaculture a new permaculture news group, set up in April '99. Not widely avaliable yet but Google had it.

Mailing Lists

There are world wide and UK permaculture mailing lists:

These have also suffered from a slow decline in favour of web hosted discussion, chat etc, and although I have left the mail-to links in place I have not checked that they work! If you get an unacceptable response from a group, let me know and I'll remove it, if it's good, again let me know.

- permaculture@lists.ibiblio.org which was thriving forum for discussion. Email Archive Post
- permaculture@franklin.oit.unc.edu accessable via web/news/email more details Below.
- permaculture@envirolink.org Mail listproc@envirolink.org with the line **sub permaculture** in the body of the massage to subscribe. Mail Archive (Well actually that link doesn't work but you get a nice penguin and the change to search for what you want!)

The rest have unfortunately succumbed to the demise of listbot: -

- Permaculture UK - a moderated group intended for information about events and such like.

- Permaculture Forum - an unmodertated group intended for general discussion.
- Permaculture Action Learning - a UK list specifically for people taking Diplomas in Permaculture.

Scott's Botanical Links An archive a *Botanical Link's of the day* dating back to 1996. You can subscribe to get a new link posted everyday.

sanet-mg mailing list devoted to sustainable agriculture. To join send an email to almanac@ces.ncsu.edu. with 'subscribe sanet-mg' in the BODY of the message. More details and email archived at somewhere at what was the Sustainable Agriculture Network (let us know if you find it!).

In the UK there were lots of low trafic groups, but all seem to have moved or gone:

UK centric organic gardening list.

Vegan Organic Horticulture & Agriculture mailing list! could be fun. Let us know if you find it.

local sustainability UK dedicated to LA21 type issues.

british trees knowledgeable discussion about trees in Britain.

Ecobalance a discussion group dedicated to the creation and maintenance of self-sufficient, sustainable communities, in which people live in harmony with eath other and with nature. The original group is gone but the site deserves a look.

Pagan permaculture Paganism and Permaculture collides! Sustainable design inspired by nature. May this group become our treasure chest of common knowledge in the fields of herbalism, plants, polyculture, organic gardening, alternative energy, sustainable building design, animal care, earthworks, water conservation, keyline design, pattern understanding, bioregionalism, kitchen crafts, folklore, homeopathy/natural medicine, co-housing, and all other topics related to earth care. Through our positive work may we honor the God and Goddess in all their manifestations, and create a livable planet for future generations. For me, the manifestation of Big business and Nasdaq DotComism in the form of the Yahoo login does spoil it initially a bit, though, everyone's got to host their group somewhere.

Permaculture Mailing List in Western Australia To subscribe, send email to listserv@eepo.com.au To send email to the list perma@eepo.com.au

Central Coast Permaculture Guild listserve Simply send the message "subscribe ccpg" to: majordomo@rain.seattleantioch.edu You can also find out more info by checking out the website, which has moved I'm afraid..

permaculture-mg and *sustag-principles* were two mailing list devoted to permaculture, but some bully boy of a sysadmin pulled the plug on them, with out giving any warning which is well out of order. You can still see the email archives.

A mailing list to discuss permaculture and related topics is now available. To subscribe to the list send email to permaculture-request@GlobalGarden.com with the body of the message containing:

'subscriber'. To subscribe to the digest version of the list, send the above message to permaculture-digest-request@GlobalGarden.com

There's now a German speaking permaculture mailing list: To subscribe email macjordomo@2012.org with `ADD PERMAKULTUR-ML "YOUR NAME"` in body of message. To send a message to the list email perma-l@2012.org.

A new (16/7/97) web based, spam free newsgroup can be found Somewhere in cyberspace, but not where it was..Not especially organic, anyway.

If you can access GreenNet or any of the APC members than you can have a look at the int.permacultu news groups. I'm not sure about this one but I think l-permaculture@igc.apc.org might also be a mailing list.

Bd Now! is a forum for people studying Rudolph Steiner's work Agriculture. The address for subscribing to the list is listproc@envirolink.org. Just send " BD NOW! Subscribe " if you want to subscribe, and you're in.

See Tibetan Plateau Project for details of their list server devoted to medicinal plants. (Follow Programs).

Lots more at Solstice covering Strawbale building, biomass, greenbuilding etc.

And even more at CFS inc biodynamics, frugal living, permaculture, ...

Garden Web Has lots (50ish) of online forums covering most topics of intrest to gardeners. Has a good amount of trafic.

UK Tree-Care mailing list. a forum for discussion on all aspects of trees and their care and maintenance. The list is open to both professionals involved in tree care and interested amateurs.

News Groups at metaLab

Obviously a major site, with a number of links from throughout this section. Not all of these have been checked recently, but I'm sure you can get a good feel for the level and type of content. Theres a whole host of Natural Farming Related forums, accessesable via the Web , through a news reader or through Email. Gereral information and useage information about all forums are avaliable at Email.

The groups are

- **permaculture** Web, News. Medium trafic (a few posts every day) one of the central forums for the permaclture movement.
- **agriculture** Web, News.
- **sustainable-agriculture** Web, News.
- **soil-quality** Web, News.

- **seed-saving** Web, News.
- **community-foodsystems** Web, News.
- **csa** Web, News.
- **homestead** Web, News.
- **market-gardening** Web, News.
- **organic-gardening** Web, News.
- **small-farming** Web, News.
- **sustainable-living** Web, News.
- **agriculture-activist** Web, News. FAQ.

General information for all groups

The forum server is intelligent and flexible and tolerates a wide range of input in case you forget access details.

Subscribers will be able to post, crosspost and read using any method of access: the Web, email or news; non-subscribers will be able to read but not post.

The system is set to archive permanently ALL posts to the list whether they are posted via news, the Website or email.

Any spam posted will result in the offending party being locked out of the forum and all their messages will be purged from the archive.

For access by email:

general information is available at: http://metalab.unc.edu/london/forumdoc.txt

subscribe/unsubscribe via email:
send email to lyris@franklin.oit.unc.edu
- in text of message include the following words:
`subscribe (or unsubscribe) [put name of list here]`
Example: `subscribe permaculture`

posting to the list subscribers
send email to: `[put name of list here]@franklin.oit.unc.edu`
Example: `permaculture@franklin.oit.unc.edu`

Egroups

Now swallowed up by the Yahoo empire, requiring sign on etc., but probably worth a look.

The Egroups site contains thousands of intresting discussion groups. They seem to be rather informal in flavour. EdibleLandscape and EdibleWild seem particularly intresting although there are hundreds more. Other intresting ones include SustainableMediterranean, coolfruit, rarefruit.

Yet More Groups

The following are a set of list arising from a discussion on the PC mailing list at ibiblio. These haven't been checked recently, see this as a kind of lucky dip section..

Permaculture Ackerbau A forum for Austrian organic, permaculture-oriented broadacre farmers German language, by invitation only http://lists.ibiblio.org/mailman/listinfo/pc-ackerbau - list information & access http://lists.ibiblio.org/pipermail/pc-ackerbau - message archives Georg Parlow georg@websuxxess.com

Permaculture In Cameroon Multilingual http://lists.ibiblio.org/mailman/listinfo/pc-cam - list information & access http://lists.ibiblio.org/pipermail/pc-cam - message archives Andreas Keller ak.and.ak@on-line.de

Permaculture In Europe Open to Great Britain, Scandinavia and Eastern Europe, multilingual http://lists.ibiblio.org/mailman/listinfo/pc-europe - list information & access http://lists.ibiblio.org/pipermail/pc-europe - message archives Lawrence London lflondon@mindspring

Permaculture Plant Database Project http://lists.ibiblio.org/mailman/listinfo/pcplantdb - list information & access http://lists.ibiblio.org/pipermail/pcplantdb - message archives Lawrence London lflondon@mindspring.com, london@ibiblio.org

Permaculture Multilingual, global in scope http://lists.ibiblio.org/mailman/listinfo/permaculture - list information & access http://lists.ibiblio.org/pipermail/permaculture - message archives Lawrence London lflondon@mindspring.com, london@ibiblio.org

1) Permaculture International Perm_I-subscribe@yahoogroups.com (An Eye, not an L) New group started in response to lack of archives at other yahoo permaculture group and the disappearance of the original list owner.

2)Discussion of Permaculture Diploma Development permadipdevsubscribe@yahoogroups.com

3)East Bay (California, US area) eastbaypermaculture-subscribe@yahoogroups.com Mostly local announcements.

4)Permaculture permaculture-subscribe@yahoogroups.com Occasional posts, no archives, missing listowner

5)Planning for 7th International Permaculture conference IPC7-subscribe@yahoogroups.com #

6)Permaculture UK address is permaculture.uk@ntlworld.com To join, click on the link mailto:permaculture.uk@ntlworld.com?Subject=subscribe and send off the message. Active list with UK focus.

7)unsw-permaculture send to majordomo@explode.unsw.edu.au with the following command in the body of the message: subscribe unsw-permaculture U. New South Wales, Australia Active, lots of projects, classes

8)Permaculture-Oceania send to majordomo@explode.unsw.edu.au with the following command in the body of the message: subscribe permaculture-oceania Active, lots of projects, classes

9)PermaKulturNusantara PermaKulturNusantara-subscribe@yahoogroups.com Indonesian, few posts

10)Permaculture Australia permaculture_au-subscribe@yahoo.com.au No archives

11) Permacuture Design Permaculture-Design-subscribe@yahoogroups.com Few posts

12) Permakultura permakultura-subscribe@yahoogroups.com Permaculture Association of the Philippines, few posts

13) Austinperm austinperm-subscribe@yahoogroups.com Austin, Texas, USA active

14) PermacultureSA PermacultureSA-subscribe@yahoogroups.com Permaculture South Africa , occasional posts

15) Permaculturevisions Permaculturevisions-subscribe@yahoogroups.com also PermaculturevisionsInternational-subscribe@yahoogroups.com for students and graduates of their courses

16) Midwest Permaculture midwestpermaculture-subscribe@yahoogroups.com Midwest of USA New in 2002, active

17) Mercia Permaculture MerciaPermaculture-subscribe@yahoogroups.com Regional UK group

18) Backyard Permaculture backyardpermacultureusa-subscribe@yahoogroups.com Focuses on what people can do in their backyards

19) EdenProj EdenProj-subscribe@yahoogroups.com Group planning a (Type I Error style, it looks like) Ecovillage with Bio-Intensive Permaculture Gardens.

20) Guelph Permaculture GuelphPermaculture-subscribe@yahoogroups.com Guelph Ontario Canada group with a community garden on the campus

21) Chicago Permaculture Chicagopermaculture-subscribe@yahoogroups.com Chicago, Illinois, USA and Midwest USA regional group

22) Bellingham Permaculture Club BellinghamPermacultureClub-subscribe@yahoogroups.com Bellingham, Washington, USA regional group

23) Permaculture Technology permaculturetechnology-subscribe@yahoogroups.com

24) Terrasemmales terrasemmales-subscribe@yahoogroups.com Portuguese language permaculture group

25) 4x4Garden 4x4Garden-subscribe@yahoogroups.com For people interested in a mix of Permaculture and Biointensive gardening

26) Permakultur This is a German language one. pk-forum@permakultur.de

27) Permacultur (I think) This is a French one that I don't remember the address of.

There's also Pagan Permaculture Post message: PaganPermaculture@yahoogroups.com Subscribe: PaganPermaculture-subscribe@yahoogroups.com Unsubscribe: PaganPermaculture-unsubscribe@yahoogroups.com List owner: PaganPermaculture-owner@yahoogroups.com

Permaculture Teachers (UK) Discussion List.

> AIM: For teachers to have input into education development, ie, teacher training, accreditation & feedback on PCA proposals, 'my work'- also as a forum to share course outlines, teaching stories, do, don'ts, "this works for me". Some of this could feed into the PCA & Action Learning websites and as the basis of articles for 'flipchart', the PCA's teacher's bulletin. Primarily oriented towards permaculture teaching in the UK although permaculture teachers/learners and their inputs from the rest of the world are welcome! To subscribe send a blank email (don't enter anything in header line) to;
> Permaculture_teachersUK-subscribe@yahoogroups.com
> Post message: Permaculture_teachersUK@yahoogroups.com
> Subscribe: Permaculture_teachersUK-subscribe@yahoogroups.com
> Unsubscribe: Permaculture_teachersUK-unsubscribe@yahoogroups.com
> List owner: Permaculture_teachersUK-owner@yahoogroups.com

Eco Vegans

> A space for discussion, debate and chat mainly intended for those who are vegan primarily or incidentally for environmental reasons(as well as for spiritual, health or ethical reasons of course), or for those interested in complementary ideas such as sustainability, permaculture, biodynamics, community growing, forest gardening, organic growing, vegan organics, eco-protest, Agenda 21, LETS, etc, etc, who'd be interested in having an input. Non vegans are of course welcome here provided it's in the spirit of mutual tolerance & respect, genuine dialogue and constructive debate/discussion. Zealots & fundamentalists of any persuasion are strongly discouraged, please chain up your dogmas at the post provided outside before entering :-)
> To subscribe go to http://groups.yahoo.com/group/eco_vegans/
>
> Post message: eco_vegans@yahoogroups.com
> Subscribe: eco_vegans-subscribe@yahoogroups.com
> Unsubscribe: eco_vegans-unsubscribe@yahoogroups.com
> List owner: eco_vegans-owner@yahoogroups.com

Readers Comments on this page:

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page. Back to Main Links Page.

This ones distinctly anti-copyright, steal as you wish, give credit if you like, and send lots of copies to MAFF.
HTML page prepared by Rich Morris Home Page - Contact Info

Last modified: Aug 6, 2000

Plants for a Future
A resource centre for edible and other useful plants

Back to Plants For A Future home page. Back to Main Links Page.

Botany, Database and Pictures

Want to find out more about a particular plant, then have a look at the following links.

On this page:

Ethnobotany

The study of the uses of plants world wide.

Databases

More information than you could possible dream of.

Photos and pictures

So what do all these wonderful plants look like?

On other pages:

Main Links Page

Including: Permaculture, Sustainable Agriculture, Other Systems, Organics, General Gardening, Rare Plants/Heritage Seeds, Interesting Plants, Books Stores, Herbs and Medicinal Plants, Soaps, dyes and the uses of plants, Wild plants, Communities and Eco-villages, Vegan Stuff, Genetics, Green Building, Green and Environmental, Other interesting sites.

News Groups and Mailing Lists

One of the best ways for finding answers to specific queries is to ask others on the Internet, Theres a lot of knowledgeable people out there.

Databases, Botany and Photos

Various places where you can find more information about specific plants: Ethnobotany, Databases, Photos and pictures.

UK Permaculture Organisations Offline

Lots of addresses of useful UK groups.

Suppliers

Places world wide where you can find interesting plants (🟦 🟥 Fournisseurs de Plantes, Francais rather out of data).

Other Links

Other Links to non plant related sites, and reciprocal links.

New Links

Recient additions to the links page.

Dr Dick's Home Page

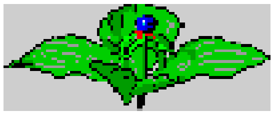
My own home page has links to UK eco-activist, Taoism, Tai-Chi and Feng-Shou and maths.

And if you really want more links the Internet Directory for Botany has nearly 3000. The Internet mining company has two interesting and comprehensive sections: Botany and Herbs For Health. The AgriSurf! Agricultural Web Index looks promising, a searchable index to over 6000 agricultural sites. And if you can't find what your after try asking on one of the News Groups and Mailing Lists.

Ethnobotany + Botany

I believe ethnobotany is the study of the uses of plants.

Ethnobotany Cafe A chat room related to discussion of plants and their uses and their relationship to culture. Also have a herb exchange where you can exchange info about herbs. Also have info on wild foods and herbal medicine.



Botanic Diversity Pages (Use to be Chez Marcos) Lots of Photos, lots of links and a good introduction to botany. And now feature super wizzy JavaScript stuff, which makes the PFAF site look positively tame.

Centre for Economic Botany, Kew includes details of a Drylands plant database (off-line), and a massive list of on and off line databases, and other Ethnobot resources. Also home to the Society for Economic Botany UK Chapter.

A Mini-Course in Medical Botany The format leaves something to be desired but lots of good stuff on medicinal uses of plants through out the world.

The Plant Kingdom at Univ. Calf. Museum of Palaeontology. A really well done site with all sorts of info, fossil records, ecology, systematics. Not quite comprehensive best on higher level groups rather than individual species.

If you confused about all this Latin name stuff, have a look at A Note on Names.

Dictionary of Botanical Epithets describing how some of the Latin names of plants were derived.

Sputnik Glossary of botanical terms Lists the different parts of a plant and also has some good pics illustrating the different parts.

Mining Company: Botany Good bunch of Links, plus bulletin Boards, articles, etc.

Databases

Just about every plant you can think of is in some database or other, you'll often need to know the exact Latin name to find it though.

Databases cross referenced with our search page

I've crossed referenced the following databases with the Plants For A Future Species Database (Introductions search UK US Australia). When you look up a plant in our database link to corresponding pages in these other databases will be displayed.

Permaculture Plant Database (PCPDB). We are in tor process of opening up the PFAF database to create a community driven plant database, where people can contribute quality information and pictures. Check here for the first draft of the database.

Ethnobotany Database A massive online academic database of world-wide plant use, has 80,000 records! which list uses of plants, common and botanical names and regions where there used , unfortunately that's it, nothing about how to use them or growing them or other useful info.

Phytochemical Database lots of info on composition of plants.

USDA Plants database. Really rather big, info on most plants in the US and where they grow, and when the Plant Guides section is done they will have info on wildlife and economic uses.

HortiPlex a nice database provided by GardenWeb with 11,000 images and links to other sources of information.

GRIN Another big database about the economic uses of plants. Only very broad characteristics of uses though, and not much detail.

Checklist of the Vascular Flora of the US Another big list of plants, good on common names, and US distribution.

The Gatherer(c) Search lots of databases (ours included) for information about a plant.

CalFlora 8363 Californian plants with lots of pretty pics. And distribution info.

Multilingual Multiscript Plant Name Database Michel H. Porcher et al. 1995 - 2000, MULTILINGUAL MULTISCRIPT PLANT NAME DATABASE, Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia. Contains indices of common names of plants, with emphasis on Japanese and Chinese Names.

Lepidoptera and some other life forms Started as a project on Moths and Butterflies. Now encompasses plants as well, mainly just scientific and common name (English and Finnish), but a good number of pics as well. Getting on for 7000 plants.

Plant Name Database Allows conversion of names between Finnish, Swedish, English, German, French and Latin

Botanical.com list 800+ types of herbs taken from a 1931 Herbal book.

Dictionary of Botanical Epithets describing how some of the Latin names of plants were derived.

Other Database

I haven't cross referenced these database yet.

UI Plants: woody ornimentals database has good details of of identification, cultivation and lots of photos.

International Plant Name Index a very large database which combines several of the standard references for botanical names. Could become a standard source.

The Plant Finder by the Royal Horticultural Society: the source for finding where to get plants from in the UK.

Silvics of North America A very detailed guide to about 200 different trees which grom in the US. Contains details of the growing range, life history, ecology. One of the most coprehensive sources around.

Find Wildflowers Online allows searchs by the botanical description of the plant i.e. thetype of flower etc. Could be a very useful resource.

The Plants Database a community driven database with 14,000+ images by many authors. Part of Dave's Garden.

Horticopia 4000 plants with botanical and common names as well as a good range of pictures (with their logo across the middle!).

The Dictionary of Common Names from the Plant Press, has a good range of common names from many countries.

Den Virtuella Floran database in Swedish good for Swedish/Norwegan/Finnish/German names.

The Flora of North America A massive project to collect info on approximately 20,000 species of vascular plants and bryophytes of North America. With distribution maps, images, and some use info.

World Species List A collection of lists about the species (plants, animals & in betweens) for lots of places round the world. They have really a rather large amount of links (300K). They were kind enough to put us as the pick of the month for Jan '98. And have about 200 links to our site! Now I know why the hits have gone up. It lists such gems as the World Conservation Monitoring Centre, red list of Threatened Plants.

There's also a Native American Food Plant and a Medicinal Plant of Native America databases.

If you still want more there's American Indian Ethnobotany Database which cover Foods, Drugs, Dyes, and Fibres of Native North American Peoples.

FAO Tropical Feeds Database Not very veganic, but a good list of plants, and other things which can be used for animal feeds. With quite a bit of detail.

Famine Foods "Plants that are not normally considered as crops are consumed in times of famine. This botanical-humanistic subject has had little academic exposure, and provides insight to potential new food sources that ordinarily would not be considered." The database contains details of lots of interesting plants with good references to the literature.

AgDB A meta-database of thousands of other databases to do with agriculture.

California Rare Fruit Growers, Fruit List has 700 individual fruits listed by Latin and Common names, with some growing info.

The Postcode Plant Database Find out what species might inhabit your local area (UK Only).

New Crop Resource Online Program A university department researching lots of new crops, they have a searchable and browsable index of documents about many new crops, some but not all of our favourite plants are there.

TreeWeb Lots of info on lots of trees, inc. ecology, sites and soils, and some of the uses.

Gernot Katzer's Spice Dictionary details of over 100 different herbs and spices, including pictures, 4000 different common names from all over the world, Etymology and lots of interesting facts.

W^{3}TROPICOS a big nomeculture database with citations. Put together by the Missouri Botanical Garden. Has lots of images, specimen lists.

Plant Elements of Design at the University of Minnesota. Basic info on 500 plants woody plants and a similar number of herbaceous plants.

Mining Company: Herbs for Health Follow *resource list*, then *Herb and Plant Databases and Searches* for more links to databases. Also Vegetable Gardens page has a good list of Ethnobotany resources.

IOPI Database of Plant Databases (DPD) Ever wondered what database you local Museum has? Here the place to find out.

International Legume Database & Information Service has good litrature references, geographic info and uses.

Species 2000Grand Project to index all the worlds species!

New Plant Page Put together my the New Ornamentals Society, this list a whole stack of *new* cultivars of ornamental plants, with links to of suppliers and links to articles about the plants.

Time Life's Virtual Garden 3000 species with photo's, descriptions of the plant and some growing info.

Home Horticulture at Michigan State University Extension, lots of articles on topics like growing Hickory, and specific plants pests and diseases. Plus loads of pictures.

International Phytocomputing Society Devoted to PC-bassed plant databases and other plant/gardening software. Has A list of several CD ROM's.

HerbMed Medicinal details on a dozen of the more well know herbal plants, extensive citations from MedLine.

Gardening.com's Plant Encyclopaedia A nice database geared to the gardener with photos and basic info. Good for pests and problems of plants. Not so much on the uses of plants.

Experimental Biodiversity Information System An attempt to provide a common standard for bio-diversity information using the Z39.50 standard. It looks likely the PFAF database might be converted to run under this standard.

Worldwide Botanical Knowledge Base not a database as yet, but some intresting ideas on XML etc.

Useful Wild Plants publish an encyclopedia of The Useful Wild Plants of Texas, the Southeastern and Southwestern United States, the Southern Plains, and Northern Mexico. Not online, but an intresting wild plant quiz.

Anglo-Saxon Plant-Name Survey has details of old names used for plants.

Photos and Pictures

Galleries cross referenced with our search page

As above I've crossed referenced the following photo galleries with the Plants For A Future Species Database.

Chez Marco's has a very good indexed list of plant photos, which you can browse by Latin Name and family. Especially good on rainforest plants, non flowering plants and Asteridae.

Southwest School of Botanical MedicineThis is a good site. Lots of pics of herbs and other plants

CalPhoto 8363 Californian plants with lots of pretty pics. And distribution info.

UDSA PLANTS Photo Gallery A searchable list of plant pictures which can be used by non-commercial organisations.

Vascular Plant Image Gallery at Texas ASM Uni. Bioinformatics Working Group. Big selection of pictures here.

Finnish Photos Good bunch of photos and good quality, mainly taken in Finland.

University of Washington Medicinal Herb Garden pics of about 100 herbs.

Other Photo Galleries

The Virtual Foliage Home Page Big repository of plant pics, plus an opportunity to explore gopher space.

The Internet Directory for Botany also has an extensive list of sites with plant pics.

Three Hawaiin sites with lots of picture: Hawaii Native Plant Propagation Database Hawaiin Native Plant Genera and Images and Descriptions of Flowering Plant Families - Alphabetical

Durham Uni Botanic Garden 100 or so plant pictures.

Plant Pictures on Henriette's Herbal Homepage. Mainly Herbs.

Hortus Botanicus Catinensis Nearly 900 photos from this Italian botanical garden.

Flowerbase a searchable index of 7,000 pictures of flowers, plants and garden plants. Which serves as an advert for their commercial CD-ROM.

English Wild Flowers some pictures of English wild flowers.

Graham's Paradise Garden A tour through a urban cottage garden. Lots of pics of mostly ornamental plants.

Ohio's states database of 3,878 images of 600 ornamental plants.

Readers Comments on this page:

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page. Back to Main Links Page.

This ones distinctly anti-copyright, steal as you wish, give credit if you like, and send lots of copies to MAFF.
HTML page prepared by Rich Morris Home Page - Contact Info
Last modified: Aug 6, 2000

Plants for a Future

A resource centre for edible and other useful plants

Back to Plants For A Future home page. Back to Main Links Page.

UK Permaculture and related groups: Off-Line

On other pages:

Main Links Page

Including: Permaculture, Sustainable Agriculture, Other Systems, Organics, General Gardening, Rare Plants/Heritage Seeds, Interesting Plants, Books Stores, Herbs and Medicinal Plants, Soaps, dyes and the uses of plants, Wild plants, Communities and Eco-villages, Vegan Stuff, Genetics, Green Building, Green and Environmental, Other interesting sites.

News Groups and Mailing Lists

One of the best ways for finding answers to specific queries is to ask others on the internet, Theres a lot of knowledgeable people out there.

Databases, Botany and Photos

Various places where you can find more information about specific plants: Ethnobotany, Databases, Photos and pictures.

Suppliers

Places world wide where you can find interesting plants (🇫🇷 Fournisseurs de Plantes, Francais rather out of data).

Other Links

Other Links to non plant related sites, and recriprocal links.

New Links

Recient additions to the links page.

Dr Dick's Home Page

My own home page has links to UK eco-activist, Taoism, Tai-Chi and Feng-Shou and maths.

These are mainly UK based organizations, and not all of them are completely up to date. Please send SAE to all organizations as many are completely skint.

See also UK permaculture orginisation Online and Communities and Eco-Villages.

The Permaculture Association (Britain) They publish a quarterly Permaculture Magazine. There's 60 local groups as well. Telephone / Fax: +44 (0)7041 390170 / 0113 2621718 Postal address: BCM Permaculture Association, LONDON, WC1N 3XX. E mail: office@permaculture.org.uk

The *Permaculture Magazine* published by Permanent Publications (see below), Lots of articles on permaculture, details of design course and more contacts.

Permanent Publications The Sustainability Centre, East Meon, Hampshire, GU32 1HR England. Tel: + 44 (0)1730 823311, Fax: + 44 (0)1730 823322, email hello@permaculture.co.uk. Publish the UK based Permaculture Magazine. The site contains details of the mag, their book catalogue, and UK Forrest Gardening projects and regular permaculture news. Their Earth Repair Catalogue contains 230 permaculture and related books.

Eco-Logic Books 20 Gastard Lane, Garstard, Corsham, Wilts, SN13 9QN. Tel (01249) 712749 Distribute 'Permaculture One & Two' and 'Permaculture - Designers' Manual' the essential guides written by Bill Mollison et al.

A big list of Local Permaculture Groups in the UK can be found on the Permanent Publications web site.

BUG magazine Biological Urban Gardening, Rm 6, P.O. Box 206, Worcester WR1 1YS

Henry Doubleday Research Organization National Centre for Organic Gardening, Ryton on Dunsmore, COVENTRY, CV8 3LG. Tel. (01203) 303517. Publish the HDRA news, packed full of useful stuff and lots of leaflets and books. They also have a demonstration garden showing many organic techniques, there's one at the above address and another one planed in the South-East. They also run a Heritage Seed Program (alternate link) which collects seeds of many unusual varieties of vegetables, due to UK law its actually illegal to sell such varieties and we're limited to a few registered varieties limiting the genetic diversity. An Events List Can be found on MidNet.

Organic Gardening P.O. Box 4, Wiveliscombe, Taunton, Somerset, TA4 2QY, Tel 01984 623998. A monthly magazine.

Biodynamic Agricultural Association The Secretariat, Woodman Lane, Clent, Stourbridge, West Midlands DY9 9PX, England. Tel: 01562 884933.

Vegan-Organic Horticulture And Agriculture Network, Anandavan, 58, High Lane, Chorlton, Manchester. M21 9DZ. Telephone 0161 860 4869. A groovy bunch who co-wrote the Vegan-Organics leaflet.

The Soil Association 86 Colston Street, Bristol, BS1 5BB. Tel: 01179 290661.i Best known for is symbol guaranteeing that products are organic. Web site has lots of press releases. *Irish Organic Farmers and Growers Association. (IOFGA)* 56 Blessington Street, Dublin 7, Tel: 018 - 307996, Fax: 018 - 300925.

Working Weekends on Organic Farms, 19 Bradford Road, Lewes, East Sussex, BN7 1RB. If you wants to go WWOOF-ing get in touch.

MidNet Organic UK based WWW site, have info on UK organizations, and some hints and tips. Plus an organic garden tour. And other UK based resources. Also run a UK based Organic Gardening discussion list organic-l@steamradio.com

The *Middle Wood Centre* Roeburndale, West Lancaster, LA2 8QX. Tel (015242) 21880. They've got a lovely patch of land, including a wooded valley being preserved in its natural state (they let any fallen wood rot down which helps build up the soil). They have a resource center, a barn to hire and also run some permaculture courses.

The Centre for Alternative Technology Machynlleth, Powys, SY20 9AZ, Tel 01654 702400, e: cat@gn.apc.org. They publish an Organic Growing Resource Guide (70p Ref F6), with lots more addresses, etc. You can also get a lot of organic & permaculture books from them.

Agroforestry Research Trust, 46 Hunters Moon, Dartington, Totnes, Devon, TQ9 6JT. Have a newsletter and produce a number of publications in the 'Useful Plants for Temperate Climates' series. Also have seed an plants for sale.

Some more UK orgs are listed on MidNet Organics.

West Yorkshire Organic Group One of the oldest groups about, run weekly local produce markets and The Organic Vegetable Show.

And finally *Liverpool Organic Gardeners*, 7 Childwall Bank Road, Liverpool, L16 7PH. Tel (0151) 722 7561. My local group who'd probably be dead chuffed to find they got a mention.

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PLANTS FOR A FUTURE - DES PLANTES POUR L'AVENIR

Centre d'informations et de ressources pour des plantes mangeables et utiles.

REGISTERED CHARITY No. 1057719
THE FIELD, PENPOL, LOSTWITHIEL, CORNWALL, PL22 0NG Angleterre:
Telephone Bodmin (+44 1208) 873554

Retournez à la page d'acceuil Plants for a future ou aux liens Main Links Page.

English

FOURNISSEURS DE PLANTES

Bien sur vous pouvez obtenir toutes les plantes possibles de nous à PFAF mais si vous habitez l'autre bout du monde ceci ne sera pas pratique. De plus, il y a des restrictions surtout aux Etats-unis sur quelles éspèces on peut importer. Donc, pour commencer:

Des gens à PFAF ont décrits comment ils ont pu trouver leurs plantes dans l'article du bulletin "Amis de PFAF": Obtaining plants.

Cornucopia est un livre excellent qui fait une liste de beaucoup de fournisseurs de toutes les sortes de plantes, (Etats-unis seulement). Se trouve chez Yankee Permaculture Publications (voir ensuite) et ailleurs.

En Royaume-uni essayez The Plant Finder de la Société Royale d'Horticulture qui vous donnera tout ce que vous voulez savoir.

Aussi en la GB la Henry Doubleday Research Association publie *The Fruit and Veg Finder* qui complète *The "Plant Finder"* et qui se concentre sur des variétés qui sont dificiles à trouver:. (HDRA, National Centre for Organic Gardening, Raton on Dunmore, COVENTRY, CV8 3LG Angleterre. Tel. (+44 1203) 303517)

Malheureusement épuisé, le *The Garden Seed Inventory*, si vous pouvez en trouver un éxemplaire, fournit une liste alphabétique de toutes les variétés de graines végétales non-hybrides vendues par les marchands aux Etats-unis et au Canada: 5.785 variétés; de 239 marchands de graines de gros et au detail.

ECHO (Educational Concerns for Hunger Organization) est un groupe chrétien qui fournit de petites quantités de graines qui ne s'achètent pas d'habitude. Auparavant, ils ne les vendent qu'aux organisations de développement du tiers-monde, mais ils ont une liste d’autres sources de graines: other seed sources.

Also have a look at the list of groups running Heritage Seeds/Seed Saver programs on the main links page.

Seed and Plant Sources Beaucoup de courrier éléctronique compilé des listes d’addresses de fournisseurs de toutes sortes de graines et de plantes éxotiques.

Yankee Permaculture Publications YankeePerm@aol.com publient une base de données dont 887+ d’inscriptions disponible sur disquette ou listing, qui s’appelle la “Permaculture Supplier List”. Les 2/3 fournissent des graines, des souches, des plantes en pot, à nu, etc., aussi que d’autres renseignements plus spécifiques.

A GardenNet on peut trouver une grande liste de catalogues jardins basés aux Etats-unis.

D’autres organisations qui valent la peine de contacter: Agroforestry Research Trust, Dartington, GB NAFEX - North American Fruit Explorers; NNGA - Northern Nut Growers Association; TBQ - Temperate Bamboo Quarterly. (Merci à Yankee PP).

The Andersen’s Horticultural library’s source list of Plants and Seeds, Andersen Horticultural Library, Minnesota Landscape Arboretum, 3675 Arboretum Drive, Box 39, Chanhassen, MN 55317, USA, liste à peu près 59.000 plantes et graines, de 450 marchands de gros et au detail aux Etats-unis et au Canada, qui en éxpédieront . Ce livre coute $39.95US (merci à S.C.Webb).

Les fournisseurs suivants opérants sur le web ne sont pas vraiment des recommendations, mais des sites que j’ai trouvés qui pourraient etre interessants.

Seeds of Change vendent des graines pour des légumes, des herbes et des fleurs mangeables - ceci pourrait etre utile pour nos amis en Amerique du Nord qui ont des restrictions sur l’importation des plantes. Pourtant, il n’y a rien ici de très exceptionel.

St Lawrence Nurseries offrent des fruitiers et des noisetiers pour des climats du nord, utile pour les Quebecois.

The Great Exotic Seed Company - Cette compagnie possède toutes sortes de variétés qui se trouvent nulle part ailleurs; ils ont aussi un site chouette et un catalogue en ligne. (merci à Lee Flyer).

En GB vous pouvez essayer Thomas Etty Esq Heritage Seedsman & Bulb Merchant. "Nous vendons des graines d’heritage génétique, la plupart sont des légumes et des herbes, avec quelques fleurs sauvages et des vieux pois de senteur, et un nombre croissant de fleurs et de bulbes. Héritage veut dire que les variétés datent du dernier siècle mais qui sont disponibles commercialement, meme si ce n’est que de chez nous."

En la Nouvelle Zélande, essayez Ben Gaia qui a des arbres interessants.

Retournez à la page d’acceuil: Plants for a future ou aux liens: Main Links Page.

Aucun droit de réproduction réservé; attribuez de la mérite si vous voulez; donnez surtout des copies au ministère d’agriculture!

Rich Morris pfaf@comp.leeds.ac.uk - Home Page (Page d’acceuil)

Back to Plants For A Future home page. Back to Friends of PFAF

Obtaining plants.

This article originally appeared in the Friends of PFAF newsletter.

Over the years one of the questions I get asked most is where we have managed to obtain all the plants we are growing. There is no simple answer since our sources have been many and diverse, but I would like to mention a few of them to you and also mention a few ways in which you might be able to help us further increase the collection.

Most of the plants we are growing have been produced from seed, simply because this is the easiest way to obtain plants from abroad and is also the cheapest method of producing plants. Our seed sources have been many and various ranging from well-known seed catalogues such as Thomson and Morgan or Chiltern seeds, through specialist gardening societies, botanical institutes, seed-collecting trips abroad, swapping with other people and the occasional anonymous donation. I remember receiving an acorn in the post from America. There was nothing inside the envelope save a huge acorn about 2 inches long and an inch wide and a piece of paper with its name (Quercus macrocarpa). This acorn has now become a small tree 2ft tall and perhaps in another 30 years it might start producing some of its own huge seeds. These are edible with a flavour somewhat like sweet chestnuts.

The generosity of some gardeners is amazing. Once you give them the reasons for requesting plants/seeds they are very often happy to give them to you free of charge. We once wrote to the person who has a national collection of juniper species asking for details of how well they were growing. Along with his report came cuttings of about 10 species. Most of these are now small plants growing away more or less happily on the land.

A couple of years ago we received a call from a man in north Cornwall who is growing 138 species and cultivars of bamboo. 'If you would like to come along with spades and a van, you can have a number of plants' he told us. Five of us spent the best part of a day digging up his surplus plants. Have you ever tried taking divisions from an established large bamboo plant? It is not very easy I can tell you, a pneumatic drill seems the best answer. Nevertheless, an exhausted party of bamboo diggers went home with a collection of plants that would have cost the best part of £1,000 from a bamboo nursery.

If you want seeds of unusual plants then you need to find the specialist suppliers. Where the plants are required for a genuine research project then various botanical institutes will often be obliging. We have obtained quite a lot of seeds from Bristol Botanic Gardens, for example, though most of our seeds from such sources come from abroad including places as far flung as Ecuador, Israel and Russia. Strangely enough, one of the least helpful places has been Kew Gardens in London, which is a shame since this is one of the very best places in Britain to go and see some alternative food plants.

Another very good source of seeds is to join some of the specialist gardening societies such as the Hardy Plant Society or the Alpine Garden Society. These usually have a seed sharing scheme where gardeners can send in surplus seeds. A catalogue of these seeds is produced at the end of the year and is then issued to all members of the society who request it. You do not need to donate seeds in order to receive them and it is all done on an expenses only basis. The societies are worthwhile joining just for these seed lists, though they also have much more to offer the gardener.

Another way in which we have sometimes received seed is from people who have gone abroad on business trips or for holidays. Sometimes they have come across interesting catalogues and have sent a copy back to us, or have sent us some of the seeds from the catalogue. At other times they have collected seeds from domesticated plants or from the wild and sent them back to us. Seed collecting from the wild has to be done with care, however. Firstly, most countries have legal restrictions on seed collecting and you need to be aware of this. Secondly, seed collecting from the wild should only be carried out with sensitivity for the environment. Under no circumstances should wild populations be threatened by overcollecting, though if the plants are going to be destroyed in some sort of development project then you can feel free to take as much as you like. This is an area where you might be able to help us. If you are travelling to some area of the world with a climate not too dissimilar to Britain's then you might be able to source seed suppliers or even obtain seeds for us. Please get in touch if you feel you might be able to help.

It might also be that you are already growing alternative useful plants, and might even have species or cultivars that we have not yet acquired. If you think you might have items of interest to us, then once again please get in touch and we can either arrange some sort of trade or, if you insist, we might accept it as a gift!

Obtaining the seed is only half of the story. Unlike most of the annual vegetables and flowers that are commonly grown, you cannot just sow the seed of many of these species and expect them to germinate within a week or so. There are all sorts of mechanisms built into some of these seeds to actually prevent them from germinating until triggered by certain events such as a rise of temperature in the spring. The seeds of some of the plants we are growing took more than 2 years before they decided to germinate! We will have a look at seed germination in another article in this newsletter.

Various sources where you can find particular plants are listed Here.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal PayPal DONATE

Readers Comments:

Hens&Chickens

Unknown Wed Jul 18 02:06:49 2001

O.K. i have hens&chickens that are growing streight up from the middle of the plant never seen anything like it. do you know why they are doing this or what kind of hen&chickens these are.

Details of Growing Condition: growing great..

Add a Follow up to this comment

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page. Back to Friends of PFAF

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Plants for a Future
A resource centre for edible and other useful plants

1 Lerrny View, Lerryn, Lostwithiel, Cornwall, PL22 0QJ England
01208 872 963 webmaster@pfaf.org

Back to Plants For A Future home page.

Friends of Plants For A Future

Plants For A Future is a resource and information centre for useful plants, promoting ecologically sustainable vegan-organic horticulture and agriculture with an emphasis on tree, shrub and other perennial species. We are a registered charity, number 1057719. We provide information and where possible supply the plants themselves (either by mail order or direct to visitors). Plants on our site are grown without the use of artificial fertilizers, sprays or animal products (vegan-organic).

You can help to support the activities of Plants for a Future and also get involved in the work we are doing by becoming a 'Friend' of Plants For A Future our membership scheme.

Membership Fees

The membership fees are

- £10 - standard membership
- £6 - low income
- £25 - Supporting Membership. For those who want to help a little bit more. Suporting members have the option of having their name displayed on our website.
- £150 - life membership

You can join Friends of Plants For A Future by regular mail or over the internet using a Credit Card through our PayPal system.

Regular Mail

Just print out and complete the form at the botton of the page and send together with a cheque made payable to "Plants For A Future" to

> Friends of Plants for a Future,
> 1 Lerryn View
> Lerryn,
> Lostwithiel
> Cornwall
> PL22 0QJ
> England
> Telephone 01208 872963

Internet Subscriptions

You can also join over the internet using our PayPal system.

Click on one of the button below to make a credit card donation to the project using the PayPal system. (You can pay in either UK pounds or US dollars, ask if you would like to pay in Euros).

UK residents can make donations through the CAF system. If you use this method please also send us a separate email with your address details.

Standard subscription - £10

Supporting subscription - £25

Standard subscription - $18 (aprox £10)

Supporting subscription - $42 (aprox £25)

How Joining Friends of Plants For A Future helps us

As well as the website Plants For A Future run two sites: an Eduction Centre in Devon and a research centre in Cornwall. The education centre was established in 1997 and has just finished the first phase of its development with the gaining of planning permission and construction of its basic infrastructure. This year (2002) we have planned a large range of courses and events including the South West Permaculture at end of June and a series of Shaping The Future of Plants For A Future events designed for those who want to help the project.

We have great plans for the Education centre, and hope that one day it will become a visitors centre open to the general public. Such a scheme will take a lot of time and money, which is where Friends of Plants For A Future comes in.

This year we are hoping to find a thousand friends. If we meet this target then we will be able to secure the future of the site and move forward with the sites development. So far this year we have been atonished by the generousity of our friends attracting several large donations and loans so we are well on target. Sime of the money has been used to buy a wildlife friendly grass cutter which will help keep the brambles under control.

How Joining Friends helps you

There several benifits to you of becoming a friend:

Newsletters with information on plants and Plants for a Future.

We aim to publish newsletters quarterly, a full newsletter in the Summer and Winter and intermediate news updates in the Spring and Autumn, but we do not work to a timetable and have no fixed publication dates. The newsletters contain information on progress at PFAF, details of some of the exciting new plants we are growing, nutritional information and hints and tips etc. As an example have a look at our latest new update (Aug 01).

We can now supply newsletters via Email, this has the benefit of saving us time and money. This way we can also send out special bulletins (to email recipients only).

FRIENDS OF PLANTS FOR A FUTURE. MEMBERSHIP APPLICATION

First names ________________________________
Surname ______________________________________
Address ____
____
Post code ________________________
Telephone number ______________________________
Email Address _____________________________

(Please tick relevant box/s)

I would like to become a Friend of Plants for a Future

I enclose a subscription payment of: *(please tick)*
__ £25.00 (Supporting member - help a little bit more!)
__ £10.00 (Standard)
__ £6.00 (For those on a low income)
__ £150.00 (Life Membership)

Payment Method

I wish to pay by:

- __ **Cheque** Please make payable to **Plants for a Future**. Unfortunately we can only accept euro-cheques and cheques draw on UK bank accounts. Cheques in dollars will bounce!
- __ **Standing Order** Do you often forget to renew subscriptions? Then this is the option for you. Please fill in the mandate below and give to you bank. (UK only)
- __ **Credit Card Donations over the Internet** just click on the button and send us your details.

Please send my newsletters via: - __ Email __ Regular mail

If you would also like to make a donation to the work of Plants for a Future, then please tick the appropriate box, thank you!

I enclose a donation of: - __ £5 __ £10 __ £15 __ £20 Other amount £_______

__ I am a UK tax payer and I would like my subscription/donation to count as gift aid.

Signed____Date_____________________________________

Please note that we will be storing names and addresses in a computer database since this makes it much easier to keep and maintain records, send out newsletters etc. If you do not want your name and address stored in this way then please let us know and we will maintain a separate paper record.

We will not release your details to any other individuals or organisations.

I would like ________copy/s of the book (I enclose £19.25 each)

I would like a financial investment pack (I enclose a S.A.E.)

I would like the Database leaflet (I enclose a S.A.E.)

I heard about Plant For A Future from ____

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Plants For A Future Readers Comments

Back to: Plant For A Future home page, Index of All Comments.

Got a general question? Try the PFAF mailing list which has more chance of getting a quick response.

Readers Comments: Latest News From PFAF

Events

rich Mon Apr 30 20:07:45 2001

Various events from Plants For A Future will be posted here.

New Update Sept 2001

Rich Sun Sep 2 20:35:09 2001

Well its been a very exciting year at Plants For A Future with the Blagdon site beginning to show its true potential and the St Veep site receiving a much needed boost of energy. There have been a lot of successful events and we've also received a major grant for £25,000.

Blagdon

Since winning our planning appeal in June last year work has been going at full pace to develop the site. This has mainly focused around constructing basic facilities for volunteers and workers and preparing the site for the next stage of construction. Among the activities which have been carried out are:

- The front hedge cleared of sycamores.
- Coppicing in the existing woodland area.
- Three tree bogs constructed.
- Basic facilities for volunteers installed.
- Area for car park excavated and a large quantity of hardcore donated for use as surfacing.
- A wind turbine installed.
- Three PFAF-style kitchen garden beds established which are providing an abundance of tasty salads for volunteers.
- A large number of willows planted with the intention of harvesting them after a year to sell for basket weaving.
- The children's garden has been marked out with a boundary of named varieties of willow.

The native woodland first planted three years ago is doing really well with some of the alders reaching over 20 foot. Wildlife is being attracted to the site with a good bird population and sightings of deer and grass snakes.

Events

If that was not enough there has also been an active event program, in the three months from March to June we had over 500 people visiting the site.

- The Southwest Permaculture convergence, which ran for two days and had a wide range of workshops.
- The Buddhafield Buddhist festival catering group have held a number of retreats on the site including a two-week permaculture course and retreat. We are working along with them to establish a meditation garden on the site.
- The Small School in Hartland had a weeklong camping trip and minor riot! They constructed a musical instrument with coppiced sycamore in the children's garden.

We also had another successful show at the BBC Gardeners World show at the NEC in June. This year we were a show feature and attracted a grant of £2,000, which allowed us to present a slideshow of PFAF plants. We also were invited to give a daily talks on one of the main stages. We brought along some unusual edible plants people were asked to identify these from other non-edible plants brought along by other gardeners. Unsurprisingly many of the plants they brought turned out to be edible after all!

There has also been a number of successful benefit gigs in Cornwall that have raised money for the St Veep site and helped establish a Robert Hart memorial garden.

St Veep

The arrival of Frank a long-term volunteer from Holland has provided a much-needed boost to the Cornwall site. He has done a lot of work clearing a network of paths through the arboretum and has discovered some great finds, such as the Japanese Walnut that is bearing nuts after only eight years. The site is now ready for the second stage of the woodland garden: many of the trees and shrubs are now well established and it is time to plant the understory; all that is needed is the manpower to clear the plots of brambles and maintain the plants.

There are also plans afoot to re-establish the catalogue and work has started sorting the plant sales area. The catalogue will probably appear on the Internet with online ordering.

We still have space in our property in Lerryn near the field and we are looking for people who would like to live there and work at the field. If you are interested drop us a line.

Fundraising

We recently heard that we have been awarded a 25 thousand pound grant from the Devon and West Somerset Key Fund. This will go to establishing the infrastructure for the Blagdon site and includes money for constructing the car-park and access road, water supply and power supply, equipment for a restroom, an agricultural shed, a computer and projector for doing presentations and lots of tools. There are quite a few conditions that need to be met to fulfil the grant which include the training of 500 people and a short time scale to achieve it all.

We have also just submitted another bid to the Charities Aid Foundation. This is for a part-time fundraiser who will help to raise the much-needed funds to cover the cost of the Blagdon site, to employ some workers and also many of the other things we need.

Website and database

The website continues to be one of the best plant information sites about, attracting thousands of visitors a week. A reader's comments section has been established which allows people world wide to add their own comments about individual plants. We are also planning to establish an electronic mailing list for people interested in the project.

Work is also progressing on developing a new user-friendly version of database on a CD-ROM. This will include a comprehensive set of photos and a much easier to use interface. We already have 100 high quality photos from a Canadian photographer and are working on scanning Ken's large collection of photos, however we are on the lookout for as many plant photos as we can get our hands on. So if you have a good collection we would love to hear from you.

We have also produced 400 fact sheets on medicinal plants that go into much greater details of the medicinal uses than is currently in the plant database.

Its not all a bed of Rosa Rugosa

Despite all the good things happening there are still many things to be sorted out and a lot more work to be done. The stress of the last three years and the explosion of potential in the spring has taken its toll and Jim and Elaine are both trying to take much needed holidays. Hence the Blagdon site is currently closed for August.

Our principal needs at the moment are volunteers and money. To fully develop Blagdon will take a lot more work and we are planning a number of work parties. We also need long term volunteers to help run the site, develop the plant catalogue and visitors centre and establish the demonstration gardens.

Perhaps the greatest challenge the project faces is financial. Currently the charity owes a hundred thousand pounds and much of this needs to be repaid in March next year. Hence, we are embarking on a major fundraising scheme that will focus on attracting more long term loans. Such loans will enable us to get through our short term financial problems and proceed to the next stage of the project when the Blagdon site can start generating its own income. If we cannot raise the money the future security of the Blagdon site is in serious jeopardy. It would be a great tragedy to lose this site, especially as its true potential is shining through at last.

Renewing your subscription will greatly help the project, and there are many other ways you can help us:

- Interest free loans, this is the most helpful for us. A long-term loan to the charity will help secure the long-term future of the Blagdon site.
- Gift Aid donations, if you a UK taxpayer then we can get the tax back on any donations you make to the charity.
- Regular donations through the Charities Aid Foundation. A number of people have opened accounts with the Charities Aid Foundation money deposited in such an account plus the tax will be paid direct to the charity.
- The Phone Co-op - a phone service company which offers good discounts on calls and also gives 5% of the value of your calls to PFAF.
- Care4Free are free Internet access provider that donates money to PFAF.
- Tree sponsorship we have a list of trees we would like to plant at Blagdon
- Donation of Interest here you deposit some money in our high interest account, the money remains

safe and the interest is transferred into our current account.

If you would like any information about any of these schemes then get in touch and we will send you our funding pack.

The Continuing Soil Association Saga

As some of you will know in March last year we applied for Soil Association certification. After much deliberation over the pros and cons we paid our £467 annual license fee. We eventually received certification in conversion in August/September 2000. One would assume that this was when the annual license fee would start from. We then received an invoice in December requesting a further license fee to be paid from March 2001-2002. We telephoned and queried this and were told the fee runs from the date of application. We expressed our shock that they could justify charging us this fee for just half a years certification and stated that we did now want to renew. We then started receiving further invoices, threatening letters and finally a court summons for the 2001-2002 fee. The bill has now risen to £680 and for what?

Future Plans

We have quite a few plans in the pipeline. We hope to offer a wide range of courses and workshops throughout the winter months. We are also thinking of having a big party for all our friends, which may well happen at the Winter Solstice. We are meeting with the planning department to discuss the steps needed to fulfil the conditions for further planning consent. Plans are also afoot to construct and edible maze featuring all our favourite edible plants plus musical instruments, a viewing tower and a children's play area. We are on the lookout for any wood/stone carvings to help decorate the maze.

Humble Apologies

You have probably noticed that the newsletter is very out of date for which we can only apologies. I'm sure you can appreciate that due to all the work carried out over the last year that some tasks, such as the newsletter and general admin have been neglected. We will try to ensure that you won't have as long to wait for the next newsletter.

Finally

A big thank you to all the people who have helped the project over the last year: Frank, Phil, Leslie, Linda, Pearce, Ken, Addy, Buddhafield, Matt, Mike and Frog, Nick and Helen, Jay and Clara our departing trustees David and Guy and new trustees Julia, Simon and Paul, all those who have helped us financially and everyone else who has given love and support. But most of all to the two superstars Elaine and Jim.

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Name: ...............................................................
Address: ............................................................
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email ...................................................
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Please renew my subscription I enclose:
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Please send my newsletters via: - Email (easier for us) c Snail mail c

I enclose a donation of £5 c £10 c £20 c £50 c
other amount   £............. c
I am a UK tax payer and would like my donation to count as Gift Aid c

Please send me a copy of the fundraising pack   c
I am interested in taking out a long term loan c
Please send me details of work parties   c
Please send me details of courses and workshops   c

Dates I may be able to attend: ....

Signed ....   Date ....

Please make cheques payable to Plants For A Future and send them to
Plants For A Future,
Blagdon Cross,
Ashwater,
Beaworthy,
Devon,
EX21 5DF

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Supported by Devon and West Somerset Key Fund and the Naturesave Trust.

New Update Sept 2001

Graham Mills (graham@tregoningmill.co.uk) Thu Jun 12 17:10:36 2003

Eevrything on this site seems to be around 2 years out-of date. Has the charaity ceased to exist?

Start a new thread in the Latest News From PFAF group.

Back to: Plant For A Future home page, Index of All Comments.

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Plants for a Future, The Field, Penpol, Lostwithiel, Cornwall, PL22 0NG, UK.
`http://www.comp.leeds.ac.uk/pfaf/`

Plants For A Future Readers Comments

Back to: Plant For A Future home page, Main Database Search Page

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Got a general question? Try the PFAF mailing list which has more chance of getting a quick response.

Index of Readers Comments

Sort by Time. Sign the Guestbook, see the Question and Answers section, or join the topical Discussions.

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If you want to add a comment about a particular thread then go to that thread and use the **Add A**

Comment button there. For example if you just want to test how it all works you can go to the Test thread and add a comment there.

Start a new thread in the Bamboo, Bugs, Bye/Sell, Chat, Comments on Web-Pages, Comments on the Database, Courses, Discuss, General, Global Contacts, Gripe, Gripes, Guestbook, Gush, Jobs, Latest News From PFAF, Links, Links - New Crops and other wonderful plants, Plant Information, Queries, Tree Tomato, Unlisted Plants or queries group.

If you want to start a new enter the name of the group below and pres the button. You will then be able to start a new thread on the page which comes up.

Group: ☐ Start Group

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Plants For A Future - Database Search

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Would you like to use the database at home? You can download a copy of the database or get a copy on CD-ROM.

Search for name: ☐ Search

Search:

- **Name:** Latin name, Common Name or Family.
- **Plant Uses:** Edible, Medicinal or Other Uses.
- **Geographical Area**
- **Habitat**
- **Text search:** Find a particular word or phrase.
- **Advanced Search** (Soil type etc.)

Browse:

- **Latin names**
  A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
- **Common Names**
  A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
- Family (shows classification of plants into division, order, families, etc.)
- Habitat (all the different habitats you can search for)
- Edible Uses (full list and description of edible uses)
- Medicinal Uses (full list and description of edible uses)
- Other Uses (fibre, wood, etc)
- Geographical Range
- Soil Types
- Favorites (some of the most popular searches)
- Photo index just some of the pictures which will appear in the CD-ROM database.

Other Options

- Or see the list of New and renamed plants.
- Or look at the general Help or the help on Edible Uses Medicinal Uses Other Uses or Native Ranges.
- See the Database intro for more information about the history of the database.
- Download the database for use at home or get it sent on CD-ROM.
- Or try the Frames-JavaScript version. This offers an easier navigation scheme which lets you move from one plant description to the next without having to go back to the list of plants. Theres also a history of recient plant look ups.
- See the full list of Latin names and Common Names in a simple text format.
- Dutch common names of plants.
- See a description of how the web version of the database works. Includes how to link and version history.

If you have any problems with the database or any suggested improvement please mail me at webmaster@pfaf.org

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Search by Name

Enter any of the following. No wild cards are allowed but you can enter part of a name and the search is case insensitive. For example a Latin name of *salix* will find all the willows. Sometimes names may be spelt differently, or the number of spaces may be different; in such cases try using a shorter name. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'.

Latin Name		
Common Name		
Family		
Rating	1	5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

Search

Search by Use

Select any of the following uses. Or select none and use the plant criteria below.

Edible Use	**Medicinal Use**	**Other Use**

SHOW	SHOW	SHOW
Chocolate	Abortifacient	Adhesive
Coffee	Acrid	Alcohol
Colouring	Adaptogen	Baby care
Condiment	Alterative	Basketry
Curdling agent	Anaesthetic	Beads
Drink	Analgesic	Bedding
Egg	Anaphrodisiac	Besom
Flowers	Anodyne	Biomass
Fruit	Antacid	Blotting paper
Help	Help Disclaimer	Help

Special Uses: Nitrogen fixer: ☐ Attracts Wildlife: ☐ Ground Cover: ☐ Hedge: ☐ Scented Plants: ☐

Rating: (How useful we think the plant is.) 5 (Best) ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐

Only show matching genera: ☐.

Submit Reset

Search by native geographical range

You can select any of the following areas for where the plant is found in the wild. Areas marked with a * are less than reliable, also many plants are just listed as being from Britain. Some of range information has come from the Ethnobotany Database.

You might like to look at the list of Native Ranges for some pre-canned queries.

Britain

All ☐ Native ☐ Naturalised ☐ Introduced ☐

Europe

All ☐ N ☐ S ☐ E ☐ W ☐ C ☐ SW ☐

Scandinavia* ☐ Balkans* ☐

Africa

All☐ N ☐ W* ☐ C ☐ S ☐

Middle East

All ☐ Turkey ☐ Iraq ☐ Iran ☐

West Asia

All ☐ Russia* ☐ Afganistan* ☐ Turkistan* ☐ Caucusus* ☐

East Asia

All ☐ N ☐ NE ☐ SE ☐ Himalayas ☐

India ☐ Japan ☐ Korea ☐ Siberia ☐ Tibet* ☐ Nepal* ☐ Pakistan* ☐

China ☐ N (inc. Mongolia)* ☐ S* ☐ E* ☐ W* ☐ C* ☐ Manchuria (NE China)* ☐

North America

All ☐ N ☐ S ☐ E ☐ W ☐ C ☐ NE ☐ NW ☐ SE ☐ SW ☐

Canada ☐ Alaska* ☐ Greenland* ☐

Central America

All ☐ Mexico ☐

South America

All ☐ N ☐ S ☐ W ☐ C ☐

Chile* ☐ Agrentina* ☐ Brazil* ☐ Peru* ☐

Australia

All ☐ New South Wales ☐ Northern Territories ☐ Queensland ☐ South Australia ☐ Tasmania ☐ Western Australia ☐ Victoria ☐

Other

New Zealand ☐

Mediterranean ☐

West Indies ☐

Other Islands ☐

Other ☐

Tropics* ☐

Hybrid ☐

Cultivar ☐

Uncertain ☐

Show description of native range ☐. Only show matching genera: ☐. Help on native areas.

Rating: (How useful we think the plant is.) 5 (Best) ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐

Submit Reset

Search by Habitat

Woodland ☐ (Plants that grow in a woodland) **Canopy** ☐ (Tall trees) **Secondary** ☐ (Not so tall trees)

Hedge ☐ (Plants that can be used for hedging) **Hedgerow** ☐ (Plants that grow in hedgerows)

Meadow ☐ **Lawn** ☐ **Pond** ☐ **Bog Garden** ☐ **Cultivated Beds** ☐

Walls: *By* ☐ *In* ☐ **North:** *By* ☐ *In* ☐ **South:** *By* ☐ *In* ☐ **East:** *By* ☐ *In* ☐ **West:** *By* ☐ *In* ☐

Show all possible habitats ☐. Show textual description of habitats ☐. Only show matching genera: ☐.

Rating: (How useful we think the plant is.) 5 (Best) ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐

Submit Reset

The page of Canned Queries has some other habitats you can search for.

Search for a particular Word

You can search either the whole database or a particular field for a particular word. Note this could be SLOW. No wild-cards are allowed, but substring will be found and the search is case insensitive. You can either leave the *Search Type* as 'Exact match of substring' where the exact phrase must be found or set it to 'Any of the words', 'All of the words' or 'Field containing all of the word'. Words are separated by spaces.

Word or phrase	
Field	ANY
Search type	Exact match of substring

Submit Reset

The following fields all have textual descriptions: *Edible Uses*, *Medicinal Uses*, *Other Uses*, *Range*, *Habitat*, *Known Hazards*, *Cultivation Details* and *Propagation*. The others either have short strings or single letter keys, they are probably best searched using the tables above.

If you want to search for an exact string you can use '_' to represent spaces or punctuation. For example 'red' would match 'sheltered', 'reduce' and 'red'; '_red' will match 'reduce' and 'red'; 'red_' will match 'sheltered' and 'red'; and '_red_' will match just 'red'. Hence to find red inks you could use '_red_ _ink_' with a Search Type of 'Field containing all of the word'. You can also use the underscore notation when searching for Latin names, i.e. '_x' will find plants with Latin names beginning 'X'.

The Canned Queries, Edible Uses, Medicinal Uses, Other Uses and Native Ranges pages have some ready made queries you can use.

Many thanks to the School of Computer Science University of Leeds ibiblio at UNC Australian Permaculture Information & Design Service for providing the web space.

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Database Help

Click on an underlined word for an explanation of the field. Or Jump straight to the description of all the fields. Or look at the lists of Edible, Medicinal or Other uses and the list of native Ranges.

Urtica dioica

Common name:	Stinging nettle	Family:	Urticaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The leaves of the plants have stinging hairs...		
Range:	Britain.		
Habitat:	Waste ground, hedgerows, woods etc, preferring a rich soil and avoiding acid soils[4, 9].		

Habit:	Perennial			Decid/Ever:		Rating:	5
Height:	1.2	Width:		Hardyness:		Growth rate:	F
In leaf:		Flowering time:	5 - 10	Seed ripens:	6 - 10	Scented:	0
Flower Type:	D	Self-fertile:	N	Pollinators:	Wind		
Soil:	LMH	Well-drained:	0	Heavy clay:	0	Poor Soil:	0
pH:	ANB	Acid:	0	Alkaline:	0	Saline:	0
Shade:	SN	Moisture:	M	Wind:	W	Drought:	0
Nitrogen fixer:	0	Wildlife:	1	Pollution:	1	Frost Tender:	1

Edible Uses

Young leaves - cooked as a potherb and added to soups etc[1, 2, 9, 12, 13, 36, 183].....

Medicinal Uses

Nettles have a long history of use in the home as a herbal remedy....

Other Uses

A strong flax-like fibre is obtained from the stems[200].....

Cultivation details

Prefers a soil rich in phosphates and nitrogen....

Propagation

Seed - sow spring in a cold frame, only just covering the seed.....

The following are only included for some plants.

Composition

Leaves (Fresh weight)

Protein: 1.40 Fat: 0.30 Carbohydrate: 4.60 Ash: 0.80

Cultivars

'Red Welsh' 'Early Red' 'Ciboule Commune Rouge'

An old form of the perennial bunching onion...

Scent

Flowers: Fresh

The flowers have a spicy apricot-like fragrance

Fields used in the Species Database

Latin name.

The botanical name of the plant. This is an indexed field and is the primary key.

Common name.

One common name (where available) for the plant. It does not list the wide range of common names that many plants have.

Family.

The family that the plant belongs to. An indexed field.

Author

The person(s) who named the plant.

Botanical references

A bibliography of the most relevant books (usually a flora) that contain a botanical description of the plant.

Synonyms.

Other botanical names the plant has been known by. Sometimes there is disagreement amongst the botanists as to which is the correct name to use. Search's for Latin names will also check the synonyms.

Known hazards.

Any records we have of toxicity or other harmful aspects of the plant.

Range.

The regions of the world where the plant grows wild. One limit to this field (22/01/93) is that if the plant is native to Britain I haven't put down the other areas in which it grows. This will be changed as time permits. There is also a table listing the continents the plant grows. In the web version a table has been created listing general areas where the plant grows, this has been done by just searching for particular strings in this field, you can see the possible areas here.

Habitat.

A description of the habitat where the plant grows wild.

Habit.

Type of plant. (Annual, perennial, tree etc). An indexed field.

Evergreen/Deciduous

Whether the plant is deciduous or evergreen. This applies mainly to trees and shrubs but is also used when we know that any other type of plant is evergreen. D = deciduous, E = evergreen.

Rating:

A value from 1 to 5. 1 denotes plants of very minor uses, 2 means reasonably useful plants, 3 covers the range of plants that could be grown as standard crops, 4 is for very useful plants whilst 5 denotes those of great value. A very subjective evaluation.

Height.

How tall the plant is expected to grow in Britain, in meters.

Width.

How wide the plant is expected to grow, in meters. This field is rather lacking in information.

Hardyness.

How hardy is it on a scale from 1 - 10. One will survive arctic winters, ten is tropical. Cornwall is about eight, but can grow some plants from zone nine. Most of Britain is zone seven, going down to zone six in the north and four in the mountains. An indexed field.

Growth rate.

How fast the plant can grow. F = fast, M = medium, S = slow. This applies mainly to trees and shrubs but a lot of entries are blank because we just do not have the information.

In leaf

Months of the year that the plant is in leaf. 1 = January, 12 = December.

Flowering time.

What time of the year does the plant flower? Recorded in months, 1 = January, 12 = December.

Seed ripe.

What time of the year does the plant produce ripe seed?. Recorded in months, 1 = January, 12 = December.

Scented.

Is the plant know for its scent.

Flower type.

H = hermaphrodite (the flower has both male and female organs). M = monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). D = dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required)

Self-fertile.

Can one plant growing on its own produce fertile seed without being pollinated by any other plants? Y = Yes, N = No, a blank entry denotes that we do not know.

Pollinators.

How is the plant fertilized? Can be either insects, Lepidoptera (Moths & Butterflies), Bats, wind, water, Hand, Self, Apomictic (reproduce by seeds formed without sexual fusion), or Cleistogamous (self-pollinating without flowers ever opening).

Soil.

Type of soil the plant prefers. L = light (sandy), M = medium (loam), H = heavy (clay). An entry here does not specifically mean that a plant will tolerate the extremes of very heavy or very sandy soils, for further details on this refer to the next two fields. An indexed field.

Well-drained.

Does the plant require a well-drained soil? Many plants cannot tolerate soils if the water does not drain away fairly quickly. A well-drained soil is usually light or medium, but this is not always the case and some light soils are very poorly drained.

Heavy clay.

Can the plant grow in heavy clay soils?

Poor soil.

Can the plant grow in nutritionally poor soils?

pH.

Type of soil the plant prefers. A = acid, N = neutral, B = basic (alkaline). An entry here does not necessarily mean that a plant can tolerate the extremes of acidity or alkalinity. For further information, use the next two fields. An indexed field.

Acid.

Can the plant grow in very acid soils?

Alkaline.

Can the plant grow in very alkaline soils?

Saline.

Can the plant grow in saline soils.

Shade.

How much shade does the plant need? F = full shade (deep woodland, a north-facing wall etc), S = semi-shade (light woodland, a position that is shaded for part of the day etc), N = no shade.

Moisture.

What sort of moisture levels does the plant require? D = dry, M = moist (this is the average soil type and does not mean a wet soil), We = wet (or boggy), Wa = water (grows in ponds etc).

Wind.

How wind resistant is the plant? M = tolerates maritime exposure, W = tolerates strong winds but not maritime exposure, N = not wind tolerant. A blank entry denotes that we have no information. Information is somewhat lacking and what we have is mainly related to trees and shrubs.

Drought.

Can an established plant tolerate drought ?

Nitrogen fixer

Does the plant fix nitrogen from the atmosphere?

Wildlife.

Is the plant noted for providing food etc for our native wildlife?

Pollution.

Can the plant tolerate atmospheric pollution? (i.e. can it grow in a large town or city, or by a main road?). Y = Yes, N = No, a blank entry denotes that we don't know. This question is almost exclusively for trees and shrubs since these in general have much more difficulty coping with atmospheric pollution.

Frost Tender

Is the plant frost tender?

Fields with longer textual descriptions

Cultivation details.

Details on the plant, how to grow it and other relevant information.

Edible uses.

Details on the edible uses of the plant. See also the list of Edible uses.

Medicinal uses

Details of all the medicinal properties of the plants. *We are not experts on the medicinal uses of plants and much of the information has been taken from other sources. You should talk to someone who knows what they are on about before using any of these plants.* See also the list of Medicinal uses.

Other uses.

Details on the non-edible uses of the plant. See also the list of Other uses.

Propagation.

Details on how to propagate the plant.

Other tables

Composition

The nutritional composition of the plant (where available).

Cultivars

Details on cultivars of the plant.

Scent

Details of scented plants.

Habitats

A table listing the possible habitats a plant lives in. Including: Woodland Garden, Canopy, Secondary, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, Cultivated Beds, Ground Cover, Lawn, Meadow, Hedge, Hedgerow, Pond, Bog Garden, Walls, East Wall, South Wall, West Wall, North Wall.

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A resource centre for edible and other useful plants

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Plants For A Future Species Database Bibliography

Numbers in square brackets are the reference numbers that appear in the database.

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2

Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[23] **Wright. D.** *Complete Book of Baskets and Basketry.* David and Charles 1977 ISBN 0-7153-7449-4
Not that complete but very readable and well illustrated.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[25] **Lawson.** *Bamboos.* Faber 1968

Fairly comprehensive, it was once the standard work but is now rather dated. Deals with species hardy in Britain, giving cultivation details and some uses.

[26] **Hills. L.** *Comfrey Report.* Henry Doubleday Research Ass.
A small booklet giving a fairly comprehensive guide to the uses of comfrey.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[28] **Knight. F. P.** *Plants for Shade.* Royal Horticultural Society. 1980 ISBN 0-900629-78-9
A small but informative booklet listing plants that can be grown in shady positions with a few cultivation details.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[35] **The Herb Society** *Herbal Review. Vol.11. 4.* The Herb Society 1986 ISBN 0264-9853

[36] **The Herb Society** *Herbal Review. Vol.11. 3.* The Herb Society 1986 ISBN 0264-9853
A very interesting article on the stinging nettle, Urtica dioica, giving a lot of information on its uses. Also details on Tanacetum parthenifolium and Melaleuca alternifolium.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[38] **Simmons A. E.** *Simmons' Manual of Fruit.* David & Charles. 1978 ISBN 0-7153-7607-1
A good guide to some of the cultivars of temperate fruits. It covers quite a wide range of fruits.

[39] **Genders. R.** *Planting Fruit Trees.* Robert Hale Ltd. 1956
A general book on growing fruit in Britain, it does give some descriptions of little known cultivars.

[40] **Scott's Nursery** *Scott's Fruit Catalogue. 1985 edition.* Scott's Nursery 1985
A nursery catalogue giving descriptions of the wide range of trees and shrubs they grow, including a good range of apples.

[41] **Hills. L.** *Good Fruit Guide.* Henry Doubleday Research Ass.
Very dated now, it lists a good range of fruit trees and shrubs with brief descriptions of most of them and details of where they can be obtained.

[42] **Grey. C. H.** *Hardy Bulbs.* Williams & Norgate. 1938
Rather dated now, but an immense work on bulbs for temperate zones and how to grow them. Three large volumes.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

[45] **Polunin. O.** *Flowers of Greece and the Balkans.* Oxford University Press 1980 ISBN 0-19-217626-9
A good pocket flora, it also lists quite a few plant uses.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[47] **Fox. D.** *Growing Lilies.* Croom Helm 1985
A lovely and very readable book dealing with the cultivation of the genus Lilium.

[48] **Boullemier. L.** *The Checklist of Species, Hybrids and Cultivars of the Genus Fuschia.* Blandford Press 1985 ISBN 0-7137-1781-5
Merely a list of names and the occasional elaboration.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*

Interesting reading.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[56] **Muhlberg. H.** *Complete Guide to Water Plants.* E. P. Publishing Ltd. 1982 ISBN 0-7158-0789-7
Deals with a wide range of plants for temperate areas (and indoor aquaria) with quite a lot of information on cultivation techniques.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[67] **Ahrendt.** *Berberis and Mahonia.* Journal of the Linnean Society, 57 1961
Not for the casual reader, it lists all the known species in these two genera together with botanic descriptions and other relevant details for the botanist.

[68] **Phillips. R.** *Mushrooms and other Fungi of Great Britain and Europe.* Pan 1981 ISBN 0-330-24441-9
Excellent photographs, it also gives details of habitats and edibility.

[69] **Moore. D. M.** *Flora of Tierra del Fuego.* Anthony Nelson. 1983 ISBN 0-904614-05-0
Standard work for this part of S. America. Excellent details of habitat and a few notes on plant uses.

[70] **Bolton. E.** *Lichens for Vegetable Dyeing.* Studio Vista 1972 ISBN 0-289-70288-7
A small but interesting book for the casual reader and the enthusiast.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[72] **Small.** *Manual of the Southeastern Flora.*
Getting rather dated now, it covers Southeastern N. America. No pictures, it is not for the casual reader.

[73] **Adamson. and Salter.** *Flora of the Cape Peninsula.*
A good flora but rather short on details of habitat. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[77] **Kelly. S.** *Eucalypts. (2 volumes.)* Nelson, Melbourne 1969
A very readable book (in two volumes) on the many species of Eucalyptus trees in Australia.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[79] **Innes. C.** *The World of Iridaceae*
Deals with many of the plants in the Iris family giving brief details of habitat and notes on cultivation. Well illustrated.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN

0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[83] **Evans. R. L.** *Handbook of Cultivated Sedums.* Science Reviews 1983
Deals with the genus Sedum. Fairly easy reading, it gives cultivation details and some notes on habitats.

[84] **Coyle. J. and Roberts. N. C.** *A Field Guide to the Common and Interesting Plants of Baja California.* Natural History Publishing Co. 1975
A very readable pocket flora with good illustrations, it gives quite a few plant uses.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[86] **Organ. J.** *Gourds.* Faber 1963
Deals with squashes and their relatives. Interesting and readable, it gives cultivation techniques and some details of plant uses.

[87] **Woodward. L. Burge. P.** *Green Manures.* Elm Farm Research Centre. 1982
Green manure crops for temperate areas. Quite a lot of information on a number of species.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[90] **Phillips. R. and Rix. M.** *Bulbs* Pan Books 1989 ISBN 0-330-30253-1
Superbly illustrated, it gives brief details on cultivation and native habitat.

[91] **Zhang Jingwei.** *Alpine Plants of China.* Gordon & Breach. New York. 1982 ISBN 0-677-60190-5
A lovely book with nice pictures. Gives habitats and some details of plant uses.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN

0-520-00072-2
A nice readable book.

[93] **Davis. P. H.** *Flora of Turkey.* Edinburgh University Press 1965
Not for the casual reader, this is an immense work in many volumes. Some details of plant uses and habitats.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[96] **Surey-Gent. S. and Morris. G.** *Seaweed - A Users Guide.*
Covers seaweeds of Britain. A good coverage of when and what to eat plus some other uses.

[97] **Towle. M. A.** *The Ethno-Botany of Pre-Columbian Peru.*
A very interesting book covering quite a lot of information on plant uses in S. America although many of the plants are not suitable for temperate areas..

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[103] **Haywood. V. H.** *Flowering Plants of the World.* Oxford University Press ISBN 0-19-217674-9
Very readable and well illustrated, it lists plants by families giving the basic diagnostic features and some details of plant uses.

[104] **RHS.** *The Garden. Volume 111.* Royal Horticultural Society 1986
Snippets of information from the magazine of the RHS, including an article in Crambe maritima and another on several species thought to be tender that are succeeding in a S. Devon garden.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[107] **Brooker. M. I.** *A Key to Eucalypts in Britain and Ireland.* HMSO 1983 ISBN 0-11-710192-3
A Forestry commission booklet giving details of the more common Eucalyptus species grown in Britain. Good identification guide.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[110] **Polhamus. L. G.** *Rubber: Botany, Cultivation and Utilization.*
Mainly tropical plants with a small section on temperate plants for rubber.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[117] **Rosengarten. jnr. F.** *The Book of Edible Nuts.* Walker & Co. 1984 ISBN 0802707699
A very readable and comprehensive guide. Well illustrated.

[118] **Gunther. E.** *Ethnobotany of Western Washington.* University of Washington Press 1981 ISBN 0-295-95258-X

A small book, it is a good guide to useful plants in Western N. America.

[119] **Roach. F. A.** *Cultivated Fruits of Britain.* Oxford University Press 1985

[120] **?** *The Plantsman. Vol. 2. 1980 - 1981.* Royal Horticultural Society 1980
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Billardiera spp, Calochortus spp, Drimys spp.

[121] **?** *The Plantsman. Vol. 3. 1981 - 1982.* Royal Horticultural Society 1981
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[122] **?** *The Plantsman. Vol. 1. 1979 - 1980.* Royal Horticultural Society 1979
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants. A good article on the flowering of bamboos.

[123] **?** *Encyclopaedia Britannica. 15th edition.*
It contains a few things of interest to the plant project.

[124] **RHS.** *The Garden. Volume 113.* Royal Horticultural Society 1988
Snippets of information from the magazine of the RHS, including details on Podophyllum, Canna and Protea species.

[125] **?** *The Plantsman. Vol. 5. 1983 - 1984.* Royal Horticultural Society 1983
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[127] **?** *The Plantsman. Vol. 7. 1985 - 1986.* Royal Horticultural Society 1985
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[128] **Laing. and Blackwell.** *Plants of New Zealand.* Whitcombe and Tombs Ltd 1907
An old flora of New Zealand in a readable style. Some details of plant uses.

[129] **?** *Alpine Garden Society Bulletin. Volume 56.* Alpine Garden Society
Excerpts from the periodical. Some details on Corydalis spp.

[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants, including Distylium racemosum and some perennial members of the family Berberidaceae.

[131] **Warren-Wren. S. C.** *Willows.* David and Charles 1972
A readable guide to the willows.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[135] **?** *The Plantsman. Vol.8. 1986 - 1987.* Royal Horticultural Society 1986
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including some Cucurbitaceae.

[136] **Royal Botanic Gardens, Kew.** *Kew Bulletin. 1909* Royal Botanic Gardens, Kew. 1909
An interesting article on growing wild rice, Zizania aquatica and Z. latifolia.

[137] **?** *The Plantsman. Vol. 9. 1986 - 1987.* Royal Horticultural Society 1986
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Carya spp and Crocus sativus.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[139] **?** *Flora of Chile. (in Spanish)*
Some information about the useful plants of Chile.

[140] **Kamen. B.** *Siberian Ginseng.*
Detailed information for the lay person on this medicinal plant that is so widely used in the Orient and Russia.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[143] **Woodcock. and Coutts.** *Lilies - Their Culture and Management.* Country Life 1935
A classic, but dated. Deals with the genus Lilium.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X

A very readable herbal from China, combining some modern methods with traditional chinese methods.

[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[150] **Watson. W. C. R.** *Handbook of the Rubi of Great Britain and Ireland.*
There are hundreds of slightly differing species of the common blackberry growing in Britain. This is a book for the dedicated.

[151] **Wilson. E. H. and Trollope. M. N.** *Corean Flora.* Royal Asiatic Society 1918
A very small handbook, it does give a little bit of information on Korean plants.

[152] **Lassak. E. V. and McCarthy. T.** *Australian Medicinal Plants.*
A very good and readable guide to the subject.

[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[155] **Arnberger. L. P.** *Flowers of the Southwest Mountains.* Southwestern Monuments Ass. 1968
A lovely little pocket guide to wild plants in the southern Rockies of America.

[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8
A very readable book.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of

Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[162] **Grounds. R.** *Ornamental Grasses.* Christopher Helm 1989 ISBN 0-7470-1219-9
Cultivation details of many of the grasses and bamboos. Well illustrated.

[163] **RHS Lily Group.** *Lilies and Related Plants.*
Lots of interesting snippets about plants in the family Liliaceae (in the old, broad sense)

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
A well illustrated and very readable book, but it does not contain much information for the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[170] **Dremann. C. G.** *Ground Cherries, Husk Tomatoes and Tomatilloes.* Redwood City Seed Co 1985 ISBN 0-933421-03-6
Only a small booklet but it covers the various species in some depth.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
A very well written and illustrated book based on the authors own experiments with living on a native diet.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[175] **Bird. R. (Editor)** *Focus on Plants. Volume 5. (formerly 'Growing from seed')* Thompson

and Morgan. 1991
Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[180] **Kunming Inst. of Botany.** *Yunnan Camellias of China.*
Lots of information and good photos.

[181] **Pesman. M. W.** *Meet Flora Mexicana.* Dale S. King. Arizona. 1962
Very readable flora but rather lacking botanically. A few notes on useful plants.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[191] *Letter from Crarae Garden, March 1993.* - 1993
A list Nothofagus species growing at Crarae Garden in Scotland.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[194] **Parmar. C. and Kaushal. M.K.** *Wild Fruits of the Sub-Himalayan Region.* Kalyani Publishers. New Delhi. 1982
Contains lots of information on about 25 species of fruit-bearing plants of the Himalayas, not all of them suitable for cool temperate zones.

[195] **Farrelly. D.** *The Book of Bamboo* Sierra Club. 1984 ISBN 0-87156-825-X
Very readable, giving lots of information on the uses of bamboos, both temperate and tropical.

[196] **Popenoe. H. et al** *Lost Crops of the Incas* National Academy Press 1990 ISBN 0-309-04264-X
An excellent book. Very readable, with lots of information and good pictures of some lesser known food plants of S. America.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[198] **Li. H. L.** *Journal of the Arnold Arboretum. Volume 32.* Arnold Arboretum. 1952
A monograph of the genus Actinidia.

[199] **Newsholme. C.** *Willows - The Genus Salix.* Batsford 1992 ISBN 0713468815
A very readable book on the genus.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN

0-304-34324-2
A well produced and very readable book.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[203] **Davies. D.** *Alliums. The Ornamental Onions.* Batsford 1992 ISBN 0-7134-7030-5
Covers about 200 species of Alliums. A very short section on their uses, good details of their cultivation needs.

[204] **Livingstone. B.** *Flora of Canada* National Museums of Canada 1978 ISBN 0-660-00025-3
In 4 volumes, it does not deal with plant uses but gives descriptions and habitats.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[211] **Coventry. B. O.** *Wild Flowers of Kashmir* Raithby, Lawrence and Co. 1923
A nice little pocket guide to 50 wildflowers of Kashmir. This is part one of three, we have not seen the other two volumes

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186

A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[215] **BBC** *The Natural History Programme 16th September 1994.* BBC 1994
A report on the Natural History radio 4 programme about the value of Japanese knot weed to British wildlife.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[217] **Les Ecologistes de l'Euzière** *Les Salades Sauvages* Not given. 1994 ISBN 2-906128-04-X
A lovely little book about some wild salads in France. Written in French.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[220] **Stapleton. C.** *Bamboos of Nepal* The Royal Botanic Gardens, Kew 1994 ISBN 0947643680
An excelllent little booklet that looks in some detail at the native bamboos of Nepal, including looking at their uses.

[221] **Crook. H. Clifford.** *Campanulas* Country Life 1951
A comprehensive treatment of the genus.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[224] **Bartram. T.** *Agnus Castus* -
A leaflet that summarizes the medicinal virtues of Vitex agnus-castus.

[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[230] **Cribb. P. & Bailes. C.** *Hardy Orchids. Orchids for the Garden and Frost-free Greenhouse.* Christopher Helm. London. 1989 ISBN 0 7470 0416 1
An excellent book looking at the orchids that can be grown outdoors in temperate climates and giving lots of information on how to grow them. Very lttle information on their uses.

[231] **McMillan-Browse. P.** *Palms for Cooler Climates.* Trebah Enterprises. 1993 ISBN 0 9521952 0 8
An excellent little booklet on the subject, though it does not mention many plant uses.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[234] **-** *Radio 4 Farming Programme, 25/08/95.* - 1995
An article on the potential of Coriandrum sativum as an oil crop.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[236] **Hitchcock. A. S.** *Manual of the Grasses of the United States* Dover Publications. New York. 1971 ISBN 0-486-22717-0
A nice and comprehensive flora, though a bit dated. Good line drawings of each plant, plus a brief idea of the habitat and a few notes on plant uses. Not for the casual reader.

[237] **Hobbs. C.** *Ginkgo. Elixir of Youth.* Botanica Press, California. 1994 ISBN 0-9618470-3-4
Looks in detail at the medicinal virtues and also mentions some of the plants other uses. The information on traditional Chinese use and modern herbal use of the plant is backed up by an extensive bibliography.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both

the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[239] **Kohlein. F.** *Gentians.* Christopher Helm. London. 1991 ISBN 0-88192-192-0
A nice readable book, giving details of habitats and cultural needs of all the members of this genus, with brief notes on other members of the family.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[241] **Tsarong. Tsewang. J.** *Tibetan Medicinal Plants* Tibetan Medical Publications, India 1994 ISBN 81-900489-0-2
A nice little pocket guide to the subject with photographs of 95 species and brief comments on their uses.

[242] **Davies. P.** *Correspondence from Allium NCCPG collection* 1997
Letter dated 21/01/97, giving additional information on Alium species.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[246] **Radio 4** *AM* - 1997
A news item on the Radio 4 morning news programme 'AM', 15/10/97.

[247] **Knees. S.** *The New Plantsman. Volume 4.* Royal Horticultural Society, London 1997 ISBN 1352-4186
A few articles of interest, especially Berberdopsis corallina and Tropaeolum species.

[248] **Anderson. A.** *New Scientist* IPC Magazines Ltd, London 1997 ISBN 0262-4079
A short item on a couple of soil reclamation plants, Atropa belladonna and Solanum nigrum

[249] **Valder. P.** *Wisterias: a comprehensive guide.* Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

[250] **Page. M.** *The Gardener's Guide to Growing Peonies.* David & Charles. Newton Abbot. 1997 ISBN 0 7153 0531 X
A nice little book on the genus, giving information on their cultivation and a little info on plant uses.

[251] **Grenfell. Diana** *The Gardener's Guide to Growing Hostas* David &Charles 1996 ISBN 0-7153-0431-3
Excellent cover of the genus, though it concentrates mainly on the cultivars and does not go much into plant uses.

[252] **-** *Scientific American August 1998* Scientific American Inc. New York 1998 ISBN 0036-8733
An interesting article on the use of halophytes as commercial food crops in dessert areas near the sea. Unfortunately lacking in detail of species used and also judges the plant's value as livestock feed rather than direct human food.

[253] **Hodgson I. (Editor)** *The Garden Volume 123* Royal Horticultural Society 1998 ISBN 0308-5457
Articles on Fuchsia species, cultivars of Blackberries.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[255] **Solgar Vitamins** *Solgar New Product Information - Rhodiola Vegicaps.* Solgar Vitamins, Tring, Herts. 1998
Information sheet from Solgar Vitamins, looking at the herbal use of Rhodiola rosea.

[256] **Turner. N. J.** *Food Plants of Coastal First Peoples* UBC Press. Vancouver. 1995 ISBN 0-7748-0533-1
Excellent little handbook about the native food plants of Western Canada. Good descriptions of the plants and their uses with colour photos of most plants.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[258] **RHS. Wisley, Surrey.** *The Garden. Volume 124. 1999.* RHS. Wisley, Surrey. 1999 ISBN 0308 5457
The monthly newsletter of the RHS, contains articles on Erythroniums.

[259] **Wolverton. B. C.** *Eco-Friendly House Plants.* Weidenfeld & Nicolson. London. 1996 ISBN 0-297-83484-3
Excellent guide to pollution in the home and those plants that can help to remove the problem. Most of the plants are not hardy outdoors in the temperate zone, though a number of species can be grown outside.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[261] **Yakovlev. G. Sytin. A. & Roskov. Yu.** *Legumes of Northern Eurasia* Royal Botanic gardens, Kew. 1996 ISBN 0-947643-97-4
For the academic only, a list of species growing in N. Eurasia with terse details on habitat, range, uses etc.

[262] **Vanderplank. J.** *Passion Flowers* Cassell. London. 1991 ISBN 0-304-34076-6
An excellent book on passion flowers, giving information on hardy species and how to grow the less hardy in greenhouses etc. A bit lacking at times on specific information on hardyness. Excellent photographs.

[263] **Raintree Nutrition Inc.** *Maca.htm* 1999
Web site giving lots of info on Lepidium meyenii.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

[267] **Stapleton. C.** *Bamboos of Bhutan* Royal Botanic Gardens, Kew. 1994 ISBN 0-947643-67-2
Excellent little booklet about the bamboos growing wild and cultivated for food, raw materials etc in Bhutan. Very good guide to identification.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

[270] *Flora of N. America* 0
An on-line version of the flora with an excellent description of the plant including a brief mention of plant uses.

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- Gaylussacia ursina **Ed Sutton** Tue June 10 2003 - Plant Information
- Plants for Health **Amanda** Tue June 10 2003 - Comments on Web-Pages
- Arbutus unedo, The Strawberry Tree **jan johnston** Tue June 10 2003 - Comments on Web-Pages
- Carpobrotus glaucescens Tue June 10 2003 - Plant Information
- Lycopersicon esculentum Thu June 5 2003 - Plant Information
- Arbutus unedo, The Strawberry Tree **Noami** Tue June 3 2003 - Comments on Web-Pages
- Plant portrait - Oxalis deppei Mon June 2 2003 - Comments on Web-Pages
- The Edible Lawn **Nancy Lichtenstein** Mon June 2 2003 - Comments on Web-Pages
- Animal (ab)use in today's society **Laura** Mon June 2 2003 - Comments on Web-Pages
- Oxalis exilis **Yeesun Goh** Sun June 1 2003 - Plant Information
- Hippophae rhamnoides **Kathy** Sun June 1 2003 - Plant Information
- Ranunculus ficaria **Fred Gillam** Sat May 31 2003 - Plant Information
- Lavandula angustifolia Fri May 30 2003 - Plant Information
- Acacia dealbata **Kristina Getch** Tue May 27 2003 - Plant Information
- Fragaria nipponica **Robby Bonkowski** Sat May 24 2003 - Plant Information
- Torreya nucifera Fri May 23 2003 - Plant Information
- Zanthoxylum americanum **Klaus Dichtel** Thu May 22 2003 - Plant Information
- Animal (ab)use in today's society Thu May 22 2003 - Comments on Web-Pages
- Diplotaxis tenuifolia **serdal sakcali** Wed May 21 2003 - Plant Information

- Chaenomeles japonica Fri May 16 2003 - Plant Information
- Checklist of plants suitable for ground cover Tue May 13 2003 - Comments on Web-Pages
- Alternative Root Crops. **bobkemp** Tue May 13 2003 - Comments on Web-Pages
- Malva moschata **Shilpa Vakshasya** Mon May 12 2003 - Plant Information
- Viburnum plicatum **Abby Normal** Mon May 12 2003 - Plant Information
- Hyacinthoides nonscripta **s. newman** Sun May 11 2003 - Plant Information
- Ground cover plants. **Dell Resweber** Sat May 10 2003 - Comments on Web-Pages
- Zoysia japonica Sat May 10 2003 - Plant Information
- Gunnera perpensa **e hammond** Sat May 10 2003 - Plant Information
- Ground cover Thu May 8 2003 - Comments on Web-Pages
- Linaria vulgaris **Joyce King** Wed May 7 2003 - Plant Information
- Ground cover plants. Tue May 6 2003 - Comments on Web-Pages
- Rhus typhina **Chris** Thu May 1 2003 - Plant Information
- Cnidium officinale **Soowon Cho** Thu May 1 2003 - Plant Information
- Thelesperma megapotanicum **Steve Heil** Thu May 1 2003 - Plant Information
- Allium ursinum, Wild Garlic Tue April 29 2003 - Comments on Web-Pages
- Elodea canadensis **Ralf** Mon April 28 2003 - Plant Information
- Phyllostachys aureosulcata **Deenie Mindock** Mon April 28 2003 - Plant Information
- Wisteria floribunda **EllenMcGrath-Thorpe** Sat April 26 2003 - Plant Information
- Prunus salicina **Donald M. Maze** Sat April 26 2003 - Plant Information
- Lactuca virosa **Faruk** Fri April 25 2003 - Plant Information
- Carlina acaulis **Ralf** Thu April 24 2003 - Plant Information
- Crepis aurea (L.) **Ralf** Thu April 24 2003 - Unlisted Plants
- Morinda citrifolia **Ralf** Thu April 24 2003 - Unlisted Plants
- Sparganium multipedunculatum Rydberg syn. Sparganium angustifolium Michaux. **Ralf** Thu April 24 2003 - Unlisted Plants
- Callitriche antarctica **Ralf** Thu April 24 2003 - Unlisted Plants
- Valeriana montana L. **Ralf** Thu April 24 2003 - Unlisted Plants
- Oxalis alpina R. Knuth **Ralf** Thu April 24 2003 - Unlisted Plants
- Atriplex hortensis **Dallas Gardinier** Tue April 22 2003 - Plant Information
- Aegopodium podagraria **Correction to my earlier comment** Sun April 20 2003 - Plant Information
- Ground cover plants. **Helen** Sat April 19 2003 - Comments on Web-Pages

- Smilax china **maria bodner** Sat April 19 2003 - Plant Information
- Aegopodium podagraria **Dries** Fri April 18 2003 - Plant Information
- Sapium sebiferum **cathy warren** Wed April 16 2003 - Plant Information
- Prunus nigra **Ralph C. Frese** Wed April 16 2003 - Plant Information
- Erica x darleyensis **Ann** Mon April 14 2003 - Plant Information
- Ailanthus altissima **Prof. Costas Cassios** Sun April 13 2003 - Plant Information
- Ground cover plants. **Mike** Sat April 12 2003 - Comments on Web-Pages
- Myoporum laetum **hiba** Thu April 10 2003 - Plant Information
- Ground cover plants. **Ian** Wed April 9 2003 - Comments on Web-Pages
- Conservation Gardening **shaun burkey** Mon April 7 2003 - Comments on Web-Pages
- Allium ursinum, Wild Garlic **E Lewis** Sat April 5 2003 - Comments on Web-Pages
- Fiber Plants **gordon soaring hawk** Tue April 1 2003 - Comments on Web-Pages
- Apium graveolens **WAYNE A. SIEGERT** Mon March 31 2003 - Plant Information
- Typha minima **James Allison** Mon March 31 2003 - Plant Information
- Oxalis triangularis **Mary Williams** Sat March 29 2003 - Plant Information
- Ground cover plants. **Toni Kosydar** Thu March 27 2003 - Comments on Web-Pages
- Crataegus Species - The Hawthorns. **Ray Scheel** Thu March 27 2003 - Comments on Web-Pages
- Allium porrum **Sarah Pellet** Tue March 25 2003 - Plant Information
- Ehretia anacua **Mark Lee** Mon March 24 2003 - Plant Information
- Poncirus trifoliata **Louis Varricchio** Sun March 23 2003 - Plant Information
- Potentilla reptans **MISS.MCCRAE** Sun March 23 2003 - Plant Information
- Myoporum laetum **lesley mcarthur** Sun March 23 2003 - Plant Information
- Staphylea trifolia **Jay Cutts** Fri March 21 2003 - Plant Information
- Myrtus Ugni **rozalin** Wed March 19 2003 - Comments on Web-Pages
- Ground cover plants. Mon March 17 2003 - Comments on Web-Pages
- Citrus reticulata **Robert Fleming** Sat March 15 2003 - Plant Information
- Rhodiola rosea **marie** Fri March 14 2003 - Plant Information
- Arbutus unedo **Dr. Shannon** Thu March 13 2003 - Plant Information
- Lagerstroemia indica **Lisa Pieri** Wed March 12 2003 - Plant Information
- Acca sellowiana **Ivan Viehoff** Wed March 12 2003 - Plant Information
- Proboscidea louisianica **Eddie** Sun March 9 2003 - Plant Information
- Ephedra sinica Wed March 5 2003 - Plant Information

- Asclepias rubra **Wolf** Wed March 5 2003 - Plant Information
- Plant portrait - Oxalis deppei **Cletus** Mon March 3 2003 - Comments on Web-Pages
- Convallaria majalis **MANISH GUPTA** Sun March 2 2003 - Plant Information
- Ground cover plants. **Vince Cerullo** Thu Feb 27 2003 - Comments on Web-Pages
- Myoporum laetum **S Frost** Wed Feb 26 2003 - Plant Information
- Why Plants? **Joe** Tue Feb 25 2003 - Comments on Web-Pages
- Why Plants? **Kyle** Tue Feb 25 2003 - Comments on Web-Pages
- Diplotaxis erucoides **Stephen Mifsud** Tue Feb 25 2003 - Plant Information
- Diplotaxis erucoides **Stephen Mifsud** Tue Feb 25 2003 - Plant Information
- Sinapis alba **Stephen Mifsud** Tue Feb 25 2003 - Plant Information
- Sonchus oleraceus **Stephen Mifsud** Tue Feb 25 2003 - Plant Information
- Raphanus raphanistrum **Stephen Mifsud** Tue Feb 25 2003 - Plant Information
- Daphne gnidium **Melissa Harvey** Mon Feb 24 2003 - Plant Information
- The Edible Lawn **Ben** Mon Feb 24 2003 - Comments on Web-Pages
- Acer platanoides Wed Feb 19 2003 - Plant Information
- Eupatorium hyssopifolium **Gladbert** Sat Feb 15 2003 - Plant Information
- Hemerocallis lilioasphodelus **Mary McKay** Thu Feb 13 2003 - Plant Information
- Lilium pumilum **David Ten Eyck** Wed Feb 12 2003 - Plant Information
- Fiber Plants **me** Wed Feb 12 2003 - Comments on Web-Pages
- Lathyrus sativus **Fernand Lambein** Tue Feb 11 2003 - Plant Information
- Lathyrus sativus **Fernand Lambein** Tue Feb 11 2003 - Plant Information
- Arbutus unedo, The Strawberry Tree **Clem Snide** Tue Feb 11 2003 - Comments on Web-Pages
- Myrtus Ugni **chris hoiles** Mon Feb 10 2003 - Comments on Web-Pages
- Vegtable Oils **Marie** Sun Feb 9 2003 - Comments on Web-Pages
- Soap Plants **Marie** Sun Feb 9 2003 - Comments on Web-Pages
- Myrtus Ugni **Peter Willis** Sun Feb 9 2003 - Comments on Web-Pages
- Cunninghamia lanceolata **Bo Whalen** Fri Feb 7 2003 - Plant Information
- Rubus caesius Mon Feb 3 2003 - Plant Information
- The Edible Pond and Bog Garden Mon Feb 3 2003 - Comments on Web-Pages
- Ambrosia trifida **David Murray** Mon Feb 3 2003 - Plant Information
- Without words just the truth : The food on your plate **Ricardo** Sat Feb 1 2003 - Comments on Web-Pages
- Woodland Garden Plants **jrb** Thu Jan 30 2003 - Comments on Web-Pages

- Zanthoxylum simulans **Ken Fern** Thu Jan 30 2003 - Plant Information
- Why Plants? Wed Jan 29 2003 - Comments on Web-Pages
- Spinacia oleracea **Klaus Dichtel** Fri Jan 24 2003 - Plant Information
- Sanguisorba minor **Klaus Dichtel** Wed Jan 22 2003 - Plant Information
- Leucanthemum vulgare **Klaus Dichtel** Wed Jan 22 2003 - Plant Information
- Zanthoxylum simulans **Klaus Dichtel** Sun Jan 19 2003 - Plant Information
- Silybum marianum **ysteban** Sun Jan 19 2003 - Plant Information
- Epigaea repens **Laura Lange** Sun Jan 19 2003 - Plant Information
- Epigaea repens **Laura Lange** Sun Jan 19 2003 - Plant Information
- Bassia scoparia **Majid Jami Al-Ahmadi** Sat Jan 18 2003 - Plant Information
- Trigonella caerulea **patrick bill** Fri Jan 17 2003 - Plant Information
- Myrtus Ugni (Tazziberry) **Bernhard Jenni** Wed Jan 15 2003 - Comments on Web-Pages
- Campanula takesimana **Robert** Tue Jan 14 2003 - Plant Information
- Taxus canadensis **Rich** Fri Jan 10 2003 - Plant Information
- Why we can't use salt or polluted water to grow plants? **Bryana** Thu Jan 9 2003 - Comments on Web-Pages
- Cornus mas **Robby Bonkowski** Thu Jan 2 2003 - Plant Information
- Arbutus unedo **John McMillan** Thu Jan 2 2003 - Plant Information
- Echinacea purpurea **Al D.** Sun Dec 29 2002 - Plant Information
- Nepeta tenuifolia **Eugene Sandbeck** Sun Dec 29 2002 - Plant Information
- Populus tremuloides Fri Dec 27 2002 - Plant Information
- Vegtable Oils Tue Dec 24 2002 - Comments on Web-Pages
- Solanum dulcamara **karthick vel.R** Sat Dec 21 2002 - Plant Information
- Asclepias incarnata **Louie** Thu Dec 19 2002 - Plant Information
- Arbutus unedo, The Strawberry Tree **Ana Margarida Martins** Tue Dec 10 2002 - Comments on Web-Pages
- Basella alba **Jon Booth** Sun Dec 8 2002 - Plant Information
- Nerium oleander **Vincent Martinez** Sat Dec 7 2002 - Plant Information
- Diplotaxis tenuifolia **Stephen Mifsud** Sat Dec 7 2002 - Plant Information
- Plumbago europaea Fri Dec 6 2002 - Plant Information
- Dioscorea batatas **Maarten Warndorff** Thu Dec 5 2002 - Plant Information
- Taxodium distichum **M. Kandl** Sat Nov 30 2002 - Plant Information
- Passiflora incarnata **Rita Pugh** Sat Nov 30 2002 - Plant Information
- Crataegus Species - The Hawthorns. **Mehmet Uludogan** Fri Nov 29 2002 - Comments on

Web-Pages

- Polymnia edulis **Robert P. Nederpelt** Fri Nov 29 2002 - Plant Information
- Cucumis melo momordica **Dr. Soham Pandya** Wed Nov 27 2002 - Plant Information
- Maclura pomifera **Donna Kolwaite** Wed Nov 20 2002 - Plant Information
- Quillaja saponaria **Maurice Jaccard** Mon Nov 18 2002 - Plant Information
- Fragaria vesca 'Semperflorens' **Steve Harris** Mon Nov 18 2002 - Plant Information
- Vicia tenuifolia **rose** Sat Nov 16 2002 - Plant Information
- Vicia americana Sat Nov 16 2002 - Plant Information
- Edible Trees and Shrubs Hardy in Britain: L-O **Jackie Esson** Thu Nov 7 2002 - Comments on Web-Pages
- Rosa multiflora **raz** Wed Nov 6 2002 - Plant Information
- Alternative fruits **Leda Meredith** Tue Nov 5 2002 - Comments on Web-Pages
- Populus tremuloides **Elaine** Tue Nov 5 2002 - Plant Information
- Arbutus unedo, The Strawberry Tree **Joel Kaplan** Tue Nov 5 2002 - Comments on Web-Pages
- Urtica urens **Martin** Mon Nov 4 2002 - Plant Information
- Nothofagus cunninghamii **tank williams** Mon Nov 4 2002 - Plant Information
- Drimys lanceolata **peter coxhead** Fri Nov 1 2002 - Plant Information
- Animal (ab)use in today's society Fri Nov 1 2002 - Comments on Web-Pages
- Myrtus Ugni Mon Oct 28 2002 - Comments on Web-Pages
- Rubus procerus **A. Wigmore** Sun Oct 27 2002 - Plant Information
- Brenner's Experience on Growing Yacons **Brenner** Wed Oct 23 2002 - Comments on Web-Pages
- Allium ursinum, Wild Garlic **Caitlin** Mon Oct 21 2002 - Comments on Web-Pages
- Magnolia officinalis **Robert Whitman** Sun Oct 20 2002 - Plant Information
- Ginkgo biloba, The Maidenhair Tree Fri Oct 18 2002 - Comments on Web-Pages
- Quercus prinoides **Nicholas Blonigen** Thu Oct 17 2002 - Plant Information
- Ziziphus jujuba **Andrew Ricketts** Tue Oct 15 2002 - Plant Information
- Asclepias rubra **Michelle** Tue Oct 15 2002 - Plant Information
- Fiber Plants **Gemma Alcantara** Sat Oct 12 2002 - Comments on Web-Pages
- Arbutus unedo, The Strawberry Tree **Sean** Mon Oct 7 2002 - Comments on Web-Pages
- Arbutus unedo, The Strawberry Tree Sat Oct 5 2002 - Comments on Web-Pages
- Plants For A Future :- The Book Sun Sept 15 2002 - Gripe
- Arbutus unedo, The Strawberry Tree **Keith Juden** Wed Sept 11 2002 - Comments on

Web-Pages
- Vegan-Organics - The Basic Principles. **Mr O'Loan** Tue Sept 10 2002 - Comments on Web-Pages
- Aspalathus linearis **arno bredenkamp** Thu Sept 5 2002 - Plant Information
- Vegtable Oils Mon Sept 2 2002 - Comments on Web-Pages
- Improvements you would like to see **Paul Crosby** Mon Sept 2 2002 - Bugs
- Checklist of plants suitable for ground cover **francine aiello** Sat Aug 31 2002 - Comments on Web-Pages
- Pittosporum crassifolium **David N** Tue Aug 27 2002 - Plant Information
- Animal (ab)use in today's society **Arezou** Thu Aug 22 2002 - Comments on Web-Pages
- Crocosmia aurea **Pam Peirce** Wed Aug 21 2002 - Plant Information
- Ground cover plants. **Peter von Rosen** Tue Aug 20 2002 - Comments on Web-Pages
- Animal (ab)use in today's society **Chupachup** Tue Aug 20 2002 - Comments on Web-Pages
- Sesbania macrocarpa **Laura Romine** Thu Aug 8 2002 - Plant Information
- Isopogon ceratophyllus **Andy Davidson** Sun Aug 4 2002 - Plant Information
- Plant portrait - Oxalis deppei Sat Aug 3 2002 - Comments on Web-Pages
- Cymopterus longipes **R Stange** Thu Aug 1 2002 - Plant Information
- Madia sativa **Cristian Youlton** Mon July 29 2002 - Plant Information
- Comments on the Database Mon July 22 2002 - Comments on the Database
- Rosa majalis Sun July 14 2002 - Plant Information
- Checklist of plants suitable for ground cover Tue July 9 2002 - Comments on Web-Pages
- Arbutus unedo, The Strawberry Tree **?** Mon June 24 2002 - Comments on Web-Pages
- Alternative Root Crops. **Ioane Malaki** Fri June 21 2002 - Comments on Web-Pages
- Winter Salads **elleanore janne** Thu June 20 2002 - Comments on Web-Pages
- Ground cover plants. **Bill** Mon June 17 2002 - Comments on Web-Pages
- Ground cover plants. Sun June 16 2002 - Comments on Web-Pages
- Ranunculus ficaria **Michal Tomczyk** Thu June 13 2002 - Plant Information
- Dipsacus sativus **Alan S. Raistrick** Thu June 13 2002 - Plant Information
- Sisyrinchium angustifolium **John Duncan** Tue June 11 2002 - Plant Information
- Arbutus unedo, The Strawberry Tree **Shari** Mon June 3 2002 - Comments on Web-Pages
- Opuntia compressa **Klaus Dichtel** Sun June 2 2002 - Plant Information
- Animal (ab)use in today's society Wed May 29 2002 - Comments on Web-Pages
- Allium ursinum, Wild Garlic Wed May 29 2002 - Comments on Web-Pages

- Arbutus unedo, The Strawberry Tree **Ian Bruce** Tue May 28 2002 - Comments on Web-Pages
- Ground cover plants. **E. A. Fronk** Sun May 19 2002 - Comments on Web-Pages
- Rosa Rugosa **c.a.roberts** Sat May 18 2002 - Comments on Web-Pages
- Why Plants? **L. Torkelson** Thu May 16 2002 - Comments on Web-Pages
- Alternative Root Crops. **Ivan Viehoff** Wed May 15 2002 - Comments on Web-Pages
- Queries about plants **sue turner** Mon May 13 2002 - Queries
- Raphanus raphanistrum **Ana Castro** Tue May 7 2002 - Plant Information
- Melia azederach **anita sands hernandez** Mon May 6 2002 - Plant Information
- Ground cover plants. Thu May 2 2002 - Comments on Web-Pages
- The Edible Lawn **Dave in San Jose, CA** Wed May 1 2002 - Comments on Web-Pages
- Podocarpus elatus **Whitney Baxter** Tue April 30 2002 - Plant Information
- Alternative Lighting: Plant Oils and Waxes **The Rt. Honourable Gbemi Saraki-Fowora** Tue April 30 2002 - Comments on Web-Pages
- Opuntia compressa **Klaus Dichtel** Sun April 28 2002 - Plant Information
- Ground cover plants. **Glenn** Fri April 26 2002 - Comments on Web-Pages
- Animal (ab)use in today's society Fri April 19 2002 - Comments on Web-Pages
- Edible Trees and Shrubs Hardy in Britain **Rinus van den Berg** Wed April 17 2002 - Comments on Web-Pages
- Animal (ab)use in today's society Sun April 14 2002 - Comments on Web-Pages
- Ground cover plants. **Bob** Thu April 11 2002 - Comments on Web-Pages
- Leucanthemum vulgare **Klaus Dichtel** Wed April 10 2002 - Plant Information
- Ligusticum wallichii **Arnold Kim** Wed April 10 2002 - Plant Information
- Allium ursinum, Wild Garlic **Konni Worsley** Mon April 8 2002 - Comments on Web-Pages
- The Edible Lawn **DJ** Sun April 7 2002 - Comments on Web-Pages
- Taraxacum officinale **Rich** Tue April 2 2002 - Plant Information
- Arbutus unedo, The Strawberry Tree **Júlio Reis** Tue April 2 2002 - Comments on Web-Pages
- The Edible Lawn **Michelle in Tampa, FL** Sun March 31 2002 - Comments on Web-Pages
- Salvia hispanica **Ricardo Ayerza (h)** Sun March 24 2002 - Plant Information
- Brassica oleracea botrytis **saracoglu ibrahim adnan** Sat March 23 2002 - Plant Information
- Ceratonia siliqua **saracoglu ibrahim adnan** Sat March 23 2002 - Plant Information
- Brassica oleracea botrytis **saracoglu ibrahim adnan** Sat March 23 2002 - Plant

Information

- Leontice leontopetalum **saracoglu ibrahim adnan** Sat March 23 2002 - Plant Information
- Ground cover plants. **katalin** Fri March 22 2002 - Comments on Web-Pages
- Acca sellowiana **Prince Amdo** Wed March 20 2002 - Plant Information
- Polygonum japonicum **Trevor Renals** Mon March 18 2002 - Plant Information
- Viburnum trilobum **Bruce D. Parfitt** Sun March 17 2002 - Plant Information
- Ground cover plants. Thu March 14 2002 - Comments on Web-Pages
- Casuarina cristata Mon March 11 2002 - Plant Information
- Sanguisorba officinalis **Lukasz Luczaj** Sun March 10 2002 - Plant Information
- Prunus laurocerasus **Ken Fern** Sat March 9 2002 - Plant Information
- Prunus laurocerasus **Una McDermott** Sat March 9 2002 - Plant Information
- Ground cover plants. **johnny loizides** Thu March 7 2002 - Comments on Web-Pages
- Ginkgo biloba, The Maidenhair Tree **Greg Aitken** Sun March 3 2002 - Comments on Web-Pages
- Rosa Rugosa **c.roberts** Thu Feb 28 2002 - Comments on Web-Pages
- Pinus sylvestris **Lukasz Luczaj** Thu Feb 28 2002 - Plant Information
- Ground cover plants. **Mary** Sun Feb 24 2002 - Comments on Web-Pages
- Lonicera caerulea **Lukasz Luczaj** Mon Feb 18 2002 - Plant Information
- Alternative fruits **Ivan Viehoff** Fri Feb 15 2002 - Comments on Web-Pages
- Mandragora officinarum **A. Minahan** Wed Feb 13 2002 - Plant Information
- Alternative Root Crops. **Sue** Mon Feb 11 2002 - Comments on Web-Pages
- The Milkweeds **Kate Lamb** Sun Feb 10 2002 - Comments on Web-Pages
- Mastic Sun Feb 10 2002 - Comments on the Database
- Edible Shrubs **Michael Richardson** Thu Feb 7 2002 - Comments on Web-Pages
- Fiber Plants **Richard Fiorino** Wed Feb 6 2002 - Comments on Web-Pages
- Animal (ab)use in today's society Mon Feb 4 2002 - Comments on Web-Pages
- Oxalis tuberosa **A.Wigmore** Sun Jan 27 2002 - Plant Information
- Galium verum **Lukasz Luczaj** Wed Jan 23 2002 - Plant Information
- Myrtus Ugni **A. Wigmore** Wed Jan 23 2002 - Comments on Web-Pages
- Ground cover plants. **Tom Hennen** Tue Jan 22 2002 - Comments on Web-Pages
- Ground cover plants. Sat Jan 19 2002 - Comments on Web-Pages
- Need Assistance **Ute Beling** Fri Jan 18 2002 - Tree Tomato
- Why Plants? **Jason** Fri Jan 18 2002 - Comments on Web-Pages
- The Edible Lawn **patrica** Fri Jan 11 2002 - Comments on Web-Pages

- Robinia pseudoacacia **Klaus Dichtel** Sat Jan 5 2002 - Plant Information
- Fiber Plants **Paul** Sat Jan 5 2002 - Comments on Web-Pages
- Ground cover plants. Sat Jan 5 2002 - Comments on Web-Pages
- Sedum spurium **Klaus Dichtel** Fri Jan 4 2002 - Plant Information
- Alternative Lighting: Plant Oils and Waxes **Sanjay** Tue Jan 1 2002 - Comments on Web-Pages
- Allium ursinum, Wild Garlic Tue Dec 25 2001 - Comments on Web-Pages
- Robinia pseudoacacia **Klaus Dichtel** Tue Dec 25 2001 - Plant Information
- Ulex europaeus **Klaus Dichtel** Tue Dec 25 2001 - Plant Information
- Olearia avicenniifolia **david nicholls** Sat Dec 22 2001 - Plant Information
- Crepis aurea **Ralf Gering** Tue Dec 18 2001 - Plant Information
- Taraxacum officinale **Ralf** Sun Dec 16 2001 - Plant Information
- Puya chilensis **Ralf** Sun Dec 16 2001 - Plant Information
- Hippophae rhamnoides **Ralf** Sun Dec 16 2001 - Plant Information
- Planchonella australis **Tara Hoy** Tue Dec 11 2001 - Plant Information
- Checklist of plants suitable for ground cover: T-X **stacy chandler** Tue Dec 4 2001 - Comments on Web-Pages
- Quercus imbricaria Thu Nov 29 2001 - Plant Information
- Symphytum officinale **Jakob Davies S.** Thu Nov 29 2001 - Plant Information
- Actaea rubra **Alan Bennett** Tue Nov 27 2001 - Plant Information
- Spartium junceum Mon Nov 26 2001 - Plant Information
- The Milkweeds **Rene Anderson** Fri Nov 23 2001 - Comments on Web-Pages
- Conservation Gardening **Deb miller** Fri Nov 23 2001 - Comments on Web-Pages
- Alternative Food Crops **Amy Jensen** Tue Nov 20 2001 - Comments on Web-Pages
- Alternative Root Crops. Tue Nov 20 2001 - Comments on Web-Pages
- Ribes setosum Mon Nov 19 2001 - Plant Information
- Acer platanoides Mon Nov 19 2001 - Plant Information
- The Edible Pond and Bog Garden **aly** Mon Nov 19 2001 - Comments on Web-Pages
- Animal (ab)use in today's society Tue Nov 13 2001 - Comments on Web-Pages
- Crataegus Species - The Hawthorns. **Carlos A. Nuñez** Thu Nov 8 2001 - Comments on Web-Pages
- Elaeagnus x ebbingei - A Plant for all Reasons. **Mike Hardman** Fri Nov 2 2001 - Comments on Web-Pages
- Geitonoplesium cymosum Mon Oct 29 2001 - Plant Information

- Quercus robur **Lukasz Luczaj** Tue Oct 23 2001 - Plant Information
- Gynostemma pentaphyllum **Rich** Tue Oct 23 2001 - Plant Information
- Plant portrait - Oxalis deppei **bundls** Sun Oct 21 2001 - Comments on Web-Pages
- Mesembryanthemum crystallinum **Juana del Castillo** Sun Oct 21 2001 - Plant Information
- Ginkgo biloba, The Maidenhair Tree **Jo** Sat Oct 20 2001 - Comments on Web-Pages
- Coprosma propinqua **david** Sat Oct 20 2001 - Plant Information
- Elaeagnus - Autumn Olive Fri Oct 19 2001 - Comments on Web-Pages
- Elaeagnus - Autumn Olive **Larry** Fri Oct 19 2001 - Comments on Web-Pages
- Edible Trees and Shrubs Hardy in Britain: L-O **kp** Mon Oct 15 2001 - Comments on Web-Pages
- Ground cover plants. Mon Oct 15 2001 - Gripes
- No Pictures **Melissa Parent** Sun Oct 14 2001 - Gripes
- Crataegus Species - The Hawthorns. **vlad smith** Sat Oct 13 2001 - Comments on Web-Pages
- Passiflora species **Rich** Wed Oct 10 2001 - Plant Information
- Passiflora species **Rich** Wed Oct 10 2001 - Plant Information
- The Milkweeds Tue Oct 9 2001 - Gush
- Ground cover plants. **Phill** Wed Oct 3 2001 - Comments on Web-Pages
- The Milkweeds Sat Sept 29 2001 - Comments on Web-Pages
- Vitis labrusca **Erik Johnson** Sat Sept 29 2001 - Plant Information
- Ground cover plants. **Erik Johnson** Sat Sept 29 2001 - Comments on Web-Pages
- wanted info regarding strawberry farms or nuseries in Australia Wed Sept 26 2001 - Chat
- Plant Passporting **Rich** Wed Sept 26 2001 - Comments on the Database
- The Woodland Way, A Permaculture Approach To Woodland Management **Rich** Wed Sept 26 2001 - Comments on Web-Pages
- Comments on the Database **Heeran Buhecha** Sun Sept 23 2001 - Comments on the Database
- Rosa majalis **C. A. Powers** Fri Sept 21 2001 - Plant Information
- stevia,apple mint, St Johns Wort Thu Sept 20 2001 - Discuss
- Ground cover plants. **Mary Colgate** Thu Sept 20 2001 - Comments on Web-Pages
- Animal (ab)use in today's society Wed Sept 19 2001 - Comments on Web-Pages
- Ground cover plants. Wed Sept 19 2001 - Comments on Web-Pages
- Cannabis sativa Mon Sept 10 2001 - Plant Information
- Ground cover plants. **Lynn Crete (Hull, Quebec...near Ottawa)** Mon Sept 10 2001 - Comments on Web-Pages

- Eryngium foetidum Culantro/Cilantro Confusion **Pia Pacheco** Tue Sept 4 2001 - Unlisted Plants
- New Update Sept 2001 **Rich** Sun Sept 2 2001 - Latest News From PFAF
- Anybody got any photos??? **Paul Fenton** Sun Sept 2 2001 - Discuss
- Ground cover plants. Wed Aug 29 2001 - Comments on Web-Pages
- Alternative Root Crops. **Steve Bell** Tue Aug 28 2001 - Comments on Web-Pages
- Arbutus unedo, The Strawberry Tree **Billy** Tue Aug 28 2001 - Comments on Web-Pages
- Cryptotaenia japonica **Shani** Sun Aug 26 2001 - Plant Information
- Arabis lyrata **Kathryn Cole** Fri Aug 24 2001 - Plant Information
- Myrtus Ugni **Bernhard Jenni** Fri Aug 24 2001 - Comments on Web-Pages
- Leycesteria formosa Tue Aug 21 2001 - Plant Information
- The Edible Pond and Bog Garden **Ilyan Thomas** Tue Aug 21 2001 - Comments on Web-Pages
- Edible Wild Plants For Tortoises **Linda King** Sat Aug 18 2001 - Links
- Ilex aquifolium **David Nicholls** Sat Aug 18 2001 - Plant Information
- Thuja orientalis **David Nicholls** Sat Aug 18 2001 - Plant Information
- Vegtable Oils **love** Fri Aug 17 2001 - Comments on Web-Pages
- Crataegus Species - The Hawthorns. Fri Aug 17 2001 - Comments on Web-Pages
- Claytonia perfoliata **Klaus** Thu Aug 16 2001 - Plant Information
- Weeds as a future source for human consumption **Klaus** Thu Aug 16 2001 - Plant Information
- The Edible Pond and Bog Garden **Roy Barton** Mon Aug 13 2001 - Comments on Web-Pages
- Why Plants? **Nor Farzana Bte Khamis** Sun Aug 12 2001 - Comments on Web-Pages
- Hippophae rhamnoides Tue Aug 7 2001 - Plant Information
- justification for sustainable garden **Sarah Jumel** Fri Aug 3 2001 - Queries
- Catalpa bignonioides **D.ALLEN** Wed Aug 1 2001 - Plant Information
- Ground cover plants. **Christopher S** Sun July 29 2001 - Comments on Web-Pages
- Arbutus unedo, The Strawberry Tree Sat July 28 2001 - Comments on Web-Pages
- The Edible Pond and Bog Garden **Shankari** Mon July 23 2001 - Comments on Web-Pages
- American groundnuts (apios americana) **ivy** Mon July 23 2001 - Comments on Web-Pages
- Alternative Root Crops. Mon July 23 2001 - Comments on Web-Pages
- PFAF: Drimys Lanceolata Sun July 22 2001 - Comments on Web-Pages
- Hens&Chickens **Linda** Wed July 18 2001 - Comments on Web-Pages

- Why Plants? **Heather Green** Sun July 15 2001 - Comments on Web-Pages
- Comments on the Database **Vikram Naharwar** Fri July 13 2001 - General
- Hemerocallis Species - The Day Lilies. Wed July 11 2001 - Comments on Web-Pages
- Rosa Rugosa Fri July 6 2001 - Comments on Web-Pages
- Locating Rosa Rugosas **Leah** Fri July 6 2001 - Comments on Web-Pages
- Eryngium foetidum Culantro/Cilantro Confusion **rajiv** Tue July 3 2001 - Unlisted Plants
- Internet Directory for Botany **Rich** Thu June 28 2001 - Comments on the Database
- Alternative fruits **Rich** Thu June 28 2001 - Comments on Web-Pages
- Weeds as a future source for human consumption **Martha Díaz B** Thu June 28 2001 - Plant Information
- Mother of thyme **John nerey** Thu June 28 2001 - Comments on Web-Pages
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- Alternative fruits **John** Mon June 25 2001 - Comments on Web-Pages
- Cannabis sativa **Bruno D´almeida** Sat June 23 2001 - Plant Information
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- Ground cover plants. **Karina Ballester** Fri June 22 2001 - Comments on Web-Pages
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- Plants **Roderick Rugg** Thu June 14 2001 - Guestbook
- Texas Beach area **Buck** Wed June 13 2001 - Comments on Web-Pages
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- Lepidium meyenii **Rich** Fri June 8 2001 - Plant Information
- Elaeagnus x ebbingei **Klaus** Wed June 6 2001 - Plant Information
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- Achillea erba-rotta moschata **Ralf Gering** Thu May 24 2001 - Plant Information
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- Amelanchier canadensis Fri May 11 2001 - Plant Information
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- Checklist of plants suitable for ground cover **April Wynkoop** Thu April 26 2001 - Gush
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- Acorus calamus **david Nicholls** Mon March 5 2001 - Plant Information
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- Coprosma propinqua **david n** Sun Feb 25 2001 - Plant Information
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- Laurelia novae-zealandiae **david nicholls** Sat Sept 30 2000 - Plant Information
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- Leycesteria formosa **Ellen Rumwell** Thu July 13 2000 - Plant Information
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- Drosera rotundifolia **Alexandra Steiner** Sat June 24 2000 - Plant Information
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- Queries about plants **Tess** Tue June 13 2000 - Queries
- "ALL" Plants considered Illegal if not on White List. **justthis** Tue June 13 2000 - Discuss
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- Parthenium argentatum **Ava Devenport** Mon June 12 2000 - Plant Information
- Weinmannia racemosa **David Nicholls** Fri June 9 2000 - Plant Information
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- Educational Material for Schools **Edwin Bland** Tue June 6 2000 - Queries
- The Edible Pond and Bog Garden **Ruth Verville** Tue June 6 2000 - Comments on Web-Pages
- perennial farming implications **Josh Jones** Tue June 6 2000 - Discuss
- Cyathodes juniperina **david nicholls** Sun May 28 2000 - Plant Information
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- Coix lacryma-jobi Thu April 20 2000 - Plant Information
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- Edible Trees and Shrubs Hardy in Britain **Jim** Sat April 15 2000 - Comments on Web-Pages
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- Cornus florida **Austin** Sat April 8 2000 - Plant Information
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- PFAF: Fruit - Food of the Gods **Gail Heeb** Fri March 31 2000 - Comments on Web-Pages
- PFAF. The Garden of Love - A visit to Robert Hart's Forest Garden **Mark C. Iglesias** Tue March 28 2000 - Comments on Web-Pages
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- Morinda citrifolia **Rich** Sun March 12 2000 - Unlisted Plants
- UK Gov site on wildlife **Rich** Sun March 12 2000 - Links
- PFAF - Blagdon Plant Research And Demonstration Gardens Thu March 9 2000 - Gripes
- Cortaderia selloana **david nicholls** Mon March 6 2000 - Plant Information
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- Cotoneaster **david** Sat Feb 26 2000 - Plant Information
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- Vegtable Oils **Carolyn Switzer** Wed Feb 23 2000 - Comments on Web-Pages
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- Tagetes Minuta **Juanita Gonzales-Metcalf** Wed Jan 26 2000 - queries
- Alternative Root Crops. **Lori** Mon Jan 24 2000 - Comments on Web-Pages
- making flour from acorns **John Rutherford** Mon Jan 24 2000 - Plant Information
- Rubus phoenicolasius **Michael Ecker** Fri Jan 21 2000 - Plant Information
- Bursaria spinosa **rich** Tue Jan 4 2000 - Plant Information
- Coprosma repens - why is it called mirror plant? **Rich** Thu Dec 23 1999 - Queries
- Add your links here **Rich** Tue Nov 30 1999 - Links
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- Lycopodium serratum **Rick Harig** Sat Nov 13 1999 - Plant Information

- Improvements you would like to see **Rich** Sat Nov 13 1999 - General
- Aesculus flava **Mike Creel** Sat Nov 13 1999 - Plant Information
- Orobanche pinorum **Mark Ellis** Sat Nov 13 1999 - Plant Information
- Orobanche pinorum **Mark Ellis** Sat Nov 13 1999 - Plant Information
- Clintonia borealis **Kelley Rambo** Sat Nov 13 1999 - Plant Information
- Bursaria spinosa **David Felglow** Sat Nov 13 1999 - Plant Information
- Allium vineale **Michael J. Orlove D.I.C., D. Phil** Sat Nov 13 1999 - Plant Information
- Chusquea culeou **Tom Bennett** Sat Nov 13 1999 - Plant Information
- Stauntonia hexaphylla **Peter Barnes** Sat Nov 13 1999 - Plant Information
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- Tamarix aphylla **Elizabeth Powell** Sat Nov 13 1999 - Plant Information
- Useful Resources and Links **Rich** Sat Nov 13 1999 - General
- Cryptotaenia japonica **Chris Brown** Sat Nov 13 1999 - Plant Information

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Got a general question? Try the PFAF mailing list which has more chance of getting a quick response.

Cleome gynandra

Flora Sicolani Todlana (floqhwa@yahoo.co.uk) Sat May 15 14:10:56 2004

Cleome gynandra is an adible plant found in Zimbabwe mostly, during rain season. This wild plant is eaten fresh as relish and may be cooked and dried for cunsumption during dry seasons. It is called "ULUDE" in Zulu or Ndebele. It tastes very bitter originally, but boiling it with vegetable oil, tomatoes and a pinch of salt makes is a good relish. Author's name: Flo Todlana. flotodla@hotmail.com

Cross references: *Plants:* *Cleome gynandra*.

Add a Comment

You may find it easier to add a **Follow Up** to one of the comments above. That way all the cross-referencing information will be included.

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Plants For A Future: Database Search Results

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Cleome gynandra

Common name:	African spider flower	Family:	Capparidaceae
Author:	L.	Botanical references:	200
Synonyms:	Gynandropsis pentaphylla (DC.), Gynandropsis gynandra ((L.)Briq.)		
Known Hazards:	None known		
Range:	Tropical and Sub-Tropical zones.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. pentaphylla[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Acaya [E], Bhoebhoewan [E], Bobowan [E], Caya [E], Feuilles Caya [E], Mahmah [E], Maman [E], Maman Hantu [E], Mamang [E], Masambey [E], Pai Hua Ts'Ai [E], Pyasya [E], Spiderwisp [B,P], Yang Chio Ts'Ai [E],
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; India; India(Gujarat); India(Santal); Java; Malaya; Sudan

Physical Characteristics

Annual growing to 1.3m. It is frost tender. It is in leaf from May to October, in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Febrifuge; Rubefacient; Stings.

A decoction of the root is used to treat fevers[243].

The leaves are used as a vesicant and rubefacient in the treatment of rheumatism[243]. The juice of the leaves is a remedy for pain in the ear[243].

The seeds are anthelmintic and rubefacient[243].

The whole plant is used in the treatment of scorpion stings and snake bites[243].

Other Uses

None known

Cultivation details

Prefers a light fertile soil in a warm dry sunny position with plenty of room to spread[1, 200].

A frost tender plant, it can be grown as a summer annual in Britain[200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Gynandropsis gynandra* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Gynandropsis pentaphylla* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on

Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

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Readers Comments

Cleome gynandra

Flora Sicolani Todlana (floqhwa@yahoo.co.uk) Sat May 15 14:10:56 2004

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Enter your details here:

Your Name:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cleome+gynandra`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cleome+gynandra`

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Subject:

PFAF Species Database Bibliography

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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biblio_p.html

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1) You do not sell it. You are free to use the information in further research, to apply it to the practical use of growing and utilizing the plants, or to use it in any other way that you see fit, so long as the information contained in the database is not sold by you. If you use the information to enhance your products, say by adding an information sheets to plants you sell or by using the data as part of a course you might like to consider making a donation to the charity.

2) When passing on any information contained in this database, by whatever means, you acknowledge the contribution of 'Plants for a Future' by including this copyright notice and our contact details as shown below. Free redistribution is limited to 10% of the content of the database. For larger scale redistribution, such reproducing the data in a website please get in contact. We would be greatful if you inform us on how you redistribute the information, i.e. if you make a copy of one of our articles on your webpages.

3) We ask that any information you hold about economic, or useful plants be shared with us so that we may improve the database.

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Charity No. 1057719, Company No. 3204567,
Reg. Office 131 Spencer Place, Leeds, LS7 4DU, England.
(Soon to be 1 Lerryn View, Lerryn, Lostwithiel, Cornwall, PL22 0QJ).

Directors: Dr R. J. Morris, J. Darby, P. B. Gauntlet, S. H. Money

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Back to Plants For A Future home page.

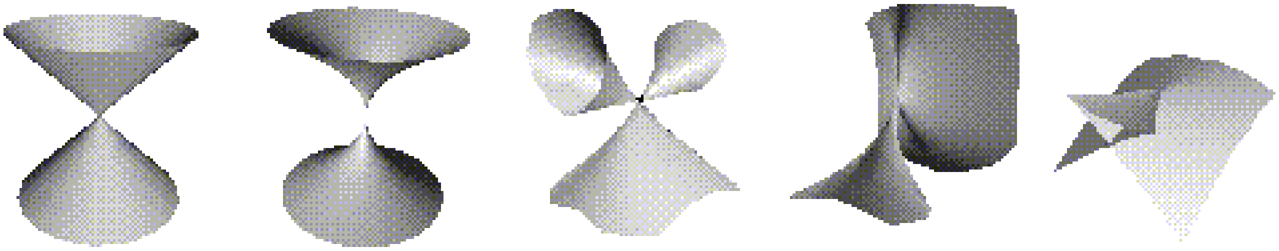
HTML version prepared by Rich Morris Home Page - Contact Info
Last modified: June 14 1999

Dr Dick's Home Page

Me as seen through a laser scanner.

Heres an assortment of things I'm interested in.

A Parade of Surfaces

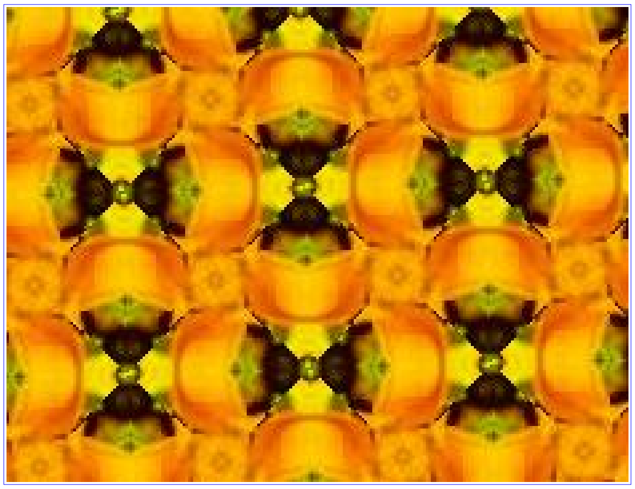


My main mathematical interest is in the field of singularity theory (this is related to Catastrophy Theory which caused a bit of a stir in the seventies). A Parade of Surfaces, is an introduction to singularity theory which has lots of picture of some of the objects you frequently encounter in the theory. There are also some 3D VRML objects which you can examine.

Algebraic Surfaces on the Web

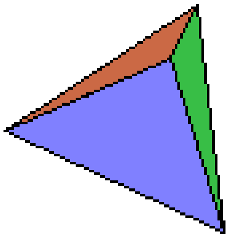
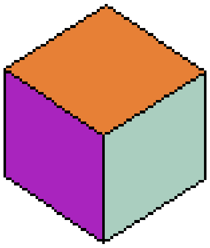
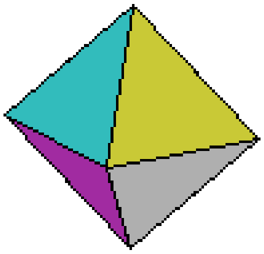
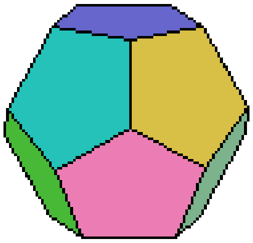
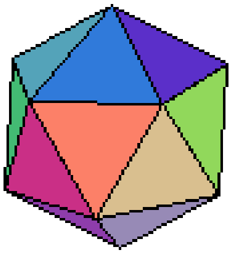
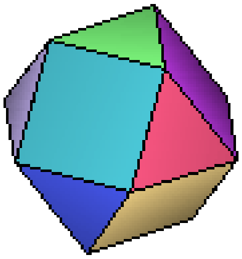
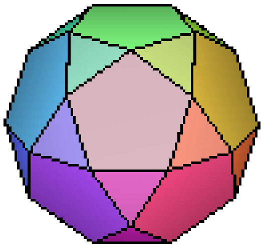
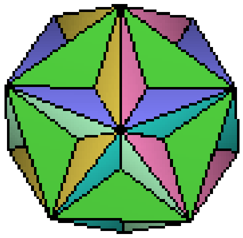
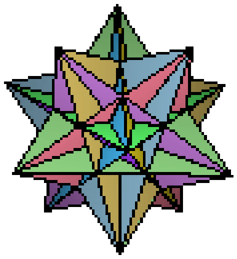
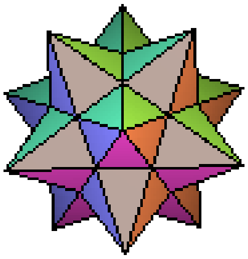
You can view and construct your own 3D models of all sorts of mathematical surfaces, and any more you know the equations for on the Algebraic Surfaces web page. This page uses Java so it should work in any browser.

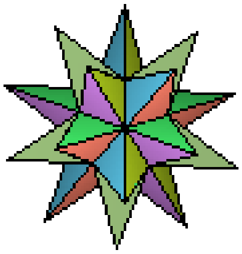
Wallpaper Patterns



Wallpaper patterns are half mathematics half wild pictures. Have some fun with this java applet to make your own.

Uniform Polyhedra



A whole host of 3D star shaped objects for your edification.

The Liverpool Surface Modelling Package

A lot of my time has gone into developing a set of programs for visulising mathematical objects. This work has culminated in the Liverpool Surface Modelling Package an interactive set of modules for generating the various types of curves and surfaces which can occure in singularity theory, (and a lot of other branches of mathematics).

Sorities Paradox

Here is a page with an interactive psycological applet to examine Hysteresis and the sorities paradox

Differentiable Java Equation Parser

I'm working on an differentiable equation parser in java.

- **Home Page** includes JavaDoc and demo applet.
- **Tree representations of equations**.
- **Jep** the package the code is based on.

The full package will include

- Symbolic differentation `diff(x^2,x)`.
- Vectors, matricies and tensors `[[1,2],[3,4]]`.
- Natural mathematical systax e.g. `[1,2,3] ^ [x,x^2,x^3]` for vector product.
- Asignment of variables. `y=x^2; z=diff(y,x);`

Number of Days Between Full Moons

The time between full moons is not fixed it can vary between 29.25 and 29.8 days, the pattern behind the variation has some interesting features. Read On

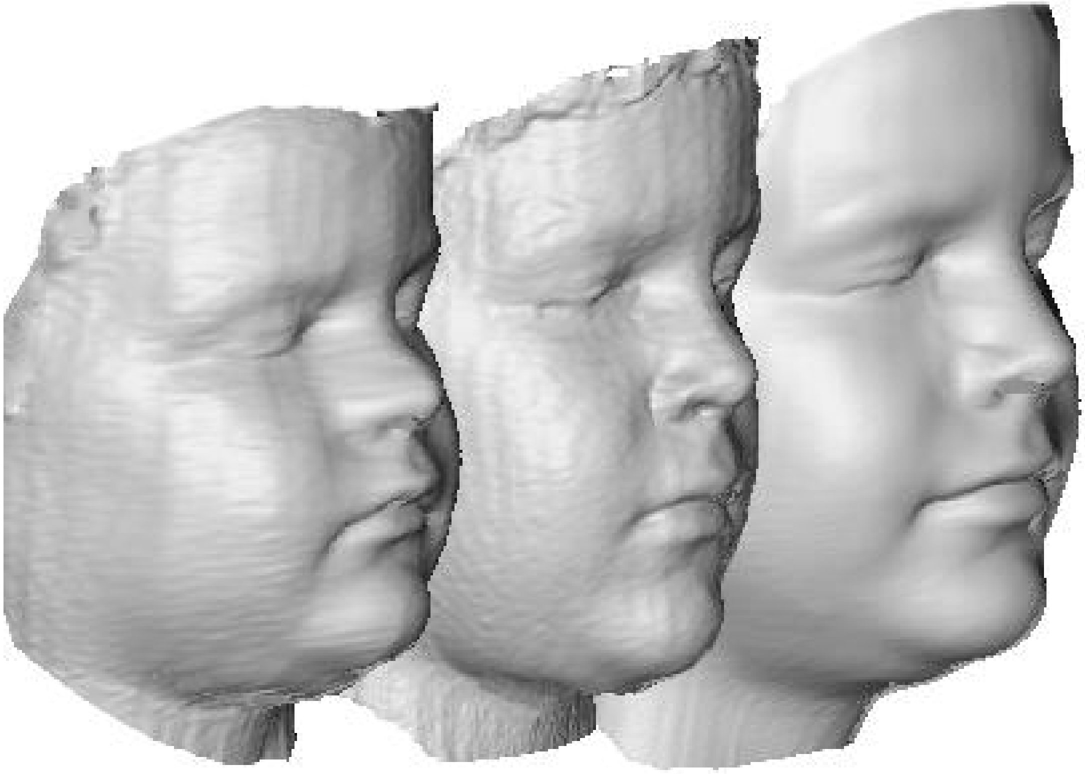
Papers

I've written a number of scientific papers which are in the process of being made avaliable on the web. The Singularity theory/mathematical visulisation ones are Here

- A new method for drawing algebraic surfaces
- The sub-parabolic lines of a surface
- The use of computer graphics for solving problems in singularity theory

And my latest

- Statistical models of object interaction is here.



Growing People

Current project is trying to analyse how people's faces grow. Heres a picture of the same child at different ages. While it may sound fun the project involves lots of statistics.

I was a spy!

Time for grizly confession time, I was working on trying to interprate peoples movments, in particular whether their car thieves or not. No it does not rest easy on my soul, but its where the money and posible future academic survival lies. Think of this as a cautionary tale, if you want to go into adademia or anything try hard really early on to find areas where your conscience can rest easy. You allowed to play about during your PhD but later you may find the only money come with comprimise and the real world hits with a vengance. Well if you want to find out what I really do have a look at An Integrated Traffic and Pedestrian Vision System An according to BBC breakfast news the project is a *civil liberties nightmare*.

And to counter ballance heres Liberties campaign on CCTV.

Privact Internationals page on Video Surveillance

New scientist editorial Do we need a code of pactice?

> Many of the minimum principles of a code of good practice have already been laid out by Britain's Local Government Information Unit. They recognise the individual's

> need to be informed if there is a chance that they will end up on videotape, that data can only be used for a prestated purpose and that the security of the data and the standard of staff who view video data be guaranteed.

Would you want this stuff monotoring how hard you work?

CV

OK so heres the gory details of what I do when I'm not saving the world. My CV

Plants For A Future

Plants For A Future is a group based in Cornwall who are researching into unsual plants which are either edible or are useful in some way or another. The link contains lots of leaflets about incredible plants you've never heard about. Theres also some links to other online and offline organic and permaculture resources.

Maths Links

An asortment of links the other mathematical places.

Liverpool University Dept Mathematical Sciences My old departments home page.

The Geometry Center Welcome Page A cool site in the states, with lots of fun mathematical web pages.

The European Mathematical Society Lots of good links to most of europe's maths departments here.

Symbolic Sculptures Some nice 3D sculptures of mathematical objects. Projective Geometry and Rudolf Steiner a strange page showing how some fun mathematical enterties can expand our view of nature. Some nice animations and links with Bio-Dynamics.

Young Mathematicians Network Want to do a PhD and be a maths prof (who doesn't ;-)) Read this first.

The Pi Page All you ever wanted to about Pi. One of the few pages I've seen which actually has some content.

Mathwise A hyper-text learning system for mathematics. I used to be involved in this and co-wrote the sequences and series module.

Pugwash

Professor Joseph Rotblat and the Pugwash Conferences on Science and World Affairs won the 1995 Nobel Peace Prize for nearly 50 years of commitment to peace and individual responsibility. You too can sign a pledge.

"I promise to work for a better world where science and technology are used in socially responsible ways. I will not use my education for any purpose intended to harm human beings or the environment. Throughout my career, I will consider the ethical implications of my work before I take action. While the demands placed upon me may be great, I sign this declaration because I recognize that individual responsibility is the first step on the path to peace."

See pugwash for more details. A good site of general discusions of Science and Ethics is Ethics in Science.

Also on the subject of Ethics for academics see Ethics for USS all about the pension scheme for UK academics and how it investes lots of money Arms, Tobacco, & oil companies.

HTML Resources

I've started teaching a City and Guilds course in Web-Site design and Java. Heres some useful resources for HTML.

Leeds

I live in Leeds, heres a few links to the more intresting groups.

Leeds Cycle Action Group My local campaign group, very good on hasseling councils. Has details of the group, social rides and details of the rather cool cycling map of Leeds.

Cornerstone Housing Co-op Leeds eco-action

Beanworld

Who, what, why, how? The Beanworld

Various Shades of Green

Heres a whole bunch of references to environmental information, taoism, and stuff like that. This stuff is well out of date have a look at Plants For A Future Links Page for a better collection.

Freedom. An environmental slide show.

McSpotlight the page they are all talking about, all the infomation M dont want you to hear, and info on the McLibel trial.

Home Page for the ICE House (Information Center for the Environment), at UC, Davis

Oxfam(fights hunger) Home Page

Greenpeace International

OneWorld Online A large environmental news site. Definatly worth a look.

Swamp Circus A groovy circus commited to environmental arts.

Urban75 An eco-anachist fanzine. A bit on the spiky side for me but lots of current news, articles, spiffing layout, and a good list of resources.

Vegan Village this looks a promising directory of UK bassed vegan stuff. Hopefully it will get more comprehensive

Change Works Lots of info on Nottingham bassed Green eco stuff.

Nick Fiddels's Home PageYou'll find lots of links to UK green activism and environmental stuff here. Including Current UK boycotts which was originally written by me.

The The Economic Democracy Boycott Resource Site has lots of other boycott info.

Enough, Anti-Consumerism Campaign a personal favorite of mine as I had a little to do with the creation of the campaign.

Paul's Environment Page Lots of eco links here.

Green Action Home Page

Human Rights Lots of info and reports about human rights stuff from around the world.

Vegan Info Lots of leaflets about all your vegan questions.

Cycling Organisations

Tribal Links Linke to various international green people.

Yellow Mountain Institute for Sustainable Living Featuring Rammed-Earth Tyre Homes: tyres filled with earth as a crazy new building material.

Youth in Action "Youth in Action Network is an interactive online service for youth, educators, and organizations who want to learn about, and participate in, social action."

Freewheelers a lift share agency operating in the UK, save the cost of getting around, help cut car pollution.

Grassroots Environmental Index Yet more info on eco-activism (everybodys doing it), get the lasest road allert stuff here, include such gems as List of Alternative Press. In fact check this page *first* as its up to date and seems to be well mainained.

Green Parties of North America Lots of links to the more political side, not just in the USA.

J's Joint Jamiroquai's home on the WorldWide Web, is a great place to visit, fun to look around plus he's got lots of info on road protests and counter culture stuff.

Now is the Time A german project trying to get things going on an eco-spritual front. In english and german. Some intresting links.

Acoustic Ecology Some wild and wacky stuff about sound.

VegSource A Resource center for all things veggie.

Taoism

Heres a couple of translations of the Tao Te Ching (The book of the Way and Virtue), one of the key texts from the Taoist philosphy. These should really get your mind going, or rather more in sync with the world. Heck I don't know how to discribe it, have a look for your self.

Tao Te Ching Introduction a faily standard translation.

Tao Te Ching a much more loose translation, which catches a lot of the flavor.

Avalon's Taoism Page Some other taoist stuff.

Chinese Physical Culture

I pratice a system movement and exercise which has been developed from a thousand year old Chinese system. This system is called Chinese Physical Culture and consists of four main parts:

- **Cultural Arts** - Slow, graceful movements helping improve balance, flexibility and eliminating stress. These include a form, a dance, Kai Men (Chinese Yoga), Dao yin (breathing exercises) and many partner based exercises.
- **Feng Shou** - Dynamic, dance like movements performed in harmony with a partner promoting fluidity of movement, sensitivity and creativity.
- **Chi Shu** - A safe and supportive environment is provided to nurture the student through basic to more skillful gymnastic exercises giving overall conditioning and enhancing awareness and self confidence.
- **Health Arts** - Specialised breathing techniques, massage and diet are used to enhance vitality and encourage a well balanced, healthy life style.

There are classes in Leeds, York, Sheffield, London, and several other places both in the UK and world-wide.

Tai Chi

The Lee Family web site has details of other groups who pratice the Lee System which is closely linked to CPC.

Other groups doing the Lee family System include the Taoist Arts Association I've a fealing there might be some fun politics between the two groups.

The style is also practiced in Hull.

East-West Taoist Association Classes in Scarborough, Middlesbrough, Derby, Hull.

Wu-Kung Federation Classes run by Chee Soo's daughter. Has some nice details on Chee Soo's life.

The Tai Chi Union for Great Britain Find a class near you here. My first style was the Hau of Wu style. You can find details of their classes in Liverpool here.

Buddies

Heres a few wired friends who've got pages up. Long live the Home Page.

Hannah Dee well there was some some philosphical musings on Connectionism and Teleological Functionalism but now there gone. Still some fun stuff there.

The Magic Cat put together by Andy and the Dr Brown posse and featureing the Cosmic Voyage.

Jon's Page featuring his magnificient representation of his cat, info on Mens Groups, and mountain biking round Hatfield.

In my youth I was a bit of a train fanatic, have a look at Brambleton Model Railway Club

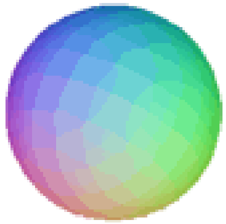
Readers Comments on this page:

Add A Comment

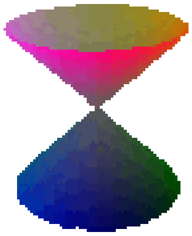
All Comments on web pages and plants.

Last modified: March 2000.

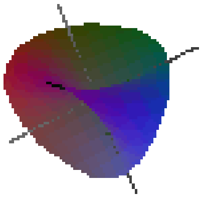
Menu



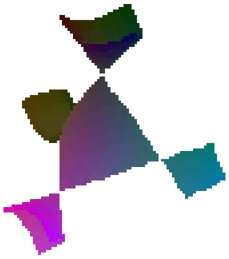
Simple Surfaces



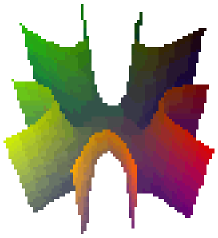
Singularities



Classic Surfaces



Many Nodes



Oddments

Unfoldings

A Program for calculating singular algebraic curves and surfaces
R Morris
1990-2003
Pro Version
Help Links,
Download,
Copyright

Help and info

A program for calculating singular algebraic curves and surfaces. R Morris 1990-2003

See below for: Links Download Copyright JavaView Help Release Notes.

SingSurf can draw:

Algebraic Surfaces (asurf)

> Surfaces defined as the zero set of a polynomial in x,y,z e.g. a sphere `x^2+y^2+z^2=1;`. Detailed help Notes on examples

Other types of curves and surfaces can also be drawn using the Pro version:

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Algebraic Curves (acurve)

Curves defined by a polynomial in x,y e.g. a circle `x^2+y^2=1;`. Detailed help Notes on examples

Algebraic Curves in 3D(acurve3)

Curves defined by two polynomials in x,y,z e.g. a conic section `x^2-y^2-z^2=0; x+y+z=0.5;`. Detailed help Notes on examples

Parameterised Surfaces(psurf)

Surfaces defined by a three parameterised equations in two variables. e.g. a sphere `X=cos(x) cos(y); Y = cos(x) sin(y); Z = sin(x);`. Detailed help Notes on examples

Parameterised Curves(pcurve)

Curves defined by a three parameterised equations in one variables. e.g. a helix `X=cos(x); Y = sin(x); Z = x;`. Detailed help Notes on examples

Implicit Surfaces(impsurf)

Surfaces defined as the zero set of a non-polynomial function in x,y,z. e.g. a sum of sins `sin(x)+sin(y)+sin(z)=0;`. Detailed help Notes on examples

Intersections of surfaces (intersect)

Finds the intersect of a surface with an implicit equation x,y,z. For example finding the intersection of a surface with the sphere `x^2+y^2+z^2=1` or the the portion contain inside it. Help awaiting. For now see Release Notes.

Mappings (mapping)

applies some mapping f: R^3 -> R^3 to the geometry. Help awaiting. For now see Release Notes.

Integral Curves (icurve)

This program uses the points of the input geometry as base points for calculating the integral curves for some vector field. Help awaiting. For now see Release Notes.

Ridges, Focal Surfaces and Principal directions

These are all calculated using the **Intersect**, **Mapping**, and **Icurve** programs. Generic funtion like *Ridge* are defined which are combined with the equation of the surface to produce the equation to define the Ridges for that surface. This can also be used to calculate *symmetry sets* an its allies.

Details of the syntax for the individual projects plus some examples definitions are shown in the individual pages. This page covers some basics usage info of the whole package.

Main Features

When the page is first loaded the main viewing window is displayed in web browser and a new window is created. A predefined surface is loaded. The program is initially configured to calculate algebraic surfaces.

Rotating the surface

> The surface displayed can be rotated by holding down the left mouse button in the window and moving it around.

Changing the definition

> In the new control window the equation is displayed. This can be edited to change the definition. When you are happy with the equation press the **Calculate** button. The program works in a client server fashion, a request is sent to a server on the internet which calculates the surface and the geometry is returned. This can take some time, please be patient.

Predefined Surfaces

> Just click on one of the pictures on the left and that surface will be loaded and calculated. For the **Pro** version select the definition from the list of **Pre-define Surfaces** Selecting one of these will load that equation. To draw the surface you will still need to press the **Calculate** button.

Selecting other types of curves and surfaces

> (Pro version only). Initially the applet is set to calculate algebraic surfaces. To draw a different type of surface select the type you want from the **New:** pull down menu, just above the viewing area. This will load a new surface into the viewing window and the control panel will be loaded with panels for controlling this type of curve and surface. Its possible two have more than one project for each type of surface.

Switching between existing curves and surfaces

> (Pro version only). The left hand, **Existing:**, pull down menu controls which of the currently defined surfaces controls panel is displayed in the control window. Switching between these will allow the equation of one of the surfaces to be displayed.

Center new object

> When checked new geometries will be centered in the display. In the standard version this is always on.

Domain Control

> In the control window a set of tab panels is displayed. Pressing on **Domain** will bring the sub panel for controlling the range over which the surface is calculated and also for the parameterised curve and surface project the number of steps used to calculate the surface.

Resolution

> Selecting this panel in the control window allows various other parameters used for calculating the surface to be displayed. For the algrbraic curve and

surface projects the **Course** parameter defines how fine a mesh is used to calculate the surface.

Several other options are available in this panel:

Create New Geoms

Normally the new geometry created will replace the existing one. However you might want to draw a sequence of surfaces, e.g. level sets of f(x,y,z)=a for different values of a. If this is option is on a new geometry will be created each time, the names will be like **asurf {1}**, **asurf {2}**. Only the last of these geometries can be subsequently changed.

Draw in Colour

By default the surface will be coloured according to the x,y,z values of individual points. This can be switched off by deselecting this option. The surface will be a uniform light blue colour. This can be useful if you want to colour different surfaces different colours by using the material panels.

Keep material props

By default the surface will be drawn with faces(elements) visible, edges, lines and vertices not visible. If you want to keep the existing properties (say edges visible) then select this option.

Other options in the control panel

A well as specific details of curve or surface there are many other options available, other control windows can be brought into view using the **Project** menu. The options hear are:

- **Project** this brings up the surface display options mentioned above. Switch back to this to change the curve or surface definition.
- **Object->Info** shows the coordinates of the individual points in a given object.
- **Object->Material** allow the colour of the faces to be changed as well as whether edges are displayed and several other options.
- **Camera** controls the camera and view direction. For drawing 2D algebraic curves you might want to select the **Top (X-Y)** option here.
- **Display** at the bottom of this panel is a list of the curves and surfaces created. The left hand list shows the active geometry which is the one whose material properties can be altered. The right hand list shows which geometries are visible.

Syntax of Definitions

The exact form of the defining equations varies between the different programs. Examples of these can be found in the help pages for the individual programs algebraic surfaces algebraic curves algebraic curves in 3D parameterised surfaces parameterised curves implicit surfaces.

Each curve or surface will be defined by a set of equations. A semi colon is needed at the end of each equation. `x^2` means `x` squared. There is no need to include a * between terms to be multiplied. only a space is needed. For example `x y` is the same a `x*y`. `Pi` can be used for 3.1415...

Algebraic Surfaces

One polynomial equation involving `x` `y` and `z` e.g. a sphere

```
x^2+y^2+z^2=1;
```

Algebraic Curves

One polynomial equation involving `x` and `y` e.g. a circle

```
x^2+y^2=1;
```

Algebraic Curves in 3D

Two polynomials equations involving `x` `y` and `z` e.g. a conic section

```
x^2-y^2-z^2=0;
x+y+z=0.5;
```

Parameterised Surfaces

Three parameterised equations involving `x` and `y`. e.g. a sphere

```
X = cos(x) cos(y);
Y = cos(x) sin(y);
Z = sin(x);
```

Alternatively one vector equation can be used. A Vector has the form `(f,g,h)` where f, g, h are other formulae. For example a sphere could be written as

```
(cos(x) cos(y),cos(x) sin(y),sin(x));
```

Parameterised Curves

Curves defined by a three parameterised equations in one variables. e.g. a helix

```
X = cos(x);
Y = sin(x);
Z = x;
```

or in vector form

```
(cos(x),sin(x),x);
```

Implicit Surfaces

One non-polynomial equation x,y,z. e.g. a sum of sins

```
sin(x)+sin(y)+sin(z)=0;
```

Multi-line equations

Multi-line equations can be used. All the equations after the first will be substituted into the first equation. For example

```
x^2 - w = 0;
w = y^2 + z^2;
```

is equivalent to `x^2 - y^2 - z^2=0;`. In particular equations involving parameters can be used. The following gives an ellipse

```
(a cos(x),b sin(x),0);
a = 2;
b = 1;
```

Functions

A variety of functions can be used in the definitions, these are:

Trigonometric:

sin(x), cos(x), tan(x), asin(x), acos(x), atan(x), sec(x), cosec(x), cot(x).

Hyperbolic:

sinh(x), cosh(x), tanh(x), asinh(x), acosh(x), atanh(x).

Logarithmic:

ln(x), exp(x)

Other:

sqrt(x), pow(x,y), abs(x), sgn(x), max(x,y), min(x,y), if(x,y,z).

Most functions correspond to the function with the same name in the C maths library. The function `sgn(x)` returns -1 if x < 0; 0 if x = 0 and +1 if x > 0. The function `if(x,y,z)` returns y if x <= 0, and z if x > 0.

Differentiation

It is possible to include the differential operator `diff(f,x)` which represents the partial derivative of `f` with respect to `x`. For example the tangent developable of a curve can be written as

```
f = diff(f,x) * y;
f = (x^2,x^3,x^4); # equation for the curve
```

Vectors

A vector is written as `(a,b,c)` and can be two three or four dimensional. Vectors can be added or subtracted using + and -, multiplied by a scalar (e.g. `a * (b,c,d)`). The dot product . and cross product ^ can also be used. For 2D vectors they can also be multiplied as if they were complex numbers.

Other pages about Algebraic Surface

Many of the equations here have been pinched from other place on the web, have a look to see some other wonderful surface.

- The most wonderful JavaView program.
- A gallery of mathematical surfaces by Tore Nordstrand.
- Some beautiful algebraic surfaces by Bruce Hunt.
- Surfaces with many ordinary nodes by Stephan Endraß and W. Barth.
- Gallery of animated algebraic surfaces by XIAO, Gang.
- The Scientific Graphics Project
- The Cubic Surfaces Home Page by Oliver Labs
- Cubic Surfaces and Architecture by Oliver Labs and Jonathan Chertok
- modelli di superfici La collezione dei modelli di superfici del Dipartimento di Matematica dell'Università di Torino. (The Models of the Department of Mathematics University of Turin). A collection of 30 models originally done in plaster. Page in Italian to translate see Google Translation.
- Algebraic Surfaces @ MathWorld A great mathematical encyclopedia with lots of examples on mathematical surfaces.

and my own

- A parade of Surfaces a visual introduction to Singularity theory.

References

There are lots of good books out there about curves and surfaces. Those specifically related to singularity theory include:

- **Geometric Differentiation: for the intelligence of curves and Surfaces** *Ian R Porteous*, Cambridge University Press. 1994.
- **Solid Shape** *J.J. Koenderink* MIT Press, 1990.
- **Curves and Singularities** (2nd edition) *J.W. Bruce, P.J. Giblin* Cambridge University Press. 1992.

I've written a few papers about the software and geometry

- **A New Method for Drawing Algebraic Surfaces**, *R. J. Morris*, in Design and Applications of Curves and Surfaces, Ed R.B. Fisher, Clarendon Press, Oxford, 1994.
- **Sub Parabolic Lines on Surfaces**, *R. J. Morris*, in Mathematics of Surfaces VI, Ed. Glen Mullineux, IMA new series 58, Clarendon Press, Oxford, 1996.
- **The Use of Computer Graphics for Solving Problems in Singularity Theory**, *R. J. Morris*, in Visualisation and Mathematics, Ed. Hans-Christian Hege and Konrad Polthier, Springer Verlag, 1997, pp 53-66.
- **A client-server system for the visualization of algebraic surfaces on the Web** *Richard Morris*, in Algebra, Geometry, and Software Systems, Ed. Michael Joswig and Nobuki Takayama. Springer Verlag, 2003, pp 239-253.

How it works

The program consists of two part a webserver which actually calculates the points on the surface and a Java applet which displays the surface and allow interactive rotation. The webserver forms part of the LSMP program which I wrote several years back. The client side uses the JavaView package by Konrad Polthier et. al. at sfb288 in Berlin.

The algorithm for generating algebraic surfaces is a little complicated and is fully described in my paper A new method for drawing Algebraic Surfaces. It basically works by recursive subdivision of the domain and looks for singular points to help resolve the topology. It makes heavy use of Bernstien polynomials which allow a quick test of whether a surface has a component in a particular region. It also make special effort to find the singularities of the surface, which are places where all three partial derivatives of the function vanish.

Bugs

The algorithm is far from perfect and there will always be surfaces where it does not quite calculate the geometry correctly. These typically involve higher order singularities and curves of self-intersection. Often better models of these points can be obtained by increasing the coarse and fine resolutions or by reducing the size of the domain. If you find any surfaces where it does a particular bad job let us know and I see if I can tweak the algorithm a little bit.

Download

Rather than having to be online the whole time you may want to download the programs so it can run at home. Please note the program is released under a Creative Commons License (Attribution, Non-Commercial, Share Alike). If you would like to use the program in a comercial package, pleae get in touch.

The program consist of a number of parts.

1. Client side Java applet and win32 server includes source code. (500K)
2. Javaview class library if you already have javaview installed then you don't need this file. Otherwise save this in the jars sub-directory. (500K)
3. Source code for the server useful if you want to run on linux or other non PC machines. (200K)

On windows you need to download the first two files and put the second in the jars directory. Then you can run the SingSurf.bat program either from a dos command prompt or from explorer.

On other systems you will need to download all three. Email me for details on how to compile and set up the program.

If you do decide to download the applet you may like to consider donating some money to my favourite charity Plants For A Future you can do this easily at PayPal. This would make me a happy bunny indeed.

Out of Environment Space

If you get the above message when running the down loaded programs on a windows machine you can fix it with either of the two options

1. Right-click the MS-DOS Prompt shortcut (or the SingSurf.bat) file, and then click Properties. Click the Memory tab. In the Initial Environment box, set the initial environment size you want (from 256 to 4,096 bytes, in 256-byte increments). Click OK.
2. To increase the default environment space for all MS-DOS programs running in Windows, edit the Shell command in the Config.sys file. To do this, follow these steps:
    1. Click Start, and then click Run.
    2. In the Open box, type sysedit, and then click OK.
    3. Click the Config.sys window.
    4. At the beginning of the Shell= line, type REM, and then press the SPACEBAR.
    5. If the Shell= line does not exist, proceed to the next step.
    6. Press the HOME key.
    7. Type the following line to create a new Shell= line, and then press ENTER: SHELL=C:\COMMAND.COM /E:4096 /P
    8. On the File menu, click Save.
    9. On the File menu, click Exit.
    10. Restart the computer.

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Web page, applet and Algebraic Surface program by Richard Morris

Maths home page Personal home page

Email pfaf@webmaster.org or rjm@amsta.leeds.ac.uk.

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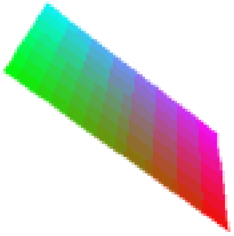
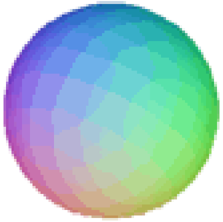
Simple

Back



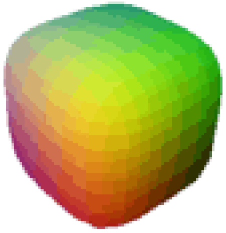
A Plane

a x+b y+c z=d



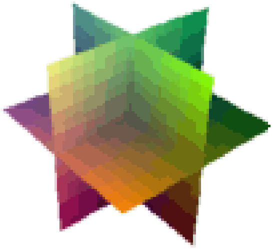
A Sphere

x^2+y^2+z^2=1



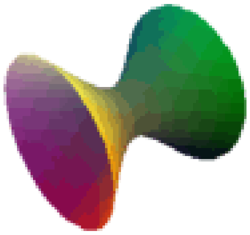
A squared off sphere

x^4+y^4+z^4=1



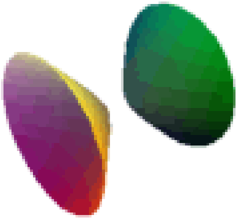
Three Planes

x y z=0



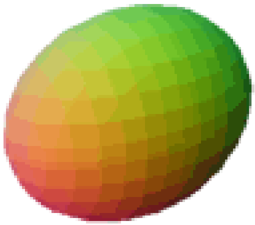
Hyperboloid of 1 sheet

x^2-y^2-z^2 =-0.1



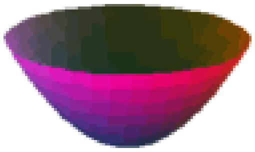
[Hyperboloid of 2 sheet](#)

`x^2-y^2-z^2 =+0.1`



[Ellipsoid](#)

`a x^2+b y^2+c z^2=1`



[Parabaloid](#)

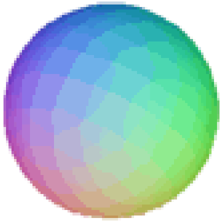
`x-y^2-z^2=0`

[Saddle Surface](#)

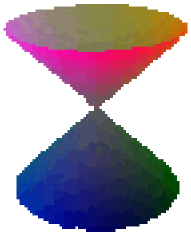
`x+y^2-z^2=0`

[Torus](#)

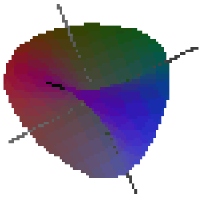
Menu



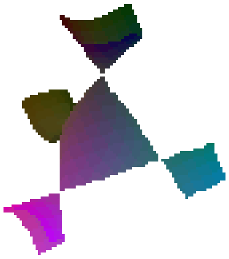
Simple Surfaces



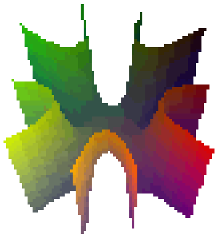
Singularities



Classic Surfaces



Many Nodes



Oddments

Unfoldings

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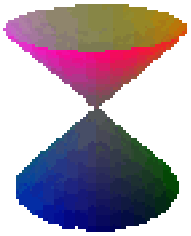
Singularities

Back



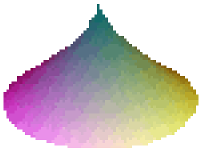
A1--

x^2-y^2-z^2

A1++

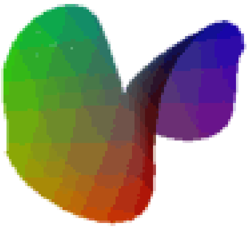
A isolated point

x^2+y^2+z^2



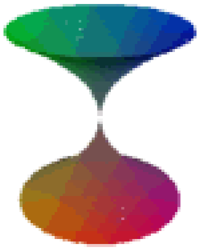
A2--

x^3-y^2-z^2



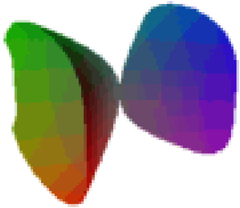
A2+-

x^3+y^2-z^2



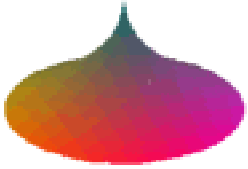
A3--

x^4-y^2-z^2



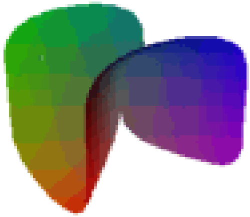
A3+-

x^4+y^2-z^2



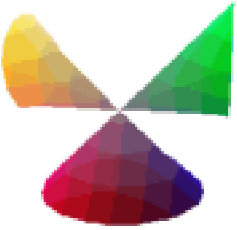
A4--

x^5-y^2-z^2



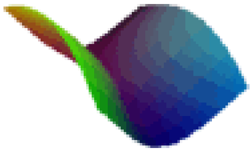
A4+-

x^5+y^2-z^2



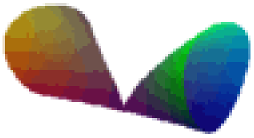
D4--

x^2 y-y^3-z^2



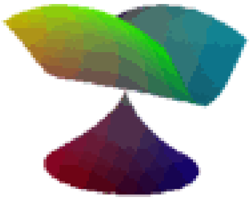
D4+-

x^2 y+y^3-z^2



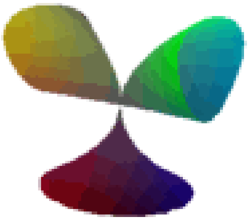
D5--

x^2 y-y^4-z^2



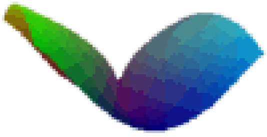
D5+-

x^2 y+y^4-z^2



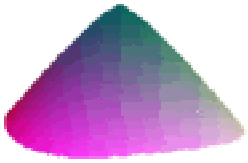
D6--

x^2 y-y^5-z^2



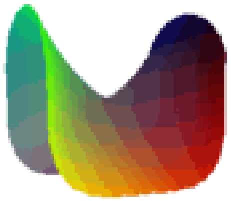
D6+-

x^2 y+y^5-z^2



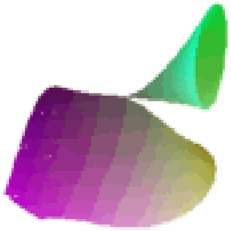
E6--

x^3-y^4-z^2



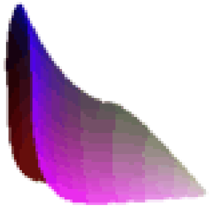
E6+-

`x^3+y^4-z^2`



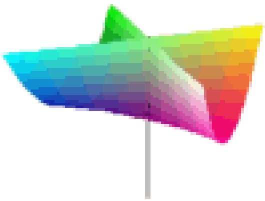
E7

`x^3-x y^3-z^2`



E8

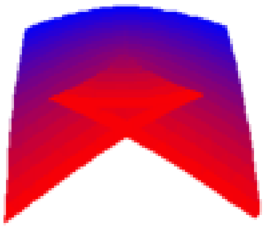
`x^3-y^5-z^2`



Whitney Umberella

(cross cap)

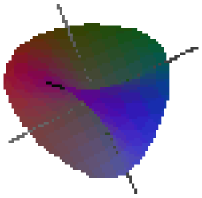
`x^2 z-y^2`



Swallowtail

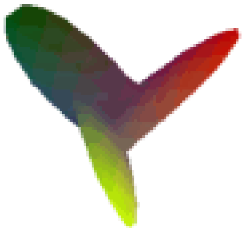
Classic

Back



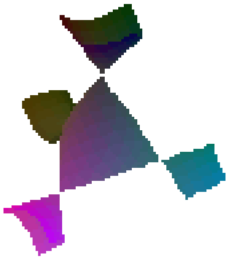
Roman Surface

An immersion of the projective plane with 4 cross caps



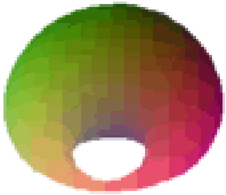
Boy's Surface

An immersion of the projective plane with 1 triple point

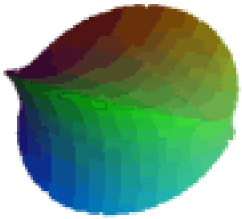


Cayley's Cubic

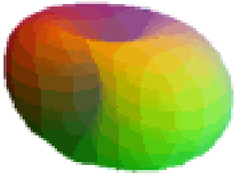
`x^2+y^2+z^2+4 x y z=1/4`



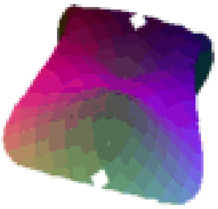
Dupin's Cyclide



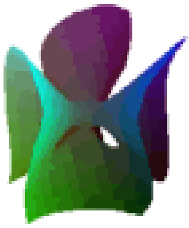
Hunt's Surface



Bohemian Dome

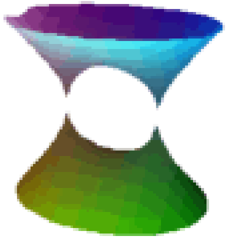


Bohemian Star

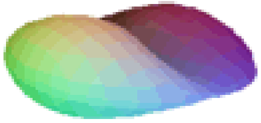


Diagonal surface of Clebsch

A cubic with 27 straight lines



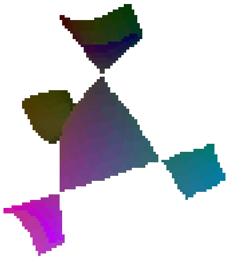
Cassini's Surface



Miter Surface

Many Nodes

Back



Cayley's Cubic

`x^2+y^2+z^2+4 x y z=1/4`

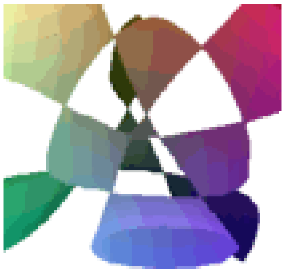
Degree 3, 4 nodes

Tetrahedral Surface

Degree 4, 4 nodes

Chubs Surface

Degree 4, 12 nodes

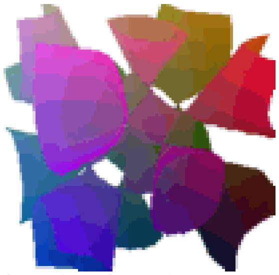


Kummer Surface Family

Degree 4, 16 nodes

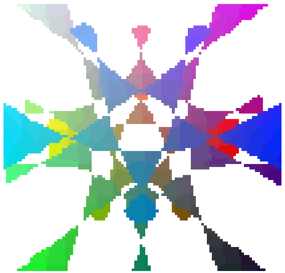
Dervish

Degree 5, 31 nodes



Sarti's Sextic

Degree 6, 48 nodes



Barth's Sextic

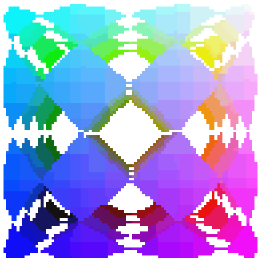
Degree 6, 65 nodes

Stäbchen

Degree 6

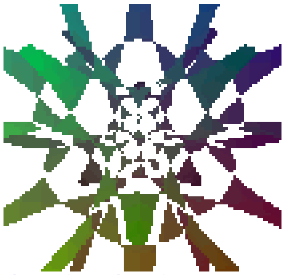
Sarti's Octic 72

Degree 8, 72 nodes



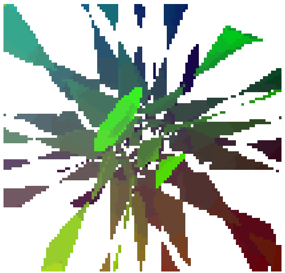
C8

Degree 8, 144 nodes



Sarti's Octic 144

Degree 8, 144 nodes



Endraß's Octic

Degree 8, 168 nodes

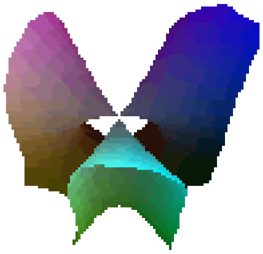
Oddments

Back

Cubics

Cayley 1

A cubic with 3 A1+- singularities

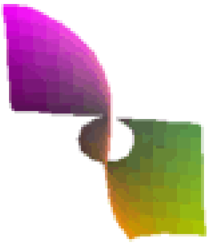


Cayley 2

A cubic with a D4-- singularity

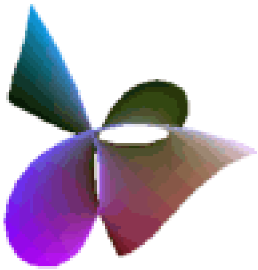
Cayley 3

A cubic with an A4 singularity



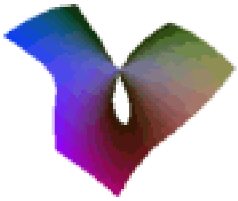
Cayley 4

A cubic with a D6 singularity



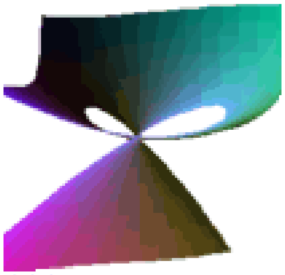
S20

A cubic with a line of A1 singularities



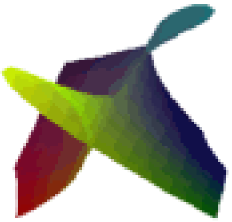
S21

A cubic with two crosscaps



S22

Yet another strange cubic

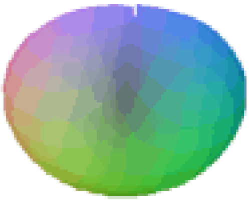


S23

One way to unfold a cusp

See also unfolding of three planes

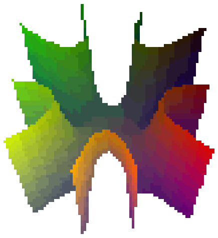
Other nice surfaces



S26

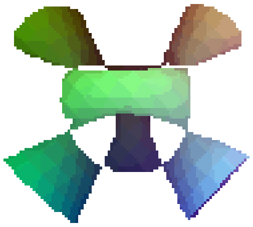
Two cross caps

Kohn-Nirenberg domain

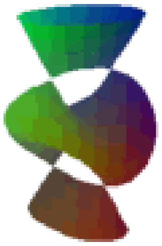


Five-Fold oddity

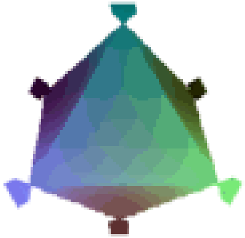
Q1



Q2



Q3



Indented Octohedron

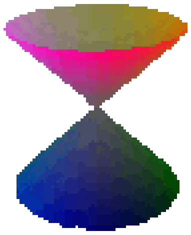
Twelve D4+- and 8 A1-- points

Unfoldings

Back

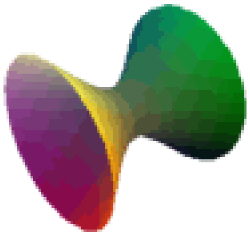
These can be formed by taking a normal singularity and adding some lower degree terms.

A1--



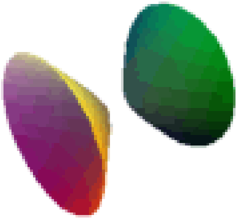
A1--

`x^2-y^2-z^2`



Hyperboloid of 1 sheet

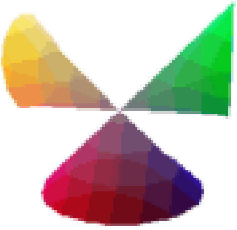
`x^2-y^2-z^2 =-0.1`



Hyperboloid of 1 sheet

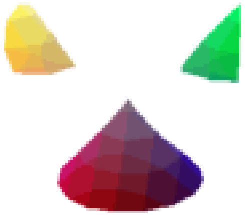
`x^2-y^2-z^2 =+0.1`

D4--



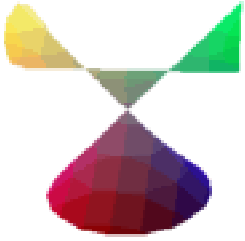
D4--

`x^2 y-y^3-z^2`



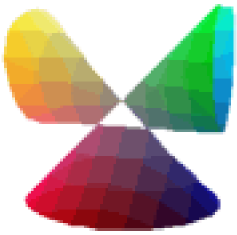
One A3

x^2 y-y^3-z^2 - a x^2



3 A1

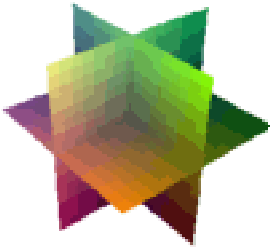
x^2 y-y^3-z^2 - a(x^2-y^2)



3 A1

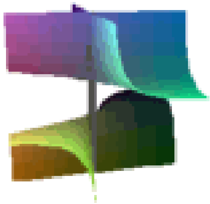
x^2 y-y^3-z^2 + a(x^2-y^2)

Three Planes



Three planes

x y z=0



Two crosscaps

(Crosscap propeller)

```
x y z + a(x^2+y^2)=0
```

A Program for calculating singular algebraic curves and surfaces
R Morris 1990-2003
Asurf only Version Help Links, Download, Copyright Release notes

3D curves and surface visualizer

Please wait while the 500Kb class library is loaded.

How to calculate a surface

1. Enter a definition of the surface in the new JavaView applet window created.
2. Press the **calculate** button at the bottom of the window.
3. Once the surface has been created, drag the mouse in the window in the web page to rotate it.

Other types of surface can be selected from the **New** menu at the top of the window. Help Links, Download, Copyright

Detailed help on all the options can be found on the Help page. Release Notes (new features).

Examples of curves and surfaces you can try are available on the help pages for Algebraic Surfaces Algebraic Curves Algebraic Curves in 3D Parameterised Surfaces Parameterised Curves Implicit Surfaces.

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It would also be nice if you let me know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Web page, applet and Algebraic Surface program by Richard Morris
Maths home page Personal home page

Email pfaf@webmaster.org or rjm@amsta.leeds.ac.uk.

Copyright June 2003.

Help and info

A program for calculating singular algebraic curves and surfaces. R Morris 1990-2003

See below for: Links Download Copyright JavaView Help Release Notes.

SingSurf can draw:

Algebraic Surfaces (asurf)

Surfaces defined as the zero set of a polynomial in x,y,z e.g. a sphere `x^2+y^2+z^2=1;`. Detailed help Notes on examples

Other types of curves and surfaces can also be drawn using the Pro version:

Algebraic Curves (acurve)

Curves defined by a polynomial in x,y e.g. a circle `x^2+y^2=1;`. Detailed help Notes on examples

Algebraic Curves in 3D(acurve3)

Curves defined by two polynomials in x,y,z e.g. a conic section `x^2-y^2-z^2=0; x+y+z=0.5;`. Detailed help Notes on examples

Parameterised Surfaces(psurf)

Surfaces defined by a three parameterised equations in two variables. e.g. a sphere `X=cos(x) cos(y); Y = cos(x) sin(y); Z = sin(x);`. Detailed help Notes on examples

Parameterised Curves(pcurve)

Curves defined by a three parameterised equations in one variables. e.g. a helix `X=cos(x); Y = sin(x); Z = x;`. Detailed help Notes on examples

Implicit Surfaces(impsurf)

Surfaces defined as the zero set of a non-polynomial function in x,y,z. e.g. a sum of sins `sin(x)+sin(y)+sin(z)=0;`. Detailed help Notes on examples

Intersections of surfaces (intersect)

Finds the intersect of a surface with an implicit equation x,y,z. For example finding the intersection of a surface with the sphere `x^2+y^2+z^2=1` or the the portion contain inside it. Help awaiting. For now see Release Notes.

Mappings (mapping)

applies some mapping f: R^3 -> R^3 to the geometry. Help awaiting. For now see Release Notes.

Integral Curves (icurve)

This program uses the points of the input geometry as base points for calculating the integral curves for some vector field. Help awaiting. For now see Release Notes.

Ridges, Focal Surfaces and Principal directions

These are all calculated using the **Intersect**, **Mapping**, and **Icurve** programs. Generic funtion like *Ridge* are defined which are combined with the equation of the surface to produce the equation to define the Ridges for that surface. This can also be used to calculate *symmetry sets* an its allies.

Details of the syntax for the individual projects plus some examples definitions are shown in the individual pages. This page covers some basics usage info of the whole package.

Main Features

When the page is first loaded the main viewing window is displayed in web browser and a new window is created. A predefined surface is loaded. The program is initially configured to calculate algebraic surfaces.

Rotating the surface

The surface displayed can be rotated by holding down the left mouse button in the window and moving it around.

Changing the definition

In the new control window the equation is displayed. This can be edited to change the definition. When you are happy with the equation press the **Calculate** button. The program works in a client server fashion, a request is sent to a server on the internet which calculates the surface and the geometry is returned. This can take some time, please be patient.

Predefined Surfaces

Just click on one of the pictures on the left and that surface will be loaded and calculated. For the **Pro** version select the definition from the list of **Pre-define Surfaces** Selecting one of these will load that equation. To draw the surface you will still need to press the **Calculate** button.

Selecting other types of curves and surfaces

(Pro version only). Initially the applet is set to calculate algebraic surfaces. To draw a different type of surface select the type you want from the **New:** pull down menu, just above the viewing area. This will load a new surface into the viewing window and the control panel will be loaded with panels for controlling this type of curve and surface. Its possible two have more than one project for each type of surface.

Switching between existing curves and surfaces

(Pro version only). The left hand, **Existing:**, pull down menu controls which of the currently defined surfaces controls panel is displayed in the control window. Switching between these will allow the equation of one of the surfaces to be displayed.

Center new object

When checked new geometries will be centered in the display. In the standard version this is always on.

Domain Control

In the control window a set of tab panels is displayed. Pressing on **Domain** will bring the sub panel for controlling the range over which the surface is calculated and also for the parameterised curve and surface project the number of steps used to calculate the surface.

Resolution

Selecting this panel in the control window allows various other parameters used for calculating the surface to be displayed. For the algrbraic curve and surface projects the **Course** parameter defines how fine a mesh is used to calculate the surface.

Several other options are available in this panel:

Create New Geoms

Normally the new geometry created will replace the existing one. However you might want to draw a sequence of surfaces, e.g. level sets of f(x,y,z)=a for different values of a. If this is option is on a new geometry will be created each time, the names will be like **asurf {1}**, **asurf {2}**. Only the last of these geometries can be subsequently changed.

Draw in Colour

By default the surface will be coloured according to the x,y,z values of individual points. This can be switched off by deselecting this option. The surface will be a uniform light blue colour. This can be useful if you want to colour different surfaces different colours by using the material panels.

Keep material props

By default the surface will be drawn with faces(elements) visible, edges, lines and vertices not visible. If you want to keep the existing properties (say edges visible) then select this option.

Other options in the control panel

A well as specific details of curve or surface there are many other options available, other control windows can be brought into view using the **Project** menu. The options hear are:

- **Project** this brings up the surface display options mentioned above. Switch back to this to change the curve or surface definition.
- **Object->Info** shows the coordinates of the individual points in a given object.
- **Object->Material** allow the colour of the faces to be changed as well as whether edges are displayed and several other options.
- **Camera** controls the camera and view direction. For drawing 2D algebraic curves you might want to select the **Top (X-Y)** option here.
- **Display** at the bottom of this panel is a list of the curves and surfaces created. The left hand list shows the active geometry which is the one whose material properties can be altered. The right hand list shows which geometries are visible.

Syntax of Definitions

The exact form of the defining equations varies between the different programs. Examples of these can be found in the help pages for the individual programs algebraic surfaces algebraic curves algebraic curves in 3D parameterised surfaces parameterised curves implicit surfaces.

Each curve or surface will be defined by a set of equations. A semi colon is needed at the end of each equation. `x^2` means `x` squared. There is no need to include a * between terms to be multiplied. only a space is needed. For example `x y` is the same a `x*y`. `Pi` can be used for 3.1415...

Algebraic Surfaces

One polynomial equation involving `x` `y` and `z` e.g. a sphere

```
x^2+y^2+z^2=1;
```

Algebraic Curves

One polynomial equation involving `x` and `y` e.g. a circle

```
x^2+y^2=1;
```

Algebraic Curves in 3D

Two polynomials equations involving `x` `y` and `z` e.g. a conic section

```
x^2-y^2-z^2=0;
x+y+z=0.5;
```

Parameterised Surfaces

Three parameterised equations involving `x` and `y`. e.g. a sphere

```
X = cos(x) cos(y);
Y = cos(x) sin(y);
Z = sin(x);
```

Alternatively one vector equation can be used. A Vector has the form `(f,g,h)` where f, g, h are other formulae. For example a sphere could be written as

```
(cos(x) cos(y),cos(x) sin(y),sin(x));
```

Parameterised Curves

Curves defined by a three parameterised equations in one variables. e.g. a helix

```
X = cos(x);
Y = sin(x);
Z = x;
```

or in vector form

```
(cos(x),sin(x),x);
```

Implicit Surfaces

One non-polynomial equation x,y,z. e.g. a sum of sins

```
sin(x)+sin(y)+sin(z)=0;
```

Multi-line equations

Multi-line equations can be used. All the equations after the first will be substituted into the first equation. For example

```
x^2 - w = 0;
w = y^2 + z^2;
```

is equivalent to `x^2 - y^2 - z^2=0;`. In particular equations involving parameters can be used. The following gives an ellipse

```
(a cos(x),b sin(x),0);
a = 2;
b = 1;
```

Functions

A variety of functions can be used in the definitions, these are:

Trigonometric:

sin(x), cos(x), tan(x), asin(x), acos(x), atan(x), sec(x), cosec(x), cot(x).

Hyperbolic:

sinh(x), cosh(x), tanh(x), asinh(x), acosh(x), atanh(x).

Logarithmic:

ln(x), exp(x)

Other:

sqrt(x), pow(x,y), abs(x), sgn(x), max(x,y), min(x,y), if(x,y,z).

Most functions correspond to the function with the same name in the C maths library. The function `sgn(x)` returns -1 if x < 0; 0 if x = 0 and +1 if x > 0. The function `if(x,y,z)` returns y if x <= 0, and z if x > 0.

Differentiation

It is possible to include the differential operator `diff(f,x)` which represents the partial derivative of `f` with respect to `x`. For example the tangent developable of a curve can be written as

```
f = diff(f,x) * y;
f = (x^2,x^3,x^4); # equation for the curve
```

Vectors

A vector is written as `(a,b,c)` and can be two three or four dimensional. Vectors can be added or subtracted using + and -, multiplied by a scalar (e.g. `a * (b,c,d)`). The dot product . and cross product ^ can also be used. For 2D vectors they can also be multiplied as if they were complex numbers.

Other pages about Algebraic Surface

Many of the equations here have been pinched from other place on the web, have a look to see some other wonderful surface.

- The most wonderful JavaView program.

- A gallery of mathematical surfaces by Tore Nordstrand.
- Some beautiful algebraic surfaces by Bruce Hunt.
- Surfaces with many ordinary nodes by Stephan Endraß and W. Barth.
- Gallery of animated algebraic surfaces by XIAO, Gang.
- The Scientific Graphics Project
- The Cubic Surfaces Home Page by Oliver Labs
- Cubic Surfaces and Architecture by Oliver Labs and Jonathan Chertok
- modelli di superfici La collezione dei modelli di superfici del Dipartimento di Matematica dell'Università di Torino. (The Models of the Department of Mathematics University of Turin). A collection of 30 models originally done in plaster. Page in Italian to translate see Google Translation.
- Algebraic Surfaces @ MathWorld A great mathematical encyclopedia with lots of examples on mathematical surfaces.

and my own

- A parade of Surfaces a visual introduction to Singularity theory.

References

There are lots of good books out there about curves and surfaces. Those specifically related to singularity theory include:

- **Geometric Differentiation: for the intelligence of curves and Surfaces** *Ian R Porteous*, Cambridge University Press. 1994.
- **Solid Shape** *J.J. Koenderink* MIT Press, 1990.
- **Curves and Singularities** (2nd edition) *J.W. Bruce, P.J. Giblin* Cambridge University Press. 1992.

I've written a few papers about the software and geometry

- **A New Method for Drawing Algebraic Surfaces**, *R. J. Morris*, in Design and Applications of Curves and Surfaces, Ed R.B. Fisher, Clarendon Press, Oxford, 1994.
- **Sub Parabolic Lines on Surfaces**, *R. J. Morris*, in Mathematics of Surfaces VI, Ed. Glen Mullineux, IMA new series 58, Clarendon Press, Oxford, 1996.
- **The Use of Computer Graphics for Solving Problems in Singularity Theory**, *R. J. Morris*, in Visualisation and Mathematics, Ed. Hans-Christian Hege and Konrad Polthier, Springer Verlag, 1997, pp 53-66.
- **A client-server system for the visualization of algebraic surfaces on the Web** *Richard Morris*, in Algebra, Geometry, and Software Systems, Ed. Michael Joswig and Nobuki Takayama. Springer Verlag, 2003, pp 239-253.

How it works

The program consists of two part a webserver which actually calculates the points on the surface and a Java applet which displays the surface and allow interactive rotation. The webserver forms part of the LSMP program which I wrote several years back. The client side uses the JavaView package by Konrad Polthier et. al. at sfb288 in Berlin.

The algorithm for generating algebraic surfaces is a little complicated and is fully described in my paper A new method for drawing Algebraic Surfaces. It basically works by recursive subdivision of the domain and looks for singular points to help resolve the topology. It makes heavy use of Bernstien polynomials which allow a quick test of whether a surface has a component in a particular region. It also make special effort to find the singularities of the surface, which are places where all three partial derivatives of the function vanish.

Bugs

The algorithm is far from perfect and there will always be surfaces where it does not quite calculate the geometry correctly. These typically involve higher order singularities and curves of self-intersection. Often better models of these points can be obtained by increasing the coarse and fine resolutions or by reducing the size of the domain. If you find any surfaces where it does a particular bad job let us know and I see if I can tweak the algorithm a little bit.

Download

Rather than having to be online the whole time you may want to download the programs so it can run at home. Please note the program is released under a Creative Commons License (Attribution, Non-Commercial, Share Alike). If you would like to use the program in a comercial package, pleae get in touch.

The program consist of a number of parts.

1. Client side Java applet and win32 server includes source code. (500K)
2. Javaview class library if you already have javaview installed then you don't need this file. Otherwise save this in the jars sub-directory. (500K)
3. Source code for the server useful if you want to run on linux or other non PC machines. (200K)

On windows you need to download the first two files and put the second in the jars directory. Then you can run the SingSurf.bat program either from a dos command prompt or from explorer.

On other systems you will need to download all three. Email me for details on how to compile and set up the program.

If you do decide to download the applet you may like to consider donating some money to my favourite charity Plants For A Future you can do this easily at PayPal. This would make me a happy bunny indeed.

Out of Environment Space

If you get the above message when running the down loaded programs on a windows machine you can fix it with either of the two options

1. Right-click the MS-DOS Prompt shortcut (or the SingSurf.bat) file, and then click Properties. Click the Memory tab. In the Initial Environment box, set the initial environment size you want (from 256 to 4,096 bytes, in 256-byte increments). Click OK.
2. To increase the default environment space for all MS-DOS programs running in Windows, edit the Shell command in the Config.sys file. To do this, follow these steps:
    1. Click Start, and then click Run.
    2. In the Open box, type sysedit, and then click OK.
    3. Click the Config.sys window.
    4. At the beginning of the Shell= line, type REM, and then press the SPACEBAR.
    5. If the Shell= line does not exist, proceed to the next step.
    6. Press the HOME key.
    7. Type the following line to create a new Shell= line, and then press ENTER:
       SHELL=C:\COMMAND.COM /E:4096 /P
    8. On the File menu, click Save.
    9. On the File menu, click Exit.
    10. Restart the computer.

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Web page, applet and Algebraic Surface program by Richard Morris
Maths home page Personal home page
Email pfaf@webmaster.org or rjm@amsta.leeds.ac.uk.
Copyright June 2003.

Help on *JavaView*

Usage

Shortcuts	Navigation inside the viewer, keyboard shortcuts and mouse usage.
Copyright	The material in ***JavaView*** is copyright protected.
Contact	Send comments and queries, bug reports and suggestions.

In case of problems

Requirements	Check the requirements for running ***JavaView***.
Browser	Check your browser properties.
Fonts	Check your system fonts.

More help is available at the ***JavaView*** web site.

© 1999-2001 Last modified: 09.12.2001 --- http://www.javaview.de --- The JavaView Project

Navigating the Camera, and Viewer Modes

Rotate geometry by moving mouse inside viewer window and drag while left mouse button is pressed. Usually, rotation is the default mode in the viewer.

Press right mouse button to select major interaction mode from popup menu, or use keyboard keys to temporarily switch between different modes (just keep a button pressed to switch mode temporarily):

Transformation

o	Rotate surface (initial mode for *perspective* camera) similar to a space ball. Orbit mode.
s	Scale surface, drag in vertical direction.
t	Translate surface in xy-plane (initial mode for *orthogonal* cameras).
z	Translate surface in z-direction
c	Center camera on object (object is centered and not scaled).
f	Focus camera on object (object is centered and scaled).
x	Drag a rectangle to be eXpanded to fill display. Or pick a new center without expanding.
r	Reset camera and viewer, geometry returns to default position.
Left Mouse	Depending on the mode, drag, pick and select the geometry in the viewer.
Right Mouse	Show popup menu to select major modes and others actions.

Animation

w	Start camera auto-rotation (auto-rotation repeats the last o,s,t-action).
q	Stop camera auto-rotation.
Ctrl-a	Show Animation panel to steer animations
Ctrl-k	(beta) Create animation by storing current geometry as keyframe.

Modeling

a	Add additional vertex to geometry

e	Add element or polygon by picking existing or new vertices
d	Duplicate all visible geometries of a scene by reflection at a point, a line, or a plane. The point, line or plane are determined by marking one, two, or three vertices of the current geometry.
i	Initial pick, e.g. used drag initial points on surfaces.
m	Drag a rectangle to Mark all enclosed vertices.
n	Drag a rectangle to mark all touched elements.
p	Pick a vertex and drag it. To see picked vertex enable display of vertices in menu Inspector->Object->Material of control panel, picked vertices are magenta).
u	Drag a rectangle to Unmark all enclosed vertices.
Shift-u	Drag a rectangle to Umark all enclosed elements.

Rendering

Shift-a	Toggle display of edge aura around edge.
Shift-b	Toggle display of bounding box around current geometry.
Shift-c	Toggle display of center of geometry (pending).
Shift-d	Toggle display of depthcue fading of far away items.
Shift-f	Toggle display of small coordinate frame.
Shift-g	Toggle display of xy-grid.
Shift-h	Toggle display of information at mouse tip.
Shift-i	Toggle display of background image.
Shift-j	Toggle usage of lights.
Shift-l	Toggle display of border around display.
Shift-m	Toggle magnet mode of vertices, i.e. highlight if nearby vertices.
Shift-p	Toggle usage of painters algorithm.
Shift-r	Toggle display of copyright information.
Shift-s	Toggle anti-aliased rendering.
Shift-t	Toggle tag mode to move all marked vertices.
Shift-x	Toggle display of coordinate axes.
Shift-y	Toggle fast z-buffer mode.
Shift-z	Toggle z-buffer mode.

Selecting

Ctrl-left mouse	Pick geometry with left mouse while holding control key to select geometry in display.

Shift-o (beta)	Toggle if modelling transformation is used when a geometry is selected by picking and dragging on the geometry, and scene transformation is used when the background is picked with the mouse. Modelling and scene transformation will change frequently depending on whether a geometry or the background is picked. By default, this mode is switched off and switching between modeling and scene transformation must be done using the camera panel.

Deleting

Del-left mouse	Pick geometry with left mouse while holding control key to delete geometry from display.

Panels

F1	Show control window to modify e.g. material and display settings
F2	Close control window
Ctrl-a or F4	Show Animation panel to steer animations
Ctrl-c	Show info panel of Camera
Ctrl-d or F3	Show console window with Debug information
Ctrl-i	Show Info panel of current geometry if available
Ctrl-l	Show Light panel of current display
Ctrl-m	Show Material panel of current geometry if available
Ctrl-p	Show info panel of current **P**roject if available
Ctrl-t	Show Texture panel of geometry if available
Ctrl-v	Info panel of Viewer resp. display

Apply Methods to Geometry via Method Menu

Menu Shortcuts

Ctrl-n	New geometry dialog.
Ctrl-Shift-n	Load a JVD file with same name as recently loaded model file.
Ctrl-o	Open file import dialog.
Ctrl-Shift-o	Same as Ctrl-o, but additionally load a JVD file with same name if available.
Ctrl-s	Save geometry export dialog.

Emergency Exit of JavaView (application only)

Ctrl-Shift-x Exit JavaView immediately, no exit box.

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JavaView is software written by Konrad Polthier with contributions of Samy Khadem-Al-Charieh, Eike Preuß, Ulrich Reitebuch, and others, see the list of contributors in the *About* menu of ***JavaView***.

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Contact

Feedback

We kindly ask for feedback and comments on ***JavaView***. Please, report bugs, suggestions on existing or additional mathematical topics, or missing .

Bug reports should contain detailed information about your browser which could be obtained from the page browser properties.

Contributions

We are pleased, if you have an idea to contribute to ***JavaView***, for example, by writing a guest section, adding an applet, or sending us a link to your own web page.

Address

Use the following email address

support@javaview.de

for all kinds of communication with the authors of ***JavaView***.

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Requirements for *JavaView*

JavaView runs on any computer and operating system which has a web browser with a valid Java_1.1 installation. The currently downloadable browser versions at Microsoft and Netscape are fine. For older versions see below.

The browser installation on Win/NT PCs and Macintosh computers usually do all necessary Java installations. On UNIX systems some additional setup might be necessary for each user, for example, a correct CLASSPATH - please, consult your system operator.

In Case of Problems

The initial download of the JavaView archive may need some time on slow connections. Between 300KB and 500KB must be transferred over the network until JavaView starts. This archive is transferred once. Other JavaView applets do not require a new download of the archive but use the version of the browser's cache.

General Rules

If there is no applet or geometry visible after some time, try the following steps:

1. **Browser Version:** On MS-Windows and Unix assure that you have a browser with version number
   Microsoft Internet Explorer 4.01 and later
   Netscape Navigator 4.08 and later.
   On **Apple Macintosh**, see below in the MacOS.

   If you do not know your browser's version number, go to the following page which will list your browser properties.
2. **Enable Java:** If you do not see the message "JavaView initializing ..." after some time, then your browser could not start JavaView. Maybe Java is not enabled in your browser, so check the menu entry `Edit-Preferences-Advanced` in Netscape or `Extras-Internet Options-Advanced` in Microsoft Internet Explorer whether your browser is Java enabled.
3. **Security Issues:** If you do not see the message "JavaView initializing ..." after some time, there might be a security issue. Try open the Java Console of your browser via menu `Communicator-Java Console` or `Communicator-Tools-Java Console` or `View-Java Console` and look for the word `Security`. (Remark: on MS Internet Explorer the console must be enabled in the Preferences.) Security issues are a bit delicate for beginners to understand and you might want to ask an expert who knows about

your operating system and the security policy. This has nothing to do with JavaView.

Windows Family

1. **Important Hint on javaview.exe:** On MS-Windows, if you have an older version of the virtual machine then you will receive an error message when executing javaview.exe. Please, either upgrade the Internet Explorer which will also upgrade the JVM, or directly download a newer JVM from Microsoft.

Linux:

1. **kaffe:** for LINUX versions, we were told that the standalone version of JavaView does not run correctly under **kaffe 1.04** but it seems to run ok with **kaffe 1.05**. This seems to be a bug in those implementations of Java.
2. **Problems with window sizes and popup-menus:**

   Sun's JRE1.3.0_x and JRE1.3.1 on **Linux with KDE 2.x, RedHat 7.1 or SuSE 7.2** sometimes has problems with window sizes and popup-menus. New windows open in arbitrary dimensions and popup-menus may not open at all or don't show any text or doesn't have any effect.

   Possible solutions:

   - Download and use the IBM Developer Kit and Runtime Environment instead of Sun's JRE (tested) or

   - Download and use the Blackdown 1.3.x FCS version of JRE instead of Sun's JRE or

   - Use the Enlightment window manager under the KDE desktop manager

MacOS

1. **Java Runtime:** you must have the Macintosh Runtime for Java (MRJ) 2.1 or later. For more information see the page.

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Check Bowser Properties

If this browser supports JavaScript, the current page will display browser properties to find hints in case of problems with Java applets.

In case you encounter problems when starting any of the Java applets in the Visual Geometry" Pages, please, add the information on this page to your bug report.

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[Up] [Shortcuts] [Copyright] [Contact] [Requirements] [Browser]
[Fonts]

JavaView

Listing of System Fonts

The following listing contains all available system fonts. Be aware that fonts may even differ between different browsers. This applet is a utility for developers. The applet is part of ***JavaView***.

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Browsers on Apple Macintosh

On **Apple Macintosh**, you must have the Macintosh Runtime for Java (MRJ) 2.1 or later. There is a problem with browsing the JavaView applets with Apple Macintosh computers running (even slightly) older software versions. Some Java applets are not handled correctly.

The following configuration, however, has been tested successfully. Note that all three components have to be installed individually.

- Mac OS 9.0.4
- Mac OS Runtime for Java 2.2
- Microsoft Internet Explorer 5.0

Up to now, no version of the Netscape Navigator seems to be able to cope with our applets.

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Main applet window General Help JavaView Help.

Release Notes

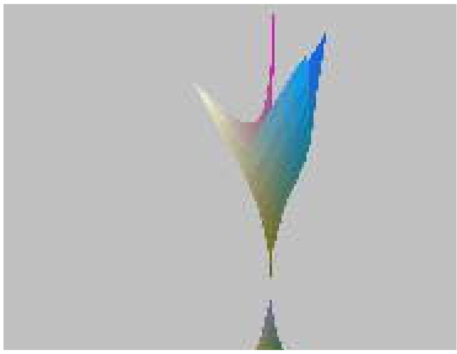
Version 1/sqrt(tau) = 0.78615138, 6 June 2003

A major update of the asurf program. It has now can give almost perfect results for most types of singularities. Specifically

- It can read a data file with the known positions of singularities. Used with Oliver Labs' program which incorperates Singular (for algerbraic computation) and Surf for raytracing images.
- More work has gone into the correct treatment of faces and regions containing singularities. Several new conditions are now tested to try to deduce the geometry, especially cross-caps, cuspidal edges and triple points where second derivative info is now used.
- The routine for merging facets has been rewritten. Some post processing is caried out to remove unwanted facets.
- Several major speedups obtained by changing the order of computation. (3 routines take 75% of the time).
- A new web page with a pictorial index of all the surfaces added. Split in Asurf and Pro versions.
- Theres now a few easter eggs in the syntax of equations:

```
# The following selects a specific box at the specified depth,
# only the component inside that box is drawn.
asurf_selx=8;asurf_sely=8;asurf_selz=8;asurf_denom=16;
# This line causes the curves df/dx=0, df/dy=0, df/dz=0 to be drawn.
asurf_degen=0;
```

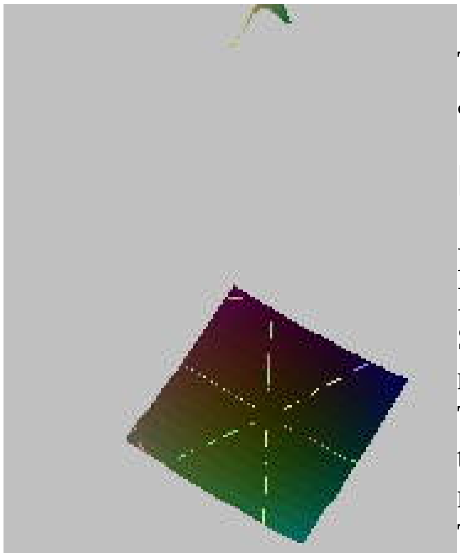
Version (1+sqrt(5))/2-1 = 1/tau = tau-1 = 0.61803399 May Day 2003



Interim release hence the irational version number.

Major new features:

The mapping, intersect, and icurve programs have not been adapted to run under JavaView. These allow such things as Parabolic lines, Ridges, Symmetry Sets and focal surfaces to be calculated.



The algebraic surface program has also been improved to make a better job around singular points.

Major missing features: (yet to come)

No load/save for definitions.
I'd like to add better interactive control for the parameters in the equations.
Still some bugs in teselating algebraic surfaces and the boundaries are still not correct.
The communication protocol is still not standardised, some are using CGI type encoding, others are using an XML format which all programs are migrating to.
The server programs could all do with a clean up and actually get round to freeing some memory!
No documentation apart from this for new programs.
The icuve program currently only produces integral curves, computing vector fields and wavefronts yet to come.

A few more specifics on the changes

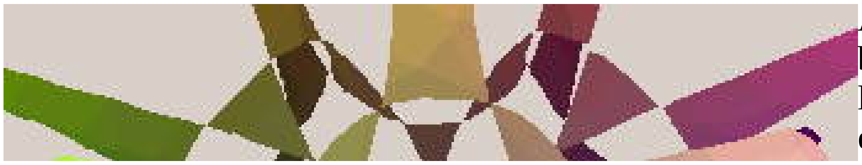
The mapping, intersect and icurve programs all perform some operation on another geometry.

- The mapping program applies some mapping f: R^3 -> R^3 to the geometry.
- The intersect program will find the point of a geometry where f(x,y,z) = 0 (or > 0 or < 0) for some real valued function f.
- The icurve program uses the points of the input geometry as base points for calculating the integral curves for somevector field.

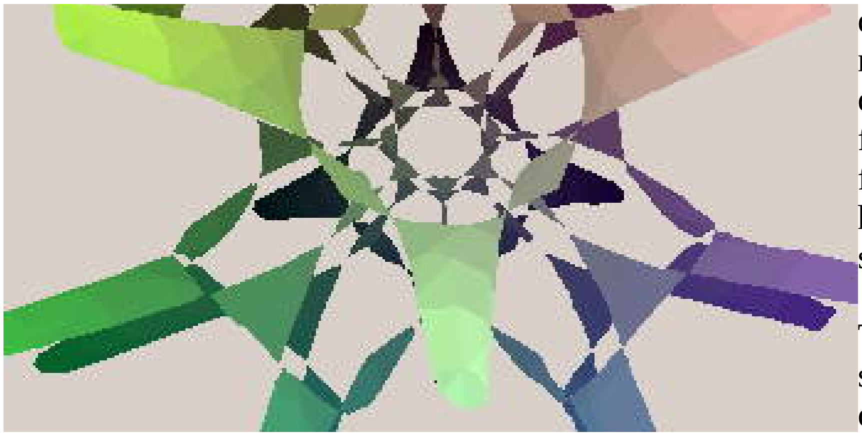
Furthermore each program can read part of the defining equation for the function from another geometry. For example the it is posible to write a generic project onto surface mapping, which can take parameterised surface and any set of points in parameter sace and project them onto the surface. i.e.
Generic project onto surface mapping + definition of surface = mapping to project onto the surface
This feature makes it easy to implement many standard local differential geometry functions:
Parabolic Lines, Ridge, Principal Directions, Focal Surfaces, Symmetry Sets etc.

There have been two major improvments to the algebraic surface program:

1. The routine to produce the polygons once all the points on the surface have been found has been completely changed. It now calculates facets for the surface at the bottom (smallest size = fine) level of recursion, these facets are then joined together higher up the recursion tree to produced the polygons used in the final surface (ie. at corse resolution). This is the technically correct way to do it rather than the add-hoc algorithms used previously. Thankfully this did not entail the expected increase in compilation time.
2. Convergence routines are now used to find the singular points, and the turning points. This means that far more acurate positions of singular points are found. (Warning still not converging to normal turning points, so surfaces are a little thiner than they should be).



As well as these a bit more mathematics has been used to work out if a singularity should lie in a box. Second derivatives are now examined in more detail. In particular the



determinant of the second derivative matrix is now examined. The sign of this gives the diference between two lines crossing on a face (x^2-y^2=0) or an isolated point on the face (x^2+y^2=0) and similar fun in 3D. This has helped reduce the number of false positive singurlarity points found.

The upshot of all these improvments is that singularities are much sharper as the picture of Sarti's octic with 144 double points shows.

To Do

Long term stuff to do.

- Continue migration to pure java. At the moment the limiting feature is getting a sosphisticated equation parser in java. JEP looks good, but does not handle multiple equations, symbolic differentation, vector operations. Once thats done all the programs apart from the algebraic surface program can be implemented easily in pure java which will make things wiz, (communicating between server and client is the slowest bit).
- Other improments include standadising the comunication standard to use xml format for definitions in the end it will be something like:

  ```
  <definition name="Kummer surface" type="asurf">
  (3-v^2) ( x^2+y^2 + z^2 - v^2)^2 - (3 v^2 - 1) p q r s = 0;
  p = 1 - z - x rt2;
  q = 1 - z + x rt2;
  r = 1 + z + y rt2;
  s = 1 + z - y rt2;
  rt2 = sqrt(2);
  <variable name="x" min="-1" max="1">
  <parameter name="v" value="1.1">
  <option name="course" value="8">
  ....
  </definition>
  ```

  This will be the format definition will be saved in and used to communicate between client and server.
- Other minor interface improvments in the pipeling include: being able to specify which display the results appear in, (so parameter space could be viewed in one window). A limited scripting capability to automate repeated operation and interactive changing of parameter values.
- Asurf: Improve the treatment of singularities, esp 2nd derivatives for self intersections, cross caps, cuspidal edges etc.
- Asurf: Maybe use Sturm sequences for tricky edges.
- Asurf: Post-process output to fill in the few remaining gaps.
- Work on a generalised n-equations in m-dimensions algorithms, possibly using data from Oliver Labs using Singular.

- Add a raytrace option

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It would also be nice if you let me know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Web page, applet and Algebraic Surface program by Richard Morris
Maths home page Personal home page
Email pfaf@webmaster.org or rjm@amsta.leeds.ac.uk.

[Main applet window](#) [General Help](#) [JavaView Help](#).

Examples of algebraic surfaces

For details of the basic operation of the program see the Main Help page. Some special options specific to the calculation of algebraic surfaces is below. Example definitions plus some explanation are also below.

Region of interest

These parameters control the range over which the surface is calculated. *Its best if unequal values are chosen for the ranges. Otherwise certain degeneracies may occur which can lead to poorer results.*

Resolution control

These parameters control how detailed the resulting mesh will be. Each of these must be a power of two. The box specified by the range is split into a number of smaller boxes and points of the faces of these boxes will be found together with any singularities lying in the middle of them. The **Coarse** parameter specifies the number of smaller boxes, by default 8 along the x, y, z directions, i.e. 512 boxes. The **Fine** parameter specifies the smallest box size used to find a singularity. The **Face** specifies how accurately each face of the box is subdivided and the **edge** parameter specifies how accurately each edge is subdivided.

Generally you will just want to change the **Coarse** parameter. If the singularities are not calculated very well then you could also increase the **Fine** parameter. Lowering the other parameters may give quicker results. Not much will be gained by increasing them. As a rule you should keep **Coarse < Fine < Face < Edge** or the results will be unpredictable.

Timeout

If a degenerate surface is specified the program can take a very long time to run. To prevent this from happening the cgi program will timeout after a certain time. This may mean the surface will not be calculated properly. If you want to calculate more complicated surfaces please email me at pfaf@webmaster.org and I'll provide a version you can run at home which does not have the timeout restriction.

Draw Degenerate lines

Some surfaces such as the cross cap `x^2 y + z^2 = 0;` can contain degenerate lines, and isolated points as well as surface you normally expect. By default the drawing of these lines and points is switched off, clicking on the **Draw Degenerate lines** switches the drawing of these on. Note that when this option is on two additional geometries will be created, these are called something like **asurf lines** and **asurf points** will be created.

Examples

Below are various examples of algebraic surfaces, they include:

- Singularities
- Deformations of surfaces
- Low degree polynomials with many nodes
- Other surfaces include sphere, roman surface, cyclides.

Further examples of algebraic surface can be found at some other web-sites.

The different types of singularities which can appear

These are taken from a classification of degenerate points, see Singularities of Maps from R^3 to R for a bit more explanation.

Type	Normal form	Alternate forms
A0 (not singular)	x - y^2 - z^2;	x + y^2 - z^2;
A1	x^2 - y^2 - z^2;	x^2 + y^2 + z^2; (isolated point)
A2	x^3 - y^2 - z^2;	x^3 + y^2 - z^2;
A3	x^4 - y^2 - z^2;	x^4 + y^2 - z^2; x^4 + y^2 + z^2; (isolated point)
A4	x^5 - y^2 - z^2;	x^5 + y^2 - z^2;
D4	x^2 y - y^3 - z^2;	x^2 y + y^3 - z^2;
D5	x^2 y - y^4 - z^2;	x^2 y + y^4 - z^2;
D6	x^2 y - y^5 - z^2;	x^2 y + y^5 - z^2;
E6	x^3 - y^4 - z^2;	x^3 + y^4 - z^2;
E7	x^3 - x y^3 - z^2;	
E8	x^3 - y^5 - z^2;	

Then there are some highly degenerate surfaces where whole curves are singular.

Cross Cap (Whitney Umbrella)

```
x^2 y - z^2 = 0;
```

Considered as a map from R^2 to R^3 the cross cap This differs from a cross cap (a parameterised surface) because it has a handle along the line x = z = 0. You will find cross caps present in many famous algebraic surface, for example Steiner's Roman surface contains six.

A Swallowtail surface

```
-4 z^3 y^2 - 27 y^4 + 16 x z^4 -128 x^2 z^2 + 144 x y^2 z + 256 x^3 = 0;
```

This surface is an example of a discriminate surface. Consider the polynomial

```
        f = t^4 + z t^2 + y t + x
```

f will have a repeated root when f=0 and df/dt = 0. Now

```
        df/dt = 4 t^3 + 2 z t + y
```

solving this pair of equations for t gives

```
4 z^3 y^2 - 27 y^4 + 16 x z^4 -128 x^2 z^2 - 144 x y^2 z + 256 x^3 = 0
```

so the surface of the swallowtail gives the set of values of x,y,z where f has a repeated root. There a several special curves on this surface. If

```
        d^2f/dt^2 = 12 t^2 + 2 z = 0
```

as well then f has a triple root, this happens when

```
        x = - (t^4 + z t^2 + y t);
        y = - (4 t^3 + 2 z t);
        z = - 6 t^2
```

this curve lies along the cuspidal edge of the surface.

The polynomial with have two repeated roots if it can be written as

```
        f = (t^2 - a)^2
        f = t^4 - 2 a t^2 + a^2
```

i.e. if x = a^2, y = 0, z = - 2 a, i.e. if 4 x = z^2, y = 0. If z > 0 this corresponds to two repeated real roots (the self intersection of the surface) and if z < 0 then it gives two complex repeated roots (a tail shown on the surface).

Finally if x = y = z then the polynomial is just t^4 which has a four times repeated root for t = 0.

Deformations of surfaces

The reason why the above singularities are important is that when you have a family of surfaces controlled a a number of parameters you will often find some surfaces which contain one of these singularities. For example consider the one parameter family of surfaces:

```
x^2 - y^2 - z^2 = a;
```

for each different value of a you get a different surface. When a < 0 you get a hyperboloid of one sheet and when a > 0 you get a hyperboloid of two sheets. When a = 0 you get a surface which contains an A1 singularity. Try using the equation

```
x^2 - y^2 - z^2 = a;
a = 0.1;
```

with a taking the values 0.1, 0.05, 0, -0.05, -0.1. In a one parameter family you typically only get A1 singularities either of the type show above or its alternate form. The alternate form is just an isolated point, which occurs in the family

```
x^2 + y^2 + z^2 = a;
```

Lots of fun can be had by taking one of the more complicated singularities such as D4 and adding lower degree terms for example try

```
x^2 y - y^3 - z^2 + a x^2 + b y^2 + c (x^2-y^2) + d y z = 0;
a = 0.0;
b = 0.0;
c = 0.0;
d = 0.0;
```

And vary the values of a, b, c, d. When a and b are non zero you get surfaces which show A2 singularities. Perhaps the most fun is had when the value of c is changed and a surfaces with three A1 points is displayed.

Another deformation to try is to take the D5 and add on multiples of y^3

```
x^2 y + y^4 - z^2 + a y^3 = 0;
a = -0.5;
```

You can do the same trick with the other forms of D4 and D5 as well as any of the other higher singularities.

Low degree polynomials with many nodes

Lots of

Cayley's cubic

```
 4 (x^2+y^2+z^2) + 16 x y z = 1;
```

Working in complex projective 3 space there is only one cubic with 4 singular points (up to isomorphism), which is called Cayley's cubic. An equation for this is

```
4(x^3+y^3+z^3+w^3)-(x+y+z+w)^3=0;
```

In real 3D space the other versions can look very different, try:

```
4(x^3+y^3+z^3+w^3)-(x+y+z+w)^3=0; w = 1;
```

or

```
-5(x^2*y+x^2*z+y^2*x+y^2*z+z^2*y+z^2*x)+2*(x*y+x*z+y*z)=0;
```

Kummer surface

A family of quartic surfaces, some of which have 16 nodes.

```
(3-v^2) ( x^2+y^2 + z^2 - v^2)^2 - (3 v^2 - 1) p q r s = 0;
p = 1 - z - x rt2;
q = 1 - z + x rt2;
r = 1 + z + y rt2;
s = 1 + z - y rt2;
v = 1.1;
```

```
rt2 = sqrt(2);
```

(You can vary the value of v to get different surfaces, try v=1, 1.1, 1.5, 1.7, 1.8, 2. Note the similarity with the roman surface).

Barth's sextic surface with 65 singularities

```
4 ( t^2 x^2 - y^2 ) ( t^2 y^2 - z^2 ) ( t^2 z^2 - x^2 )
- ( 1 + 2 t) (x^2 + y^2 + z^2 - 1)^2 = 0;
t = 1.618034;
```

The second equation defines the value of tau, the golden ratio). (use +/-2 for the domain bounds)

Sarti's sextic with 48 double points

```
S6+lambda*Q6=0;
Q6 =(xx^2+yy^2+zz^2+ww^2)^3;
S6=xx^6+yy^6+zz^6+WW^6+15.0*(xx^2*yy^2*zz^2+xx^2*yy^2*WW^2+xx^2*zz^2*WW^2+yy^2*zz^2*WW^2);
xx=z-1+sqrt(2)*x;
yy=z-1-sqrt(2)*x;
zz=-(z+1+sqrt(2)*y);
WW=-(z+1-sqrt(2)*y);
w=1;
lambda = -2/3;
```

Other surfaces

A sphere

```
x^2 + y^2 + z^2 = 1;
```

A squared off sphere

```
x^4 + y^4 + z^4 = 1;
```

A generalisation of a sphere, the square have been replaced by higher powers. Try increasing the powers to get nearer to a cube.

Three planes

```
x y z = 0;
```

Steiner's Roman Surface

```
x^2 y^2 + y^2 z^2 + z^2 x^2 = 2 x y z;
```

This is an immersion of the real projective plane into R^3. It contains a triple point as well as six cross caps.

Boys surface

```
64 (1-z)^3 z^3- 48 (1-z)^2 z^2 (3 x^2+3 y^2+2 z^2)+
    12 (1-z) z (27 (x^2+y^2)^2-24 z^2 (x^2+y^2)+
    36 sqrt(2) y z (y^2-3 x^2)+4 z^4)+
    (9 x^2+9 y^2-2 z^2) (-81 (x^2+y^2)^2-72 z^2 (x^2+y^2)+
    108 sqrt(2) x z (x^2-3 y^2)+4 z^4)=0;
```

Another immersion of the real projective plane. In this immersion there are no cross caps.

Dupin Cyclides

This is a family of quartic surfaces which are generalisation of a torus. They are often used in engineering applications. They are special as all their lines of curvature are circles and they consist entirely of ridge points.

```
f1  f2 (x^4+y^4+z^4)
+ 2 f1 f2 (x^2 y^2+x^2 z^2+y^2 z^2)
+ 2 ri^2 ((r1^2+r0^2-dy^2-dx^2) (2 x dx+2 y dy-ri^2)) (x^2+y^2+z^2)
- 8 ri^2 (dy r0^2 y) (x^2+y^2+z^2)
+ 4 ri^4(dx x+dy y) (-ri^2+dy y+dx x)
+ 4 ri^4 r0^2 y^2+ri^8=0;
f1 = (r1^2 - dy^2 - (dx + r0)^2);
f2 = (r1^2 - dy^2 - (dx - r0)^2);
r0=2.1; r1=2;
dx=2; dy=0; ri=2;
```

Here r0=Major radius of generating Torus, r1=Minor radius of generating Torus, dx,dy=Torus displacement, ri=Inversion radius.

Other examples to try:

```
r0=1.9; r1=2; dx=2;   dy=0; ri=2;
r0=2;   r1=2; dx=2;   dy=0; ri=2;
r0=2.1; r1=2; dx=2;   dy=0; ri=2;
r0=4;   r1=2; dx=2;   dy=0; ri=2;
r0=4.5; r1=2; dx=2;   dy=0; ri=2;
r0=1.1; r1=2; dx=5.5; dy=0; ri=3;
```

Look at the last of these with edges on and elements off.

Chub's Surface

```
x^4 + y^4 + z^4 - x^2 - y^2 - z^2 + 0.5 = 0;
```

This has cubic symmetry and has 12 nodes.

Tetrahedral skeleton

```
(x^2 + y^2 + z^2)^2 + 8 x y z - 10 (x^2 + y^2 + z^2) + 25=0;
```

Use +/- 5 for the bound.

Hunt's Surface

```
4 (x^2 + y^2 + z^2 - 13)(x^2 + y^2 + z^2 - 13)(x^2 + y^2 + z^2 - 13) + 27
    (3 x^2 + y^2 -4 z^2 - 12)^2 = 0;
```

A surface arising from the study of linkages, this has two cuspidal edges and two nodes. Use +/- 5 for domain limits

Kohn-Nirenberg domain

```
3 z + 9 z^2*b + b^4 + 15/7*b*re + a*(x^2 + y^2 + 9 z^2)^5;
b = x^2 + y^2;
re = ((x,y)*(x,y)*(x,y)*(x,y)*(x,y)*(x,y)).(1,0);
a= 0.0;
```

(use +/-3 for the domain). Try a=0, 0.3, 0.64, 1.0.

Five fold oddity.

```
z + ((x,y)*(x,y)*(x,y)*(x,y)*(x,y)).(1,0);
```

(use +/-2 for the domain). This example illustrates some more complex features of the syntax, namely the use of vectors and the fact that 2D vectors can be used as complex numbers. Hence `(x,y)*(x,y)` calculates the square of the complex number `(x,y)` and `(x,y).(1,0)` calculates the dot product of two vectors. Here it calculates the real part of `(x,y)^5`.

Bohemian Dome

```
y^4 = A^2 + B^2 + 6 A B + 2 ab ( A + B);
AB = y^2 - A - B;
A = 1-x^2; B = 1-z^2;
```

This surface is generated by taking a set of circles in planes parallel to the x-z plane whose centres lie on a circle in the y-z plane. A parameteric definition is

```
x= cos(u);
y= cos(v) + sin(u);
z= sin(v);
```

To get an algebraic equation let `a = sin(u), b = COs(v), A = a^2 = 1- x^2, B = b^2 = 1- z^2` and calculate the second and fourth powers of y:

```
y = a + b
y^2 = a^2 + 2 a b + b^2 = A + 2 a b + B (3)
y^4 = a^4 + 4 a^3 b + 6 a^2 b^2 + 4 a b^3 + b^4
    = A^2 + 4 a b (A + B) + 6 A B
```

In this last eqn `A` and `B` are known in terms of `x` and `z` and a formula for `a` `b` can be found by rearranging the equation for `y^2`.

Some other surfaces from the hand of Cayley

Cayley 1

```
p1+(a2*z+a3)*p3+a4*z^3+a5*z^2+a6*z+a7=0;
p1=2*x^3-6*x*y^2;
p3=x^2+y^2;
a3=-3*a1; a5=a2^2/(3.0*a1); a6=-a2; a7=a1;
a1 = -1.0; a2 = -1.0; a4 = 1.0;
```

Cayley 2

```
a1*p1+(a2*z+a3)*p3+a4*z^3+a5*z^2+a6*z+a7=0;
p1=2*x^3-6*x*y^2;
p3=x^2+y^2;
a1 = -0.8; a2 = 0.0; a3 = 0.0; a4 = 1.0;
a5 = 0.8; a6 = 0.0; a7 = 0.0;
```

(Use +/-2 for the domain bounds).

Cayley 3

```
x^2+y^2+z^3+3.2*(x^3-3*x*y^2);
16*p*q*r-s^3;
```

Cayley 4

```
25*z^3+16*z*y^2+60*x^2*y+50*z^2;
p1=2*x^3-6*x*y^2;
p3=x^2+y^2;
a1=3.0; a2=0.8;
```

(Use +-4 for domain bounds).

Other pages about Algebraic Surface

Many of the equations here have been pinched from other place on the web, have a look to see some other wonderful surface.

- A gallery of mathematical surfaces by Tore Nordstrand.
- Some beautiful algebraic surfaces by Bruce Hunt.
- Surfaces with many ordinary nodes by Stephan Endraß and W. Barth.
- Gallery of animated algebraic surfaces by XIAO, Gang.
- The Scientific Graphics Project
- The Cubic Surfaces Home Page by Oliver Labs

and my own

- A parade of Surfaces

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Examples of algebraic curve

For details of the basic operation of the program see the Main Help page. Some special options specific to the calculation of algebraic curves is below. Example definitions plus some explanation are also below.

Region of interest

These parameters control the range over which the surface is calculated. *Its best if unequal values are chosen for the ranges. Otherwise certain degeneracies may occur which can lead to poorer results.*

Resolution control

These parameters control how accurate the resulting curve will be. Each of these must be a power of two. The rectangle specified by the range is split into a number of smaller rectangles and points of the edges of these rectangles will be found together with any singularities lying in the middle of them. The **Coarse** parameter specifies the number of smaller rectangles, by default 8 along the x, y, i.e. 512 boxes. The **Fine** parameter specifies the smallest rectangle size used to find a singularity.

Generally you will just want to change the **Coarse** parameter. If the singularities are not calculated very well then you could also increase the **Fine** parameter.

Examples

It generally a good idea if **Top (X-Y)** item is selected in the **Camera panel** in the control window.

Unfolding of a Cusp

```
x^3-y^2+a x^2=0;
a = 0;
```

When a = 0 this gives a cusp. An unfolding of the cusp is achieved by changing the value of `a`, for `a > 0` the curves will have a simple crossing (crunode) at the origin, for `a < 0` the curve has an isolated point (acnode) at the origin.

Many other examples can be found by selecting one of the predefined curves in the Project panel. See A Visual Dictionary of Special Plane Curves and Famous Curve Index for other algebraic curves.

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Examples of algebraic curve in 3D

For details of the basic operation of the program see the Main Help page. Some special options specific to the calculation of algebraic curves in 3D are below. Example definitions plus some explanation are also below.

Region of interest

These parameters control the range over which the surface is calculated. *Its best if unequal values are chosen for the ranges. Otherwise certain degeneracies may occur which can lead to poorer results.*

Resolution control

These parameters control how detailed the resulting mesh will be. Each of these must be a power of two. The box specified by the range is split into a number of smaller boxes and points of the faces of these boxes will be found together with any singularities lying in the middle of them. The **Coarse** parameter specifies the number of smaller boxes, by default 8 along the x, y, z directions, i.e. 512 boxes. The **Fine** parameter specifies the smallest box size used to find a singularity. The **Face** specifies how accurately each face of the box is subdivided and the **edge** parameter specifies how accurately each edge is subdivided.

Generally you will just want to change the **Coarse** parameter. If the singularities are not calculated very well then you could also increase the **Fine** parameter. Lowering the other parameters may give quicker results. Not much will be gained by increasing them. As a rule you should keep **Coarse < Fine < Face < Edge** or the results will be unpredictable.

Timeout

If a degenerate surface is specified the program can take a very long time to run. To prevent this from happening the cgi program will timeout after a certain time. This may mean the surface will not be calculated properly. If you want to calculate more complicated surfaces please email me at pfaf@webmaster.org and I'll provide a version you can run at home which does not have the timeout restriction.

Examples

Intersection of two cylinders

```
x^2+y^2=1;
x^2+z^2=1;
```

Each of the two equations defines a cylinder. The curve calculated gives their curve of intersection.

Apparent Contour of a surface

```
f=0;
(A,B,C) . n = 0;
n = (diff(f,x),diff(f,y),diff(f,z)); # the normal
f = x^4 + a x^2 + x y - z;
a = -1;
A = 1; B = 0; C = 0; # direction of view
```

Given a viewing direction `(A,B,C)` the apparent contour of the surface is constructed by finding all points where the normal at that point is orthogonal to the viewing direction. When looking at the surface along the viewing direction the outline of the surface will include parts of the apparent contour.

To calculate the surface insert

```
f = x^4 + a x^2 + x y - z;
a = -1;
```

into the Algebraic Surfaces program. To see the profile select the Right (Y-Z) mode in the Camera Panel.

Cusps appear on the apparent contour when the view direction occurs along an asymptotic direction. If further the point lies on a flecnodal curve then a swallowtail singularity appears this happens when setting a = 0 in the definition.

Intersection of sphere and cylinder

```
(x-1)^2 + y^2 = 1;
x^2 + y^2 + z^2 = 4;
```

Conic sections

```
x^2-y^2-z^2=0; # A cone
```

```
a x + b y + c z = d;
a = 0.3; b = 0.5; c = 0; d = 0.1; # a hyperbola
```

This gives the intersection of a cone and a plane. The intersection will give a conic section. Use the following to get other types of conic section.

```
a = 0.5; b = 0.5; c = 0; d = 0.1; # a parabola
a = 0.5; b = 0.5; c = 0; d = 0.1; # an ellipse
a = 0.5; b = 0.0; c = 0; d = 0.1; # a circle
a = 0.3; b = 0.5; c = 0; d = 0.0; # two lines
```

The cone can be viewed by selecting the A1 (cone) surface in the Algebraic Surfaces program.

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Examples of parameterised surfaces

For details of the basic operation of the program see the Main Help page. Some special options specific to the calculation of parameterised surfaces is below. Example definitions plus some explanation are also below.

X steps and Y steps

These parameters control number of steps used to define the grid representing the surface. Higher values will give finer meshes.

Clipping

A very simple algorithm is used to ensure that the surface does not run off to infinity. If any value is greater than the clipping parameter, then the value is set to that parameter.

Examples

Monge Form Surface

```
(x,y,(A x^2 + B y^2)/2 + (a x^3 + 3 b x^2 y + 3 c x y^2 + d y^3)/6);
```

Any smooth surface, can be rotated and translated until it is this form (with the possible addition of higher order terms). This can be useful for examining the local behaviour of surfaces.

Cross-cap

```
(x,x y,y^2);
```

Unlike the algebraic form this does not include a handle.

A sphere

```
r (l,m,n)+(x0,y0,z0);
(l,m,n);   # This equation specifies the normal allows us to get a correct normal at poles
l = cos(Pi th) COs(Pi phi);
m = COs(Pi th) sin(Pi phi);
n = sin(Pi th);
psurf_normals = 3; # switches on eqn for normal calculation
r = 1; th = x; phi = y;
```

Rather more complicated than it need to be. The first line gives the equation for the surface and the second gives a definition for the normals. This is needed as the standard way of calculating the normal does not work at the poles.

Kline Bottle

```
X = t COs(2v); Y = t sin(2v);
Z = sin(u)sin(v)+sin(2u) COs(v);
t = 4 + sin(u) COs(v) - sin(2 u) sin(v);
u = x; v = y;
```

This surface is not orientable, i.e. it can not be given a global direction for the normals. The equation for this form comes from Alfred Gray.

Swallowtail surface

```
(3 x^4 + y x^2,-4 x^3 - 2 y x,y);
```

See the Algebraic surfaces page for a discussion of this surface.

A torus

```
(r sin(th),r COs(th),r1 sin(phi));
r = r0 + r1 COs(phi);r0=2;r1=1; th = x; phi = y;
```

Helicoid

```
(v COs(u),v sin(u),b u);
b = 1;
u = Pi x; v = y;
```

Tangent developable of a curve

```
v + y * diff(v,x);
v = (x,x^2,x^3);
```

This surface is constructed by taking a curve `v = (x,x^2,x^3);` and calculating the tangent at each point. A surface is then constructed by taking points along the tangent. This example illustrates the use of the symbolic differential operator `diff`.

Gauss map or spherical image of a surface

```
n / sqrt( n . n ); # a unit length normal
n = dx ^ dy;       # find normal direction
dx = diff(f,x);    # the two tangents to the surface
dy = diff(f,y);
f = (x,y,(A x^2 + B y^2)/2 + (a x^3 + 3 b x^2 y + 3 c x y^2 + d y^3)/6);
A = 1; B = 0; a = 0.5; b = -0.5; c = 0.3; d = 2;
```

A surface can be constructed by taking the unit length normal at each point of a surface and translating the normal to the origin so the end of the normal give a point on a sphere. The Gauss map will have a fold whenever the original surface has a parabolic line.

Bohemian Dome

```
X = a*COs(u);
Y = b*COs(v) + a*sin(u);
Z = c*sin(v);
a = 0.5; b = 0.5; c = 0.5;
u = Pi x; v = Pi y;
```

This surface is generated by taking a set of circles in planes parallel to the x-z plane whose centres lie on a circle in the y-z plane.

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Examples of parameterised curves

For details of the basic operation of the program see the Main Help page. Some special options specific to the calculation of parameterised curves is below. Example definitions plus some explanations are also below.

X steps

This parameters control the of number of points calculated along the curve.

Clipping

A very simple algorithm is used to ensure that the curve does not run off to infinity. If any value is greater than the clipping parameter, then the value is set to that parameter.

Examples

A circle

```
X =  x0 + r cos(Pi t);
Y =  y0 + r sin(Pi t);
Z = 0;
r = 1; t =x;
```

Limacon

```
X = a * cos(2 Pi t) + 2 COs(Pi t);
Y = a * sin(2 Pi t) + 2 sin(Pi t);
Z = 0;
a = 1.5; t = x;
```

Rhamphoid Cusp

```
X = x^2;
Y = a x^4 + b x^5;
Z = x;
a = 1.0; b = 0.5;
```

When looking directly down the z-axis the projection of this curve will give a rhamphoid cusp. Along other directions cusps and pairs of crossings can appear.

Helix

```
X = COs(2 Pi t);
Y = sin(2 Pi t);
Z = t;
t = x;
```

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Examples of implicit surfaces

For details of the basic operation of the program see the Main Help page. Some special options specific to the calculation of algebraic surfaces is below. Example definitions plus some explanation are also below.

Region of interest

These parameters control the range over which the surface is calculated. *Its best if unequal values are chosen for the ranges. Otherwise certain degeneracies may occur which can lead to poorer results.*

Resolution control

These parameters control how detailed the resulting mesh will be. Each of these must be a power of two. The box specified by the range is split into a number of smaller boxes and points of the faces of these boxes will be found together with any singularities lying in the middle of them. The **Coarse** parameter specifies the number of smaller boxes, by default 8 along the x, y, z directions, i.e. 512 boxes. The **Fine** parameter specifies the smallest box size used to find a singularity. The **Face** specifies how accurately each face of the box is subdivided and the **edge** parameter specifies how accurately each edge is subdivided.

Generally you will just want to change the **Coarse** parameter. If the singularities are not calculated very well then you could also increase the **Fine** parameter. Lowering the other parameters may give quicker results. Not much will be gained by increasing them. As a rule you should keep **Coarse** < **Fine** < **Face** < **Edge** or the results will be unpredictable.

Timeout

If a degenerate surface is specified the program can take a very long time to run. To prevent this from happening the cgi program will timeout after a certain time. This may mean the surface will not be calculated properly. If you want to calculate more complicated surfaces please email me at pfaf@webmaster.org and I'll provide a version you can run at home which does not have the timeout restriction.

Examples

Below are various examples of implicit surfaces, further examples can be found in the Algebraic Surface help page, but better results will be produced for polynomial function if the Algebraic Surface project is used instead. All the examples (except the super-ellipse) come from The Scientific Graphics Project.

Sum of Sins

```
sin(x) + sin(y) + sin(z) = 0;
```

super-ellipse

```
(abs((A - x)/a)^(2/e)
+ (abs(B - y)/b)^(2/e))^(e/f)
+ (abs(C - z)/c)^(2/f) = 1;
A = 0.0; B = 0.0; C = 0.0;
```

```
a = 0.75429300; b = 0.75429300; c = 2.07894000; e = 0.38533800;  f = 0.09582500;
```

A generalisation of an ellipse. Set **timeout** to 100 and **Course** to 16 to get a good image.

P (Schwarz P)

```
cos(x) +  cos(y) +  cos(z) = 0;
```

D (Diamond)

```
sin(x) sin(y) sin(z) +
sin(x) * cos(y) * cos(z) +
cos(x) * sin(y) * cos(z) +
cos(x) * cos(y) * sin(z) = 0;
```

G (Gyroid)

```
cos(x) * sin(y) +
cos(y) * sin(z) +
cos(z) * sin(x) = 0;
```

N (Neovius)

```
3*(cos(x) + cos(y) + cos(z)) +
4* cos(x) * cos(y) * cos(z) = 0.0;
```

W (iWP)

```
cos(x) * cos(y) +
cos(y) * cos(z) +
cos(z) * cos(x) -
cos(x) * cos(y) * cos(z) = 0;
```

P_W (P W Hybrid)

```
4*(cos(x) * cos(y) + cos(y) * cos(z) + cos(z) * cos(x))
- 3* cos(x) * cos(y) * cos(z) = -2.4;
```

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```
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3ÄCO:¶8#Ñ›bíáwH.ýØ2O}SIE§•Ÿzí]Ñx;ôKÇàþZëöAIYôIf?•@ÏDØ‰ýA¢‰{fÑdz,O•k³€OE’Ðû•é´

©HæKÏ¦O•Nê¸®¿ù-RÑµâtz.nÖ<2qOi1·%Ö•Ùq•‰AmõAªM3Ùý´ðAAI•Ñi:IY-ó8³\29Öíníš]k•Ofç6_Ixj€åý©Ü`¸‰mKâ°“àq.O‹@.Ð…”ŒtV•qq

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¨·••¥Qº.7],âè*?må˜k•OùIÄ¿A•¿ˆOD‹Ÿ.ã"—¶B9¶j¹Ÿ¶‹2h¯n˜ à—OsOu~•ÞñUnUé£]´C¬fr¼mfsòÜVà‘x(¨••Sz•rWv$Ð`EîÜŒIïciÇ†
Ú^tuší¥èçkL)ú]°†((ª£ÒvNLtÌ,åÓ-v8        wG¬ïžŸ^A/Ç)_    ×´E(¨b)ßÇƒqÑ«‘»;¢w<n©f·Æš»f‰LlnÆú!ýžÈ5°ep9S-
zš.z½ØÏ´Æ‰IÛ”Ûø£-Q•?F¥º•,šËÐR÷Ó[Ð òÐ[9/oÂ3ár0üTpëÛ¹2ÀïšM€ö;Ý®ã•·ƒv.và.ÑtwzWNøÐ~¯hß3Ï`zÞŠÍt“R-F7½ßK ÷Á! +xŽÝöÐMX÷3.f-¡Ä4Ã<Ãe¸m3»»ZÑÐ¡€_pÀ€„ýÍÛ\ê„MìšP¨Œc7Ú˜“…û^9Ö¬®eíõ‘÷éN×¢`³wùén<,÷éSøskúÔ¬óû¥ûW\ÓÉ[0±ÒOŸ@Ï¹&“<sç:ü·Þuæûjt×êXk+BÿVlÕï’§2Ç®¶Ð–¶?¸Îü¹Bò¦È$'Ñ÷¨5-"w^ÝÞ°¶•g¾%ÚßNoçk€öwEû{é[¡´%ú¾ø€1'QÙ•÷"ý^a“`)’õþY4j?JžNÅ¢þB?Å[ðJž:GåÛ+‰‰pEÒÏQð|ãwZ|KrHð÷/Ñ”ËPÆêÊô3àQ8•F?ý=Š4³dE"ÞTÚÊ5K´X”-°ù=ôŸ@ vw^°,G¹7„þ›’2‡Ñ3k8ïgèLðÓ¯è1ýxÆXþ#q3b••èuÓ4•¦™g%Ú›ã-n•ù4CÓA*—z4·õÑ6èâE§Ó»šOì¼¨ó“ÖeÃøèñËÓr)Æ5,k-¢´1ÑÑÑ½¼+iviy@
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ö¨¬,æwQÝÆ79¶¼#ÖÖIlQ'’‰VŠb½T;ô-ŽX[bElbk«¥i'Á¨Đ:ˆ%Þ97Þqî×NA¦ìÑ†SR\æ,CĐúY`¡´_%-¬•ãB"¨—Ô•÷«—ä¤ê%~m„V‰ýFÚœ¼vÕo„G-ŽSÑ-v*ˆZ¦•f3pE•N®æ®ÚÍµäŒ¤@-F;G®6#È×¯•Å•nĐÆ•~!rg,f!r\Õ›:uªƒ›EèÙ
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“„Ǹ¢MÖ@×{@›,ÆqÆ<•éæv¦ÏälmI¤…z?šO]?ê\Eí\œßtJªúëÜ/I@vZ=vŸ‰¬¦üÄ:±×Sˆ_›-•‡3k@s•šòE„°ÆpC¨ æq.§]

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¿Gú5\Æ=ŸZ+¶fpq-•»å5Pó3ï»G»4ãÂ¬°_8rc9˜]~-KëÄMéÒ•wâDauJóÐVr•H[%ü—N¸ÜÚeYÚwñ `uOÑN´5ÇåÂIe×®W!¢iÒ
©´m-‰A½ö ]´Þ2¼(Ú5äa¸æ˜`yP´ëÌ
øS‡Ã´€á›móyh ×!(èuEŽPÒk¡Ý"àà;ÂÉá•*†¿]<Ø•"íNr)6•ÚW•†AÌä.1ÂÝ,ùÎ‹7á°÷¢vŸ§•ÂçÅ{‹·,…“Ü$j7¡qþÐxµûEÝ¢n.¯ëu?$’ú8Tÿ.¬Ã«]'•ÏŠ¯â§ø•ö
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{'Ñ¾ìKè¸R
M‘íújqÝ.^Z›l×¿'ZÖw±ë¤v`sW /-O¿RÈðŒæïƒÞ½¯z¶Î×ÒŠõˆMúaæ…Pª±~-¹·ôã¼–ÝZî<ýFiÅŸ§Rï¼M§Ð•"ÐÝ’"ÚUãmâX~Š8žÃèœ:çÐŸüÎSìî:ýNì¼^ÈuÑ,
bî÷ëw“BÜ#ô'›'\ßA}äúFÏE•«oFàû¸¹Ü••…¯3i¸ê[ô°O•Ÿ;¯øÙÏA…!ä.•¯1í}Ö·"¾_A¥O±&O”)ýQØTA
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SáANg}K•\¬}{æEH½J7’^ÜüßY¥^>KõNŸ€Ë@»èM!¿4(ý)ö4,½–E¼“™þ+`lõB½,TÑ‹?»ðçiüyFÃ•dHnIO)e÷Kú‹(»•ƒhVa?æ.Ç\.®¹sC1—•9~QrrF¯FEãX<
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Ï"À@¤qž")ã›&Œ$ËëŠÑ(àuC„?u2*+Å¦@[mšNªu'ƒ†/êP·³ü‹ÉË”ÉÊ2Vy!+pÁCðç$üAo«à³v`4¬JÌëTdÑŸ_G;••ŽPÕ”"¦¹¹Jãí)úî…v%ÚÅ#<¬V°õºÇÆrsŒ•ãÖ•“[¬0uß%ka'1›LF›†Îúš`²ÀÚgªxì'¯}åÉÈÏÎæ~EV—ñ|/ß”¸K)šÚg:;×}€Ì*ÿ›‡(Y©åÚÒ&0‹ÍÄ
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œÇSä@³€iøY÷;±9Ü%%[-G•øæS¦y™3øúø;NøR•FÜò¥ñF?[Aæ‹Ø£dLŽîfùØĀu îöeí‰•í¥’“áKaHw[„ïj

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Œ3¹¬êÜÖXZ4Eæc·%°RÖ,ïî•  øY“hŒ•¡¢Ì_Úæg-¢~)•K®¶´—ëa—ExbrwÄDü¬•{òX·ŒëEëü4E>²”-ÇE}¢•LSö®StéB••ä•ì¸YIµÜa¶Ö?[ÄV,½EVIâ¬ÆIlÖeRIõ»\!dµ§®Hcw.»´‘ƒzØå”Lü6Ç×•.êêì^R[égW±+qBß§ÄËŸv[14—-Eß½‹•¡sJ2¸6ÑI-y4S’Q¯hÜ—Zó°kÐÜî^âg×AÑÆëá¤CUQìG<
•Ýh÷Ù nöã,v3Æù›ã•V@»…ü ûÝ*ÜXSÚ1ƒý¸s;>uÀvÚŸ#„~ÍÖ        Æ½^º@dø›ì•»ûßK
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+Äý:Æ«Ç:@Kaoâ;‘‡½%¼+³§Mò³wP½~€½ëì²›kwä
Õ•½Ïöá´>@™˜Nœ‘2-dô…uA4~ä÷ö÷ö½ùúnPžX´+
œíÂ>uí–-®3-pLÅ`Nö…ù›ëÌ—Å£4ê’Àó†õ÷ì)
L¼~²•PR•6•Òhô‹vò~qÓ;Ãd•Àötó{îgÿ6;v{TŒ|ÎåÆ'SÎº¾bÇð,Ž£Ú\×¸×Òü†fPÓÐUÌ³¨5È°Ö%Þêš`Þñ®Õ~ÃƒoŠ]†•$|'Ã×#Öð´2ÊÀÈáÁ?FnfŒÉ7Š/<dÚÈ7ò`9(‡¥–ópU¼Óñð•®áRe€ƒø›žÄ·¦4˜Ÿ²QDIùDĂÑï•b¸)L
}•K£+b¥Ýíñ.yè€´ÄuÜúàà[é*Ü”èò''à<NbgNàá|ã@OòœÝ0©+•—Ãnœ,{X?¨'Ÿ*D©CxO•õp¡Ù*?1@%=1©KJœA…c%'w·so©ˆ°MfHî¥Ñö¦Ò%c¾ØMvÙvªš€©TùÈCÆ©¸e)0*(Ø±Rô<ÝGÞ7@!>
{¦²‰ŒŠLµœ•C×HE†è¤å±Ö¾:¼Y÷W/öu<ö?m²»Ñ‘¿P…
g5Àk_gáyOîÿ‹     4•¦;
ÀŒhÇ2›ó×¨ã•²Æ9Â)‡¢V©éÓ¹ªmÌàšn›½e&W¨•YøuÊòå-«y7ô/ÉöÙÜ¾7€c4':¸ýeœOîí.-¤ßmÌópKÓZê]SñŽ[_–¹
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C’Põ    79Ö,à::nã"¿¦‘‰èG·ç,íH¬ĂK·±Eg,6úŒ‹Ùf˜KR··ÐâµZ
Rt•Ø’_¥IÅÊ,Ëç;•b$€Ø”wgjG¢Ï®ÍŠãTÕSØ«ªnZGt°@¡£¦FÔ+†ŠlÝîÑä$iJ*…p=%•2{xœ5ût[˜{h27Â”CŸ•àJ•
–~çŒ–‘”7;‰:¯-º,õk&±–ÉË˜;!¤S*¬HIå
´=$$«rÔc˜Ú$¿øÂAùU] |¶j¯å®üšW×ÿ=ÃWÕ,U-Ö üQV¨ýöÁÉÛAÕZì•ÖåÙk¹’Í=ˆ"öÎ•™É©!Š
úýøb®p§PHz8ƒsEÿ!9…)Aé–&“?;Þ"Þîá’Â€ÙÌHwßÞ_Drc¢mywWlv¢‹ÇÂfÄŽ·®nI´•áŸø)Ø³V·bÀEß-¹oY²mr¼s™pÈŠPFY=Ã‡n„=²eSÃò¥1Ü:'ÑÑÝ™,6´GãøÞÜ_>³ï¿œg®äs
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C¿‡¦kgc´•Äô¯Ç„ðBqÙAncwZÄ®$/› .¹`>•whAØkÇú³ñ+ß•Øt^w´©#•DS’}dvRÜ-Ä±5yßJÜYÐßhj7ãEG;…Æ5/Þµ?å£dò·µÜ>Ü#ˆuJwk¬ã¬¥ÑZh#z¼;á*‰4¬nïZƒ<9•¸AŒ%$LÆ´CZa
0Oï)~"ÈÓ•"Åc^ö//ï–õïKøåä\žþ›¼Áë_-õÓE=~ÜÂËÉr6õóôQ9îŸ%¾€LóiOC4ÈÓ×%Ü[2}Wâ¿ŸÜÇÖ•Šqñk L1
ŠÃ=(Ó³eú°ì÷¦œç•²ü•Äó±H1ª—§ÏÊö¿Jü_ÈôK‡Á`ÜLºƒÜN¨ñ(×•·Šîi,Ÿ
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ÝuHO(z•·…à¿*ù_A¸Ø$ámá¢â^2Bv5ÖwÉ®Á±„ôUÀ^el&'î"§Áx§ç•Ç$c°Î$ãó'@Þ$“ù´ŠŠ—šäì »¼¥•Ô]Ó˜¨É
zƒ–Š±”-WçêÕzÈEÁ¬À€k-ÕäéÕ=dJ0;P¥B>Îý°°í¤>•[•c’92»•\ —óg'Ë,hg¯Í¥kh  xÓñ]kÐÀ€¢MÇïGD®•$6É…•_¸‹4ÌÏÉÉí%Ñ>Ò´-LM²T-÷aãr¹•sJ&¤G_Hå5•\ØÓÕKZk=&Y>O¯öÂ|9ú
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$?ääOñÄFtõ¿,OzBžHE¹¬†YÐuÇY$/Erï¸‡ø,¬ÆðZ_ë¥/¯Ut¼¯DU ˆ§¿‹\1±ö’+k½!l¬/¬W‡¼A—I~ò-˜äº•ZøG!/IäÇ!¯¤ci“EtžãE6EO#ëö/üÄäòïê#æ?NO=@¶•m½ñ+Uû$ 2Lá†í%¹˜<?›7C·:×•"U!_vpU÷Ÿ¬d{¡Lq“¶˜d«œ0>E-`@OÆõn•µ=ªånc•¡E–à²OßóÿšqrjŒœw»Ÿä’mS"•bQñ¸"J7œ©^íë!¿•aV0«•<Q“•Eî

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ó•k}4à2Ÿ-¶ë{Æ¹£`?ñ¶ŸVtĖ*å4FJÕ–ý¶©÷ëk¿ô-8±¢*à/¨þ¾q•Ä6‘ÛéÅz|ù/¼†ðkÆ#]l$ÂÅlñ5…ä7Ën2ÉËXÀ-/†“üã¼b‰?€•gùLÎ€ô•p/y}qM•pÎdo›ä½=äýäm,í7ÉG{ÈC;È~,P¥äŸA°_¦x
P†ƒX:¤J‡°tXa8=Êž‡dzXa8¢úÁÒQU:ô+0l•GdÏ£2Ý¢0S}ŽAí1¬E¾¼—„",»•µ‡äíF-˜54R°—äE0í£l5vPŠç!*I½¬$õá••^“úöÐ¬Ô+î)‡\¨
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D®„I5é€=¤a…«L÷’%ºƒFôtæS°O¤'Iè!gVì¤§P²‡–OWî%‘J“–C¾–EBI¤•óB,bON^T¹…ðEOæõo-’€¾5”¬?þTD^pü4RPX*^ðÆ¢…IƒèUEKç÷OZ˜R§„O0Ix¶)IOU*3S#a±]ƒO#_¢EIS‰àæCY¶úrEÁÐ+%[ej
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xn@SÓf˜e^“Ö•+¾–”Cfv½^ÍzH°2ÀªLzþz’…¹"“^°ô×û•¬QWûÚyrÀ…rÀÙúX}\á|§¸ŠÁÅ]G\k)]«Ñb!T>)zÒ7CÏ*æŒ‡I¸¬Š’µ:3“& ?¨P’¤ÓyñÊ¹à'‹²½Vê$#Äz®¾ôÒEÓ#z‡•}´q^„ÙŠÍó}÷ZÜÝî>êþõí¸{’³ä–+_ÕøÍÜý–BÚ"|£#‡•öžÎÝƒY…4ÞGÛ–õÑåÀ·k,6v"¿/Lá÷P—•Vg@ðs¿CqðvµµWÐËåÖî‘ZÈöÈ^2h¿ˆf[¼•Ë½) —Á†@Ë±)°÷‘â’^zpÔZÐkk
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¹áW‡N%ëI¯,}5éOxõ!›*ór^)åõNJò:¼¼4S©ÀïPn¥Rqð+GI0Ý ’bz»-ìÚAïSd…ÀAÖcŽÂðT‹u÷àÏÆ°Ž—dÆcø8jÚ£?ÇÀmÅŸsðçD•‹=C‰”SHÏ-¤;Lúé.“>ÍEÝƒ£,DÈgðg/
}>—=Á‹øƒÌd;
é¹¢õ`!}I´í‡£¿Çù²WPŽä¦?¼?VH_àÇœsKdåaÎÅ¡ø&NÿÌíC9-:•#r*GÄPGeñ(®/9¥£¢uKr"†A}¬Ôº
G¾¹^ñÍ‘Î¬c½bc+•¸2½C©«,¶Z&»+¦j#aÛ¶^gé)¾Ì9
ýD©¶‡,¤K%ƒtn*RÀõ‰¢C•£¢-¶°yñ_çIf°yÓñÏ±‰K§b“þ•‹H€ø» ƒ6? îðQK3)ñ“„ÜFª÷JªÏcó}ôP®ìŒß?Y¼Õ¼í=NÝÛ"ØyÍfâ+ ÿâlÐ¤ÿA4zDçÌU#ó”€*%C%žÅ’GÏ‘x^_Ú•ã”Ý¸ƒ›,~ÉWòjïéÓÀØS y•ûšZ-`¼¦†™?,Õ™^©
PÇºÜ éç&/ºMÿäÆ-¥EUŠÿ71íWÜãZGRûPñŠvgRûPÍé&ãGÖN
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^V˜Ú EñOhAË•Ñ,Cæ^©="gò™i2ÂÈÆƒ=2ÜÔ†¨É\
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Ç•ĂAg)j<bÑÖé0¼( ·ks@¹1NÏP©I/.‰Øˆ¥‹Ç•t•çª4’Oç–E[ìà#qõjço³Ü¥d¢CĂTi~¸ ¨W›„®Ibj…Ÿ¦¶(ìAŸå·•`‰•[ún0í@¹ÞEÞŸŸwñgAºĂ½Zh¨yj>5I`DĖš¿Z5d¯Ī-^eIA«æ•ìõ…Öë°„ù›sDŎ²jZE^_Z½¶H˜-˜c¸Sx¿þ©-œ!_¢Z£ÜÜEb¹—Đßt"ühmx•–+EVK
—Vd“Bp‘:„¶IJµ±r æu’`^«~Ä*zi
 •ÿÑ¦…#½ÚŠÈ€Y0÷Õ;µïé$2à<È_!óçCþû2VÝ*ó§¢õ)óQÈ?"ò8îNíj•çêwj?„Ü€Qãâí¨Ì¢y |%€ë:
ëÈº¼îG¼7õîÔnÄÞcñ6Ê‘•ÉïµFZ¸S»‰÷?$ûÎ¶Sû
ç ¬;Èënãu‡eÝa>ÎˆýÀø˜ÂHswjë9Æ·%äÛ¼÷=8ö4æjþ½¤AøFò÷,,9mã8‘Þ7^ºMòEy‹H~^\Bõâ>í‘âQñ˜HvìÔú\¤‡äD¨¦é:/q×ÊNm'Î°ÓW¬5ãzRLwÐNíiP@Ñ»,\,¹¾~•U
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LåuĂüQ©Ç›É–†AÈñ¶ê¬¨·*ù¼ê¬›:²JŽóJŽ“ÌÔž¤ÆjBQ20ƒi³½#¨™ó.µÄ»:ÞÃ,Ãxçô;rzB”ËŽOÿ`·TÔÐ©êÇ•&óºFô2,bZ1,Ññ–AÄÀ‡j3‹åÎªunoƒT›“äoWT÷-àžRn•”³©ß8î3œn\¬H×Ë,Ðž†:¢G¢ŠKWzø^áæ‹±v¨ž*Ù–"þ˜ˆ·{•ãS†®â$Çç4"æÊeÏ‘©¨ìF)ÑŠ¶8rt!GN+ÓªëìNä<Eõ®\[9\ÕáKkªUÕèYÉðđå3ƒ¥¢Á× D´EÇ-‰ö+º%Â\Ñ-s¤ƒ£Ì=ykº,¨SSf¦Diz©×ÌÇ.ÕvhVçØcl•³Ý¨ì‰=5•£¿a¸ÒTþ1X‰ÊºÂšåøŽ:…^5¢t|ià‡æ+ü‘rl¡*×ã’µO•a[ço.-Íl
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§Ù¡ýì:ßO³9ú©i¶ ±Ð*,¯dÇ6š-9Ăâ–¹§à:Ö.ŠØªPÑVª,¶İPÑìAv\Ç.vÂ;,T¤ï`cª×ÜÃN¨o9ÈS%v|¨ÈØÁFI¬•"Œ¾zKÁ;¿¾a€•ÞÍÖ¬¹—•XŸf-VüH³6˜•ä¾ÃáþAË
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Œ¤ÂSC—ƒ±à9àùÍ,:OQaÁZˆÜÝ°`Öƒ•ÿó—Dî©ý)¹;ä¢!F-p….¸cMó×È3|3¡ìXÊé{¢ÜƒîÆ¦ø?œ¤L,Ïðù*½«¬ëÕ}:žÎªÎêe½üýþzcD>Â•ªºödÄÓ,‡äÌÔ¾åNó7Ö»ä!§udï{½Ñ['+¨)þÏ7ÃÏÛžQeEaŒ"B™5·“YóX0®"¬(:^ü§/±WjYÈ åð¼ñ¹©ÈÏ+Ï^—^ÈzÐÇõdcø^,î¢M‹;7ìÇ°±¾£Lt•z§Ãý!–Ðƒ!ƒ«PÔq£cµæCgŠÊG²´lžT¿p]³E'£À]²ºD49e¾(«K†‡£s4¼å&æÞ6¿Ç^Ù¬;üŽÍ†cÝ¡|é™o™oª…Bç-Ô<å¾š=ZÃ#šý5„~¸–L_öR/mx-–•.&#ûDÞ"ov>ä-ê¢ê*B(µÞ~»,öU2Ü!2^þK¶m[„‹šòŠŽ$jÂ½aŸ^P
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vZ7jv/function/PuFunction.classPKD€^/Z•]„
-Ajv/function/PuFunction_IP.classPKD€^/ž#D‡Þ×Hjv/geom/PgBndConstraint.classPKD€^/YÞe•O.©Pjv/geom/PgBndPolygon.classPKD€^/òm¤CO5€ejv/geom/PgElementEdge.classPKD€^/î•§ÑJbXçijv/geom/PgElementSet.classPKD€^/8¯ÍÜÞmªËjv/geom/PgElementSet_IP.classPKD€^/èçDµ42ÓÓjv/geom/PgElementSet_Menu.classPKD€^/utZe"ÞÕèjv/geom/PgElementSet_MP.classPKD€^/Âƒuvýƒ!Bñjv/geom/PgElementSet_TP.classPKD€^/ãy¾
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èÌ$/Ijv/loader/PjImportModel_Dialog.classPKD€^/ŽjóJb%iNjv/loader/PjImportModel_InfoBox.classPKD€^/\¿ª\/f
Wjv/loader/PjImportModel_IP.classPKD€^/'ž'®!ƒbjv/loader/PsCategoryList_IP.classPKD€^/¸µ'ó:€jjv/loader/PSGr.classPKD€^/°»:}Ù.T†jv/loader/PsXmlLoader.classPKD€^/ó*Ÿ>Ð!ŠI›jv/loader/PvDisplayLoader.classPKD€^/SË&MÁ)¾c7½jv/loader/PvDisplayOption.classPKD€^/VXÉQ"`Eçjv/number/PdArray_IP.classPKD€^/3FÒè*¯ójv/number/PdColor.classPKD€^/-ÂED
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€Êjv/object/PsMainFrame.classPKD€^/cJ6‰ÇµrÑjv/object/PsObject.classPKD€^/vmhG
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ÕIlG³jv/project/PjWorkshopIf.classPKÐ€^/Ú-.ó#Û´jv/project/PvCameraEvent.classPKÐ€^/èåˆÌ»J¸jv/project/PvCameraIf.classPKÐ€^/V•˜jÍ#»jv/project/PvCameraListenerIf.classPKÐ€^/Å•¤UC<¼jv/project/PvDisplayIf.classPKÐ€^/Ö¿ë#þãÉÇjv/project/PvGeometryIf.classPKÐ€^/-7P™Û8%Ñjv/project/PvGeometryListenerIf.classPKÐ€^/°xUqAÔjv/project/PvLightIf.classPKÐ€^/?h}ê¡ÞÔjv/project/PvPickEvent.classPKÐ€^/pÔq3!Újv/project/PvPickListenerIf.classPKÐ€^/ÝÐ=kŸ"Ûjv/project/PvViewerIf.classPKÐ€^/1*„¢¥MHÞjv/rsrc/PsAuthorInfo.classPKÐ€^/œD`…O
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q$ßjv/thirdParty/ruler/PgRuler_CP.classPKD€^/CíÔ@ÛãMjv/vecmath/P_Vector.classPKD€^/¯F\¡Á_o#jv/vecmath/PcMatrix.classPKD€^/¥é6nö
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Ï,jv/vecmath/PuData.classPKD€^/¹ÁN[»®‡jv/vecmath/PuLorentz.classPKD€^/¹ØÃDrV
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0ÚèÕlÎí=žjv/viewer/PvGeometry.classPKE€^/pÅwBèèZ        jv/viewer/PvGrid.classPKE€^/·bfvÇ†
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jv/viewer/PvModelCamera.classPKE€^/ˆ^º5SÈ5÷@    jv/viewer/PvScene.classPKE€^/¯Í—‹±O’§•\
jv/viewer/PvViewer.classPK/€^/–XÙñã6†¬  javaview.classPK®®s2¥È
```

Wallpaper Patterns

This applet draw a set of set of wallpaper pattern, which are repeating patterns which fill the plane and exhibit certain mathematics symmetries. There are only 17 different possible types which fill the plane and the different patterns have been known for quite a long time now.

All types have two translation symmetries which define a lattice. This lattice forms either a parallelogram, a rhombus, a rectangle a square or a hexagon. The other possible symmetries are

Type	Code
Reflection	M
Glide-Reflection (translate a bit and then reflect)	G
180 degree rotation	2
120 degree rotation	3
90 degree rotation	4
60 degree rotation	6
Translation	P
Humm.	C

The type of symmetry are

parall P1	The simplest type, generated by two translations
parall P2	A 180 degree rotation
rhomb CM	A reflection and a glide reflection along parallel axes.
rhomb CMM	CM with an addition reflection at right angles. Also has a 180 degree rotation.
rect PM	The translation directions are at right angles and there is a reflection along one of these.
rect PG	A glide reflection at right angles so a translation.
rect PGG	Two glide reflection at right angles. Also has two 180 deg rotations.
rect PMG	A reflection and a glide reflection at right angles. Also has a 180 deg rotation.
rect PMM	Two reflections at right angles. Also lots of 180 deg rotations.
squ P4	A 90 deg rotation and a 180 deg rotation.
squ P4G	P4 with an with two reflections at right angles. Also has a glide reflection at 45 degrees to translation axes.
squ P4M	P4 with an with two reflections at 45 degrees to each other.
hex P3	A 120 deg rotation.
Hex P3M1	P3 with two reflection at 60 degrees to each other. The centers of rotation lie on axis of reflection.

Hex P3M1	P3 with two reflection at 60 degrees to each other. One of the centers of rotation does not lie on any axis of reflection.
Hex P6	A 60 degrees rotation with a few 120 and 180 degree rotations throw in for good measure.
Hex P6M	And finally P6 with an extra reflection.

The fundamental region is the little bit of image which is repeated throughout the picture. Often this is a little triangle. There is a certain flexibility in the selection of the fundamental region and some of the patterns allow you to have curvy edges. I've chose one particular fundamental region for each image. One day I may add the functionality.

For more information see David Joyce's page or CRC Standard Mathematical Tables at the Geometry Center.

Running at home, saving images etc

You can have a look a the source code if your very brave. It uses almost exclusively integer arithmetic for constructing the symmetries, but I've got my coordinates system all in a mess. Javawise inner classes are used quite extensively.

If you want to down load it right-click on this link: JAR archive and select **Save Target As** (Internet Explorer) or **Save Link As** (Netscape) and save it in an appropriate folder or directory. Do the same with these two links: HTML file Default image and save them in the same directory. You can then use the **File - Open** option in you browser to locate the local copy of the web page.

To view other images you'll need to copy them to the same directory as the above files. You can then type the filename in the box in the applet and hopefully the new image will appear. You can't actually view images in other directories because java is rather strict on security.

Saving the image is rather tricky as Java doesn't allow you to save files. On windows machines you can copy the browser window to the clipboard by pressing **Alt - Print Screen**. You can then paste the image into the Paint program or something similar. On unix boxes theres probably a program called xv lying about this can be used to grab a portion of the screen.

Readers Comments on this page:

Add A Comment

All Comments on web pages and plants.

Back to My home page, my mathematical page, Plants For A Future
This URL `http://www.comp.leeds.ac.uk/pfaf/wallpaper/wallpaper.html`

Page and applet by Rich Morris webmaster@pfaf.org, Feb 2003.

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```
import java.applet.*;
import java.awt.*;
import java.awt.image.*;
import java.awt.event.*;
import java.net.*;

public class Wallpaper extends Applet
{
        // This interface is used for objects defining now to do tessalation

        public interface TessRule
        {
                void fun(int[] in,int[] out,int det);
        }

protected Image imgin,imgout;
protected int height=300,width=447;
protected int offsetX=0,offsetY=250;
protected int[] pixels,inpixels;
protected MemoryImageSource source;
int     numlines=3;
int[] vertexX = {260,192,146};
int[] vertexY = {194,196,126};
boolean error_flag = false,image_error_flag=false;
TextField tf1;

public void init()
{
        loadImage(this.getParameter("image"));

        this.addMouseListener(
                new MouseAdapter()
                {
                        public void mousePressed(MouseEvent e)
                        {
                                if(numlines>=3) numlines = 0;
                                vertexX[numlines] = e.getX()-offsetX;
                                vertexY[numlines] = e.getY()-offsetY;
                                ++numlines;
                                repaint();
                        }
                } );


        // Now we create the buttons to do cleaver things


        Button b = new Button("Clear Lines");
        b.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e)
                        {
                                numlines = 0;
                                repaint();
                        }
                } );
        add(b);


        Button b0 = new Button("Reset Image");
        b0.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e)
                        {

System.arraycopy(inpixels,0,pixels,0,inpixels.length);
                                source.newPixels();
//                              source.newPixels(pixels,ColorModel.getRGBdefault(),
0, width);
                        }
                } );
        add(b0);

        tf1 = new TextField(this.getParameter("image"),60);
        add(tf1);

        tf1.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e)
                        {
                                loadImage(tf1.getText());
                                repaint();
/*
                                source.newPixels(pixels,ColorModel.getRGBdefault(),
0, width);
                                source.newPixels(0,0,width,height);
                                imgout = createImage(source);
*/
                        }
                } );

        // all the other button we put in a grid layout

        Panel p1 = new Panel(new GridLayout(3,9,5,5));

        // It theres two lines we can translate in either direction

        Button b1 = new Button("parallP1");
        b1.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rhombusTT(); }
                } );
        p1.add(b1);

        Button b2 = new Button("parallP2");
        b2.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rhombusR1(); }
                } );
        p1.add(b2);

/*
        Button b3 = new Button("rhombR2");
        b3.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rhombusR2(); }
                } );
        p1.add(b3);

        Button b4 = new Button("rhombR12");
        b4.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rhombusR12(); }
                } );
        p1.add(b4);

        Button b5 = new Button("triR3");
        b5.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { triR3(); }
                } );
        p1.add(b5);
    */

        Button b6 = new Button("rhombCM");
        b6.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rhombCM(); }
                } );
        p1.add(b6);

        Button b7 = new Button("rhombCMM");
        b7.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rhombCMM(); }
                } );
        p1.add(b7);

        Button b8 = new Button("rectPG");
        b8.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rectGR(); }
                } );
        p1.add(b8);

        Button b9 = new Button("rectPM");
        b9.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rectPM(); }
                } );
        p1.add(b9);

        Button b10 = new Button("rectPGG");
        b10.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rectPGG(); }
                } );
        p1.add(b10);

        Button b11 = new Button("rectPMG");
        b11.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rectPMG(); }
                } );
        p1.add(b11);

        Button b12 = new Button("rectPMM");
        b12.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { rectPMM(); }
                } );
        p1.add(b12);
        Button b13 = new Button("squP4");
        b13.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { squP4(); }
                } );
        p1.add(b13);

        Button b14 = new Button("squP4G");
        b14.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { squP4g(); }
                } );
        p1.add(b14);

        Button b15 = new Button("squP4M");
        b15.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { squP4m(); }
                } );
        p1.add(b15);

        Button b16 = new Button("hexP3");
        b16.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { triP3(); }
                } );
        p1.add(b16);

        Button b17 = new Button("hexP3M1");
        b17.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { triP3m1(); }
                } );
        p1.add(b17);

        Button b18 = new Button("hexP31M");
        b18.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { triP31m(); }
                } );
        p1.add(b18);

        Button b19 = new Button("hexP6");
        b19.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { triP6(); }
                } );
        p1.add(b19);

        Button b20 = new Button("hexP6M");
        b20.addActionListener(
                new ActionListener()
                {       public void actionPerformed(ActionEvent e) { triP6m(); }
                } );
        p1.add(b20);

        add(p1);

        TextArea ta1 = new TextArea("",4,65,TextArea.SCROLLBARS_VERTICAL_ONLY);
        ta1.setEditable(false);
        ta1.append("To use the applet click on three points in ");
        ta1.append("the image and then press one of the buttons.\n\n");
        ta1.append("The names of the buttons are fairly cryptic. ");
        ta1.append("The first part of the name gives the shape which is tessalated 
(lattice type),");
        ta1.append("which is either:\n");
        ta1.append("\tparll = parallogram,\n\trect = rectangle,\n\trhomb = 
rhombus,\n\tsqu = square,\n\thex = hexagon.\n");
        ta1.append("The second part is the code for the symmetry, ");
        ta1.append("according to the crystographic notation. See the web page for 
full details of what these mean.\n\n");
        ta1.append("Things work better if you click on points in a clock wise 
order.\n");
        ta1.append("Press the Reset Image button to reset the image back to 
normal.\n");
        ta1.append("To load another image type the URL and press enter.\n");
        ta1.append("\nApplet by Rich Morris, June 2000\n");
        ta1.append("See http://www.scs.leeds.ac.uk/pfaf/wallpaper/wallpaper.html for 
more details.\n");
        ta1.append("Enjoy!");
        add(ta1);

}

public void paint(Graphics g)
{
        int i;

        if(image_error_flag)
        {
                try
                {
                        g.drawImage(imgout,offsetX,offsetY,this);
                }
                catch(Exception e)
                {
                        System.out.println("Error in paint");
                        System.out.println(e.getMessage());
                }
        }
        g.setColor(Color.red);
        for(i=1;i<numlines;++i)
        {
                g.drawLine(vertexX[i-1]+offsetX,vertexY[i-1]+offsetY,
                           vertexX[i]+offsetX,vertexY[i]+offsetY);
        }
}

 public void update(Graphics g) { paint(g); }


/////////////////// For now no bound checking of domain


// 2D translation of a rhombus

public void rhombusTT()
{
        Replicate(
                vertexX[0],
                vertexY[0],
                vertexX[1] - vertexX[0],
                vertexY[1] - vertexY[0],
                vertexX[2] - vertexX[1],
                vertexY[2] - vertexY[1],
                new TessRule()
                {
                        public void fun(int[] in,int[] out,int det)
                        {
                        int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                        int beta = in[1] % det; if(beta < 0) beta = beta + det;
                        out[0] = alpha;
                        out[1] = beta;
                        }
                }
                );
}

// Rotate about the center point first edge
// translate in other direction

public void triR3()
{
        Replicate(
                vertexX[0],
                vertexY[0],
                vertexX[1] - vertexX[0],
                vertexY[1] - vertexY[0],
                vertexX[2] - vertexX[1],
                vertexY[2] - vertexY[1],
                new TessRule()
                {
                    public void fun(int[] in,int[] out,int det)
                    {
                        int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                        int beta = in[1] % det; if(beta < 0) beta = beta + det;
                        if(beta > alpha )
                        {
                                alpha = det - alpha;
                                beta = det - beta;
                        }
                        out[0] = alpha;
                        out[1] = beta;
                   }
                });
}

public void rhombusR1()
{
        Replicate(
                vertexX[0],
                vertexY[0],
                vertexX[1] - vertexX[0],
                vertexY[1] - vertexY[0],
                vertexX[2] - vertexX[1],
                vertexY[2] - vertexY[1],
                new TessRule()
                {
                    public void fun(int[] in,int[] out,int det)
                    {
                        int a = (int) Math.floor((float) in[0]/det);
                        int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                        int beta = in[1] % det; if(beta < 0) beta = beta + det;
```

```
                                if(a%2 != 0)
                                {
                                        alpha = det - alpha;
                                        beta = det - beta;
                                }
                                out[0] = alpha;
                                out[1] = beta;
                           }
                        });
        }


        public void rhombusR2()
        {
                Replicate(
                        vertexX[0],
                        vertexY[0],
                        vertexX[1] - vertexX[0],
                        vertexY[1] - vertexY[0],
                        vertexX[2] - vertexX[1],
                        vertexY[2] - vertexY[1],
                        new TessRule()
                        {
                            public void fun(int[] in,int[] out,int det)
                            {
                                int b = (int) Math.floor((float) in[1]/det);
                                int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                                int beta = in[1] % det; if(beta < 0) beta = beta + det;
                                if(b%2 != 0)
                                {
                                        alpha = det - alpha;
                                        beta = det - beta;
                                }
                                out[0] = alpha;
                                out[1] = beta;
                           }
                        });
        }


        public void rhombusR12()
        {
                Replicate(
                        vertexX[0],
                        vertexY[0],
                        vertexX[1] - vertexX[0],
                        vertexY[1] - vertexY[0],
                        vertexX[2] - vertexX[1],
                        vertexY[2] - vertexY[1],
                        new TessRule()
                        {
                            public void fun(int[] in,int[] out,int det)
                            {
                                int a = (int) Math.floor((float) in[0]/det);
                                int b = (int) Math.floor((float) in[1]/det);
                                int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                                int beta = in[1] % det; if(beta < 0) beta = beta + det;
                                if((a+b)%2 != 0)
                                {
                                        alpha = det - alpha;
                                        beta = det - beta;
                            }
                            out[0] = alpha;
                            out[1] = beta;
                       }
                    });
    }

    public void rectGR()
    {
            // first need to ensure we've got a retcangle

            int u1,u2,v1,v2,w1,w2;

            u1 =    vertexX[1] - vertexX[0];
            u2 =    vertexY[1] - vertexY[0];
            v1 =    vertexX[2] - vertexX[1];
            v2 =    vertexY[2] - vertexY[1];

            int len = u1 * u1 + u2 * u2;
            w1 = -u2;
            w2 = u1;
            int dot = w1 * v1 + w2 * v2;
            w1 = (int) (w1 * (double) dot) / len;
            w2 = (int) (w2 * (double) dot) / len;
            Replicate(
                    vertexX[0],
                    vertexY[0],
                    u1,u2,w1,w2,
                    new TessRule()
                    {
                        public void fun(int[] in,int[] out,int det)
                        {
                            int a = (int) Math.floor((float) in[0]/det);
                            int b = (int) Math.floor((float) in[1]/det);
                            int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                            int beta = in[1] % det; if(beta < 0) beta = beta + det;
                            if((b)%2 != 0)
                            {
                                    alpha = det - alpha;
                            }
                            out[0] = alpha;
                            out[1] = beta;
                       }
                    });
    }

    public void rectPM()
    {
            // first need to ensure we've got a retcangle

            int u1,u2,v1,v2,w1,w2;

            u1 =    vertexX[1] - vertexX[0];
            u2 =    vertexY[1] - vertexY[0];
            v1 =    vertexX[2] - vertexX[1];
            v2 =    vertexY[2] - vertexY[1];

            int len = u1 * u1 + u2 * u2;
            w1 = -u2;
            w2 = u1;
            int dot = w1 * v1 + w2 * v2;
```

```
		w1 = (int) (w1 * (double) dot) / len;
		w2 = (int) (w2 * (double) dot) / len;
		Replicate(
			vertexX[0],
			vertexY[0],
			u1,u2,w1,w2,
			new TessRule()
			{
			    public void fun(int[] in,int[] out,int det)
			    {
				int a = (int) Math.floor((float) in[0]/det);
				int b = (int) Math.floor((float) in[1]/det);
				int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
				int beta = in[1] % det; if(beta < 0) beta = beta + det;
				if((b)%2 != 0)
				{
					beta = det - beta;
				}
				out[0] = alpha;
				out[1] = beta;
			     }
			});
	}

	public void rectPGG()
	{
		// first need to ensure we've got a retcangle

		int u1,u2,v1,v2,w1,w2;

		u1 = 	vertexX[1] - vertexX[0];
		u2 = 	vertexY[1] - vertexY[0];
		v1 = 	vertexX[2] - vertexX[1];
		v2 = 	vertexY[2] - vertexY[1];

		int len = u1 * u1 + u2 * u2;
		w1 = -u2;
		w2 = u1;
		int dot = w1 * v1 + w2 * v2;
	//	w1 = w1 * ((int) ((double) dot / len));
	//	w2 = w2 * ((int) ((double) dot / len));
		w1 = (int) (w1 * (double) dot) / len;
		w2 = (int) (w2 * (double) dot) / len;
		Replicate(
			vertexX[0],
			vertexY[0],
			u1,u2,w1,w2,
			new TessRule()
			{
			    public void fun(int[] in,int[] out,int det)
			    {
				int a = (int) Math.floor((float) in[0]/det);
				int b = (int) Math.floor((float) in[1]/det);
				int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
				int beta = in[1] % det; if(beta < 0) beta = beta + det;
	/*			if((a)%2 != 0)
				{
					if((b)%2 != 0)
					{
						beta = det - beta;
					}
```

```
                                    else
                                    {
                                            beta = det - beta;
                                            alpha = det - alpha;
                                    }
                            }
                            else
                            {
                                    if((b)%2 != 0)
                                    {
                                            alpha = det - alpha;
                                    }
                            }
    */
                            if((b)%2 != 0)
                            {
                                    alpha = det - alpha;
                            }

                            if((a)%2 != 0)
                            {
                                    beta = det - beta;
                            }
                            out[0] = alpha;
                            out[1] = beta;
                       }
                    });
    }

    public void rectPMG()
    {
            // first need to ensure we've got a retcangle

            int u1,u2,v1,v2,w1,w2;

            u1 =    vertexX[1] - vertexX[0];
            u2 =    vertexY[1] - vertexY[0];
            v1 =    vertexX[2] - vertexX[1];
            v2 =    vertexY[2] - vertexY[1];

            int len = u1 * u1 + u2 * u2;
            w1 = -u2;
            w2 = u1;
            int dot = w1 * v1 + w2 * v2;
            w1 = (int) (w1 * (double) dot) / len;
            w2 = (int) (w2 * (double) dot) / len;
            Replicate(
                    vertexX[0],
                    vertexY[0],
                    u1,u2,w1,w2,
                    new TessRule()
                    {
                        public void fun(int[] in,int[] out,int det)
                        {
                            int a = (int) Math.floor((float) in[0]/det);
                            int b = (int) Math.floor((float) in[1]/det);
                            int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                            int beta = in[1] % det; if(beta < 0) beta = beta + det;
                            if((a)%2 != 0)
                            {
                                    beta = det - beta;
```

```
                                }
                                if( 2 * alpha > det )
                                {
                                        alpha = det - alpha;
                                }
                                out[0] = alpha;
                                out[1] = beta;
                           }
                        });
    }

    public void rectPMM()
    {
            // first need to ensure we've got a retcangle

            int u1,u2,v1,v2,w1,w2;

            u1 =    vertexX[1] - vertexX[0];
            u2 =    vertexY[1] - vertexY[0];
            v1 =    vertexX[2] - vertexX[1];
            v2 =    vertexY[2] - vertexY[1];

            int len = u1 * u1 + u2 * u2;
            w1 = -u2;
            w2 = u1;
            int dot = w1 * v1 + w2 * v2;
            w1 = (int) (w1 * (double) dot) / len;
            w2 = (int) (w2 * (double) dot) / len;
            Replicate(
                    vertexX[0],
                    vertexY[0],
                    u1,u2,w1,w2,
                    new TessRule()
                    {
                        public void fun(int[] in,int[] out,int det)
                        {
                            int a = (int) Math.floor((float) in[0]/det);
                            int b = (int) Math.floor((float) in[1]/det);
                            int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                            int beta = in[1] % det; if(beta < 0) beta = beta + det;
                            if((a)%2 != 0)
                            {
                                    alpha = det - alpha;
                            }
                            if( b % 2 != 0 )
                            {
                                    beta = det - beta;
                            }
                            out[0] = alpha;
                            out[1] = beta;
                        }
                    });
    }

    public void rhombCM()
    {
            // first need to ensure we've got a retcangle

            int u1,u2,v1,v2,w1,w2;

            u1 =    vertexX[2] - vertexX[1];
```

```
        u2 =    vertexY[2] - vertexY[1];
        v1 =    vertexX[0] - vertexX[1];
        v2 =    vertexY[0] - vertexY[1];

        int dot = u1 * v1 + u2 * v2;
        int lenv = v1 * v1 + v2 * v2;
        v1 = (int) (2.0 * v1 * (double) dot) / (lenv);
        v2 = (int) (2.0 * v2 * (double) dot) / (lenv);
        Replicate(
                vertexX[1],
                vertexY[1],
                u1,u2,v1,v2,
                new TessRule()
                {
                    public void fun(int[] in,int[] out,int det)
                    {
                        int a = (int) Math.floor((float) in[0]/det);
                        int b = (int) Math.floor((float) in[1]/det);
                        int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                        int beta = in[1] % det; if(beta < 0) beta = beta + det;
                        if((alpha+beta) > det)
                        {
                                int gamma = beta;
                                beta = det - alpha;
                                alpha = det - gamma;
                        }
                        out[0] = alpha;
                        out[1] = beta;
                   }
                });
}

public void rhombCMM()
{
        // first need to ensure we've got a retcangle

        int u1,u2,v1,v2,w1,w2;

        u1 =    vertexX[2] - vertexX[1];
        u2 =    vertexY[2] - vertexY[1];
        v1 =    vertexX[0] - vertexX[1];
        v2 =    vertexY[0] - vertexY[1];

        int dot = u1 * v1 + u2 * v2;
        int lenv = v1 * v1 + v2 * v2;
        v1 = (int) (2.0 * v1 * (double) dot) / (lenv);
        v2 = (int) (2.0 * v2 * (double) dot) / (lenv);
        Replicate(
                vertexX[1],
                vertexY[1],
                u1,u2,v1,v2,
                new TessRule()
                {
                    public void fun(int[] in,int[] out,int det)
                    {
                        int a = (int) Math.floor((float) in[0]/det);
                        int b = (int) Math.floor((float) in[1]/det);
                        int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                        int beta = in[1] % det; if(beta < 0) beta = beta + det;
                        if((alpha+beta) > det)
                        {
```

```
                                        int gamma = beta;
                                        beta = det - alpha;
                                        alpha = det - gamma;
//                                      beta = alpha + beta - det;
//                                      alpha = det - alpha;
                                }
                                if( beta < alpha )
                                {
                                        int gamma = alpha;
                                        alpha = beta;
                                        beta = gamma;
                                }
                                out[0] = alpha;
                                out[1] = beta;
                           }
                        });
        }

        public void squP4()
        {
                // first need to ensure we've got a retcangle

                int u1,u2,v1,v2,w1,w2;

                u1 =    vertexX[1] - vertexX[0];
                u2 =    vertexY[1] - vertexY[0];
                v1 = -u2;
                v2 = u1;
                Replicate(
                        vertexX[0],
                        vertexY[0],
                        u1,u2,v1,v2,
                        new TessRule()
                        {
                            public void fun(int[] in,int[] out,int det)
                            {
                                int a = (int) Math.floor((float) in[0]/det);
                                int b = (int) Math.floor((float) in[1]/det);
                                int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                                int beta = in[1] % det; if(beta < 0) beta = beta + det;

                                if((a+b)%2 != 0)
                                {
                                        int gamma=alpha;
                                        alpha = det - beta;
                                        beta = gamma;
                                }
                                if((alpha+beta) > det)
                                {
                                        beta = det - beta;
                                        alpha = det - alpha;
                                }
/*
                                // an alternative would be

                                if(a%2!=0)
                                {
                                        if(b%2!=0)
                                        {
                                                beta = det - beta;
                                                alpha = det - alpha;
                                                }
                                                else
                                                {
                                                        int gamma = alpha;
                                                        alpha = beta;
                                                        beta = det - gamma;
                                                }
                                        }
                                        else
                                        {
                                                if(b%2!=0)
                                                {
                                                        int gamma = beta;
                                                        beta = alpha;
                                                        alpha = det - gamma;
                                                }
                                        }
        */
                                        out[0] = alpha;
                                        out[1] = beta;
                                   }
                                });
        }

        public void squP4g()
        {
                // first need to ensure we've got a retcangle

                int u1,u2,v1,v2,w1,w2;

                u1 =    vertexX[1] - vertexX[0];
                u2 =    vertexY[1] - vertexY[0];
                v1 = -u2;
                v2 = u1;
                Replicate(
                        vertexX[0],
                        vertexY[0],
                        u1,u2,v1,v2,
                        new TessRule()
                        {
                            public void fun(int[] in,int[] out,int det)
                            {
                                int a = (int) Math.floor((float) in[0]/det);
                                int b = (int) Math.floor((float) in[1]/det);
                                int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                                int beta = in[1] % det; if(beta < 0) beta = beta + det;

                                // if odd square reflect

                                if((a+b)%2 != 0)
                                {
                                        alpha = det - alpha;
                                }

                                // if top right of square rotate 180

                                if((alpha+beta) > det)
                                {
                                        beta = det - beta;
                                        alpha = det - alpha;
                                }
                                // top left rotate 90

                                if(beta>alpha)
                                {
                                        int gamma = alpha;
                                        alpha = det - beta;
                                        beta = gamma;
                                }

                                out[0] = alpha;
                                out[1] = beta;
                           }
                        });
        }

        public void squP4m()
        {
                // first need to ensure we've got a retcangle

                int u1,u2,v1,v2,w1,w2;

                u1 =    vertexX[1] - vertexX[0];
                u2 =    vertexY[1] - vertexY[0];
                v1 = -u2;
                v2 = u1;
                Replicate(
                        vertexX[0],
                        vertexY[0],
                        u1,u2,v1,v2,
                        new TessRule()
                        {
                            public void fun(int[] in,int[] out,int det)
                            {
                                int a = (int) Math.floor((float) in[0]/det);
                                int b = (int) Math.floor((float) in[1]/det);
                                int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                                int beta = in[1] % det; if(beta < 0) beta = beta + det;

                                // if odd square reflect

                                if((a+b)%2 != 0)
                                {
                                        alpha = det - alpha;
                                }

                                // if top right of square rotate 180

                                if((alpha+beta) > det)
                                {
                                        beta = det - beta;
                                        alpha = det - alpha;
                                }

                                // top left reflect

                                if(beta>alpha)
                                {
                                        int gamma = alpha;
                                        alpha = beta;
                                        beta = gamma;
                        }

                        out[0] = alpha;
                        out[1] = beta;
                    }
                });
    }

    public void triP3()
    {
        // first need to ensure we've got a triangle

        int u1,u2,v1,v2,w1,w2;

        u1 =    vertexX[0] - vertexX[1];
        u2 =    vertexY[0] - vertexY[1];
        v1 = (int) ( (- (double)u1  +Math.sqrt(3.0) * u2 ) / 2.0 );
        v2 = (int) ( ( -Math.sqrt(3.0) * u1 - (double) u2 ) / 2.0 );
        Replicate(
                vertexX[1],
                vertexY[1],
                v1,v2,u1,u2,
                new TessRule()
                {
                    public void fun(int[] in,int[] out,int det)
                    {
                        int a = (int) Math.floor((float) in[0]/det);
                        int b = (int) Math.floor((float) in[1]/det);
                        int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                        int beta = in[1] % det; if(beta < 0) beta = beta + det;

                        // if odd square reflect

                        switch( ((a+b)%3+3)%3 )
                        {
                        case 0:
                                break;
                        case 1:
                                if( alpha < beta )
                                {
                                        int gamma = alpha;
                                        alpha = beta - alpha;
                                        beta = det - gamma;
                                }
                                else
                                {
                                        int gamma = beta;
                                        beta = alpha - beta;
                                        alpha = det - gamma;
                        //      alpha = beta = det-1;
                                }
                                break;
                        case 2:
                                if( alpha < beta  )
                                {
                                        int gamma = beta;
                                        beta = alpha - beta + det;
                                        alpha = det - gamma;
                                }
                                else
                                {
```

```
                                            int gamma = alpha;
                                            alpha =  beta - alpha + det;
                                            beta = det - gamma;

                            //      alpha = beta = 0;
                                    }
                                    break;
                            }

                            out[0] = alpha;
                            out[1] = beta;
                       }
                    });
    }

    public void triP3m1()
    {
            // first need to ensure we've got a triangle

            int u1,u2,v1,v2,w1,w2;

            u1 =    vertexX[0] - vertexX[1];
            u2 =    vertexY[0] - vertexY[1];
            v1 = (int) ( (- (double)u1  +Math.sqrt(3.0) * u2 ) / 2.0 );
            v2 = (int) ( ( -Math.sqrt(3.0) * u1 - (double) u2 ) / 2.0 );
            Replicate(
                    vertexX[1],
                    vertexY[1],
                    v1,v2,u1,u2,
                    new TessRule()
                    {
                        public void fun(int[] in,int[] out,int det)
                        {
                            int a = (int) Math.floor((float) in[0]/det);
                            int b = (int) Math.floor((float) in[1]/det);
                            int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                            int beta = in[1] % det; if(beta < 0) beta = beta + det;

                            // if odd square reflect

                            switch( ((a+b)%3+3)%3 )
                            {
                            case 0:
                                    break;
                            case 1:
                                    if( alpha < beta )
                                    {
                                            int gamma = alpha;
                                            alpha = beta - alpha;
                                            beta = det - gamma;
                                    }
                                    else
                                    {
                                            int gamma = beta;
                                            beta = alpha - beta;
                                            alpha = det - gamma;
                            //      alpha = beta = det-1;
                                    }
                                    break;
                            case 2:
                                    if( alpha < beta  )
```

```
                                        {
                                                int gamma = beta;
                                                beta = alpha - beta + det;
                                                alpha = det - gamma;
                                        }
                                        else
                                        {
                                                int gamma = alpha;
                                                alpha =  beta - alpha + det;
                                                beta = det - gamma;

                                //      alpha = beta = 0;
                                        }
                                        break;
                                }


                                // reflect top left onto bottom right

                                if( beta < alpha )
                                {
                                        int gamma = alpha;
                                        alpha = beta;
                                        beta = gamma;
                                }
                                out[0] = alpha;
                                out[1] = beta;
                           }
                        });
        }

        public void triP31m()
        {
                // first need to ensure we've got a triangle

                int u1,u2,v1,v2,w1,w2;

                u1 =    vertexX[0] - vertexX[1];
                u2 =    vertexY[0] - vertexY[1];
                v1 = (int) ( (- (double)u1  +Math.sqrt(3.0) * u2 ) / 2.0 );
                v2 = (int) ( ( -Math.sqrt(3.0) * u1 - (double) u2 ) / 2.0 );
                Replicate(
                        vertexX[1],
                        vertexY[1],
                        v1,v2,u1,u2,
                        new TessRule()
                        {
                            public void fun(int[] in,int[] out,int det)
                            {
                                int a = (int) Math.floor((float) in[0]/det);
                                int b = (int) Math.floor((float) in[1]/det);
                                int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                                int beta = in[1] % det; if(beta < 0) beta = beta + det;

                                // if odd square reflect

                                switch( ((a+b)%3+3)%3 )
                                {
                                case 0:
                                        break;
                                case 1:
                                        if( alpha < beta )
                                        {
                                                int gamma = alpha;
                                                alpha = beta - alpha;
                                                beta = det - gamma;
                                        }
                                        else
                                        {
                                                int gamma = beta;
                                                beta = alpha - beta;
                                                alpha = det - gamma;
//                                      alpha = beta = det-1;
                                        }
                                        break;
                                case 2:
                                        if( alpha < beta  )
                                        {
                                                int gamma = beta;
                                                beta = alpha - beta + det;
                                                alpha = det - gamma;
                                        }
                                        else
                                        {
                                                int gamma = alpha;
                                                alpha =  beta - alpha + det;
                                                beta = det - gamma;

//                                      alpha = beta = 0;
                                        }
                                        break;
                                }


        if( alpha < 0 || alpha > det || beta < 0 || beta > det )
        {
                if(error_flag)
                {
                        System.out.println("P31M error: " + alpha + " " + beta );
                        error_flag = true;
                }
        }

                                // reflect bot right in line 2 alpha - beta - 1
                                // reflect top left in  2 beta - alpha - 1

                                if( beta > alpha )
                                {
                                        if( 2 * beta - alpha - det > 0 )
                                        {
                                                beta = alpha - beta +det;
                                        }

                                }
                                else
                                {
                                        if( 2 * alpha - beta - det > 0 )
                                        {
                                                alpha = beta - alpha + det;
                                        }
                                }
                                out[0] = alpha;
                                out[1] = beta;
                           }
                        });
    }

    public void triP6m()
    {
            // first need to ensure we've got a triangle

            int u1,u2,v1,v2,w1,w2;

            u1 =    vertexX[0] - vertexX[1];
            u2 =    vertexY[0] - vertexY[1];
            v1 = (int) ( (- (double)u1  +Math.sqrt(3.0) * u2 ) / 2.0 );
            v2 = (int) ( ( -Math.sqrt(3.0) * u1 - (double) u2 ) / 2.0 );
            Replicate(
                    vertexX[1],
                    vertexY[1],
                    v1,v2,u1,u2,
                    new TessRule()
                    {
                        public void fun(int[] in,int[] out,int det)
                        {
                            int a = (int) Math.floor((float) in[0]/det);
                            int b = (int) Math.floor((float) in[1]/det);
                            int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                            int beta = in[1] % det; if(beta < 0) beta = beta + det;

                            // if odd square reflect

                            switch( ((a+b)%3+3)%3 )
                            {
                            case 0:
                                    break;
                            case 1:
                                    if( alpha < beta )
                                    {
                                            int gamma = alpha;
                                            alpha = beta - alpha;
                                            beta = det - gamma;
                                    }
                                    else
                                    {
                                            int gamma = beta;
                                            beta = alpha - beta;
                                            alpha = det - gamma;
                            //      alpha = beta = det-1;
                                    }
                                    break;
                            case 2:
                                    if( alpha < beta  )
                                    {
                                            int gamma = beta;
                                            beta = alpha - beta + det;
                                            alpha = det - gamma;
                                    }
                                    else
                                    {
                                            int gamma = alpha;
                                            alpha =  beta - alpha + det;
```

```
                                        beta = det - gamma;

                                //      alpha = beta = 0;
                                        }
                                        break;
                                }



                                // rotate bot right to top left

                                if( beta < alpha )
                                {
                                        int gamma = beta;
                                        beta = det - alpha + beta;
                                        alpha = gamma;
                                }

        //                      if( beta > alpha )
        //                      {
                                        if( 2 * beta - alpha - det > 0 )
                                        {
                                                beta = alpha - beta +det;
                                        }

        //                      }
        //                      else
        //                      {
        //                              if( 2 * alpha - beta - det > 0 )
        //                              {
        //                                      alpha = beta - alpha + det;
        //                              }
        //                      }

                                out[0] = alpha;
                                out[1] = beta;
                            }
                        });
        }

        public void triP6()
        {
                // first need to ensure we've got a triangle

                int u1,u2,v1,v2,w1,w2;

                u1 =    vertexX[0] - vertexX[1];
                u2 =    vertexY[0] - vertexY[1];
                v1 = (int) ( (- (double)u1  +Math.sqrt(3.0) * u2 ) / 2.0 );
                v2 = (int) ( ( -Math.sqrt(3.0) * u1 - (double) u2 ) / 2.0 );
                Replicate(
                        vertexX[1],
                        vertexY[1],
                        v1,v2,u1,u2,
                        new TessRule()
                        {
                            public void fun(int[] in,int[] out,int det)
                            {
                                int a = (int) Math.floor((float) in[0]/det);
                                int b = (int) Math.floor((float) in[1]/det);
                                int alpha = in[0] % det; if(alpha < 0) alpha = alpha + det;
                        int beta = in[1] % det; if(beta < 0) beta = beta + det;

                        // if odd square reflect

                        switch( ((a+b)%3+3)%3 )
                        {
                        case 0:
                                break;
                        case 1:
                                if( alpha < beta )
                                {
                                        int gamma = alpha;
                                        alpha = beta - alpha;
                                        beta = det - gamma;
                                }
                                else
                                {
                                        int gamma = beta;
                                        beta = alpha - beta;
                                        alpha = det - gamma;
                        //      alpha = beta = det-1;
                                }
                                break;
                        case 2:
                                if( alpha < beta  )
                                {
                                        int gamma = beta;
                                        beta = alpha - beta + det;
                                        alpha = det - gamma;
                                }
                                else
                                {
                                        int gamma = alpha;
                                        alpha =  beta - alpha + det;
                                        beta = det - gamma;

                        //      alpha = beta = 0;
                                }
                                break;
                        }



                        // rotate bot right to top left

                        if( beta < alpha )
                        {
                                int gamma = beta;
                                beta = det - alpha + beta;
                                alpha = gamma;
                        }

                        out[0] = alpha;
                        out[1] = beta;
                   }
                });
}

// replicate the fundamental domain called by all methods

public void Replicate(int x0,int y0,int u1,int u2,int v1,int v2,TessRule obj)
```

```
    {
            int i,j,srcX,srcY,x,y;
            int[] in = new int[2];
            int[] res = new int[2];

            boolean error_flag = false;

            int det = u1 * v2 - v1 * u2;
            if(det < 0 )
            {
                    det = - det; v1 = -v1; v2 = -v2;
            }
            for(i=0;i<width;++i)
                for(j=0;j<height;++j)
                {
                    x = i - x0;
                    y = j - y0; // offset of figure
                    in[0] = v2 * x - v1 * y;
                    in[1] = -u2 * x + u1 * y;
                    obj.fun(in,res,det);

                    srcX = x0 + (res[0] * u1 + res[1] * v1 ) / det;
                    srcY = y0 + (res[0] * u2 + res[1] * v2 ) / det;

                    try
                    {
                            pixels[i+j*width] = pixels[srcX+srcY*width];
    //                      pixels[i+j*width] =
    ((res[0]*256)/det)+((res[1]*256)/det)*256;
                    }
                    catch(Exception e)
                    {
                            pixels[i+j*width] = 0;
                            if(!error_flag)
                             System.out.println("Error ("+i+","+j+") det "+det
                                    + " x "+x
                                    + " y "+y
                                    + " in ("+ in[0] + ","+in[1]+")"
                                    + " res ("+ res[0] + ","+res[1]+")"
                                    + " sX "+srcX
                                    + " sY "+srcY
                                    );
                            error_flag = true;
                    }
                }
    /*
            System.out.println(
                     "vX0 " + vertexX[0]
                    +" vY0 " + vertexY[0]
                    +" u1 " + u1
                    +" u2 " + u2
                    +" v1 " + v1
                    +" v2 " + v2
                    );
    */
            source.newPixels(0,0,width,height);
            repaint();
    }

    // rotate about mid point
    public void TranslateRotate(int x0,int y0,int u1,int u2,int v1,int v2)
    {
            int i,j,alpha,beta,srcX,srcY,numeX,numeY,x,y;
            boolean error_flag = false;

            if(!image_error_flag) return;
            int det = u1 * v2 - v1 * u2;
            if(det < 0 )
            {
                    det = - det; v1 = -v1; v2 = -v2;
            }
            for(i=0;i<width;++i)
                for(j=0;j<height;++j)
                {
                    x = i - x0;
                    y = j - y0; // offset of figure
                    numeX = v2 * x - v1 * y;
                    numeY = -u2 * x + u1 * y;
                    alpha = numeX % det; if(alpha < 0 ) alpha += det;
                    beta = numeY % det;  if(beta < 0 ) beta += det;

                    if(beta > alpha )
                    {
                            alpha = det - alpha;
                            beta = det - beta;
                    }

                    srcX = x0 + (alpha * u1 + beta * v1 ) / det;
                    srcY = y0 + (alpha * u2 + beta * v2 ) / det;

                    try
                    {
                            pixels[i+j*width] = pixels[srcX+srcY*width];
                    }
                    catch(Exception e)
                    {
                            pixels[i+j*width] = 0;
                            if(!error_flag)
                             System.out.println("Error ("+i+","+j+") det "+det
                                    + " x "+x
                                    + " y "+y
                                    + " alpha "+alpha
                                    + " beta "+beta
                                    + " sX "+srcX
                                    + " sY "+srcY
                                    );
                            error_flag = true;
                    }
                }
    /*
            System.out.println(
                     "vX0 " + vertexX[0]
                    +" vY0 " + vertexY[0]
                    +" u1 " + u1
                    +" u2 " + u2
                    +" v1 " + v1
                    +" v2 " + v2
                    );
    */
            source.newPixels(0,0,width,height);
            repaint();
    }


    // Not used kept for reference

     public void handlesinglepixel(int x, int y, int pixel) {
            int alpha = (pixel >> 24) & 0xff;
            int red   = (pixel >> 16) & 0xff;
            int green = (pixel >>  8) & 0xff;
            int blue  = (pixel      ) & 0xff;
            // Deal with the pixel as necessary...
     }

    // return true if OK

    public boolean loadImage(String imgloc)
    {
            URL imgurl=null;
            image_error_flag = false;
            // first try if its a a full URL
            try
            {
                    imgurl = new URL(imgloc);
            }
            catch(MalformedURLException e)
            {
                    // then see if its relative
                    try
                    {
                            imgurl = new URL(this.getDocumentBase(),imgloc);
                    }
                    catch(MalformedURLException e1)
                    {
                            System.out.println("Bad URL"+imgloc);
                            return false;
                    }
            }
            System.out.println("URL "+imgurl.toString());
            try
            {
                    imgin = this.getImage(imgurl);
            }
            catch(Exception e)
            {
                    System.out.println("Error with getImage");
                    System.out.println(e.getMessage());
                    return false;
            }

            // grabs the default rect
            //System.out.println("Image is "+imgin);
            if(imgin==null)
            {
                    System.out.println("NULL image");
                    return false;
            }

            PixelGrabber pg = null;
            try
            {
                    pg = new PixelGrabber(imgin, 0, 0, -1, -1, true);
```

```
		}
		catch(Exception e)
		{
			System.out.println("Error with PixelGrabber");
			System.out.println(e.getMessage());
			return false;
		}


		try
		{
		    pg.grabPixels();
		}
		catch (InterruptedException e)
		{
		    System.err.println("interrupted waiting for pixels!");
		    return false;
		}
		if ((pg.getStatus() & ImageObserver.ABORT) != 0) {
		    System.err.println("image fetch aborted or errored");
		    return false;
		}
		inpixels = (int []) pg.getPixels();
		pixels = new int[inpixels.length];
		try
		{
			System.arraycopy(inpixels,0,pixels,0,inpixels.length);
		}
		catch(Exception e)
		{
			System.out.println("Error copying the image array");
			System.out.println(e.getMessage());
			return false;
		}
		height = pg.getHeight();
		width  = pg.getWidth();
		source = new MemoryImageSource(width, height, pixels, 0, width);
		source.setAnimated(true);
		imgout = createImage(source);

		System.out.println("loadImage sucessful: Width "+width+" height "+height);
		image_error_flag = true;
		return true;
	}

	public String getAppletInfo()
	{
		return "Wallpaper.java\nBy R. J. 
	Morris\nhttp://www.scs.leeds.ac.uk/pfaf/rich_home.html";
	}

	private String[][] info =
	{
			{"image","URL","URL for image"},
	};

	public String[][] getParameterInfo() { return info; }


	} // end of class def
```

```
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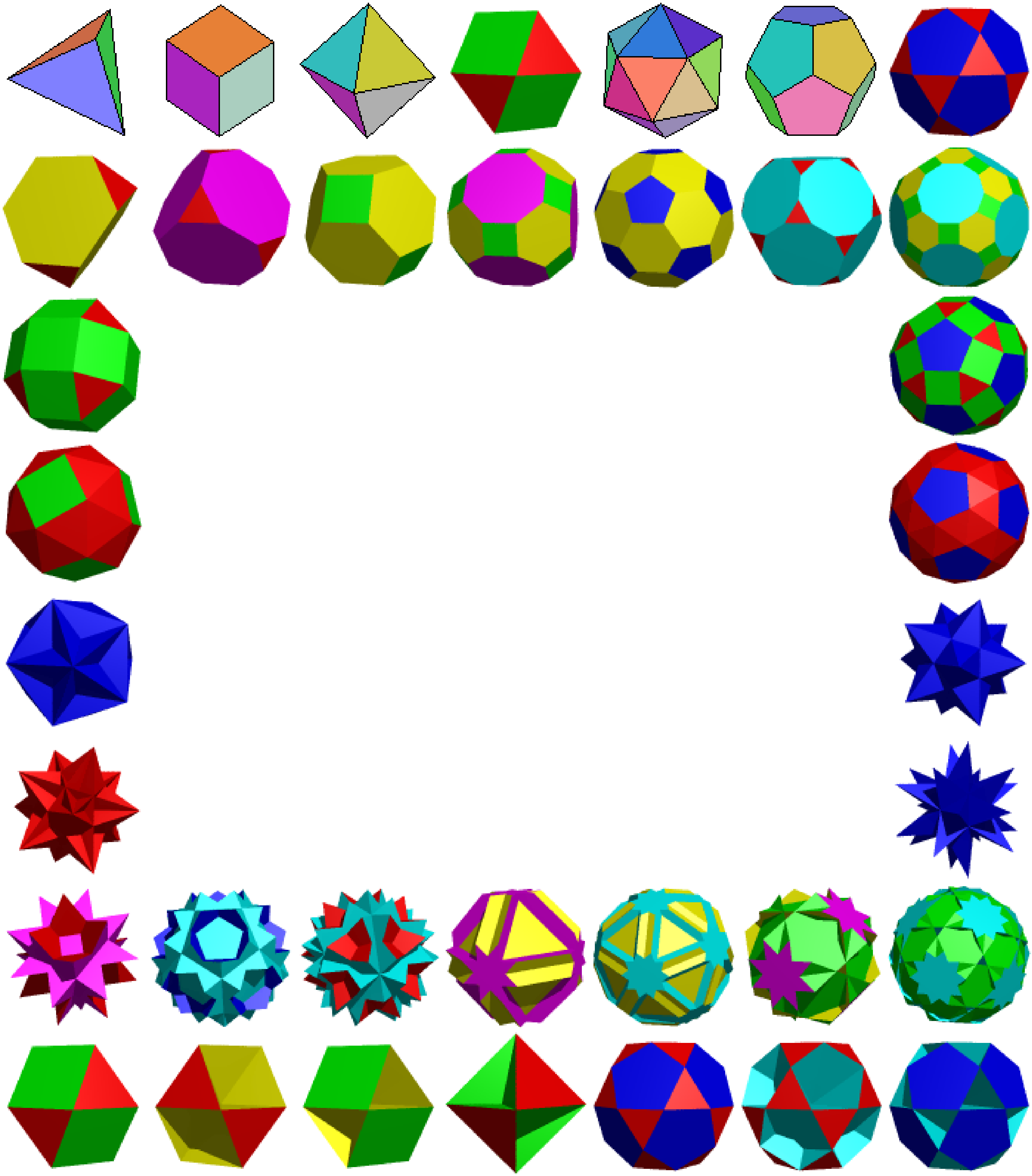
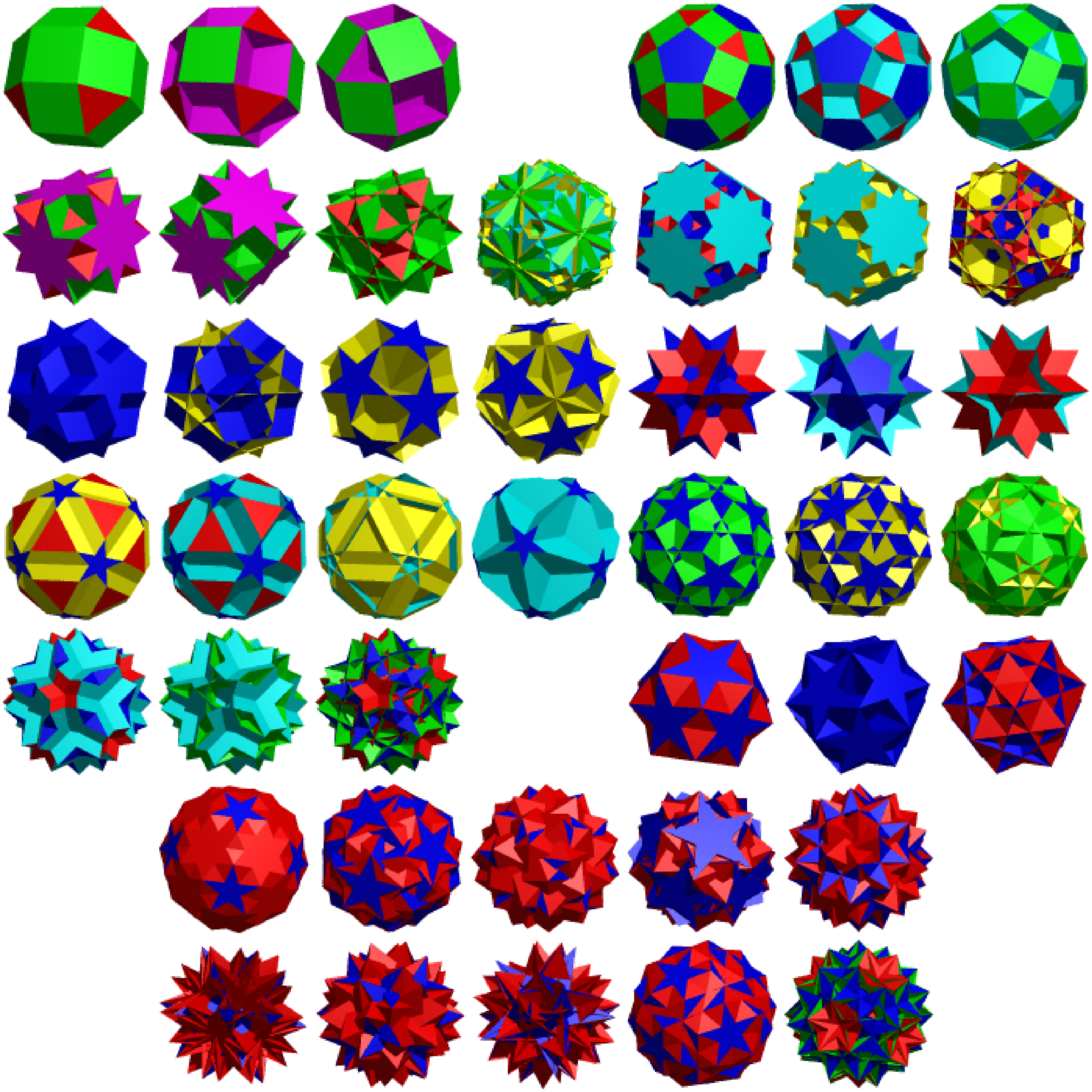
Uniform Polyhedra





Web sites

Lots of other people have far more detailed pages about uniform polyhedra which explain some of the mathematics. Many of these can be found using Google.

- Kaleido a program by Dr. Zvi Har'El which generates the verticies of the uniform polyhedra. This data has been used to construct the models here.
- George Hert some lovely pictures and extensive info on related topics.
- Mathsconsult has some good details of the mathematics.
- V.Bulatov's Polyhedra Collection some of the nices pictures around with lots of fancy ray-tracing.

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Testing Hysteresis effect in the sorities paradox

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alt="Your browser understands the <APPLET> tag but isn't running the applet, for some reason." Your browser is completely ignoring the <APPLET> tag!"

To use the applet just click on the Red or Purple button according to which could you think the big square is. Each time you click the square will slowly change colour from red to purple. After about 60 clicks the colour will then change from purple to red. Once the colour has changed all the way back to red you will be givn the scores, they will not be the same! Once run all results collected so far will be printed in the java consol window!

The source. A class to display diagrams specified by strings.

```
/**
 * Sorities
 * test the sorities paradox with changing colours
 */

import java.awt.*;
import java.awt.event.*;
import java.applet.*;
import java.net.*;
import java.io.*;

public class Sorities extends Applet implements MouseListener
{
        int numRedUp = 0;
        int numRedDown = 0;
        int numPurpleUp = 0;
        int numPurpleDown = 0;
        int colourIndex = 0;
        int colourInc = 2;
        int state = 0; // 0 start 1 up 2 change dir 3: down 4: finished
        Label results  = new Label("Results:
");
        Label results2 = new Label("Changing from Red to Purple
");
        Diagram canvas = new Diagram();

    public void init()
    {
        Label l1 = new Label("Is this Red");
        Button b1 = new Button("Red");
        Button b2 = new Button("Purple");
        canvas.setBounds(0,0,200,200);
        b1.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e)
                        {
                                if(state==1) ++numRedUp;
                                else if(state==3) ++numRedDown;
                                again();
                        }
                } );
        b2.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e)
                        {
                                if(state==1) ++numPurpleUp;
                                else if(state==3) ++numPurpleDown;
                                again();
                        }
                } );
        add(l1);
        add(b1);
        add(b2);
        add(canvas);
        add(results);
        add(results2);
        canvas.create(getParameter("Splash1"));
        this.addMouseListener(this);
        canvas.addMouseListener(this);
    }
public void mouseClicked(MouseEvent e)  {}
public void mouseEntered(MouseEvent e) {}
public void mouseExited(MouseEvent e) {}
```

```
    public void mouseReleased(MouseEvent e) {}
        public void mousePressed(MouseEvent e) {
            switch(state)
            {
            case 0:
                    canvas.setBackground(getCurrentColour());
                    canvas.clear();
                    state = 1;
                    break;
            case 1:
                    break;
            case 2:
                    canvas.setBackground(getCurrentColour());
                    canvas.clear();
                    state = 3;
                    break;
            case 3:
                    break;
            case 4:
                    canvas.setBackground(getCurrentColour());
                    canvas.clear();
                    state = 1;
                    break;
            }
        }

        /** After a button click change background colour, and optionally show results
    */
        public void again()
        {
            if(state==1)
            {
                    colourIndex+=colourInc;
                    if(colourIndex>=128)
                    {
                            colourIndex = 128;
                            showSwitch();
                            state = 2;
                    }
                    else    canvas.setBackground(getCurrentColour());
            }
            else if(state==3)
            {
                    colourIndex-=colourInc;
                    if(colourIndex<=0)
                    {
                            colourIndex = 0;
                            showResults();
                            state = 4;
                            numRedUp = numPurpleUp = numRedDown = numPurpleDown = 0;
                    }
                    else    canvas.setBackground(getCurrentColour());
            }
        }

        public void showSwitch()
        {
            canvas.create(getParameter("Splash2"));
        }

        public void showResults()
        {
            canvas.create(getParameter("Splash3"));
            results.setText("Going up Red: "+numRedUp+" Purple: "+numPurpleUp);
            results2.setText("Going down Red: "+numRedDown+" Purple: "+numPurpleDown);
            URL url;
            BufferedReader in;
            try
            {
                    url = new URL(getParameter("LogProg") +"?" +
                    "RU="+numRedUp+
                    "&PU="+numPurpleUp+
                    "&RD="+numRedDown+
                    "&PD="+numPurpleDown);
                    in = new BufferedReader(new InputStreamReader(url.openStream()));
                    String line;
                    System.out.println("All results so far (format red up, purple up,
    red down , purple down)");
                    while((line = in.readLine()) != null)
                    {
                            int ru,pu,rd,pd;
                            String host = "", time = "";
                            ru = pu = rd = pd = 0;
                            //System.out.print(line);
                            //String str[] = line.split("\t");
                            try
                            {
                            int ptr = line.indexOf('\t');
                            host = line.substring(0,ptr);
                             int oldptr = ptr+1;
                             ptr = line.indexOf('\t',oldptr);
                            time = line.substring(oldptr,ptr);
                             oldptr = ptr+1;
                             ptr = line.indexOf('\t',oldptr);
                             ru = Integer.parseInt(line.substring(oldptr,ptr));
                             oldptr = ptr+1;
                             ptr = line.indexOf('\t',oldptr);
                              pu = Integer.parseInt(line.substring(oldptr,ptr));
                              oldptr = ptr+1;
                              ptr = line.indexOf('\t',oldptr);
                               rd = Integer.parseInt(line.substring(oldptr,ptr));
                               oldptr = ptr+1;
                               pd = Integer.parseInt(line.substring(oldptr));
                            }
                            catch(Exception e1) {
                             System.out.println("line: "+line+" "+e1.getMessage());}
                            int diff = ru-rd;
                            System.out.println("Host "+host+" time "+time+
                                    " Up "+ru+" down "+rd+" diff "+diff);
                    }
                    in.close();
            }
            catch (Exception e) {System.out.println(e.getMessage()); }
        }

        public Color getCurrentColour()
        {
            //return new Color(255,0,colourIndex*2);
            return new Color(255-colourIndex,0,colourIndex);
        }
    }
```

```
import java.awt.*;
import java.util.*;

/**
* Diagram: wrapper around Canvas to handle
* drawing from a set of instructions.
*
* Instructions are specified one per line like
* TEXT 10,10,Hello World
* RECT 10,10,30,40
* FONT ....
* COLOUR r,g,b
*/

public class Diagram extends Canvas
{
        Vector eles;

static abstract public class DObject
{
        public abstract void draw(Graphics g);
}

static public class DColour extends DObject
{
        int r,g,b;

        public DColour(String s) throws NumberFormatException
        {
                String comps[] = splitStr(s,',');
                if(comps.length==3)
                {
                        r = Integer.parseInt(comps[0]);
                        g = Integer.parseInt(comps[1]);
                        b = Integer.parseInt(comps[2]);
                }
        }
        public Color getColor() { return new Color(r,g,b); }
        public void draw(Graphics gr)
        {
                gr.setColor(new Color(r,g,b));
        }
}

static public class DBackground extends DColour
{
        public DBackground(String s)
        { super(s); }
        public void draw(Graphics gr)
        {
        //      gr.setBackground(new Color(r,g,b));
        }
}

static public class DRect extends DObject
{
        int x,y,w,h;

        public DRect(int xx,int yy,int ww,int hh)
        {
                x = xx; y = yy; w = ww; h = hh;
```

```
		}
		public DRect(String s) throws NumberFormatException
		{
			String comps[] = splitStr(s,',');
			if(comps.length==4)
			{
				x = Integer.parseInt(comps[0]);
				y = Integer.parseInt(comps[1]);
				w = Integer.parseInt(comps[2]);
				h = Integer.parseInt(comps[3]);
			}
		}
		public void draw(Graphics g)
		{
			g.fillRect(x,y,w,h);
		}
	}

	static public class DText extends DObject
	{
		int x,y; String text;

		public DText(int xx,int yy,String s)
		{
			x = xx; y = yy; text =s;
		}
		public DText(String s) throws NumberFormatException
		{
			int ptr1 = s.indexOf(',');
			int ptr2;
			ptr2 = s.indexOf(',',ptr1+1);
			x = Integer.parseInt(s.substring(0,ptr1));
			y = Integer.parseInt(s.substring(ptr1+1,ptr2));
			text = s.substring(ptr2+1);
		}
		public void draw(Graphics g)
		{
			g.drawString(text,x,y);
		}
	}

		public void paint(Graphics g)
		{
			Enumeration enum = eles.elements();
			while(enum.hasMoreElements())
			{
				DObject obj = (DObject) enum.nextElement();
				obj.draw(g);
			}
		}

		static public String[] splitStr(String s,char c)
		{
			int ptr = s.indexOf(c);
			if(ptr == -1)
			{
				String res[] = { s };
				return res;
			}
			int count = 1;
			int oldptr = ptr+1;
```

```
                while((ptr=s.indexOf(c,oldptr))!=-1)
                {
                        oldptr = ptr+1;
                        ++count;
                }
                String res[] = new String[count+1];
                ptr = s.indexOf(c);
                res[0] = s.substring(0,ptr);
                count = 1;
                oldptr = ptr+1;
                while((ptr=s.indexOf(c,oldptr))!=-1)
                {
                        res[count] = s.substring(oldptr,ptr);
                        oldptr = ptr+1;
                        ++count;
                }
                res[count] = s.substring(oldptr);
                return res;
        }

        public Diagram()
        {
                super();
                eles = new Vector();
        }

        public void clear()
        {
                eles.removeAllElements();
                repaint();
        }

        public void create(String s)
        {
                eles.removeAllElements();
                String lines[] = splitStr(s,'\\');
                for(int i=0;i<lines.length;++i)
                {
                        String line=null;
                        try
                        {
                        line = lines[i];
//System.out.println("line: ("+line+")");
                        int ptr = line.indexOf(' ');
                        String head=null,tail=null;
                        if(ptr == -1)
                        {
                                head = line;
                        }
                        else
                        {
                                head = line.substring(0,ptr);
                                tail = line.substring(ptr+1);
                        }
                        DObject obj=null;
                        if(head.equals("RECT"))
                        {
                                obj = new DRect(tail);
                                eles.addElement(obj);
                        }
                        else if(head.equals("TEXT"))
                        {
                                obj = new DText(tail);
                                eles.addElement(obj);
                        }
                        else if(head.equals("COLOUR"))
                        {
                                obj = new DColour(tail);
                                eles.addElement(obj);
                        }
                        else if(head.equals("BACKGROUND"))
                        {
                                obj = new DBackground(tail);
                                setBackground(((DBackground) obj).getColor());
                                eles.addElement(obj);
                        }
                        else if(head.equals("TEXT"))
                        {
                                obj = new DText(tail);
                                eles.addElement(obj);
                        }

                        } catch (Exception e) {
                                System.out.println("Parse error in ("+line+"):
"+e.getMessage()); }
                }
                repaint();
        }
}
```

DJep symbolic differentation and matrix for the Java Equation Parse (JEP)

The Java Equation Parser can parse and evaluate mathematical equations. The DJep package adds facilities for

- Differentation
- Vectors and matricies
- Simplification, printing and several other useful extensions.
- Exact calculation over integers, rationals and other abstract groups.

Documentation

- Documentation for DJep
- Javadoc
- SourceForge project page

Download

Componate	Size
Source code and documentation	1.5MB
Full class library (all componants)	352KB

The following packages contain smaller class libraries with only selected componants, useful if size is at a premium.

Core JEP classes	110KB
XJep classes allows printing, simplification and tree manipulation (includes JEP classes)	144KB
DJep classes - differentation (includes JEP and XJep classes)	192KB
VectorJep classes - basic vector and matrix support (include JEP classes)	137KB
MatrixJep classes - advanced vector and matrix support (includes JEP, XJep and DJep)	232KB
GroupJep classes - Rationals, Integers and other abstract groups (includes JEP)	149KB

Copyright

The org.lsmp.djep protions of the package has been written by Richard Morris webmaster@pfaf.org. The org.nfunk.jep part is by Nathan Funk (GPL).

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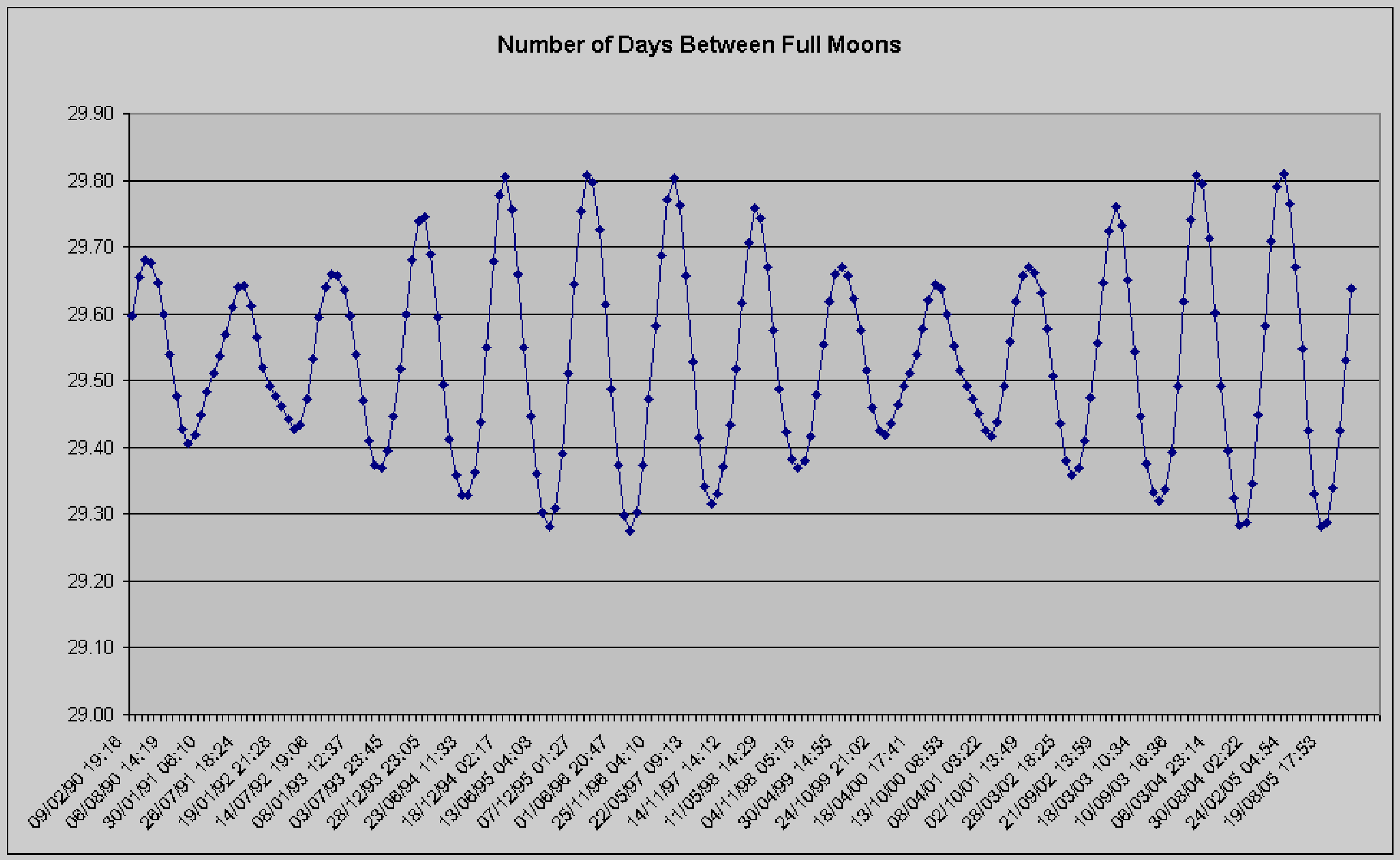
Variation in number of days between full moons

So how long is it between one full moon and the next?

The typical answer is 29 and a half days. However it can range between 29.8 days and 29.3 days.

More intrestingly the variation between the max and min number of days varies from year to year. In some years the variation can be more than half a day, in other years the diferance might be only a quater of a day.



For the real maths heads amongst you a spectral analysis gives two dominant frequencies of 1/413 days and 1/362 days. I.E. with dominant frequency of once every 413 days and beat frequency once every 7.92 years.

abs of Fourier coeff	Frequency, cycles per 5787.87 days	Wave Length (years:days)
17.2752	14	1 y 48 days
8.3210	16	361 days
2.9044	15	
1.8641	13	
1.1522	28	

The above graph has been based on data from U.S. Naval Observatory Astronomical Applications Department

NEW MOON	FIRST QUARTER	FULL MOON	LAST QUARTER	Days between full moons
	04/01/90 10:40	11/01/90 04:57	18/01/90 21:17	
26/01/90 19:20	02/02/90 18:32	09/02/90 19:16	17/02/90 18:48	29.60
25/02/90 08:54	04/03/90 02:05	11/03/90 10:58	19/03/90 14:30	29.65
26/03/90 19:48	02/04/90 10:24	10/04/90 03:18	18/04/90 07:02	29.68

25/04/90 04:27	01/05/90 20:18	09/05/90 19:31	17/05/90 19:45	29.68
24/05/90 11:47	31/05/90 08:11	08/06/90 11:01	16/06/90 04:48	29.65
22/06/90 18:55	29/06/90 22:07	08/07/90 01:23	15/07/90 11:04	29.60
22/07/90 02:54	29/07/90 14:01	06/08/90 14:19	13/08/90 15:54	29.54
20/08/90 12:39	28/08/90 07:34	05/09/90 01:46	11/09/90 20:53	29.48
19/09/90 00:46	27/09/90 02:06	04/10/90 12:02	11/10/90 03:31	29.43
18/10/90 15:37	26/10/90 20:26	02/11/90 21:48	09/11/90 13:02	29.41
17/11/90 09:05	25/11/90 13:11	02/12/90 07:50	09/12/90 02:04	29.42
17/12/90 04:22	25/12/90 03:16	31/12/90 18:35	07/01/91 18:35	29.45
15/01/91 23:50	23/01/91 14:21	30/01/91 06:10	06/02/91 13:52	29.48
14/02/91 17:32	21/02/91 22:58	28/02/91 18:25	08/03/91 10:32	29.51
16/03/91 08:10	23/03/91 06:03	30/03/91 07:17	07/04/91 06:45	29.54
14/04/91 19:38	21/04/91 12:39	28/04/91 20:58	07/05/91 00:46	29.57
14/05/91 04:36	20/05/91 19:46	28/05/91 11:37	05/06/03 15:30	29.61
12/06/91 12:06	19/06/91 04:19	27/06/91 02:58	05/07/91 02:50	29.64
11/07/91 19:06	18/07/91 15:11	26/07/91 18:24	03/08/91 11:25	29.64
10/08/91 02:28	17/08/91 05:01	25/08/91 09:07	01/09/91 18:16	29.61
08/09/91 11:01	15/09/91 22:01	23/09/91 22:40	01/10/91 00:30	29.56
07/10/91 21:39	15/10/91 17:33	23/10/91 11:08	30/10/91 07:10	29.52
06/11/91 11:11	14/11/91 14:02	21/11/91 22:56	28/11/91 15:21	29.49
06/12/91 03:56	14/12/91 09:32	21/12/91 10:23	28/12/91 01:55	29.48
04/01/92 23:10	13/01/92 02:32	19/01/92 21:28	26/01/92 15:27	29.46
03/02/92 19:00	11/02/92 16:15	18/02/92 08:04	25/02/92 07:56	29.44
04/03/92 13:22	12/03/92 02:36	18/03/92 18:18	26/03/92 02:30	29.43
03/04/92 05:01	10/04/92 10:06	17/04/92 04:42	24/04/92 21:40	29.43
02/05/92 17:44	09/05/92 15:43	16/05/92 16:03	24/05/92 15:53	29.47
01/06/92 03:57	07/06/92 20:47	15/06/92 04:50	23/06/92 08:11	29.53
30/06/92 12:18	07/07/92 02:43	14/07/92 19:06	22/07/92 22:12	29.59
29/07/92 19:35	05/08/92 10:58	13/08/92 10:27	21/08/92 10:01	29.64
28/08/92 02:42	03/09/92 22:39	12/09/92 02:17	19/09/92 19:53	29.66
26/09/92 10:40	03/10/92 14:12	11/10/92 18:03	19/10/92 04:12	29.66
25/10/92 20:34	02/11/92 09:11	10/11/92 09:20	17/11/92 11:39	29.64
24/11/92 09:11	02/12/92 06:17	09/12/92 23:41	16/12/92 19:13	29.60
24/12/92 00:43	01/01/93 03:38	08/01/93 12:37	15/01/93 04:01	29.54
22/01/93 18:27	30/01/93 23:20	06/02/93 23:55	13/02/93 14:57	29.47
21/02/93 13:05	01/03/93 15:46	08/03/93 09:46	15/03/93 04:16	29.41
23/03/93 07:14	31/03/93 04:10	06/04/93 18:43	13/04/93 19:39	29.37
21/04/93 23:49	29/04/93 12:40	06/05/93 03:34	13/05/93 12:20	29.37
21/05/93 14:06	28/05/93 18:21	04/06/93 13:02	12/06/93 05:36	29.39
20/06/93 01:52	26/06/93 22:43	03/07/93 23:45	11/07/93 22:49	29.45
19/07/93 11:24	26/07/93 03:25	02/08/93 12:10	10/08/93 15:19	29.52
17/08/93 19:28	24/08/93 09:57	01/09/93 02:33	09/09/93 06:26	29.60
16/09/93 03:10	22/09/93 19:32	30/09/93 18:54	08/10/93 19:35	29.68
15/10/93 11:36	22/10/93 08:52	30/10/93 12:38	07/11/93 06:36	29.74
13/11/93 21:34	21/11/93 02:03	29/11/93 06:31	06/12/93 15:49	29.75
13/12/93 09:27	20/12/93 22:26	28/12/93 23:05	05/01/94 00:00	29.69
11/01/94 23:10	19/01/94 20:27	27/01/94 13:23	03/02/94 08:06	29.60
10/02/94 14:30	18/02/94 17:47	26/02/94 01:15	04/03/94 16:53	29.49
12/03/94 07:05	20/03/94 12:14	27/03/94 11:09	03/04/94 02:55	29.41
11/04/94 00:17	19/04/94 02:34	25/04/94 19:45	02/05/94 14:32	29.36
10/05/94 17:07	18/05/94 12:50	25/05/94 03:39	01/06/94 04:02	29.33
09/06/94 08:26	16/06/94 19:56	23/06/94 11:33	30/06/94 19:31	29.33
08/07/94 21:37	16/07/94 01:12	22/07/94 20:16	30/07/94 12:40	29.36
07/08/94 08:45	14/08/94 05:57	21/08/94 06:47	29/08/94 06:41	29.44
05/09/94 18:33	12/09/94 11:34	19/09/94 20:00	28/09/94 00:23	29.55
05/10/94 03:55	11/10/94 19:17	19/10/94 12:18	27/10/94 16:44	29.68
03/11/94 13:35	10/11/94 06:14	18/11/94 06:57	26/11/94 07:04	29.78
02/12/94 23:54	09/12/94 21:06	18/12/94 02:17	25/12/94 19:06	29.81
01/01/95 01:56	08/01/95 15:46	16/01/95 20:26	24/01/95 04:58	29.76

30/01/95 22:48	07/02/95 12:54	15/02/95 12:15	22/02/95 13:04	29.66
01/03/95 11:48	09/03/95 10:14	17/03/95 01:26	23/03/95 20:10	29.55
31/03/95 02:09	08/04/95 05:35	15/04/95 12:08	22/04/95 03:18	29.45
29/04/95 17:36	07/05/95 21:44	14/05/95 20:48	21/05/95 11:36	29.36
29/05/95 09:27	06/06/95 10:26	13/06/95 04:03	19/06/95 22:01	29.30
28/06/95 00:50	05/07/95 20:02	12/07/95 10:49	19/07/95 11:10	29.28
27/07/95 15:13	04/08/95 03:16	10/08/95 18:15	18/08/95 03:04	29.31
26/08/95 04:31	02/09/95 09:03	09/09/95 03:37	16/09/95 21:09	29.39
24/09/95 16:55	01/10/95 14:36	08/10/95 15:52	16/10/95 16:26	29.51
24/10/95 04:36	30/10/95 21:17	07/11/95 07:20	15/11/95 11:40	29.64
22/11/95 15:43	29/11/95 06:28	07/12/95 01:27	15/12/95 05:31	29.75
22/12/95 02:22	28/12/95 19:06	05/01/96 20:51	13/01/96 20:45	29.81
20/01/96 12:50	27/01/96 11:14	04/02/96 15:58	12/02/96 08:37	29.80
18/02/96 23:30	26/02/96 05:52	05/03/96 09:23	12/03/96 17:15	29.73
19/03/96 10:45	27/03/96 01:31	04/04/96 00:07	10/04/96 23:36	29.61
17/04/96 22:49	25/04/96 20:40	03/05/96 11:48	10/05/96 05:04	29.49
17/05/96 11:46	25/05/96 14:13	01/06/96 20:47	08/06/96 11:05	29.37
16/06/96 01:36	24/06/96 05:23	01/07/96 03:58	07/07/96 18:55	29.30
15/07/96 16:15	23/07/96 17:49	30/07/96 10:35	06/08/96 05:25	29.28
14/08/96 07:34	22/08/96 03:36	28/08/96 17:52	04/09/96 19:06	29.30
12/09/96 23:07	20/09/96 11:23	27/09/96 02:51	04/10/96 12:04	29.37
12/10/96 14:14	19/10/96 18:09	26/10/96 14:11	03/11/96 07:50	29.47
11/11/96 04:16	18/11/96 01:09	25/11/96 04:10	03/12/96 05:06	29.58
10/12/96 16:56	17/12/96 09:31	24/12/96 20:41	02/01/97 01:45	29.69
09/01/97 04:26	15/01/97 20:02	23/01/97 15:11	31/01/97 19:40	29.77
07/02/97 15:06	14/02/97 08:57	22/02/97 10:27	02/03/97 09:37	29.80
09/03/97 01:15	16/03/97 00:06	24/03/97 04:45	31/03/97 19:38	29.76
07/04/97 11:02	14/04/97 17:00	22/04/97 20:33	30/04/97 02:37	29.66
06/05/97 20:46	14/05/97 10:55	22/05/97 09:13	29/05/97 07:51	29.53
05/06/97 07:03	13/06/97 04:51	20/06/97 19:09	27/06/97 12:42	29.41
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03/08/97 08:14	11/08/97 12:42	18/08/97 10:55	25/08/97 02:23	29.32
01/09/97 23:52	10/09/97 01:31	16/09/97 18:50	23/09/97 13:35	29.33
01/10/97 16:51	09/10/97 12:22	16/10/97 03:46	23/10/97 04:48	29.37
31/10/97 10:01	07/11/97 21:43	14/11/97 14:12	21/11/97 23:58	29.43
30/11/97 02:14	07/12/97 06:09	14/12/97 02:37	21/12/97 21:43	29.52
29/12/97 16:56	05/01/98 14:18	12/01/98 17:24	20/01/98 19:40	29.62
28/01/98 06:01	03/02/98 22:53	11/02/98 10:23	19/02/98 15:27	29.71
26/02/98 17:26	05/03/98 08:41	13/03/98 04:34	21/03/98 07:38	29.76
28/03/98 03:14	03/04/98 20:18	11/04/98 22:23	19/04/98 19:53	29.74
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18/12/98 22:42	26/12/98 10:46	02/01/99 02:49	09/01/99 14:22	29.48
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16/02/99 06:39	23/02/99 02:43	02/03/99 06:58	10/03/99 08:40	29.62
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23/04/01 15:26	30/04/01 17:08	07/05/01 13:52	15/05/01 10:11	29.44
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17/09/01 10:27	24/09/01 09:31	02/10/01 13:49	10/10/01 04:20	29.67
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12/02/02 07:41	20/02/02 12:02	27/02/02 09:17	06/03/02 01:24	29.44
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10/06/02 23:46	18/06/02 00:29	24/06/02 21:42	02/07/02 17:19	29.41
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04/11/02 20:34	11/11/02 20:52	20/11/02 01:34	27/11/02 15:46	29.76
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01/02/03 10:48	09/02/03 11:11	16/02/03 23:51	23/02/03 16:46	29.54
03/03/03 02:35	11/03/03 07:15	18/03/03 10:34	25/03/03 01:51	29.45
01/04/03 19:19	09/04/03 23:40	16/04/03 19:36	23/04/03 12:18	29.38
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29/06/03 18:39	07/07/03 02:32	13/07/03 19:21	21/07/03 07:01	29.34
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23/11/03 22:59	30/11/03 17:16	08/12/03 20:37	16/12/03 17:42	29.81
23/12/03 09:43	30/12/03 10:03	07/01/04 15:40	15/01/04 04:46	29.79
21/01/04 21:05	29/01/04 06:03	06/02/04 08:47	13/02/04 13:40	29.71
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19/04/04 13:21	27/04/04 17:32	04/05/04 20:33	11/05/04 11:04	29.40
19/05/04 04:52	27/05/04 07:57	03/06/04 04:20	09/06/04 20:02	29.32
17/06/04 20:27	25/06/04 19:08	02/07/04 11:09	09/07/04 07:34	29.28
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12/12/04 01:29  18/12/04 16:40  26/12/04 15:06  03/01/05 17:46  29.79
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08/04/05 20:32  16/04/05 14:37  24/04/05 10:06  01/05/05 06:24  29.55
08/05/05 08:45  16/05/05 08:56  23/05/05 20:18  30/05/05 11:47  29.43
06/06/05 21:55  15/06/05 01:22  22/06/05 04:14  28/06/05 18:23  29.33
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03/10/05 10:28  10/10/05 19:01  17/10/05 12:14  25/10/05 01:17  29.43
02/11/05 01:24  09/11/05 01:57  16/11/05 00:57  23/11/05 22:11  29.53
01/12/05 15:01  08/12/05 09:36  15/12/05 16:15  23/12/05 19:36  29.64
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Richard Morris

Curriculum Vitae

Date of Birth: 5th July, 1965.
Nationality: British.
Sex: Male.

1 Lerryn View,
Lerryn,
Lostwithiel, PL22 0OJ

Tel: Home 01208 872963
Mobile 07813 067250
E-mail: webmaster@pfaf.org

Work Experience

July 01 - present	***Full Time Volunteer/Manager*** Plants For A Future: Lerryn, Cornwall & Ashwater, Devon. Management roles in developing and education centre for dissemination information on useful plants. Roles have included: managing charity finances; preparation of newsletter, annual reports and accounts; running a training/volunteer program which attracted 200 people to the site and saw the successful completion of a £25,000 grant; developing the charity website and CD-ROM; employment of contractors and developing future programs.
Oct 99 - July 01	***Part Time Tutor*** Shipley College, Shipley, Bradford; Training Dept. Leeds City Council; Leeds College of Technology. Taught courses in C++ (City&Guilds Levels 1-3); Web Page Design (C&G Level 2), Java (C&G Level 3), Key Skills I.T (edexcel); introductory IT and Basic Skill at the "Big Issue" and introductory IT at Adult Education classes.
Oct 98 - July 00	***Research Fellow: Shape Changes in the Human Face*** Department of Statistics, University of Leeds Investigating how the shape of the human face changes through childhood. Involved: extracting geometric features to describe the face via a combination of Perl, C and the statistical language R; working with VRML and other 3D formats; performing statistical analysis of the results; presenting the results of the project at a number of international workshops and conferences.

Sept 95 - present

Website Manager

Plants For A Future, Cornwall.

Developing and maintaining a website for a registered charity. Including the development of an online database of plant information using CGI and C programs. Currently coordinating the developing a CD-ROM version of the database using Access and Visual Basic.

Nov 96 - Sept 98

Research Assistant: Characterising object trajectories

School of Computer Studies, University of Leeds

Developing techniques to characterise the paths of people walking through car parks, in particular their interactions with other objects. I have developed a novel algorithm based on using landmark data which has shown promising results. This has also involved work on real time tracking systems using active contour models.

May 96 - Sept 96

Research Assistant: Image Analysis of X-ray Images

Department of Statistics, University of Leeds.

Developing algorithms for finding detonators in X-ray images of suitcases. Techniques such as morphological operators, Hough transforms and cross-correlations have been combined to produce a fairly quick algorithm which can work on cluttered images. I have also helped in investigations into the curvature of spines.

Nov 93 - March 96

Research Assistant: Computer Algebra Support

Department of Applied Mathematics, University of Liverpool.

Developing computer based teaching material for first year mathematics undergraduates. Including the co-writing of one module using the Toolbook package and providing technical support for the computer algebra need of the "Mathwise" program which involves over thirty universities.

Mar 90 - Oct 93

Research Assistant: Geometric Software Development

Department of Pure Mathematics, University of Liverpool,

Developing software for visualising a wide variety of mathematical curves and surface, research into 3D geometry and administrating a small network of unix workstations.

Education and Qualifications

Oct 03 - Dec 03

Certificate in Further Education (City & Guilds 7407 Stage 1)

St Austell College

	I am currently undertaking a part time teacher training course which includes a taught component and 20 hours of teaching practice in computing and mathematics.
Oct 87 - Apr 90	***Ph.D., Pure Mathematics/Information Technology,*** University of Liverpool. Investigation of various topics in curve and surface geometry using mathematical techniques in singularity theory and experimental investigation with computer graphics.
Oct 86 - Sept 87	***M.Sc., Pure Mathematics.*** Manchester University.
Oct 83 - June 86	***B.Sc.(hons) grade II(i), Mathematics (Pure Mathematics).*** University of Kent at Canterbury. Third year dissertation: ``Eulers theorem". I won a prize for examination results in the first year.
Oct 76 - July 83	St Georges School, Harpenden, ***A levels:*** Maths A, Physics A, Further Maths A, Mathematics special paper grade 1. ***A/O level:*** Computer Science B. ***O levels:*** Maths A, Physics A, Biology B, Chemistry B, Geography B, Economics B, English C.

Skills

Computer Languages:	Java, C, C++, JavaScript, HTML, SQL, XML, Fortran, Basic, Z80 assembly, Pascal, tk/tcl, Perl
Computer Systems used:	SGI Iris (administration), Sun, IBM 370, IBM 5080, IBM PC, Macintosh.
Other Computing:	MS-Access, Excel, Word, TeX, Postscript, Unix, Maple, GL graphics, Windows, X Windows, Geomview, Toolbook, Hypercard, Authorware, Visilog, Splus.

Online Portfolio

Plants For A Future
Edible, medicinal and useful plants
for a healthier world

A website with 200 static pages, an online database of 7000 plants, readers forums and online payment facilities.
Online search engine: http://www.comp.leeds.ac.uk/pfaf/D_search.html
New look home page (draft): http://www.comp.leeds.ac.uk/pfaf/indexNew.html
Old home page (much in need of an update): http://www.comp.leeds.ac.uk/pfaf/index.html

Interactive 3D mathematical surfaces

http://www.comp.leeds.ac.uk/pfaf/lsmp/SingSurf.html

A wallpaper pattern

Interactive, repetitive patterns generator in Java

http://www.comp.leeds.ac.uk/pfaf/wallpaper/wallpaper.html

Publications

A New Method for Drawing Algebraic Surfaces, R. J. Morris, in *Design and Applications of Curves and Surfaces*, Ed R.B. Fisher, Clarendon Press, Oxford, 1994.

Sub Parabolic Lines on Surfaces, R. J. Morris, in *Mathematics of Surfaces VI*, Ed. Glen Mullineux, IMA new series 58, Clarendon Press, Oxford, 1996.

Sequences and Series, D Hodgekinson, R. J. Morris, Mathwise module, UK Mathematics Courseware Consortium, 1996.

Rules of differentiation (PC Version), G. Wood, A. Thomas, R. J. Morris, Mathwise module, UK Mathematics Courseware Consortium, 1996.

The Use of Computer Graphics for Solving Problems in Singularity Theory, R. J. Morris, in *Visualisation and Mathematics*, Ed. Hans-Christian Hege and Konrad Polthier, Springer Verlag, 1997, pp 53-66.

Knowledge Based Geometric Object Recognition, R. J. Morris, K. V. Mardia, C. C. Taylor, J. D. Burrows Proc. European Conference on Security and Detection 97. IEE Conference Publications No. 437

Statistical Models of Object Interaction, R. J. Morris, D. C. Hogg, proc. IEEE Workshop on Visual Surveillance, Bombay '98.

Exploratory Analysis of Facial Growth, R. J. Morris, J.T. Kent, K.V. Mardia, R. G. Ackroyd, M. Fidrich, A. Linney, Proc CISST, Las Vegas '99.

Analysing Growth in Faces, R. J. Morris, J.T. Kent, K.V. Mardia, R. G. Ackroyd, M. Fidrich, A. Linney, Proc. Leeds Annual Statistical Workshop, Leeds '99.

A Growth Model for Shape, R. J. Morris, J.T. Kent, K.V. Mardia, R. G. Ackroyd, Proc. Medical Image Understanding and Analysis, London '00.

Statistical Models of Object Interaction, R. J. Morris, D. C. Hogg, International Journal of Computer Vision, 2000.

Zero sets of Simple Singularities of functions on R^3, R. J Morris, Electronic Geometry Models, No. 2001.06.001 - 2001.06.020.
http://www.eg-models.de/models/Surfaces/Algebraic_Surfaces/Singularities/.

A client-server system for the visualization of algebraic surfaces on the Web , R. J. Morris. In Algebra, Geometry, and Software Systems, Ed. Michael Joswig and Nobuki Takayama. Springer Verlag, 2003, pp 239-253.

Referees

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Prof. K. V. Mardia,
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University of Leeds,
Leeds, LS2 9JT
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Various HTML resources

Heres some resources designed for the City and Guild Course I'm teaching in Web-Site Design and Java.

Gifs

Working with Gifs A page I wrote all about image maps and animated gifs. To get coordinates for an image map you can use Coordinate finder which also shows off a bit of JavaScript.

Tables

Tricks with tables a page by me showing how tables can be used to layout pages.

Fonts

http://www.comp.leeds.ac.uk/pfaf/design/fonts.html Has examples of the standard fonts available on Unix, Windows and Mac systems.

Colors

I've generated a Color pallet by using some JavaScript to write the contents of an html document.

Forms

http://www.comp.leeds.ac.uk/pfaf/design/post.html

Some simple examples of submitting a form, the associated script will just tell you what was inputed

http://www.cc.ukans.edu/~acs/docs/other/forms-intro.shtml

An introduction to CGI-Scripts and forms

http://www.worldwidemart.com/scripts/

A good set of perl scripts which you can use on your own site. Includes things link counters and guestbooks.

www.perl.com

The best place for information on Perl a language used by many webservers.

Forms, CGI and perl scripts can be used to activly generate pages. They can also be used to statically update the webpage each time a catalogue etc is updated. My page on Statically generating web pages gives an example of this.

Server Logs

So who is looking at your site, where in the world are they coming from and what browser are they using? My Stats page reveals all.

The clincher here is that about 10% are using 3.0 or older browsers, so style sheets and more modern HTML seems out of the question.

Useful sites for HTML

NCSA Beginner's Guide to HTML

http://www.ncsa.uiuc.edu/General/Internet/WWW/index.html Start here. The original and best. Has a fancy use of JavaScript for drop down-menus.

Netscape

http://developer.netscape.com/docs/manuals/htmlguid/index.htm Full reference to what Netscape supports. I've found Netscape's web pages terrible for finding what you want. You can download the whole section as a zip file.

htmlcompendium

http://www.htmlcompendium.org/index.htm Very comprehensive details of which browser supports which tag. Rather dry.

Mircosoft

http://msdn.microsoft.com/workshop/default.asp Seems to start at quite a high level.

Web Design Tips

The Alertbox: Current Issues in Web Usability

http://www.useit.com/alertbox/ a bi-weekly column, with many relevant articles. Much easier to find your way around than the other sites.

CNET.com - Web Building

http://home.cnet.com/webbuilding/0-3880.html Lots of design tips, links to other sources etc.

Webmonkey

http://www.hotwired.com/webmonkey/html/?tw=html Very nicely laid out. Covers most things.

Project Cool

http://www.projectcool.com/developer/tips/design01_tips/index.html 10 useful tips.

Advanced Multimedia Design

http://www.ncsa.uiuc.edu/General/Training/AdvHTML/multimedia.design.html Some good stuff on choosing colours.

Philips Greenspur's The Web Tools Review

http://photo.net/wtr/ Lots and lots on web-design, including a full online book. Mainly to do with using databases for generating web sites. You could spend hours on this site.

Yale Style Guide

http://info.med.yale.edu/caim/manual/ Well though out, includes classic hints like: *Interface studies have shown that users prefer menus that present a minimum of five to seven links, and that users prefer a few very dense screens of choices over many layers of simplified menus.* And suggests two different capitalization schemes:

- Headline style Bold, capitalizing the initial letters, for: Document titles Other web sites Titles of documents referred to within the text Proper names, product names, trade names.
- Downstyle Bold, capitalize first word only, for: Subheads References to other heading within the style manual Figure titles Lists.

Nice Looking Sites

Raptor Conservation Web Site

http://www.raptor.uk.com/ Simple but very effective use of graphics and colours. To help understand the layout I have increased the width of all the borders, you can see the results here.

Navigation Tips From Builder.com

http://www.builder.com/Graphics/CTips2/ss12.html A rather more complex page, with lots of tables, as well as some clever stuff to make images look biger than they actually are. Again I've increased the width of the Borders.

WORD

http://www.word.com/ Experimental Art designs for the web. The other extreem from the standard look and feal. Letter from the Art director is worth a read to see some of the issues which designers face.

The Plants For A Future Site

My own web-site. Not the fanciest of sites, but it works and I've had some compliments on the design.

The Home Page

http://www.comp.leeds.ac.uk/pfaf/ Contains a big index to everything else in the site. I've used a shallow navigation pattern so that people don't get lost. The top of the page is what people will see first its got the most important info. Some late-breaking news is just below. At the very bottom is more legal type stuff which has to appear, but is not very interesting.

The big question is the background. I think the wood effect looks nice, but it can make it hard to read the pages on old computers.

Alternative Home Page

http://www.comp.leeds.ac.uk/pfaf/index2.html An attempt to clean up the home page. A simple table at the top of the page and a banner graphic.

Introduction Page

http://www.comp.leeds.ac.uk/pfaf/intro.html A typical page, a banner graphic, and simple navigation buttons above and below a horizontal line. Getting a reasonable looking graphic can add immensely. It took over a day to sort this one out.

The list of trees

http://www.comp.leeds.ac.uk/pfaf/tree1.html shows the use colspan in a table.

One big problem with the site is that nearly all the files are in one big directory, which has 160 files in it. This is quite hard to manage. I've been thinking about trying to create sub directories to organise things. This is rather difficult and there is also a problem that other people may have linked to that specific page. Their link would be broken if I moved the page.

Validation

http://validator.w3.org/

The official HTML 4.0 syntax checker, very strict.

http://websitegarage.netscape.com

Does a lot more than simple validation, spelling checking, search engine info, link checking, and link popularity.

http://www.netmechanic.com

Replies sent by email

http://www2.imagiware.com/RxHTML/

Doctor HTML

http://www.cre.canon.co.uk/~neilb/weblint/

Weblint. I use this at home. Also needs the Peal program good for checking lots of files.

http://www.w3.org/People/Raggett/tidy/

HTML-tidy: tidys up your web-pages adding closing paragraph and list tags. It also does a syntax checking and can remove some of the nonsense Word produces. Bewarned it will change the spacing of your pages.

http://www.chami.com/html-kit/

HTML-Kit. An HTML editor, the features I use are the HTML-Tidy syntax checker and the spell checker. You can use this at home.

Javascript

The best JavaScript tutorial I've found is at http://www.htmlgoodies.com/primers/jsp/ on the HTML Goodies site.

There is many a wondrous thing you can do with JavaScript. The coordinate finder used to help with image maps demonstrates a few of these:

- Opening new browser windows
- Responding to users mouse clicks
- Dynamically writing a page

I've generated a Color pallet by using some JavaScript to write the contents of an html document. This uses a few if statements and for-next loops to run through all the color-safe colors and it automatically creates a set of tables in the document using the `document.write` statement. To see the source of it you'll need to save the file and view that.

Netscape's expanding squares example of Dynamic html using JavaScript and Style Sheets.

I had a bit of a play with Dynamic HTML to make a Multiple Choice page.

The frames version of the Plants For A Future database shows some rather advanced JavaScript which uses object orientated techniques. Among other things the Javascript is used to

- Create an object to hold information about a URL
- Handle lists of such objects
- When a new page is loaded the JavaScript checks each link in the document and adds it to a list.
- When each page is loaded in the main frame an appropriate footer is loaded.
- Next and Previous links are provided to run through a sequence of pages
- A history of pages viewed can be seen.
- The state of various options clicked on a page is remembered
- The JavaScript works in conjunction with dynamically generated documents created by cgi-scripts.

To view the JavaScript you'll need to save the main D_frames.html file. Theres about 600 lines of code.

Netscape has a good page on Determining Browser Types.

Java

Heres some course notes on Basic Java and how to work with Two class files plus a little bit on getting reading input from the terminal.

Intro to Objects

A simple java applet

How to handle events the old way. How to layout the hangman prog.

Wallpaper patterns

Planet Online

http://www.pol.co.uk/ Java you don't even really notice: A clock and a news-scroller.

JavaBoutique

http://javaboutique.internet.com/ tutorials, archives of applets.

JMenu

http://www.bluemoon.net/~mewilson/?menu/introduction.html A useful Java Applet, gives a Explorer style navigation to a web-site.

Sun's Java page

http://java.sun.com/ Download Development Kits, read documentation.

Gamalan

http://www.gamelan.com/ News Jiews, tutorials.

Monkey Puzzle

http://www.gamesdomain.co.uk/GamesArena/monkey/index.html A fancy game, showing just what you could do we Java.

Thinking in Java

http://www.codeguru.com/java/tij/ An online book. Ideal if you have done some programming but don't know much about object oriented design. Word, PDF and HTML zip files are available from the Authors site: http://www.bruceeckel.com/TIJ2/index.html.

Back to Plants For A Future home page.

Page by Rich Morris pfaf@comp.leeds.ac.uk , no copyright. Nov 1999.
This page: http://www.comp.leeds.ac.uk/pfaf/design/index.html

Working With Gifs

Images are what makes good web sites great. Heres a couple of fun things to do with images.

Image Maps

Theres three main way you can make image maps:

Server-side image maps

> When a user clicks on a point on the image the mouse coordinates are sent to the web server. A program on the server will interprete the mouse clicks and return the corresponding web page. This was the oldest technology for doing image maps but it is not used much these days.

Client side image maps

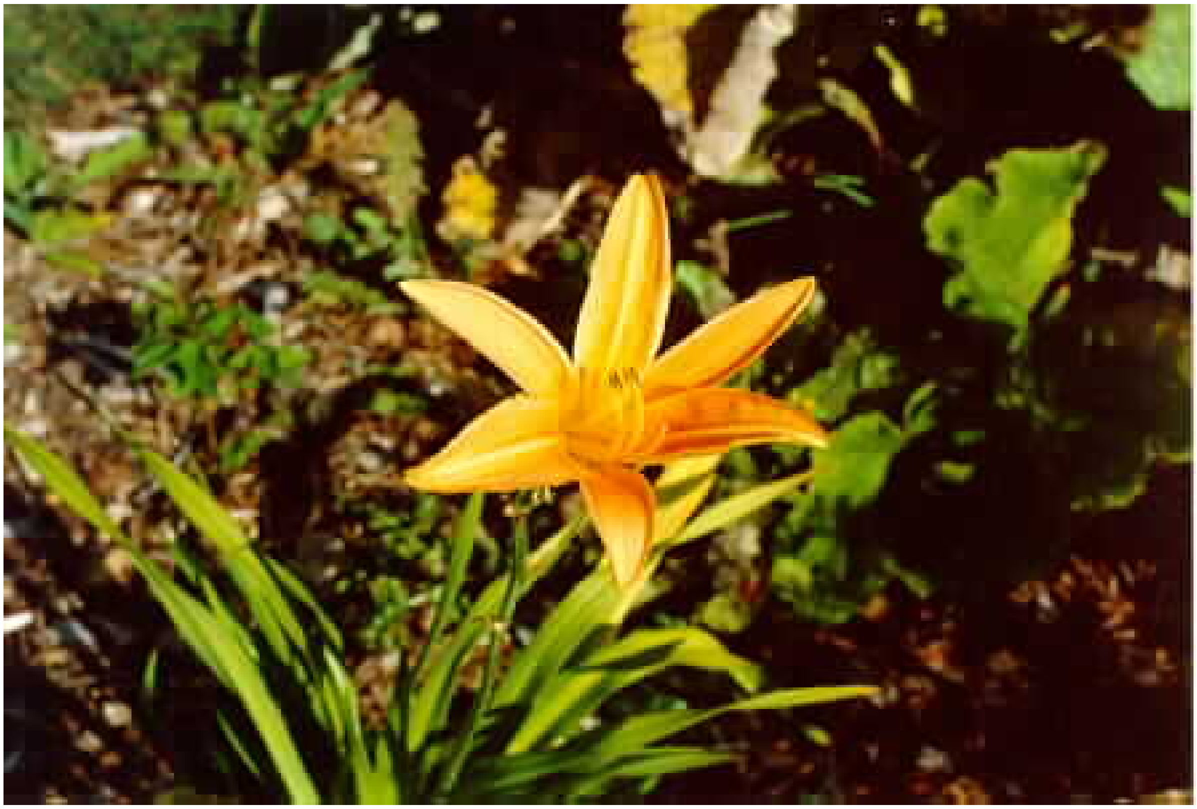
> The most common type. Here all the hard work is done by the browser and the description in the different regions in the image is contained in the HTML file. A few of the earliest browsers do not support client side image maps.

Tables

> An image can be sliced up into a set of smaller images. These can then be aranged together inside a table. A normal <A HREF="..."> link can then be used for each sub image. With the addition of JavaScript lots of fancy effect can be achieved such as a role-over which changes each of the images.

Client Side Image Maps

The web-page contains an image and a linked <MAP> block. The <MAP> block contains a set of <AREA> tags which contain the definitions of the various regions in the image, each <AREA> also contains an HREF atribute giving the URL to be loaded when the user clicks in that area.



The above image map is coded as follows:

```
<IMG SRC="../images/hemero.jpg" USEMAP="#MYMAP">
<MAP NAME="MYMAP">
<AREA SHAPE="POLY"
        HREF="getCoords.html"
        COORDS="149,178, 195,143, 147,104, 213,128,
                240,58, 245,130, 304,100, 269,142, 312,164,
                240,173, 241,204, 231,219, 214,178, 150,175">
<AREA SHAPE="CIRCLE"
        HREF="index.html"
        COORDS="225,151,75">
</MAP>
```

Note how the <IMG> tag has an USEMAP atribute whose value is the same as the NAME atribute in the <MAP> tag (with an extra # symbol). This tells the browser which map to to use with the image.

The <MAP> tag contains a set of <AREA> tags. Each <AREA> tag has SHAPE, HREF and COORDS atributes. The shape is either RECT, CIRCLE or POLY. For RECT the coord are: top left x,y, bottom right x,y i.e.

```
<AREA SHAPE="RECT" HREF="a.html"
        COORDS="10,10,100,100">
```

For CIRCLE the coord are center x,y, radius i.e.

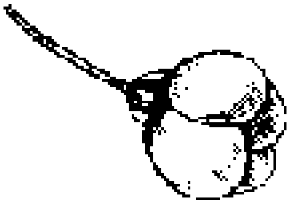
```
<AREA SHAPE="CIRCLE" HREF="a.html"
        COORDS="100,100,50">
```

For POLY the COORDS are 3 or more points around the shape

```
<AREA SHAPE="POLY"
        HREF="getCoords.html"
        COORDS="100,100, 150,20, 200,100">
```

I've written a little bit of JavaScript to help with finding coordinates of images: http://www.comp.leeds.ac.uk/pfaf/design/getCoords.html you can copy this page to a local file and change the image to help with getting coordinates of the image. You can jump to this page by clicking on the flower!

Animated Gifs



Normally to be avoided, but we need to do one for asignment two. You will need a tool to actually make the animated gif. Gif Construction Set by Alchemy Mindworks is very nice shareware program for making animated gifs. It can be found at: http://www.mindworkshop.com/alchemy/gifconcl.html Have a look at their Quick Start documentation for a guide to how to make a simple animated gif.

A GIF file consists of a set of blocks each block either contains an image, a looping statment, a transparancy control block or some other information. A simple GIF will be like

```
HEADER GIF89a Screen (116 x 76)
LOOP (1000 iterations)
CONTROL (delay 100 1/100th of a second)
IMAGE picture 1
CONTROL (delay 100 1/100th of a second)
IMAGE picture 2
COMMENT Alchemy Mindworks Inc
```

The HEADER block has information on the image size and the format. The LOOP block gives the number of time to loop. The CONTROL block defines the transparancy, the time to wait for and various other effects. The IMAGE block contains the actual data of the image. Theres several other types of blocks you can have. All the information is in binary so you cannot see whats in the blocks without a special tool like GCS.

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This is a very primitive way of getting coordinates of points in an image. To test just click on a point in the image. In explorer you will get the absolute and relative coordinates of the mouse, in Netscape its only gives the Absolute position (you will need to click in the top left corner to find the image relative coords).

If you want to use this on your own image:

1. Save this onto disk.
2. Edit the file replacing the image with your own
3. Load the new page in your browser

Enjoy.

The event handler is modified from that found in "Java the definitive guide" by David Flanagan, published by O'Reilly. Copyright © 1996, 1997, 1998 O'Reilly & Associates.

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Tricks with tables

Index

- Horizontal line
- Colapsing Cells
- Tables within tables
- Long lines
- Modifying other peoples tables
- Tables with images

Tables can be used in lots of different ways to help with laying out web-pages.

This page has been formatted by using set of tables. Each table consists a single row with 6 columns:

1. A 10 pixel wide cell just creating some white space.
2. A 383 pixel wide cell containing the main text.
3. A 15 pixel wide cell just creating some white space.
4. A one pixel wide cell with its background colour set.
5. A 15 pixel wide cell just creating some white space.
6. A 116 pixel wide cell containing the navigation boxes.

The code for the table is:

```
<TABLE BORDER="0"
        CELLPADDING="0"
        CELLSPACING="0">

<!-- The Row Containing the main text
                 and navigation boxes -->
<TR>

<!-- First row 10 pixel wide
        contains an &nbsp; to stop
        the cell colapsing -->
<td width="10">&nbsp;</td>

<!-- The cell containing main text -->
<TD VALIGN = "TOP"
        ALIGN = "LEFT"
        WIDTH = "383">

<h1>Trick with Tables</h1>
.....
</td>
<!-- end of main cell in main row -->

<!-- white space -->
<TD WIDTH = "15">&nbsp;</TD>

<!-- A vertical line
        contains <BR>
        to stop cell colapsing
        the BGCOLOR is set
        to the colour we
        want the lines to be -->
<TD WIDTH="1" BGCOLOR="#FF9966"><BR></TD>

<!-- white space  -->
<TD WIDTH = "15">&nbsp;</TD>

<!-- This cell contains
         the navigtion box -->
<TD VALIGN="TOP" ALIGN="LEFT" width="167">

</td>
<!-- end navigation box cell -->

</tr>
<!-- end of row -->

</table>
```

Thin horizontal lines

Rather than code everything as a big table the page will load faster if it consists of lots little tables.

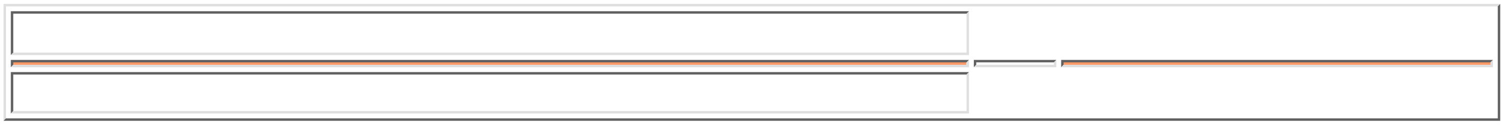
The horizontal lines are made up of a 3 by 3 array of cells

```
<table BORDER="0"
        CELLPADDING="0"
        CELLSPACING="0">
<TR>
<!-- white space separating
        the horizontal line
        from the previous table-->
<TD VALIGN = "TOP"
        ALIGN = "LEFT"
        WIDTH = "15"
        height="15"
        > </TD>
</tr>
<TR>
<!-- Thin horiz line -->
<TD VALIGN = "TOP"
        ALIGN = "LEFT"
        WIDTH = "393"
        height="1"
        BGCOLOR="#FF9966"><SPACER
        TYPE="block"
        width="1"
        height="1"></TD>

<!-- 1 pixel high white space -->
<TD VALIGN = "TOP"
        ALIGN = "LEFT"
        WIDTH = "32"
        height="1"
        ><SPACER TYPE="block"
        width="1"
        height="1"></TD>

<!-- Horizontal line -->
<TD VALIGN = "TOP"
        ALIGN = "LEFT"
        WIDTH = "176"
        height="1"
        BGCOLOR="#FF9966"><SPACER
        TYPE="block"
        width="1"
        height="1"></TD>
</tr>
<TR>
<!-- vertical space -->
<TD VALIGN = "TOP"
        ALIGN = "LEFT"
        WIDTH = "15"
        height="15"
        ><SPACER TYPE="block"
        width="1"
        height="1"></TD>
</tr>
</table>
```

The border has been set on the table containg the horizontal line below



Colapsing cells

In netscape cells can colapse if they do not containg anything, this means that the background colour will not be displayed.

A	B	C
D		F

The code for the E cell is

```
<td bgcolor="#ccffcc"></td>
```

and the background coloour doesn't show in netscape. You can sometime fill the cell by putting an   or a <BR> in it. Which take up space but do not display visibly. They Note how the Netscape specific SPACER tage is used to stop the cells colapsing.

```
<SPACER TYPE="block"
        width="1"
        height="1">
```

Its also posible to use a single pixel transparent gif.

When borders are on Explorer seems to colapse cells as well.

Another Netscape problem is that if a cell contain a newline between the <TD> and the </TD> a space is added which creates space in the cell and causes it to be bigger than desired. The only difference between the second a fourth rows in the following table is that there is an extra newline.

A	B	C
A	B	C
A	B	C

Tables within tables

The navigation box on the right was made by putting a table inside a table and setting the CELLPADDING of the outer one to 10.

Hi

```
<TABLE BORDER=0
        CELLSPACING=0
        CELLPADDING="10"
        BGCOLOR="#CCFFCC">
<TR>
<TD>
```

```
<TABLE BORDER=0
        CELLSPACING=0
        CELLPADDING=10
        BGCOLOR="#FFCCCC">
<TR>
<TD     VALIGN=MIDDLE
        ALIGN=CENTER
>Hi</TD>
</TR>
</TABLE>
</TD>
</TR>
</TABLE>
```

Problems with very long lines

The formatting of table can be messed up if you have very long line. The section is formatted exactly the same as the others but contains the line

```
This line has been put inside of a <PRE> block to stop it wrapping.
```

Notice how it messes the formatting at. The width and height elements should be considered as a minimum.

Modifying other peoples tables

You may find it easiest to find someone elses tables that you like and modify it to your needs. The formatting for this page is a heavily modified version of the web coder one found at: http://www.webcoder.com/demos/.

Tables with images

The title for the top of the page was made by taking a gif file of the first letter and wrapping it up in a table. This can be used to give the impresion of a much larger image. I've see this done to great effect on the Builder.com site. You'll see lots of other fun stuff with images in tables all over the web.

```
<table border="0"
```

```
         cellpadding="0"
         cellspacing="0">
   <tr>
   <td rowspan=3><img
         src="T.gif"
         border="0"></td>
   <TD VALIGN = "TOP"
         ALIGN = "LEFT"
         WIDTH = "150"
         height="2"
         BGCOLOR="#FF9966"><SPACER
         TYPE="block"
         width="1"
         height="1"></TD>
   </tr>
   <tr>
   <td><font
         size=6
         color="#ff0000"><b>ricks
         with tables</b></font></td>
   </tr>
   <tr>
   <TD VALIGN="TOP"
         ALIGN="LEFT"
         WIDTH="150"
         height="2"
         BGCOLOR="#FF9966"><SPACER
                 TYPE="block"
                 width="1"
                 height="1"></TD>
   </tr>
 </table>
```

Back to HTML Resources

Fonts

Generic Styles

Normal text size 1 size 2 size 3 size 4 size 5 size 6 size 7

serif size 1 size 2 size 3 size 4 size 5 size 6 size 7

sans-serif size 1 size 2 size 3 size 4 size 5 size 6 size 7

monospace size 1 size 2 size 3 size 4 size 5 size 6 size 7

cursive size 1 size 2 size 3 size 4 size 5 size 6 size 7

fantasy size 1 size 2 size 3 size 4 size 5 size 6 size 7

Recomended Combinations

<FONT face="Verdana, Arial, Helvetica, sans-serif">

<FONT face="Palatino, Times, Times New Roman, serif">

Unix

charter size 1 size 2 size 3 size 4 size 5 size 6 size 7

clean size 1 size 2 size 3 size 4 size 5 size 6 size 7

courier size 1 size 2 size 3 size 4 size 5 size 6 size 7

fixed size 1 size 2 size 3 size 4 size 5 size 6 size 7

helvetica size 1 size 2 size 3 size 4 size 5 size 6 size 7

lucida size 1 size 2 size 3 size 4 size 5 size 6 size 7 lucidabright size 1 size 2 size 3 size 4 size 5 size 6 size 7

lucidatypewriter size 1 size 2 size 3 size 4 size 5 size 6 size 7

new century schoolbook size 1 size 2 size 3 size 4 size 5 size 6 size 7

σψμβολ σιζε 1 σιζε 2 σιζε 3 σιζε 4 σιζε 5 σιζε 6 σιζε 7

terminal size 1 size 2 size 3 size 4 size 5 size 6 size 7

times size 1 size 2 size 3 size 4 size 5 size 6 size 7

utopia size 1 size 2 size 3 size 4 size 5 size 6 size 7

From http://www.builder.com/Graphics/Type/ss01c.html

Common PC fonts:

Win 3.1, 95 & NT.

Arial size 1 size 2 size 3 size 4 size 5 size 6 size 7

Arial Black* size 1 size 2 size 3 size 4 size 5 size 6 size 7 (IE 3)

Comic Sans MS* size 1 size 2 size 3 size 4 size 5 size 6 size 7 (IE 3)

Comic Sans size 1 size 2 size 3 size 4 size 5 size 6 size 7 (IE 4)

Courier New size 1 size 2 size 3 size 4 size 5 size 6 size 7

Georgia size 1 size 2 size 3 size 4 size 5 size 6 size 7 (IE 3)

Impacta size 1 size 2 size 3 size 4 size 5 size 6 size 7 (IE 3)

Marlett size 1 size 2 size 3 size 4 size 5 size 6 size 7 (95)

Times New Roman size 1 size 2 size 3 size 4 size 5 size 6 size 7

Verdana size 1 size 2 size 3 size 4 size 5 size 6 size 7 (IE 3)

Trebuchet MS size 1 size 2 size 3 size 4 size 5 size 6 size 7 (IE 3)

Microsoft recomend: Arial, Comic Sans, Georgia, Impacta, Times New Roman, Trebuchet MS, Verdana. as they have benn optimised for on-screen viewing. To use them all a special font pack needs to be downloaded.

Common Macintosh fonts:

Chicago size 1 size 2 size 3 size 4 size 5 size 6 size 7

Courier size 1 size 2 size 3 size 4 size 5 size 6 size 7

Geneva size 1 size 2 size 3 size 4 size 5 size 6 size 7

Helvetica size 1 size 2 size 3 size 4 size 5 size 6 size 7

Mishawaka size 1 size 2 size 3 size 4 size 5 size 6 size 7

Monaco size 1 size 2 size 3 size 4 size 5 size 6 size 7

New York size 1 size 2 size 3 size 4 size 5 size 6 size 7

Palatino size 1 size 2 size 3 size 4 size 5 size 6 size 7

Times size 1 size 2 size 3 size 4 size 5 size 6 size 7

Verdana size 1 size 2 size 3 size 4 size 5 size 6 size 7

Arial size 1 size 2 size 3 size 4 size 5 size 6 size 7

First question why you need to specify fonts at all, leave things up to the user. Thats the way html was first designed.

The actual font size will depend on the way that the user has set up their browser. On my machine at work I have my default font size set to 18pt, so web pages look ok on a 21" monitor. (I also tend to ensure my defaults are not overridden).

The tag is now depreciated, cascading style sheets are the recomended way to go. The only problem is that they are not well supported by browsers. You get more functionality out of them as well.

Include serif, sans-serif, monospace, cursive or fantasy as the last element in your list of fonts. Guarenteed to display on all browsers.

Macs support Chicago, Courier, Geneva, Helvatica, Mishawaka, Monaco,
New York, Palatino, Symbol and Times. (OS8: Apple Chancery,
Charcoal, Monoco, Skia, Wingdings)

Windows 3.1/95 suport Arial, Courier New, Times New Roman, Symbol
(Win 95: Marlett)

Win NT: Arial, Courier New, Times New Roman, Wingdings, Symbol

Unix/Xfree: charter, clean, courier, fixed, helvetica, lucida, lucidabright,
lucidatypewriter, newcentury schoolbook, symbol, terminal, times, utopia.

IE 3.0 adds: Arial Black, Comic Sans MS, Impact, Verdana
IE 4.0 adds: Arial Black, Comic Sans, Impact, Verdana, Webdings

This info lifted from Web Design in a Nutshell (O'Reilly).

Other options include embedded fonts, or ready made gif images.

Using JavaScript to generate a table of colours

To see the JavaScript code which generated this page you will need to save the file and view that in notepad. The viewsource in netscape tends to give the output of the javascript.

Back to HTML resources

POST METHOD

Latin Name	
Common Name	
Family	
Address	Academic Computing Services The University of Kansas Lawrence, Kansas 66045

Submit Reset

GET METHOD

Latin Name	
Common Name	
Family	
Address	Academic Computing Services The University of Kansas Lawrence, Kansas 66045

Submit Reset

A simple Anchor with a query string

<A HREF="../../cgi-bin/pfaf/env.pl?LAT=salix&COM=willow">

The Perl Script Used to display results

Click Me to see the script.

This URL http://www.comp.leeds.ac.uk/pfaf/design/post.html

CGI Test Results

The Query String

REQUEST_METHOD is GET.

LAT
: salix

COM
: willow

Other Environment Variables

DOCUMENT_ROOT
: /home/www

GATEWAY_INTERFACE
: CGI/1.1

HTTP_ACCEPT
: application/vnd.fdf, text/html, text/plain, image/gif, image/jpeg, application/pdf

HTTP_CACHE_CONTROL
: no-cache

HTTP_HOST
: www.scs.leeds.ac.uk

HTTP_REFERER
: http://www.scs.leeds.ac.uk/pfaf/design/post.html

HTTP_USER_AGENT
: Mozilla/3.0 (compatible; WebCapture 1.0; Auto; Windows)

PATH
: /sbin:/usr/sbin:/bin:/usr/bin:/usr/X11R6/bin

QUERY_STRING
: LAT=salix&COM=willow

REMOTE_ADDR
: 4.63.206.20

REMOTE_PORT
: 1231

REQUEST_METHOD
: GET

REQUEST_URI
/cgi-bin/pfaf/env.pl?LAT=salix&COM=willow
SCRIPT_FILENAME
/home/www/cgi-bin/pfaf/env.pl
SCRIPT_NAME
/cgi-bin/pfaf/env.pl
SERVER_ADDR
129.11.144.5
SERVER_ADMIN
webmaster@comp.leeds.ac.uk
SERVER_NAME
www.scs.leeds.ac.uk
SERVER_PORT
80
SERVER_PROTOCOL
HTTP/1.1
SERVER_SIGNATURE
Apache/2.0.48 Server at www.scs.leeds.ac.uk Port 80
SERVER_SOFTWARE
Apache/2.0.48

```
#! /usr/local/bin/perl

# This line MUST be the first one to produce output
# it tells the browser that its an html type document

print "Content-type: text/html\n\n";

# Print the start of the HTML document

print <<EOF;
<html>
<head>
<title>CGI Test Results</title>
</head>

<body>
<h1>CGI Test Results</h1>
<h2>The Query String</h2>
EOF

# Determine if its a POST or GET type query
# set $full_query to be the query

if( $ENV{REQUEST_METHOD} =~ /GET/i ) {
        print "<P>REQUEST_METHOD is GET.</P>\n";
        $full_query = $ENV{QUERY_STRING};
} elsif( $ENV{REQUEST_METHOD} =~ /POST/i ) {
        print "<P>REQUEST_METHOD is POST. Standard input is</P>\n";

        # for POST queries read from standard input

        $full_query = "";
        while( $_ = <> )
        {
                chomp;
                $full_query .= $_;
        }
} else
{
        print "<P>Bad request method.</P>\n";
} # end REQUEST_METHOD

# replace newlines with <br>
# replace + with a space

$full_query =~ s/%0D%0A/<br>\n/g;
$full_query =~ s/\+/ /g;

# split up query string on & characters

@bits = split(/&/,$full_query);
print "<DL>\n";

# loop through the bits

foreach $i (@bits) {

        # divide the bit into head and tail

        ($head,$tail) = split(/=/,$i);
        # turn escape codes into normal characters

        $tail =~ s/%21/\!/g;
        $tail =~ s/%22/\"/g;
        $tail =~ s/%23/\#/g;
        $tail =~ s/%24/\$/g;
        $tail =~ s/%26/&amp;/g;
        $tail =~ s/%27/\'/g;
        $tail =~ s/%28/\(/g;
        $tail =~ s/%29/\)/g;
        $tail =~ s/%2B/\+/g;
        $tail =~ s/%2C/\,/g;
        $tail =~ s/%2F/\//g;
        $tail =~ s/%3A/\:/g;
        $tail =~ s/%3B/\;/g;
        $tail =~ s/%3C/&lt;/g;
        $tail =~ s/%3D/\=/g;
        $tail =~ s/%3E/&gt;/g;
        $tail =~ s/%3F/\?/g;
        $tail =~ s/%40/\@/g;
        $tail =~ s/%5B/\[/g;
        $tail =~ s/%5D/\]/g;
        $tail =~ s/%5E/\^/g;
        $tail =~ s/%5C/\\/g;
        $tail =~ s/%60/\`/g;
        $tail =~ s/%7B/\{/g;
        $tail =~ s/%7C/\|/g;
        $tail =~ s/%7D/\}/g;
        $tail =~ s/%7E/\~/g;
        $tail =~ s/%A3/&pound;/g;
        $tail =~ s/%AC/&not;/g;
        $tail =~ s/%25/\%/g;    # % should be done last
        $tail =~ s/ /&nbsp;/g;
        print "<DT>$head</dt>\n<dd>$tail</dd>\n";
}
print "</DL>\n";

#print the other environment variables

print <<EOF;
<h2>Other Environment Variables</h2>
<DL>
EOF

foreach $i  (sort (keys %ENV)) {
        print "<DT>$i</DT>\n";
        print "<DD>$ENV{$i}</DD>\n";
}

print <<EOF;
</BODY>
</HTML>
EOF
```

Using Perl to Staticaly generate a page

Supose you are making the web pages for a company who has a catalogue which may change over time. Rather than having to manually changes all the web pages you could use Perl or some other language to generate the pages.

For example the data for a catalogue of plants might be like

```
Abelia triflora||Caprifoliaceae|Zabelia triflora. (Wallich.)Makino.
Abelmoschus esculentus|Okra|Malvaceae|Hibiscus esculentus. L.
Abelmoschus manihot|Aibika|Malvaceae|Hibiscus manihot.
Abelmoschus moschatus|Musk mallow|Malvaceae|Hibiscus abelmoschus.
Abies alba|Silver fir|Pinaceae|A. pectinata.  A. picea.
Abies amabilis|Red fir|Pinaceae|
Abies balsamea|Balsam fir|Pinaceae|Pinus balsamea.
Abies cephalonica|Grecian fir|Pinaceae|
Abies concolor|Colorado fir|Pinaceae|Picea concolor.
Abies delavayi||Pinaceae|
```

A perl script could be written to read reach line from this file, split the line into different bits (fields) and create a html page containing a big table. Each time the datafile is changed you could run the perl script to genetate an update of the html file. Total mainanance time 1 min.

I've done a simple example of this:

- Data File
- Automatically generated HTML file
- Perl Script

Back to HTML Resources

```
Abelia triflora||Caprifoliaceae|Zabelia triflora. (Wallich.)Makino.
Abelmoschus esculentus|Okra|Malvaceae|Hibiscus esculentus. L.
Abelmoschus manihot|Aibika|Malvaceae|Hibiscus manihot.
Abelmoschus moschatus|Musk mallow|Malvaceae|Hibiscus abelmoschus.
Abies alba|Silver fir|Pinaceae|A. pectinata.  A. picea.
Abies amabilis|Red fir|Pinaceae|
Abies balsamea|Balsam fir|Pinaceae|Pinus balsamea.
Abies cephalonica|Grecian fir|Pinaceae|
Abies concolor|Colorado fir|Pinaceae|Picea concolor.
Abies delavayi||Pinaceae|
```

Plants in the database

Latin Name	Common Name	Family	Synonyms
Abelia triflora		Caprifoliaceae	Zabelia triflora. (Wallich.)Makino.
Abelmoschus esculentus	Okra	Malvaceae	Hibiscus esculentus. L.
Abelmoschus manihot	Aibika	Malvaceae	Hibiscus manihot.
Abelmoschus moschatus	Musk mallow	Malvaceae	Hibiscus abelmoschus.
Abies alba	Silver fir	Pinaceae	A. pectinata. A. picea.
Abies amabilis	Red fir	Pinaceae	
Abies balsamea	Balsam fir	Pinaceae	Pinus balsamea.
Abies cephalonica	Grecian fir	Pinaceae	
Abies concolor	Colorado fir	Pinaceae	Picea concolor.
Abies delavayi		Pinaceae	

```
#! /bin/perl

# run using
#       perl test.pl < names.txt > names.html

# First print the begining of the html file

print <<EOF;
<html>
<head>
<title>Demo</title>
</head>

<body>
<table border="1">
<caption><b>Plants in the database</b></caption>
<tr>
<th>Latin Name</th>
<th>Common Name</th>
<th>Family</th>
<th>Synonyms</th>
</tr>
EOF

# read in each line of the datafile
while( <STDIN> )
{
        chomp;   # remove the newline character
        print "<tr>\n"; # print the start of the table row
        @fields = split(/\|/);  # split the line into seperate fields

        # loop through the fields
        foreach $cell (@fields)
        {
                # print a table cell containing the field

                print "<td>$cell</td>\n";
        }
        print "</tr>\n"; # print the end of the table row
}

# print the info to go at the end of the html file

print <<EOF;
</table>
</body>
</html>
EOF

# Thats all folks
```

Plants for a Future
A resource centre for edible and other useful plants

Back to Plants for a future home page.

Stats

Counters are boring they just don't tell you the really fun stuff. So for all you mathematicians out there heres some stats. This is all rather old circa March '97.

Date	UK total	UK Normal Web pages	UK Database	Home Page	Unique host (aprox number of different people)
28/Feb/2001 - 04/Mar/2001	29592	7217	3929	1344	2903
04/Mar/2001 - 11/Mar/2001	65768	14417	9202	2908	5729
11/Mar/2001 - 18/Mar/2001	64168	15277	4330	2923	6438
18/Mar/2001 - 25/Mar/2001	64588	15007	4702	3020	6218
25/Mar/2001 - 01/Apr/2001	64841	15108	4377	3122	6432
01/Apr/2001 - 08/Apr/2001	65451	15214	4036	3281	6622
08/Apr/2001 - 15/Apr/2001	67917	15949	4726	3174	6728
15/Apr/2001 - 22/Apr/2001	66666	15345	4190	3017	6961
22/Apr/2001 - 29/Apr/2001	79276	17277	4892	3693	7960
29/Apr/2001 - 06/May/2001	73984	17337	4609	3543	7553
06/May/2001 - 13/May/2001	79030	15966	5644	3729	7341
13/May/2001 - 20/May/2001	77351	15029	4613	3811	7351
20/May/2001 - 27/May/2001	79507	17525	5561	3597	7160
27/May/2001 - 03/Jun/2001	73979	16411	3816	3407	6813
03/Jun/2001 - 10/Jun/2001	71723	16402	5914	3156	6576
10/Jun/2001 - 17/Jun/2001	68116	13025	9322	2889	6181
17/Jun/2001 - 24/Jun/2001	79352	13966	21966	2816	5757
24/Jun/2001 - 01/Jul/2001	60768	14305	3773	2722	5699
01/Jul/2001 - 08/Jul/2001	59586	14945	6744	2457	5412
08/Jul/2001 - 15/Jul/2001	66922	14167	9213	2660	5814
15/Jul/2001 - 22/Jul/2001	81979	14769	25929	2531	5531
22/Jul/2001 - 29/Jul/2001	65597	12957	14008	2406	5508
29/Jul/2001 - 05/Aug/2001	73089	13963	19784	2451	5610
05/Aug/2001 - 12/Aug/2001	61715	14235	7158	2542	5662
12/Aug/2001 - 19/Aug/2001	64238	15242	4652	2722	5902
19/Aug/2001 - 26/Aug/2001	65514	14621	6419	2790	5971
26/Aug/2001 - 02/Sep/2001	81271	17449	14235	3086	6785
02/Sep/2001 - 09/Sep/2001	84364	17021	15370	2954	6752
09/Sep/2001 - 16/Sep/2001	111428	18646	40928	3079	6475
16/Sep/2001 - 23/Sep/2001	93633	20303	15444	3555	7338

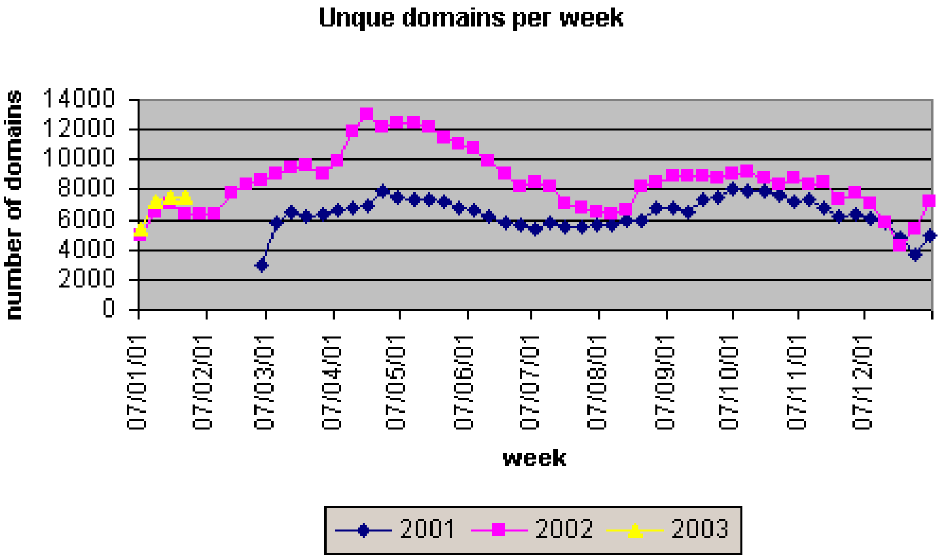
23/Sep/2001 - 30/Sep/2001	97280	21342	14312	3778	7480
30/Sep/2001 - 07/Oct/2001	113164	22126	20352	4070	8087
07/Oct/2001 - 14/Oct/2001	99664	24414	8683	3936	7867
14/Oct/2001 - 21/Oct/2001	99507	23293	7969	3928	7931
21/Oct/2001 - 28/Oct/2001	101673	25436	8792	3747	7637
28/Oct/2001 - 04/Nov/2001	90657	22619	7353	3296	7279
04/Nov/2001 - 11/Nov/2001	96656	20223	7850	9886	7357
11/Nov/2001 - 18/Nov/2001	123653	26058	38598	3263	6788
18/Nov/2001 - 25/Nov/2001	77722	19878	7790	2669	6194
25/Nov/2001 - 02/Dec/2001	77987	18134	8390	2845	6339
02/Dec/2001 - 09/Dec/2001	88730	19965	20039	2602	6061
09/Dec/2001 - 16/Dec/2001	78466	15874	16461	2736	5752
16/Dec/2001 - 23/Dec/2001	70581	17144	15856	2079	4748
23/Dec/2001 - 30/Dec/2001	48399	14580	5983	1565	3715
30/Dec/2001 - 06/Jan/2002	65796	20943	39707	2221	4970
06/Jan/2002 - 13/Jan/2002	31996	16450	12330	3201	6435
13/Jan/2002 - 20/Jan/2002	45392	19841	20901	3314	7005
20/Jan/2002 - 10/Feb/2002	143618	59199	72124	9941	19159
10/Feb/2002 - 17/Feb/2002	36301	19491	12397	3538	7710
17/Feb/2002 - 24/Feb/2002	33380	20583	8246	3518	8320
24/Feb/2002 - 03/Mar/2002	31525	20880	7004	3729	8657
03/Mar/2002 - 10/Mar/2002	36803	20633	12260	3817	9105
10/Mar/2002 - 17/Mar/2002	42407	28077	9109	3862	9528
17/Mar/2002 - 24/Mar/2002	39652	26302	8153	3920	9664
24/Mar/2002 - 31/Mar/2002	33664	20010	10280	3419	9011
31/Mar/2002 - 07/Apr/2002	37127	24304	9077	3717	9936
07/Apr/2002 - 14/Apr/2002	55027	27442	22214	4231	11943
21/Apr/2002 - 28/Apr/2002	44873	27290	12922	4446	12996
28/Apr/2002 - 05/May/2002	45006	27578	12220	4842	12186
05/May/2002 - 12/May/2002	65363	29224	31610	4541	12490
12/May/2002 - 19/May/2002	53761	30132	18937	4733	12484
19/May/2002 - 26/May/2002	65719	24714	36426	4183	12117
26/May/2002 - 02/Jun/2002	62898	24938	33967	3761	11466
02/Jun/2002 - 09/Jun/2002	34279	22289	8242	3497	11019
09/Jun/2002 - 16/Jun/2002	84629	22663	57903	3536	10703
16/Jun/2002 - 23/Jun/2002	70242	23298	43173	3206	9851
23/Jun/2002 - 30/Jun/2002	123142	20467	98982	3065	9044
30/Jun/2002 - 07/Jul/2002	57365	23023	31167	2797	8221
07/Jul/2002 - 14/Jul/2002	58438	24179	31368	2817	8421
14/Jul/2002 - 21/Jul/2002	61702	21612	37117	2753	8259
21/Jul/2002 - 28/Jul/2002	51886	29384	19376	4046	7001
28/Jul/2002 - 04/Aug/2002	111140	28900	78684	3788	6757
04/Aug/2002 - 11/Aug/2002	78900	29758	45744	3454	6565
11/Aug/2002 - 18/Aug/2002	51196	27934	19778	3800	6423

18/Aug/2002 - 25/Aug/2002	72654	29128	39366	4632	6586
25/Aug/2002 - 01/Sep/2002	97292	21985	71126	3102	8188
01/Sep/2002 - 08/Sep/2002	82107	20641	55859	3156	8453
08/Sep/2002 - 15/Sep/2002	114543	20456	89503	3574	8844
15/Sep/2002 - 22/Sep/2002	36050	21696	9593	3937	8888
22/Sep/2002 - 29/Sep/2002	41048	20940	15646	3703	8968
29/Sep/2002 - 06/Oct/2002	39392	20216	14524	3916	8758
06/Oct/2002 - 13/Oct/2002	71073	21808	44300	4054	9119
13/Oct/2002 - 20/Oct/2002	43593	20481	18013	4254	9149
20/Oct/2002 - 27/Oct/2002	59145	19679	34204	4209	8733
27/Oct/2002 - 03/Nov/2002	48142	19415	24288	3934	8370
03/Nov/2002 - 10/Nov/2002	36525	19975	11609	4103	8797
10/Nov/2002 - 17/Nov/2002	34669	17562	12450	3794	8388
17/Nov/2002 - 24/Nov/2002	52971	18396	28435	4183	8465
24/Nov/2002 - 01/Dec/2002	39329	18820	16062	3270	7383
01/Dec/2002 - 08/Dec/2002	42070	17753	19567	3823	7771
08/Dec/2002 - 15/Dec/2002	36265	16084	15657	3379	7011
15/Dec/2002 - 22/Dec/2002	35364	14674	17254	2949	5865
22/Dec/2002 - 29/Dec/2002	23532	11731	8568	1797	4197
29/Dec/2002 - 05/Jan/2003	26481	12966	9597	2448	5393
05/Jan/2003 - 12/Jan/2003	32816	16395	11503	3971	7206
12/Jan/2003 - 19/Jan/2003	43161	16825	21289	4084	7451
19/Jan/2003 - 26/Jan/2003	40778	15358	21128	3799	7425
26/Jan/2003 - 02/Feb/2003	30095	16664	8623	3912	7532
02/Feb/2003 - 09/Feb/2003	32506	17323	10512	3945	7936
09/Feb/2003 - 16/Feb/2003	45953	17630	23359	4025	8386
16/Feb/2003 - 23/Feb/2003	46083	16652	24922	3828	8396
23/Feb/2003 - 02/Mar/2003	55743	18336	32508	4334	8863
02/Mar/2003 - 09/Mar/2003	56756	18355	32701	4268	9333
09/Mar/2003 - 16/Mar/2003	91345	20974	65166	4275	11135
16/Mar/2003 - 23/Mar/2003	66363	21170	38957	4503	11894
23/Mar/2003 - 30/Mar/2003	65518	25320	34724	4843	13012
30/Mar/2003 - 06/Apr/2003	52012	22857	22984	5254	13133
06/Apr/2003 - 13/Apr/2003	80640	24846	49466	5240	13705
13/Apr/2003 - 20/Apr/2003	74366	24975	44393	4624	12397
20/Apr/2003 - 27/Apr/2003	101024	25869	69689	4890	15106
27/Apr/2003 - 04/May/2003	64758	27319	30411	5783	16031
04/May/2003 - 11/May/2003	77124	26916	43842	5744	16475
11/May/2003 - 18/May/2003	108948	26314	76067	5812	15780
18/May/2003 - 25/May/2003	64853	25350	33031	5416	14982
25/May/2003 - 01/Jun/2003	61053	23371	31730	4752	13478
01/Jun/2003 - 08/Jun/2003	49255	21351	21872	5114	13189
08/Jun/2003 - 15/Jun/2003	48851	20557	23034	4297	11959
15/Jun/2003 - 22/Jun/2003	40086	19375	16155	3760	10466

22/Jun/2003 - 29/Jun/2003	41719	19330	17669	3659	10327
29/Jun/2003 - 06/Jul/2003	64038	18705	40984	3243	11518
06/Jul/2003 - 13/Jul/2003	67405	18426	44472	3520	9457
13/Jul/2003 - 20/Jul/2003	44994	16370	24392	3125	10340
20/Jul/2003 - 27/Jul/2003	55768	17879	33614	3293	8820
27/Jul/2003 - 03/Aug/2003	64479	18114	41932	3328	8922
27/Jul/2003 - 03/Aug/2003	64479	18114	41932	3328	8922
03/Aug/2003 - 10/Aug/2003	50872	17286	28825	3322	8506
10/Aug/2003 - 17/Aug/2003	67007	18633	43490	3476	8585
17/Aug/2003 - 24/Aug/2003	48440	17934	26203	3546	9104
24/Aug/2003 - 31/Aug/2003	51459	17546	29765	3661	9350
31/Aug/2003 - 07/Sep/2003	54666	17256	33138	3663	9850
07/Sep/2003 - 14/Sep/2003	69297	22051	42161	4386	10810
14/Sep/2003 - 21/Sep/2003	121242	21842	94263	4348	10716
21/Sep/2003 - 28/Sep/2003	70585	20313	44987	4567	10977
28/Sep/2003 - 05/Oct/2003	55122	20251	29367	4598	10953
05/Oct/2003 - 12/Oct/2003	55563	19854	30201	4506	10454
12/Oct/2003 - 19/Oct/2003	64305	20640	37972	4552	10530
19/Oct/2003 - 26/Oct/2003	86832	21846	58332	4689	10435
26/Oct/2003 - 02/Nov/2003	58989	21049	31615	4621	10023
02/Nov/2003 - 09/Nov/2003	57478	21089	30756	4813	10158
07/Dec/2003 - 23/Jan/2004	472186	135884	303315	28003	46670
22/Feb/2004 - 29/Feb/2004	59756	22531	32508	4524	10098
29/Feb/2004 - 07/Mar/2004	51565	23488	23378	4769	11034
07/Mar/2004 - 14/Mar/2004	74334	25359	44175	4764	11685
14/Mar/2004 - 21/Mar/2004	57653	26678	26002	4477	11184
21/Mar/2004 - 28/Mar/2004	65396	26513	32340	5340	13436
28/Mar/2004 - 04/Apr/2004	114945	28538	79079	5279	13264
04/Apr/2004 - 11/Apr/2004	69932	24646	39441	4483	12026

Seasonal Variations

There is a marked seasonal variation in number of hits per week. The following graph shows the number of different hosts for each week in nearly a two year period.



Note how the patterns of rises and falls match very closely for 2001 and 2002, we will have to wait and see if 2003 follows the same trend. A few points to note:

- A very sharp drop off around christmas.
- A peek in April/May
- Slight drop off in the summer
- A bit of a general increase for 2002 against 2001.

I've used number of domains as this is the soothest graph.

Still to do: look how things change by day of week/phase of moon!

Week ending 20 Jan 2002

Total hits on UK site:	102277
Normal web pages:	40180
Database pages:	25713
(guestimate on crawler hits) ie. not real people	30000
Images:	59810
US hits:	11510
US Database pages	8734
Australian mirror	300
Unique host (aprox number of different people)	7229
People who bookmarked us	34
Farovite pages:	
Home Page	3314
Database search page	665
Database intro	414
Ground Cover article	414
Links Pages	813
Intro article	177
Hedge check lsit	139

Hedge article	137
Edible Ornimental article	137
Woodland gardening article	127

To see the online statistics for US mirror go to www.ibiblio.org/stats and enter /pfaf

for the Australian mirror go to http://bne074v.server-statistics.com:80/_1008858795_/stats.htm

1611 /pfaf/index.html

665 /pfaf/D_search.html 496 /pfaf/D_intro.html 414 /pfaf/grdcover.html 330 /pfaf/Links.html 231 /pfaf/rich_home.html 198 /pfaf/database/latinA.html 186 /pfaf/ground1.html 185 /pfaf/intro2.html 177 /pfaf/es/index.html 165 /pfaf/database/latinC.html 158 /pfaf/Links_4.html 152 /pfaf/Links_3.html 144 /pfaf/hedge0.html 139 /pfaf/hedges.html 137 /pfaf/es/ediborn.html 132 /pfaf/database/latinS.html 127 /pfaf/woodgard.html 127 /pfaf/database/latinP.html 125 /pfaf/edibpond.html 124 /pfaf/whyperen.html 113 /pfaf/rosa.html 112 /pfaf/onions.html 109 /pfaf/database/latinL.html 108 /pfaf/straw_tree.html 105 /pfaf/fibplant.html 103 /pfaf/ecovill.html 102 /pfaf/tree0.html 101 /pfaf/cat96_97.html

Server Logs

All these stats have come from examining the server log produced by the Apache web-server. A server log looks like:

```
203.101.47.98 - - [21/Nov/1999:00:31:19 +0000] "GET /pfaf/D_search.html HTTP/1.0" 200
22100
203.101.47.98 - - [21/Nov/1999:00:32:09 +0000] "GET /pfaf/D_other.html HTTP/1.0" 304
-
203.101.47.98 - - [21/Nov/1999:00:33:27 +0000] "GET /pfaf/D_med.html HTTP/1.0" 200
53789
203.101.47.98 - - [21/Nov/1999:00:34:34 +0000] "GET
/pfaf-cgi/find_use?MED_USE=Narcotic&CAN=med HTTP/1.0" 200 13958
203.101.47.98 - - [21/Nov/1999:00:38:10 +0000] "GET
/pfaf-cgi/arr_html?Withania+somnifera HTTP/1.0" 200 10802
cache-root2.hinet.net - - [21/Nov/1999:00:39:49 +0000] "GET /pfaf/D_search.html
HTTP/1.0" 200 22100
203.101.47.98 - - [21/Nov/1999:00:40:15 +0000] "GET
/pfaf-cgi/find_use?MED_USE=Nervine&CAN=med HTTP/1.0" 200 16777
203.101.47.98 - - [21/Nov/1999:00:41:11 +0000] "GET
/pfaf-cgi/arr_html?Leonurus+cardiaca HTTP/1.0" 200 14288
200.28.151.191 - - [21/Nov/1999:00:42:14 +0000] "GET /pfaf/es/index.html HTTP/1.1"
200 35032
200.28.151.191 - - [21/Nov/1999:00:42:32 +0000] "GET /pfaf/D_intro.html HTTP/1.1" 200
5476
195.195.7.49 - - [23/Nov/1999:18:10:14 +0000] "GET /pfaf/design HTTP/1.1" 302 -
195.195.7.49 - - [23/Nov/1999:18:10:15 +0000] "GET /pfaf/design/ HTTP/1.1" 200 10688
195.195.7.49 - - [23/Nov/1999:18:13:30 +0000] "GET /pfaf/design/index.html HTTP/1.0"
200 10688
195.195.7.49 - - [23/Nov/1999:18:13:51 +0000] "GET /pfaf/design/index.html HTTP/1.0"
200 10688
195.195.7.49 - - [23/Nov/1999:18:13:52 +0000] "GET /pfaf/design/getCoords.html
HTTP/1.0" 200 6295
webcachehp2a.cache.pol.co.uk - - [27/Nov/1999:19:53:53 +0000] "GET /pfaf/index.html
HTTP/1.0" 200 31718
```

The first column gives you the host name or IP address of the from where the request came from, this may be a number `195.195.7.49` (which is Leeds College of Technology) or a name `webcachehp2a.cache.pol.co.uk` (which is my ISP that I use from home actually the free Software Warehouse one but the log indicates this is really Planet Online a Leeds

ISP).

Then theres the time and date of the access. Looking at the first block we can see the reader from `203.101.47.98` spent about a minute looking at each page.

Then we get to the interesting bit the pages they actually looked at. Lots of people for LCOT looked at the main design page which variously goes under the names `/pfaf/design/index.html`, `/pfaf/design/` or `/pfaf/design`. If the full URL is not specified then the apache normally serves up the `index.html` page. Its interesting to note the first reader was looking for Narcotic plants!

From all of this you can get all sort of intresting info.

hits per week

week	total	homepage	visitors
97.02.09	677	100	195
97.02.16	1292	216	370
97.02.23	1491	347	486
97.03.02	1725	543	656
97.03.09	2032	551	641
97.03.16	2071	644	660
97.03.23	1797	574	607
97.03.30	2094	617	621
97.04.06	1891	550	564
97.04.13	2226	671	668
97.04.20	2322	661	735
97.04.27	2954	706	864

I.e. for week ending 97.04.27, there were 2954 hits in total (excluding hits by me and gif/jpg accesses), 706 acesses of the home page (slightly low as I just tested for pfaf/index.html and not pfaf/), and 864 different visitors.

Numbers have been creeping up slowly. The 1000 hits on the home page per week barrier was first passed in Sept '99 and its still climbing. Total numbers of hits has risen dramatically if all the hits on the database are included, this is about 500 a week in the UK and 10000 a week in the US.

Hits For week ending Nov 27, 1999

Normal Web Pages	5821
UK Database	3999
Home page	1420
Unique Domains	2156

Total number

Total hits 22572, number of sites 6303, hits on home page 7438.

Most popular pages

Total number of hits as of 97.04.27.

Home page	7438
Catalogue	1117

Database	936
Why Perennials	561
Vegan Organics	382
Intro to Pfaf	375
Edible Lawn	317
The Eco Village	310
Plants For Helth	299
Alt Fruits	292
Ground Cover Checklist	285
Rosa Rugosa	253
Edib Shrubs	235
Plant Advice	227
Edib Orniment	226
Soap Plants	219
Alt Food Plants	219
The Community	201
Links	206

How many time people access the pages

Ten site had over a hundred accesses (these are mainly search engines). 20 had between 50-100, 42 with 30-49, 54 with 20-29, 248 with 10-19, 1944 with 3-9, 1362 with 2, and 2630 with a mere 1 access.

Whilst 40% of reader only looked at one page, 60% stayed a little while longer and about 5% had a real good look about and a few seem to have read everything we've got.

What domains

Again in March '97.

6016	com	US buisness,	3989	net	US net,	1958	edu	US uni's,
1497	uk	UK,	802	ca	Canada,	512	au	Australia,
463	us	US again,	264	org	US orginistation,	260	se	Sweden,
242	no	Norway,	233	de	Germany,	209	pt	Portugal,
178	gov	US Government,	145	dk	Denmark,	138	es	Spain,
132	be	Belgium,	80	jp	Japan	75	it	Italy
74	br	Brasil	70	ie	Ireland	59	nl	Netherlands,
59	fi	Finland	58	fr	France	57	il	Italy
54	mil	US warmongers,	50	nz	New Zealand	49	hr	Croatia
44	sg	Singapore	37	at	Austria	33	th	Thiland,
29	mx	Mexico	29	gr	Greece	27	ch	Switzerland
24	za	South Africa,	24	cl	Chile	23	my	Malaysia
23	cy	Cyprus	21	in	India	19	is	Iceland,
17	si	Slovinia	17	ph	Philippines	12	tw	Taiwan
12	do	Dominican Republic,	11	cz	Czech Republic	10	kr	South Korea
9	tr	Turkey	8	sk	Slovakia	7	gb	UK?,
6	id	Indonesia	6	hu	Hungary	5	ve	Venezeula

5	ru	Russia	5	arpa	US ARPA net,	4	cr	Costa Rica
4	ar	Argentina	3	lb	Lebanon	3	eg	Egypt
2	yu	Yugoslavia,	2	lu	Luxembourg	2	kw	Kuwait
2	bh	Bahrain	1	uy	Uruguay	1	su	?,
1	pr	Puerto Rico	1	pl	Poland	1	pe	Peru
1	lt	Lithuania	1	jm	Jamaica,	1	gl	Greenland
1	ae	United Arab Emirates.						

This seems to indicate that at least some people in most parts of the word are having a good browse about. Obviously none of the US hits are actually from the US as these domains are used all over the world. But theres definatly a bias towards English speakers and rich countries. it will be fun to see if things have changed much in the last couple of years.

What web browser are being used

In Nov 99, I set the up the database engine to record the `USER_AGENT` environment which is set whenever a browser request a page. Over a period of two days there were 400 hits in the UK and 3250 in the US. These came from 348 different hosts. Here I've given the number of web hosts with each browser, not the number of hits per browser. Numbers probably don't add up exactly as I can't count.

What OS people use

Win 98	148	44%
Win 95	150	45%
Win 3.1	2	0.6%
Win NT	12	3%
Linux	1	0.3%
Unix	3	1%
Web TV	9	2%
Robots Etc	8	2%

What browser

Netscape 4.5+	37	10%
Netscape 4.0	53	15%
Netscape 3.0	16	5%
Netscape 2.0	1	0.3%
IE 5	118	34%
IE 4	95	27%
IE 3	12	3%
IE 2	9	2%
Robots Etc	8	2%

Other strange ones were:

- The Informant (1 hit)
- Scooter/1.0 (600 hits)
- (Direct Hit Grabber) (150 hits, 3 different hosts)
- libwww-perl/5.20 (41 hits)
- Teleport Pro/1.29 (1000 hits)

Lynx (a text only browser) has made an apperance, but still no sign of Opera.

How its done

From the http log file the number of hits per page is given by

```
cut -f7 -d\  zap | sort | uniq -c | sort -r
```

and the number of hits per site by

```
cut -f1 -d\  zap | sort | uniq -c | sort -r
```

To get domains

```
cut -f1 -d\  zap | sed 's/\./ /g' | grep -v '^[1234567890]' | sed 's/.* \([^
]*\)$/\1/' | sort | uniq -c | sort -r
```

Home Page

- External Links
- Raptor conservation
- Persecution
- Current News
- Group History
- Peregrine Status
- Raptor News
- Golden Eagle
- Features

Peregrine at nest

Maintained by The North West Raptor Protection Group

Established in 1967
Regional Co-ordinator - Terry Pickford

Objectives

The Raptor Conservation Web Site has been designed as a publicity medium to enhance the environmental health of British Raptors.
Submissions for inclusion within the Raptor Conservation Web Site Index from other Raptor Study Groups are welcomed and will be added to this site free of any charge.

raptdivider.gif (2556 bytes)

goldeney (2209 bytes)	**Urgent news A new threat funded by the Duke of Westminster** - ***The Government's Countryside Access Bill Under Threat*** ***1998 Hen Harrier Census***
goldeney (2209 bytes)	**Regular news updates**
goldeney (2209 bytes)	**Raptor Politics** - **a malicious false prosecution which backfired leaving the police to pay substantial damages and costs.**
goldeney (2209 bytes)	**1999 Birdwatching Holidays** - details now in!

raptdivider.gif (2556 bytes)

Why Raptor Conservation?

It is hard to believe that in a civilised country like the United Kingdom, protected birds of prey such as the Peregrine Falcon, Golden Eagle, Goshawk and Hen Harrier are being eradicated on Grouse moors to further the selfish interests of moorland estate owners.

It may come as quite a shock to learn that up to 95% of Britain's heather moorland estates are involved in the illegal persecution of these species.

raptdivider.gif (2556 bytes)

Live **Feature! - Live video links this way!** Live

raptdivider.gif (2556 bytes)

Page last updated Monday, October 12, 1998

raphead.jpg (1117 bytes)

Information or queries on the site content to: - conservation@raptor.uk.com

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raphead.jpg (1117 bytes)

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Great tips from CNET designers, Part 2: Designing pages and sites

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Navigation tips

It's critical that users always know where they are in your site and be comfortable getting around. Your goal is to make it easy for users to get from page to page, and to make it immediately obvious how to get back home. Visitors should have cues that help them remember where they came from, and find clear suggestions on where to go next. Navigation toolbars--for entire sites and for individual stories or sections of a site--are a key way to accomplish this.

Go to:

- Offer multiple navigation approaches
- Write good text links
- Design navigation icons wisely

At CNET, we strive to keep navigation toolbars simple, uncluttered, and immediately visible. In most cases, we place them above the fold (in the top half of the page). Though site maps don't show up much on CNET services, they are another helpful way to keep visitors oriented within your site.

For more specific hints, check out these three navigation tips.

Offer multiple navigation approaches

Page design tips **Page layout tips** **Site planning tips**

Site design tips **Navigation tips** **List all tips**

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Select one of the radion buttons and press Submit.

You answered 5

How could you be so silly.

You answered 4

Close but not close enough.

You answered 3

Obvious when you know how.

What is the meaning of life:

○ 5 ○ 4 ○ 3

Submit

One of the major projects of Plants for a Future has been the compilation of the Species Database. This contains details of over 7000 plants, all of which are either edible, have medicinal properties or have some other use such as fibres, oils or soaps. For each plant the database contains details of the uses of the plants, as well as information on the environment it will grow in, and cultivation details.

This standalone version is a little different from the the version available on the web. Rather than the pages coming from a *cgi* script running on a webserver a combination of Frames, Javascript, Java and C programs mimic the effect of a webserver. I'll discuss how it works on a

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Basic Java Examples

Heres a few examples of Java programs.

Just a single class with no methods

```
class Hello
{
}
```

Note how `{` and `}` are used to mark the start and end of the class.

A class with a single method

```
class Hello
{
        public static void main(String[] args)
        {
        }
}
```

Everything to do with the class is contained between the first `{` and the last `}`.

For convienence the `main` method has been indented. `{` and `}` are also used to mark the start and end of the method.

A class with two methods

```
class Hello
{
        public static void main(String[] args)
        {
        }

        public static int method2(int x)
        {
        }
}
```

The order of the methods does not matter.

Some simple statements in a method

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                i = 1;
                System.out.println(i);
                i = i + 10;
                System.out.println(i);
                char c;
                c = 'C';
                System.out.println(i);

        }
}
```

A semi-colon is used to mark the end of each statment. A statment can take up more than one line.

Getting Java to run

Two directories are important

1. The directory where your `Hello.java` file is. This will typically be `a:\`
2. The directory where the java compiler `javac` and the java runtime program `java` are. This will typically be `c:\jdk1.2.1\bin`

To get the program to compile you must first be in the directory where your code is.

1. Open a dos command shell
2. Type `a:` to change to the A drive.
3. (optional) type `cd progs` to change to the directory `progs`
4. Type a single return. You should see a prompt like

   ```
   a:\>
   ```

   The current directory is printed (before the `>`).
5. Type `dir` this will list the contents of the directory. You should find a file `Hello.java` there. If not you may have saved it in the wrong directory.
6. Type

   ```
   c:\jdk1.2.2\bin\javac Hello.java
   ```

   to complie the java program. read the Error messages while should point out your syntax errors. You may find that the syntax error is on the previous line. Fix errors andreprete until no errors.
7. Type

   ```
   c:\jdk1.2.2\bin\java Hello
   ```

   To run the class Hello.

You can save typing by changing the PATH variable

```
SET PATH=%PATH%;C:\jdk1.2.2\bin
```

This adds the directory `C:\jdk1.2.2\bin` to the list of directories where DOS looks for the executable programs. once you have done that you can just use

```
javac Hello.java
```

to compile the program and

```
        java Hello
```

to run it.

Another useful command is

```
        doskey /insert
```

This will allow you to use the up and down arrow keys to go back to previous commands. The `/insert` lets you edit in insert mode.

You may want to add the lines

```
        set PATH=%PATH%;C:\jdk1.2.2\bin
        doskey /insert
```

to an batch file `mysetup.bat` then you can run these two commands by typing `mysetup`. (Those who know what there doing could alter autoexec.bat but if you get this wrong your system may never work again. DO NOT alter autoexec.bat on the computers at college.)

The `PATH` variable is used to tell dos where to find programs. Likewise the `CLASSPATH` variable is used to find objects. Try:

1. Type

   ```
           java Hello
   ```

   This should work if your in the right directory.
2. Type

   ```
           c:
           cd \
           java Hello
   ```

   This should not work as java can not find where your class `Hello` is.
3. Set the `CLASSPATH` variable to include the directory where your class is

   ```
           set CLASSPATH=%CLASSPATH%;a:
   ```

   You should now be able to type

   ```
           java Hello
   ```

   as java knows to look for classes in the `a:` directory.

A for loop

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                for(i=1; i<=10; ++i)
                        System.out.println(i);
        }
}
```

The syntax of a for loop is

`for( statement1 ; statement2 ; statement3 ) statement4;`

`statement1` is typically an asignment e.g. `i=1` `statement2` is typically an comparison e.g. `i<=10`

`statement3` typically increases a value e.g. `++i` which adds one onto `i`.

The sequence of operations is

```
Step1:  execute statement1
Step2:  if statement2 is true execute step3 otherwise goto Step5
Step3:  execute statement4
Step4:  execute statement3 goto step2
Step5:  The end of the loop
```

Typically `{` and `}` are used to group a set of statements together.

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                for(i=1; i<=10; ++i)
                {
                        System.out.print("The next value of i is ");
                        System.out.println(i);
                }
        }
}
```

You can have as many statments as you like between the `{` and the `}`.

A for loop counting down

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                for(i=10; i>0; --i)
                {
                        System.out.print("The next value of i is ");
                        System.out.println(i);
                }
        }
}
```

Here `--i` is used to decrease the value of `i`.

Two nested for loops

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                int j;
                int k;
                for(i=1; i<=10; ++j)
                {
                        for(j=1; j<=10; ++j)
                        {
                                k = i * j;

                                System.out.print("The product of ");
                                System.out.print(i);
                                System.out.print(" and ");
                                System.out.print(j);
                                System.out.print(" is ");
                                System.out.println(k);
                        }
                }
        }
}
```

Keep track of the `{` and `}`!

Simplifying the print statments

In the above `System.out.print("The product of ");` is used to print the string `"The product of "`. `System.out.print(i);` prints the value of `i`. `System.out.println(k);` prints the value of `k` and starts a new line (note the diference between print and println). The above print statments can be replaced by a single statement

```
        System.out.println(
                "The product of "
                + i
                + " and "
                + j
                + " is "
                + k );
```

Each string is marked out by a pair of quote marks `"`, (always make sure your quote marks match).

The integers `i`, `j`, `k` are converted to strings.

Two string are joined by a `+` sign. (Technically the two strings are said to be concatinated).

The whole thing to be printed is contained between `(` and `)`.

I've used lots of space to make the above easier to read you could write the above as

```
        System.out.println("The product of " + i + " and " + j + " is " + k );
```

Make sure you keep track of whats between a pair of quotes and what isn't.

The if statment

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                for(i=1; i<=10; ++j)
                {
                        if( i < 3 )
                        {
                                System.out.print(i);
                                System.out.println(" is small");
                        }
                        else
                        {
                                System.out.print(i);
                                System.out.println(" is big");
                        }

                }
        }
}
```

The `else` part is optional.

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                for(i=1; i<=10; ++j)
                {
                        if( i < 3 )
                        {
                                System.out.print(i);
                                System.out.println(" is small");
                        }
                }
        }
}
```

It is common to have lots of if statements joined together:

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                for(i=1; i<=10; ++j)
                {
                        if( i < 3 )
                        {
                                System.out.print(i);
                                System.out.println(" is small");
                        }
                        else if( i < 7 )
                        {
                                System.out.print(i);
                                System.out.println(" is medium");
                        }
                        else
                        {
                                System.out.print(i);
                                System.out.println(" is big");
                        }

                }
        }
}
```

The while statment

Aother way of writing a loop is to use `while`.

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                i = 1;
                while( i < 10)
                {
                        System.out.println(i);
                        ++i;
                }
        }
}
```

This has the format

```
        while( statement1 ) statement2;
```

The sequence of opperations is

```
Step1:  if statement1 is true then do Step2
                otherwise goto step4
Step2:  execute statement2
Step3:  repeat step1
Step4:  end of loop
```

Like the for loop its typical to use { and } to group a set of statments together.

Its very easy to write a loop which doesn't end:

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                i = 1;
                while( i < 10)
                {
                        System.out.println(i);
                }
        }
}
```

You can break out of a `while` loop halfway through.

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                i = 1;
                while( i < 10)
                {
                        System.out.println("First half " + i);
                        if( i == 7 ) break;
                        System.out.println("Second half " + i);
                        ++i;
                }
        }
}
```

This will jump to the end of the loop when `i` is 7.

You can skip back to the begining of the loop

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                i = 1;
                while( i < 10)
                {
                        System.out.println("First half " + i);
                        ++i;
                        if( i == 7 ) continue;
                        System.out.println("Second half " + i);
                }
        }
}
```

Note I've had to move the `++i` statement to avoid an endless loop.

The do-while statment

Aother way of writing a loop is to use `do-while`.

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                i = 1;
                do
                {
                        System.out.println(i);
                        ++i;
                }
                while( i < 10);
        }
}
```

This always executes the statments between { and } before executing the condition.

You don't need to have a condition in the while

One of my favorite forms of loop is to not have any condition in the `while` loop and just use a `break` statment.

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                i = 1;
                while(true)
                {
                        ++i;
                        System.out.println("First half " + i);
                        if( i == 7 ) break;
                        System.out.println("Second half " + i);
                }
        }
}
```

This is probably very bad style.

The switch statement

This is useful for replacing complicated if - else statments.

```
class Hello
{
        public static void main(String[] args)
        {
                int i;
                for(i=0; i<16; ++i)
                {
                        switch(i)
                        {
                        case 0: case 1: case 2: case 3:
                        case 4: case 5: case 6: case 7:
                        case 8: case 9:
                                System.out.print(i);
                                break;
                        case 10:
                                System.out.print("a");
                                break;
                        case 11:
                                System.out.print("b");
                                break;
                        case 12:
                                System.out.print("c");
                                break;
                        case 13:
                                System.out.print("d");
                                break;
                        case 14:
                                System.out.print("e");
                                break;
                        case 15:
                                System.out.print("f");
                                break;
                        default:
                                System.out.print("Error " + i + " is outside the
range 0..15");

                                break;
                        }
                }
        }
}
```

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Java applications with more than one class

So far we have just used an application with a single user defined class. Most application do in fact use more than one class. For example for the first assignment a user defined date class `Mydate` is defined. This class is used to perform several opperations such as working out wheter a given year is a leep year. A second class, `Testdate` is also defined. The second class is used to test the functionallity of the `mydate` class. The advantage of organising things this way is that the `mydate` class could be used by other programs.

Each class must be written in a a file of the same name (with the `.java` extension. So in our examples we will have two files:

Mydate.java

```
class Mydate
{
        ....
}
```

and

Testdate.java

```
class Testdate
{
        ....
}
```

Calling a method in one class from the other

Assume that the `Mydate` class has a method `leepyear` which is given a year and works out whether the year is a leep year or not.

```
class Mydate
{
        public static boolean leepyear(int year)
        {
                if( year % 4 == 0)
                {
                        return true;
                }
                else
                {
                        return false;
                }
        } // end of leepyear method
} // end of Mydate class
```

The `year` is passed to the method as an integer `int year`. The method returns a `boolean` value indicating whether the year is a leep year or not. Note the method above does not give the correct answer for all years. The remainder operator `%` is used to work out if the year is divisible by four. When the remainder is zero the we know that the year is divisible by four.

The method is called from the other class as follows:

```
class Testdate
{
        public static void main(String[] args)
        {
                int testyear;
                boolean is_leep_year;

                testyear = 1999;

                is_leep_year = Mydate.leepyear(testyear);

                if(is_leep_year)
                {
                        System.out.println("The year " + testyear + " is a leep
year");
                }
                else
                {
                        System.out.println("The year " + testyear + " is not a leep
year");
                }
        }
}
```

Note how the name of the method consists of two parts: the name of the class `Mydate` and the name of the method `leepyear`. A dot is used to seperate the two parts giving `Mydate.leepyear`.

Compiling and running the programs

For now both classes must be defined in java files in the same directory. First compile the `Mydate` class:

```
        c:\jdk1.2.2\bin\javac Mydate.java
```

then compile the `Testdate` class:

```
        c:\jdk1.2.2\bin\javac Testdate.java
```

When both have compiled sucessfully producing files `Mydate.class` and `testdate.class` you can run the program:

```
        java Testdate
```

Note that you can not run the `Mydate` class as it does not have a `main` method.

Public and private

We can now explain one of the cryptic words `public` in the declaration of the function.

```
        public static boolean leepyear(int year)
```

this just means that this method can be used by any other class. If we had

```
        private static boolean leepyear(int year)
```

then the method could only be used from withing the `Mydate` class. You could try changing this in the java file and see what messages you get.

Reading from the terminal

Unfortunately java does no make simple input very easy. The following code demonstrates how this can be done. Probably the best thing to do is just copy this code into your own file and modify it as necessary. For the most part you will not need to use this code when we move onto applets.

I've put lots of comments in which should explain how it works. But you don't need to know the details.

```
import java.io.*; // This import statement is needed

class MyInput
{
        public static void main(String[] argv)
        {
                int i;
                String s;
                double  d;

                // The standard System.in class is just useful for
                // inputting binary data.

                // We want to read character data rather than binary data
                // So we define a InputStreamReader which converts the
                // binary input into character and string input

                // Futhermore we want to read a whole line at a time
                // which is achieved by using a BufferedReader
                // this has a method readLine which read a line at a time

                // The next two lines define an objects for each of these classes

                InputStreamReader myISR;
                BufferedReader myBR;

                // Next we initilise these two objects

                myISR = new InputStreamReader(System.in);
                myBR = new BufferedReader(myISR);

                // start and endless loop which reads a line at a time
                // For the assignment you will not want an endless loop

                while(true)
                {
                        // There may be some errors in the input
                        // the try { } catch { } syntax is used to catch the errors

                        try
                        {
                                System.out.println("Enter a number");

                                // Here we actually read a line from the input

                                s = myBR.readLine();

                                // and print what has just been entered
                                // Note the newline sequence is not included in the
                                // results

                                System.out.println("You entered <" + s + ">");

                                // Now convert the string to a number

                                i = Integer.parseInt(s);

                                // square the number

                                i = i * i;

                                // and print the results

                                System.out.println("The square is <" + i + ">");

                        }

                        // What to do when the end of the input has been reached
                        // EOF stands for End of File

                        catch(EOFException e)
                        {
                                System.out.println("End of the input");
                                break;
                        }

                        // What to do if there is some other input error

                        catch(IOException e)
                        {
                                // This prints the error message

                                System.out.println(e.getMessage());
                        }

                        // what to do if the string is not a valid integer

                        catch(NumberFormatException e)
                        {
                                System.out.println("The number you entered was not a
valid number");
                        }
                } // end of while loop
        } // end of main method
} // end of class
```

To run this program you could do

```
        javac MyInput.java
        java MyInput
```

And then type numbers one per line. The square of the number should be printed. Try entering some non numeric data and see what happens. To end the program press `Control-C`.

An advanced exercise would be to split this code up into a set of methods. Say a method setUpMyInput which sets things up and a method readAnInt which reads an integer.

This file `http://www.comp.leeds.ac.uk/pfaf/design/twoclass.html` Part of HTML - Java - Javascript resourses. For the City and Guilds html and java courses at Leeds College of Technology. Rich Morris March 2000. No copyright restrictions.

Intro to Objects

Every thing in Java is an object. Object have properties (i.e. variables) and methods. One of the first object you encounter is the String object. You can create a String using the `new` keyword.

```
        String s1 = new String();
```

`s` is now defined to be a Object of type string. This is not a very intresting String as it is empty its perhaps more intresting to give it an initial value

```
        String s2 = new String("Hello");
```

A special method called a *constructor* is used to initilise an object.

Once a String is created you can access some of its methods, for instance you can find its length

```
        int len = s2.length();
```

in this case the length is 5. Note the syntax

```
        [name of object].[name of method]([arguments])
```

this is different to the type of syntax you used to get in C. Another method of the String object is `charAt(int index)`

```
        char c = s2.charAt(0);
```

here `c` will be H. Theres lots of other methods for String objects.

Creating your own classes

We'll create a class to hold the information about a person with the name and age.

```
public class Person
{
        protected String name;
        protected int age;

        // The constructor called when a new object is created.

        public Person(String s,int a)
        {
                name = s;
                age = a;
        }

        // a method to find out the age of a person

        public int getAge()
        {
                return age;
        }

        // a method to find out the name of a person
        public String getName()
        {
                return name;
        }
}
```

This object could be used as follows:

```
class Hello2
{
        public static void main(String[] args)
        {
        Person p1 = new Person("James",6);
        Person p2 = new Person("Paul",5);

        String s1 = p1.getName();
        int    i1 = p1.getAge();

        System.out.println(s1 + " is " + i1 + " years old.");
        }
}
```

Notes:

1. The name of the constructor is the same as the name of the class. In this case `Person`.
2. You can have a constructors with different types of arguments, this is called method overloading.

Sub classes

In a typical program you will have lots of different classes. Often you will find one object is very closely related to another class. For instance we might have a `Student` class which is closely related to the `Person` class, in the sense that every student *is a* person. Rather than having to write a whole new class we can *extend* the Person class and inherit the methods and variables.

```
class Student extends Person
{
        protected int marks[] = new int[5]; // create an array of marks

        public Student(String n,int a,int marksSoFar[])
        {
                super(n,a); // call the constructor for Person
                int i;
                for(i=0;i<5;++i)
                {
                        marks[i] = marksSoFar[i];
                }
        }

        public Student(String n,int a)
        {
                super(n,a); // call the constructor for Person
                int i;
                for(i=0;i<5;++i)
                {
                        marks[i] = 0;
                }
        }

        // return all the marks

        public int[] getMarks()
        {
                return marks;
        }

        // return just one mark

        public int getMark(int i)
        {
                return marks[i];
        }
}
```

And a simple test program

```
class Hello2
{
        public static void main(String[] args)
        {
        int marks1[] = {1,2,3,4,5}; // A clever way of setting up an array

        Student stu1 = new Student("Jo",1);
        Student stu2 = new Student("Martin",28,marks1);

        String s2 = stu1.getName();
        int    i2 = stu1.getAge();
        int    m2[] = stu1.getMarks();

        System.out.print(s2 + " is " + i2 + " years old and the marks are" );
        for(int i=0;i<5;++i)
                System.out.print(" " + m2[i]);
        System.out.println();

        String s3 = stu2.getName();
        int    i3 = stu2.getAge();

        System.out.print(s3 + " is " + i3 + " years old and the marks are" );
        for(int i=0;i<5;++i)
                System.out.print(" " + stu2.getMark(i));
        System.out.println(".");
        }
}
```

Notes:

1. The extend keyword is used to show the relationship between the two classes.
2. Two different constructors are defined. These are called *overloaded* methods.
3. In the constructor the first line is

```
                    super(n,a);
```

which calls the constructor for the Super class (i.e. the constructor for Student).

4. We can call methods `getName` and `getAge` which have been inherited from the superclass.

This class has illustrated the *IS A* type of relationship. You also get *HAS A* relationship. This was illustrated in the Person class. A person HAS A String object which is used to hold the name. This type of relationship is called composition.

public, private, protected

Now its time to explain some of the magic words. In particular the *visability* modifiers

`public`

This method or variable can be accessed by any other class.

`private`

No other class can access the method or variable.

`protected`

Only classes which are inherited from the class can access the method or variable.

default - package visability

Only classes in the same package can access the method or variable.

See what happens if you try to access the protected variables name and age from the Hello2 class.

Class methods - static

In the first assignment all the methods were defined as `static`. This means that they belonged to the class and not to a particular instance of the class. For example we could modify the Student class to count up how how many students have been created.

```
class Student
{
        private static int numStudents=0;

        public static int getNumStudents()
        {
                return numStudents;
        }

        public Student(String n,int a,int marksSoFar[])
        {
                super(n,a); // first call must be to constructor of super class
                ++Student.numStudents;
                ...
        }
}
```

And at the end of the main method in Hello2 we could add the lines

```
        int num = Student.getNumStudents();
        System.out.println("Number of students " + num );
```

Note how we use `Student.getNumStudents()` and not `stu1.getNumStudents()`. You don't actually need to create a object of type Student to use a static method.

And then there the `final` keyword. A final variable is a constant and can not be changed. If a method is final then it can not be over-written in a sub-class. If a class is defined final then it cannot be subclassed. The String class is defined as final, mainly because it uses very efficient code for which it would be silly to change in a sub class. Using final means that the compiler can make very efficient code (inlineing in C++).

A few other magic words: abstract, this and super. More on these later.

This file `http://www.comp.leeds.ac.uk/pfaf/design/objects.html` Part of HTML - Java - Javascript resourses. For the City and Guilds html and java courses at Leeds College of Technology. Rich Morris May 2000. No copyright restrictions.

The source code is here http://www.comp.leeds.ac.uk/pfaf/design/VecField.java

Some applet basics

See Sun's API documentation for the full nitty gritty.

GUI components

```
        Button b1 = new Button("Press Me");
        Label l1 = new Label("Hello World");
        Checkbox c1 = new Checkbox("Easy");
        boolean state = c1.getState();

        CheckboxGroup cbg1 = new CheckBoxGroup();
        c1.setCheckBoxGroup(cbg1);
        Checkbox c2 = new Checkbox("Medium",true,cbg1);
        Checkbox c3 = new Checkbox("Hard",false,cbg1);
        Checkbox cc = cbg1.getSelectedCheckbox();
        if(cc.equals(c1)) { System.out.println("Easy"); }

        TextField tf1 = new TextField("Default Text",size);
        String s1 = tf1.getText();
        tf1.setText("New message");
```

How to handle events

```
// Capturing button presses
import java.awt.*;
import java.applet.*;

public class Button2 extends Applet {
        Button b1 = new Button("Button 1"),
                 b2 = new Button("Button 2");

        public void init() {
                 add(b1);
                 add(b2);
        }

        public boolean action(Event evt, Object arg) {
                 if(evt.target.equals(b1))
                   getAppletContext().showStatus("Button 1");
                 else if(evt.target.equals(b2))
```

```
                  getAppletContext().showStatus("Button 2");
                // Let the base class handle it:
                else
                  return super.action(evt, arg);
                return true; // We've handled it here
        }
}
```

Still to come: Layout managers to help you layout the interface.

Source code.

```
import java.awt.*;
import java.applet.*;

public class Layout extends Applet
{
  public void init()
  {

        setLayout(new FlowLayout());

        // the first panel will contain the Label
        // the textfield and the guesses

        Panel p1 = new Panel(new GridLayout(3,1,5,5));
        p1.setBackground(Color.red);

        Label l1 = new Label("Guess the word",Label.CENTER);
//      l1.setBackground(Color.red);
        p1.add(l1);

        TextField tf1 = new TextField("",20);
//      tf1.setBackground(Color.green);
        p1.add(tf1);

        Panel p2 = new Panel(new FlowLayout(FlowLayout.CENTER,5,0));
        Label l2 = new Label("Guesses Remaining");
        TextField tf2 = new TextField("",3);

        p2.add(l2);
        p2.add(tf2);

        p1.add(p2);

        add(p1);

        // now a panel to contain the buttons

        Panel p3 = new Panel(new GridLayout(4,7));
        p3.setBackground(Color.blue);
        Button bA = new Button("A");
        p3.add(bA);
        Button bB = new Button("B");
        p3.add(bB);
        Button bC = new Button("C");
        p3.add(bC);
        Button bD = new Button("D");
        p3.add(bD);
        Button bE = new Button("E");
        p3.add(bE);
        Button bF = new Button("F");
        p3.add(bF);
        Button bG = new Button("G");
        p3.add(bG);
        Button bH = new Button("H");
        p3.add(bH);
        p3.add(new Button("I"));
        p3.add(new Button("I"));
        p3.add(new Button("I"));
        p3.add(new Button("I"));
        p3.add(new Button("I"));
        p3.add(new Button("I"));
```

```
            p3.add(new Button("I"));
            p3.add(new Button("I"));
            p3.add(new Button("I"));
            p3.add(new Button("I"));
            p3.add(new Button("I"));
            p3.add(new Button("I"));
            p3.add(new Button("I"));
            p3.add(new Button("I"));
            p3.add(new Button("Answer"));
            p3.add(new Button("Reset"));

            add(p3);

            CheckboxGroup cbg = new CheckboxGroup();
            add(new Checkbox("Beginner",cbg,true));
            add(new Checkbox("Beginner",cbg,false));
            add(new Checkbox("Beginner",cbg,false));

      }
    }
```

Wallpaper

Plants For A Future: Database Search Results

Cleome gynandra

Common name:	African spider flower	Family:	Capparidaceae
Author:	L.	Botanical references:	200
Synonyms:	Gynandropsis pentaphylla (DC.), Gynandropsis gynandra ((L.)Briq.)		
Known Hazards:	None known		
Range:	Tropical and Sub-Tropical zones.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. pentaphylla[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Acaya [E], Bhoebhoewan [E], Bobowan [E], Caya [E], Feuilles Caya [E], Mahmah [E], Maman [E], Maman Hantu [E], Mamang [E], Masambey [E], Pai Hua Ts'Ai [E], Pyasya [E], Spiderwisp [B,P], Yang Chio Ts'Ai [E],
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; India; India(Gujarat); India(Santal); Java; Malaya; Sudan

Physical Characteristics

Annual growing to 1.3m. It is frost tender. It is in leaf from May to October, in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Febrifuge; Rubefacient; Stings.

A decoction of the root is used to treat fevers[243].

The leaves are used as a vesicant and rubefacient in the treatment of rheumatism[243]. The juice of the leaves is a remedy for pain in the ear[243].

The seeds are anthelmintic and rubefacient[243].

The whole plant is used in the treatment of scorpion stings and snake bites[243].

Other Uses

None known

Cultivation details

Prefers a light fertile soil in a warm dry sunny position with plenty of room to spread[1, 200].

A frost tender plant, it can be grown as a summer annual in Britain[200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Gynandropsis gynandra* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Gynandropsis pentaphylla* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few

imported herbs.

Readers Comments

Cleome gynandra

Flora Sicolani Todlana (floqhwa@yahoo.co.uk) Sat May 15 14:10:56 2004

Cleome gynandra is an adible plant found in Zimbabwe mostly, during rain season. This wild plant is eaten fresh as relish and may be cooked and dried for cunsumption during dry seasons. It is called "ULUDE" in Zulu or Ndebele. It tastes very bitter originally, but boiling it with vegetable oil, tomatoes and a pinch of salt makes is a good relish. Author's name: Flo Todlana. flotodla@hotmail.com

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cleome+gynandra`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cleome+gynandra`

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Back to PFAF home page. Database Intro. Main Search page. Help

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Medicinal uses

We are not experts on the medicinal uses of plants and much of the information has been taken from other sources. You should talk to someone who knows what they are on about before using any of these plants. Plants For A Future can not take any responsibility for any adverse effects from the use of plants.

To make it easy to search the database for plants which fulfill a specific use, a table has been created which indexes the different plants by their medicinal uses. You can select one of the uses shown below and then do a search to find all plants with that use. More detailed on the uses is contained in the medical uses field in the main database table. You can click on a use to show those plants with a given use, numbers refer to the number of plants listed with that use.

General categories:

Ear Nose and Throat and Eyes, Chest and Lungs, Heart and Blood,
Liver, Kidneys, and other internal bits, Stomach, Bowles and Bladder, Nerves and Muscles,
Bones, Skin, Hands and Feet, Sex and Repoduction.

Treatment of Wounds, Pain Relief, Fevers, Infectious Diseases, Bites and stings,
Bacteria, Viruses, Fungi and Parisites, Cancer.

Alternative and Complementary Medicine, General Well Being, Whole Body,

Other medicinal uses not covered by above

Alphabetical listing of all medicinal uses

Bits of The Body

Ear, Nose and Throat and Eyes

All

Antiaphonic (3)

Restores the voice.

Antihalitosis (11)

Treats bad breath

Decongestant (11)

Removes phlegm and mucous, especially from the respiratory system.

Demulcent (175)

Soothes, lubricates and softens irritated tissues, especially the mucous membranes.

Errhine (3)

Produces sneezing.

Mouthwash (7)

Treats problems such as mouth ulcers.

Odontalgic (81)

Treats toothache (temporary measure only) and other problems of the teeth and gums.

Sternutatory (16)

Promotes sneezing and nasal discharges.

Mydriatic (9)

Dilates the pupils of the eyes.

Ophthalmic (159)

Treats eye complaints.

Sialagogue (43)

Stimulates the secretion of saliva.

Chest and Lungs

All

Expectorant (412)

Clears phlegm from the chest by inducing coughing.

Pectoral (110)

Relieves respiratory diseases, a remedy for chest diseases.

Antiasthmatic (76)

Treats asthma.

Antitussive (132)

Prevents or relieves coughing.

Decongestant (11)

Removes phlegm and mucous, especially from the respiratory system.

Demulcent (175)

Soothes, lubricates and softens irritated tissues, especially the mucous membranes.

Heart and Blood

All

Anticholesterolemic (44)

Prevents the build up of cholesterol.

Anticoagulant (21)

Removes blood clots.

Blood purifier (21)

Purifies the blood.

Blood tonic (21)

Is this any different to a blood purifier?

Cardiac (91)

Used in the treatment of heart problems.

Cardiotonic (136)

A tonic for the heart.

Depurative (174)

Eliminates toxins and purifies the system, especially the blood.

Haemolytic (10)

Breaks down red blood corpuscles to separate haemoglobin.

Haemostatic (100)

Controls internal bleeding.

Hypoglycaemic (64)

Reduces the levels of sugar in the blood.

Hypotensive (138)

Reduces blood pressure, it is used in the treatment of high blood pressure

Vasoconstrictor (24)

Narrows the blood vessels, thereby increasing blood pressure.

Vasodilator (77)

Widens the blood vessels, thereby reducing blood pressure.

Styptic (76)

An astringent that stops bleeding by contracting the blood vessels.

Stomach

All

Antacid (1)

Counters excess acidity in the stomach.

Stomachic (338)

Aids and improves the action of the stomach.

Digestive (128)

Aids digestion.

Antiemetic (29)

Prevents vomiting.

Emetic (190)

Induces vomiting.

Anthelmintic (173)

Expels parasites from the gut.

Bowles and Bladder

All

Aperient (63)

A mild laxative.

Cathartic (66)

A strong laxative but less violent than a purgative.

Laxative (242)

Stimulates bowel movements in a fairly gentle manner.

Purgative (155)

A drastic laxative causing a cleansing or watery evacuation of the bowels, usually with a griping pain.

Astringent (725)

Produces contraction in living tissue, reducing the flow of secretions and discharges of blood, mucus, diarrhoea etc.

Carminative (310)

Reduces flatulence and expels gas from the intestines.

Antihaemorrhoidal (7)

Treats haemorrhoids (piles). This would probably be best added to another heading.

Diuretic (892)

Acts on the kidneys, promoting the flow of urine.

Hydrogogue (8)

A purgative that causes an abundant watery discharge.

Liver, Kidneys, and other internal bits

All

Antibilious (7)

Corrects the secretions of bile.

Cholagogue (130)

Increases the flow of bile and its discharge from the body.

Diuretic (892)

Acts on the kidneys, promoting the flow of urine.

Kidney (39)

Used in the treatment of kidney diseases

Lithontripic (46)

Removes stones from the kidney, bladder etc.

Hepatic (55)

Acts on the liver (for better or worse!).

Haemostatic (100)

Controls internal bleeding.

Bones

All

Antiarthritic (8)

Treats arthritis.

Antiinflammatory (178)

Reduces inflammation of joints, injuries etc. See also Antiphlogistic.

Plaster (6)

Used in the treatment of broken bones.

Antirheumatic (169)

Treats rheumatism.

Skin, Hands and Feet

All

Acrid (11)

Causes heat and irritation when applied to the skin.

Antidandruff (20)

Treats dandruff.

Antidermatosic (1)

Prevents or cures skin complaints.

Antipruritic (25)

Treats itching of the skin.

Emollient (114)

Softens the skin, causing warmth and moisture.

Foot care (5)

Plants that are used in various ways to treat foot problems.

Poultice (214)

A moist, usually warm or hot, mass of plant material applied to the skin in the treatment of burns etc.

Rubefacient (69)

A counter-irritant and external stimulant, it produces inflammation and redness of the skin.

Salve (53)

Soothes and heals damaged skin.

Skin (162)

Plants used in miscellaneous treatments for the skin.

Vesicant (9)

A blistering agent.

Warts (46)

Used in the treatment of warts, corns etc.

Nerves and Muscles

All

Antispasmodic (351)

Relaxes muscular spasms and cramps, calming nervous irritation.

Nervine (98)

Stimulates and calms the nerves.

Sex and Repoduction

All

Abortifacient (41)

Causes an abortion.

Anaphrodisiac (8)

Reduces sexual desire.

Aphrodisiac (80)

Increases the sexual appetite.

Birthing aid (61)

Used in facilitating birth, but not just to cause uterine contrctions.

Galactofuge (12)

Stops or reduces the flow of milk in a nursing mother.

Galactogogue (86)

Promotes the flow of milk in a nursing mother.

Contraceptive (49)

Prevents fertilization occurring in females.

Infertility (16)

Used in treating problems of human fertility.

VD (52)

Used in the treatment of venereal disease

Emmenagogue (241)

Promotes or increases the menstrual flow. In early stages of pregnancy it can induce an abortion.

Oxytoxic (27)

Hastens parturition and stimulates uterine contractions.

Uterine tonic (10)

A tonic for the uterus.

Women's complaints (66)

A very vague title, it deals with a miscellany of problems peculiar to the female sex.

Aliments

Treatment of Wounds and Bruises

All

Antiecchymotic (8)

Prevents or treats bruising.

Antiseptic (302)

Preventing sepsis, decay or putrefaction, it destroys or arrests the growth of micro-organisms.

Detergent (21)

A cleansing agent, used on wounds etc. It removes dead and diseased matter.

Disinfectant (22)

Used for cleaning wounds.

Plaster (6)

Used in the treatment of broken bones.

Poultice (214)

A moist, usually warm or hot, mass of plant material applied to the skin in the treatment of burns etc.

Salve (53)

Soothes and heals damaged skin.

Styptic (76)

An astringent that stops bleeding by contracting the blood vessels.

Vulnerary (180)

Promotes the healing of wounds.

Pain Relief

All

Anaesthetic (23)

Numbs the feeling in a local or general area of the body.

Analgesic (143)

Relieves pain.

Anodyne (263)

Relieves pain, it is milder than an analgesic.

Narcotic (76)

Relieves pain, induces drowsiness and gives a sense of well-being.

Lenitive (16)

Soothing, palliative.

Fevers

All

Antipyretic (54)

Treats fevers.

Febrifuge (513)

Reduces fevers.

Infectious Diseases

All

Antiperiodic (73)

Counteracts recurring illnesses such as malaria.

Antiscrophulatic (15)

Counteracts scrofula. (TB, especially of the lymph glands)

TB (12)

Plants used in the treatment of tuberculosis

VD (52)

Used in the treatment of venereal disease

Bites and Stings

All

Antidote (128)

Counters poisoning.

Stings (41)

Used in the treatment of stings and insect bites.

Bacteria, Viruses, Fungi and parisites

All

Antibacterial (220)

Kills bacteria.

Antibiotic (20)

An agent that inhibits or destroys a living organism. It usually refers to bacteria or other micro-organisms and is probably synonymous with Antibacterial

Antifungal (41)

An agent that inhibits or destroys fungi. Used in the treatment of various fungal problems such as candida.

Antiviral (20)

Treats virus diseases

Warts (46)

Used in the treatment of warts, corns etc.

Parasiticide (44)

Treats external parasites such as ringworm This should perhaps be joined with Parasiticide in 'Other Uses'.

Vermifuge (144)

Expels and kills internal parasites.

Anthelmintic (173)

Expels parasites from the gut.

Cancer

All (400)

Antitumor (43)

Preventing, or effective against, tumors, it is used in the treatment of cancer.

Cancer (289)

Used in the treatment of cancer.

Cytostatic (12)

Slows or controls the growth of tumours.

Cytotoxic (8)

Destroys body cells. Used in the treatment of diseases such as cancer, where it is targeted against the cancer cells.

Resolvent (43)

Breaks down tumors. This might be placed under antitumor.

Alternatives

Alternative and Complementary Medicine

All

Alterative (124)

Causes a gradual beneficial change in the body, usually through improved nutrition and elimination, without having any marked specific action.

Aromatherapy (37)

Plants whose essential oils are used in Aromatherapy.

Bach (38)

Plants used in the Bach flower remedies.

Homeopathy (129)

A plant used in homeopathic treatments.

General Well Being

All

Antiscorbutic (79)

A plant rich in vitamin C that is used to counteract scurvy.

Balsamic (13)

A healing and soothing agent.

Nutritive (38)

A food for convalescents to help restore strength.

Tonic (627)

Improves general health. Slower acting than a stimulant, it brings steady improvement.

Whole Body

All

Adaptogen (17)

Helps the body 'rise' to normal stress situations, thus preventing the many chronic degenerative diseases.

Deobstruent (46)

Clears obstructions from the natural ducts of the body.

Depurative (174)

Eliminates toxins and purifies the system, especially the blood.

Other medicinal uses

Antidandruff (20)

Treats dandruff.

Antihydrotic (4)

Reduces perspiration.

Antiphlogistic (114)

Reduces inflammation.

Antivinous (10)

Treats addiction to alcohol

Appetizer (52)

Improves the appetite

Aromatic (84)

Having an agreeable odour and stimulant qualities.

Astringent (725)

Produces contraction in living tissue, reducing the flow of secretions and discharges of blood, mucus, diarrhoea etc.

Bitter (76)

Increases the appetite and stimulates digestion by acting on the mucous membranes of the mouth. Also increases the flow of bile, stimulates repair of the gut wall lining and regulates the secretion of insulin and glucogen.

Deodorant (23)

Masks smells. Is this medicinal?

Diaphoretic (394)

Induces perspiration.

Enuresis (4)

Treats bed wetting.

Emollient (114)

Softens the skin, causing warmth and moisture.

Hallucinogenic (23)

Causes the mind to hallucinate.

Hypnotic (68)

Induces sleep.

Irritant (25)

Causes irritation or abnormal sensitivity in living tissue.

Miscellany (153)

Various medicinal actions that need more clarification.

Refrigerant (59)

Cools the body.

Restorative (15)

Restores consciousness or normal physiological activity.

Rubefacient (69)

A counter-irritant and external stimulant, it produces inflammation and redness of the skin.

Sedative (285)

Gently calms, reducing nervousness, distress and irritation.

Stimulant (281)

Excites or quickens activity of the physiological processes. Faster acting than a tonic but differing from a narcotic in that it does not give a false sense of well-being.

Alphabatical Listing

Abortifacient (41)

Causes an abortion.

Acrid (11)

Causes heat and irritation when applied to the skin.

Adaptogen (17)

Helps the body 'rise' to normal stress situations, thus preventing the many chronic degenerative diseases.

Alterative (124)

Causes a gradual beneficial change in the body, usually through improved nutrition and elimination, without having any marked specific action.

Anaesthetic (23)

Numbs the feeling in a local or general area of the body.

Analgesic (143)

Relieves pain.

Anaphrodisiac (8)

Reduces sexual desire.

Anodyne (263)

Relieves pain, it is milder than an analgesic.

Antacid (1)

Counters excess acidity in the stomach.

Anthelmintic (173)

Expels parasites from the gut.

Antiaphonic (3)

Restores the voice.

Antiarthritic (8)

Treats arthritis.

Antiasthmatic (76)

Treats asthma.

Antibacterial (220)

Kills bacteria.

Antibilious (7)

Corrects the secretions of bile.

Antibiotic (20)

An agent that inhibits or destroys a living organism. It usually refers to bacteria or other micro-organisms and is probably synonymous with Antibacterial

Anticholesterolemic (44)

Prevents the build up of cholesterol.

Anticoagulant (21)

Removes blood clots.

Antidandruff (20)

Treats dandruff.

Antidermatosic (1)

Prevents or cures skin complaints.

Antidote (128)

Counters poisoning, see also Stings.

Antiecchymotic (8)

Prevents or treats bruising.

Antiemetic (29)

Prevents vomiting.

Antifungal (41)

An agent that inhibits or destroys fungi. Used in the treatment of various fungal problems such as candida.

Antihaemorrhoidal (7)

Treats haemorrhoids (piles). This would probably be best added to another heading.

Antihalitosis (11)

Treats bad breath

Antihydrotic (4)

Reduces perspiration.

Antiinflammatory (178)

Reduces inflammation of joints, injuries etc. See also Antiarthritic, Antirheumatic, Antiphlogistic

Antiperiodic (73)

Counteracts recurring illnesses such as malaria.

Antiphlogistic (114)

Reduces inflammation.

Antipruritic (25)

Treats itching of the skin.

Antipyretic (54)

Treats fevers. See Febrifuge.

Antirheumatic (169)

Treats rheumatism.

Antiscorbutic (79)

A plant rich in vitamin C that is used to counteract scurvy.

Antiscrophulatic (15)

Counteracts scrofula. (TB, especially of the lymph glands)

Antiseptic (302)

Preventing sepsis, decay or putrefaction, it destroys or arrests the growth of micro-organisms.

Antispasmodic (351)

Relaxes muscular spasms and cramps, calming nervous irritation.

Antitumor (43)

Preventing, or effective against, tumors, it is used in the treatment of cancer. Probably synonymous with Cytotoxic. See also Cancer, Cytostatic, Cytotoxic.

Antitussive (132)

Prevents or relieves coughing.

Antivinous (10)

Treats addiction to alcohol

Antiviral (20)

Treats virus diseases

Aperient (63)

A mild Laxative. See also Cathartic, Purgative.

Aphrodisiac (80)

Increases the sexual appetite.

Appetizer (52)

Improves the appetite

Aromatherapy (37)

Plants whose essential oils are used in Aromatherapy.

Aromatic (84)

Having an agreeable odour and stimulant qualities.

Astringent (725)

Produces contraction in living tissue, reducing the flow of secretions and discharges of blood, mucus, diarrhoea etc.

Bach (38)

Plants used in the Bach flower remedies.

Balsamic (13)

A healing and soothing agent.

Birthing aid (61)

Used in facilitating birth, but not just to cause uterine contractions.

Bitter (76)

Increases the appetite and stimulates digestion by acting on the mucous membranes of the mouth. Also increases the flow of bile, stimulates repair of the gut wall lining and regulates the secretion of insulin and glucogen.

Blood purifier (21)

Purifies the blood.

Blood tonic (21)

Is this any different to a blood purifier?

Cancer (289)

Used in the treatment of cancer. See also Antitumor, Cytostatic, Cytotoxic.

Cardiac (91)

Used in the treatment of heart problems.

Cardiotonic (136)

A tonic for the heart.

Carminative (310)

Reduces flatulence and expels gas from the intestines.

Cathartic (66)

A strong Laxative but less violent than a Purgative. See also Aperient.

Cholagogue (130)

Increases the flow of bile and its discharge from the body.

Contraceptive (49)

Prevents fertilization occurring in females.

Cytostatic (12)

Slows or controls the growth of tumours. See also Cancer, Cytotoxic, Antitumor.

Cytotoxic (8)

Destroys body cells. Used in the treatment of diseases such as cancer, where it is targeted against the cancer cells. See also Cancer, Cytostatic, Antitumor.

Decongestant (11)

Removes phlegm and mucous, especially from the respiratory system.

Demulcent (175)

Soothes, lubricates and softens irritated tissues, especially the mucous membranes.

Deobstruent (46)

Clears obstructions from the natural ducts of the body.

Deodorant (23)

Masks smells. Is this medicinal?

Depurative (174)

Eliminates toxins and purifies the system, especially the blood.

Detergent (21)

A cleansing agent, used on wounds etc. It removes dead and diseased matter.

Diaphoretic (394)

Induces perspiration.

Digestive (128)

Aids digestion.

Disinfectant (22)

Used for cleaning wounds.

Diuretic (892)

Acts on the kidneys, promoting the flow of urine.

Emetic (190)

Induces vomiting.

Emmenagogue (241)

Promotes or increases the menstrual flow. In early stages of pregnancy it can induce an abortion.

Emollient (114)

Softens the skin, causing warmth and moisture.

Enuresis (4)

Treats bed wetting.

Errhine (3)

Produces sneezing.

Expectorant (412)

Clears phlegm from the chest by inducing coughing.

Febrifuge (513)

Reduces fevers. See also Antipyretic

Foot care (5)

Plants that are used in various ways to treat foot problems.

Galactofuge (12)

Stops or reduces the flow of milk in a nursing mother.

Galactogogue (86)

Promotes the flow of milk in a nursing mother.

Haemolytic (10)

Breaks down red blood corpuscles to separate haemoglobin.

Haemostatic (100)

Controls internal bleeding.

Hallucinogenic (23)

Causes the mind to hallucinate.

Hepatic (55)

Acts on the liver (for better or worse!).

Homeopathy (129)

A plant used in homeopathic treatments.

Hydrogogue (8)

A purgative that causes an abundant watery discharge.

Hypnotic (68)

Induces sleep.

Hypoglycaemic (64)

Reduces the levels of sugar in the blood.

Hypotensive (138)

Reduces blood pressure, it is used in the treatment of high blood pressure

Infertility (16)

Used in treating problems of human fertility.

Irritant (25)

Causes irritation or abnormal sensitivity in living tissue.

Kidney (39)

Used in the treatment of kidney diseases

Laxative (242)

Stimulates bowel movements in a fairly gentle manner. See also Aperient, Cathartic, Purgative.

Lenitive (16)

Soothing, palliative.

Lithontripic (46)

Removes stones from the kidney, bladder etc.

Miscellany (153)

Various medicinal actions that need more clarification.

Mouthwash (7)

Treats problems such as mouth ulcers.

Mydriatic (9)

Dilates the pupils of the eyes.

Narcotic (76)

Relieves pain, induces drowsiness and gives a sense of well-being.

Nervine (98)

Stimulates and calms the nerves.

Nutritive (38)

A food for convalescents to help restore strength.

Odontalgic (81)

Treats toothache (temporary measure only) and other problems of the teeth and gums.

Ophthalmic (159)

Treats eye complaints.

Oxytoxic (27)

Hastens parturition and stimulates uterine contractions.

Parasiticide (44)

Treats external parasites such as ringworm This should perhaps be joined with Parasiticide in 'Other Uses'.

Pectoral (110)

Relieves respiratory diseases, a remedy for chest diseases.

Plaster (6)

Used in the treatment of broken bones.

Poultice (214)

A moist, usually warm or hot, mass of plant material applied to the skin in the treatment of burns etc.

Purgative (155)

A drastic Laxative causing a cleansing or watery evacuation of the bowels, usually with a griping pain. See also Aperient, Cathartic, Purgative.

Refrigerant (59)

Cools the body.

Resolvent (43)

Breaks down tumors. This might be placed under antitumor.

Restorative (15)

Restores consciousness or normal physiological activity.

Rubefacient (69)

A counter-irritant and external stimulant, it produces inflammation and redness of the skin.

Salve (53)

Soothes and heals damaged skin.

Sedative (285)

Gently calms, reducing nervousness, distress and irritation.

Sialagogue (43)

Stimulates the secretion of saliva.

Skin (162)

Plants used in miscellaneous treatments for the skin. See also Antipruritic,

Sternutatory (16)

Promotes sneezing and nasal discharges.

Stimulant (281)

Excites or quickens activity of the physiological processes. Faster acting than a tonic but differing from a narcotic in that it does not give a false sense of well-being.

Stings (41)

Used in the treatment of stings and insect bites. See also Antidote

Stomachic (338)

Aids and improves the action of the stomach.

Styptic (76)

An astringent that stops bleeding by contracting the blood vessels.

TB (12)

Plants used in the treatment of tuberculosis

Tonic (627)

Improves general health. Slower acting than a stimulant, it brings steady improvement.

Uterine tonic (10)

A tonic for the uterus. See also Oxytoxic.

Vasoconstrictor (24)

Narrows the blood vessels, thereby increasing blood pressure.

Vasodilator (77)

Widens the blood vessels, thereby reducing blood pressure.

VD (52)

Used in the treatment of venereal disease

Vermifuge (144)

Expels and kills internal parasites.

Vesicant (9)

A blistering agent.

Vulnerary (180)

Promotes the healing of wounds.

Warts (46)

Used in the treatment of warts, corns etc.

Women's complaints (66)

A very vague title, it deals with a miscellany of problems peculiar to the female sex.

Other Words you could search for

Depression Stomach Ache Headache Diarrhoea Leprosy

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Search for

Medicinal Use: Antiaphonic (8); Antihalitosis (13); Errhine (4); Mouthwash (10); Odontalgic (117); Sternutatory (19); Mydriatic (9); Ophthalmic (246); Sialagogue (42);

Latin Name	Common Name	Description	PFAF Rating
Abelmoschus moschatus	Musk mallow	Antihalitosis	2
Abies grandis	Grand fir	Ophthalmic	2
Abies lasiocarpa	Subalpine fir	Antihalitosis	2
Abutilon theophrasti	China jute	Ophthalmic	3
Acer rubrum	Red maple	Ophthalmic	3
Acer saccharinum	Silver maple	Ophthalmic	3
Acer saccharum	Sugar maple	Ophthalmic	4
Acer spicatum	Mountain maple	Ophthalmic	2
Achillea millefolium	Yarrow	Odontalgic	4
Achillea ptarmica	Sneeze-wort	Odontalgic; Sternutatory	3
Achillea sibirica	Siberian yarrow	Odontalgic	1
Acinos arvensis	Basil thyme	Odontalgic	2
Acorus calamus	Sweet flag	Odontalgic	4
Adenophora verticillata		Sialagogue	3
Aesculus californica	Californian buckeye	Odontalgic	3
Aesculus pavia	Red buckeye	Odontalgic	3
Agave americana	Agave	Odontalgic	3
Agrimonia eupatoria	Agrimony	Antiaphonic	3
Alliaria petiolata	Garlic mustard	Sternutatory	2
Alnus rugosa	Speckled alder	Odontalgic; Ophthalmic	2
Alnus serrulata	Smooth alder	Ophthalmic	1
Althaea officinalis	Marsh mallow	Odontalgic	5
Amelanchier alnifolia	Saskatoon	Ophthalmic	5
Amelanchier alnifolia cusickii	Cusick's serviceberry	Ophthalmic	4
Amelanchier alnifolia semiintegrifolia	Pacific serviceberry	Ophthalmic	5
Amelanchier pallida	Pale serviceberry	Ophthalmic	3
Amelanchier utahensis	Utah serviceberry	Ophthalmic	3
Amorphophallus rivieri	Devil's tongue	Sialagogue	2
Anacyclus pyrethrum	Mount Atlas daisy	Odontalgic	1
Anemone canadensis	Canadian anemone	Antiaphonic; Ophthalmic	1
Anemone cylindrica	Candle anemone	Ophthalmic	1
Anemone vitifolia		Odontalgic	1
Anethum graveolens	Dill	Antihalitosis	4
Anthriscus cerefolium	Chervil	Ophthalmic	3
Arabidopsis thaliana	Thale cress	Mouthwash	1
Aralia chinensis	Chinese angelica tree	Sialagogue	2
Aralia spinosa	Hercule's club	Ophthalmic; Sialagogue	2
Aristolochia serpentaria	Virginia snakeroot	Odontalgic	1
Aristolochia tomentosa	Dutchman's pipe	Odontalgic	1
Aristotelia serrata		Ophthalmic	3
Arnica angustifolia alpina	Mountain tobacco	Sternutatory	2
Arnica cordifolia	Heartleaf arnica	Sternutatory	2
Arnica diversifolia		Sternutatory	2
Arnica fulgens	Hillside arnica	Sternutatory	2

Arnica montana	Arnica	Sternutatory	3
Artemisia campestris	Field southernwood	Ophthalmic	1
Artemisia dracunculus	Tarragon	Odontalgic	4
Artemisia ludoviciana gnaphalodes	White sage	Ophthalmic	1
Artemisia tridentata	Sage brush	Ophthalmic	3
Asarum europaeum	Asarabacca	Errhine; Sternutatory	2
Asarum sieboldii		Odontalgic; Sternutatory	1
Asclepias eriocarpa	Woollypod milkweed	Sternutatory	2
Asclepias involucrata	Dwarf milkweed	Odontalgic	3
Asclepias latifolia	Broadleaf milkweed	Sternutatory	2
Asclepias speciosa	Showy milkweed	Ophthalmic	5
Asclepias subulata	Rush milkweed	Ophthalmic	2
Asclepias viridiflora	Green milkweed	Ophthalmic	3
Asparagus cochinchinensis	Chinese asparagus	Sialagogue	3
Asplenium adiantum-nigrum	Black spleenwort	Ophthalmic	1
Asplenium ruta-muraria	Wall rue	Ophthalmic	1
Aster tripolium	Sea aster	Ophthalmic	3
Astragalus chinensis		Ophthalmic	1
Astragalus complanatus		Ophthalmic	1
Atropa acuminata	Indian belladonna	Mydriatic	1
Atropa bella-donna	Deadly nightshade	Mydriatic	1
Baccharis viminea	Mule's fat	Ophthalmic	2
Balsamorhiza sagittata	Oregon sunflower	Odontalgic	4
Bellis perennis	Daisy	Ophthalmic	3
Berberis aristata	Chitra	Ophthalmic	4
Berberis lycium		Ophthalmic	3
Berberis vulgaris	Barberry	Ophthalmic	3
Bergenia ciliata		Ophthalmic	1
Brachyglottis repanda	Bushman's toilet paper	Antihalitosis	2
Broussonetia papyrifera	Paper mulberry	Ophthalmic	4
Buddleia officinalis	Mi meng hua	Ophthalmic	1
Buxus sempervirens	Box	Odontalgic	2
Calycanthus floridus	Carolina allspice	Ophthalmic	3
Cannabis sativa	Hemp	Ophthalmic	3
Capsicum annuum	Sweet pepper	Sialagogue	3
Capsicum baccatum	Locoto	Sialagogue	3
Capsicum frutescens	Tabasco pepper	Sialagogue	3
Capsicum pubescens	Tree pepper	Sialagogue	3
Carpinus betulus	Hornbeam	Ophthalmic	2
Carum carvi	Caraway	Ophthalmic	3
Catalpa bignonioides	Indian bean tree	Ophthalmic	1
Celosia argentea cristata	Common cockscomb	Ophthalmic	1
Centaurea cyanus	Cornflower	Ophthalmic	2
Centaurea jacea	Brown kapweed	Ophthalmic	1
Centaurea montana	Mountain cornflower	Ophthalmic	1
Cephalanthus occidentalis	Button bush	Odontalgic; Ophthalmic	1
Chelidonium majus	Greater celandine	Ophthalmic	2
Chenopodium album	Fat hen	Odontalgic	3
Chiliotrichum diffusum		Ophthalmic	1
Chimonanthus praecox	Winter sweet	Sialagogue	2
Chrysothamnus nauseosus	Rubber rabbitbrush	Odontalgic	2
Chrysothamnus viscidiflorus	Green rabbitbrush	Odontalgic	2

Cinnamomum camphora	Camphor	Odontalgic	3
Cirsium acaulon	Stemless thistle	Odontalgic	1
Cirsium undulatum	Wavy-leaved thistle	Ophthalmic	3
Claytonia sibirica	Pink purslane	Ophthalmic	4

Next List by genus

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Abelmoschus moschatus

Common name:	Musk mallow	Family:	Malvaceae
Author:	Medik.	Botanical references:	
Synonyms:	Hibiscus abelmoschus (L.)		
Known Hazards:	None known		
Range:	S.E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. moschatus subsp. moschatus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Abelmosco [E], Ambercicegi [E], Ambrette [H,E], Bisam Eibisch [E], Gombo Musqu, [H], Kapas Hantu [E], Kapas Hutan [E], Kapasan [E], Kasturi Dana [E], Kostuli [E], Moschus [E], Moskus [E], Mushk Dana [E], Musk Mallow [H,E], Musk Okra [B,P], Musk Seed [H], Muskus [E], Zatakasturika [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	Borneo; Britain; Colombia; Denmark; France; Germany; Guatemala; India; Iran; Italy; Java; Malaysia; Mexico; Netherlands; Philippines; Philippines(Tagalog); Samoa; Sanscrit; Spain; Trinidad; Turkey; Venezuela

Physical Characteristics

Perennial growing to 2m by 1m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Root; Seedpod.

Young leaves and shoots - cooked in soups[183]. Used as a vegetable[238]. The leaves are also used to clarify sugar[183].

Unripe seedpods - cooked as a vegetable in much the same way as okra (A. esculentus)[183, 238].

The seed is used as a flavouring for liqueurs or to scent coffee[183, 238].

An essential oil is obtained from the plant and is used to flavour baked goods, ice cream, sweets and soft drinks[183].

Root[183]. No more details are given, though the root is likely to have a bland flavour and a fibrous texture.

Medicinal Uses

Disclaimer

Antihalitosis; Antispasmodic; Aphrodisiac; Aromatherapy; Digestive; Nervine; Stomachic.

An emulsion made from the seed is antispasmodic and is especially effective in the digestive system[4, 238]. The seeds are also chewed as a nervine, stomachic and to sweeten the breath[4, 238]. They are also said to be aphrodisiac[4, 238].

The seeds are valued medicinally for their diuretic, demulcent and stomachic properties. They are also said to be stimulant, antiseptic, cooling, tonic, carminative and aphrodisiac.

The essential oil is used in aromatherapy for the treatment of depression and anxiety[238]. It is also applied externally to treat cramp, poor circulation and aching joints[238].

Other Uses

Essential; Fibre; Insecticide; Oil; Size.

An essential oil is obtained from the plant[238]. It is used as a food flavouring and in perfumery as a musk substitute[238]. However, it has been known to cause photosensitivity so this use has been largely discontinued[238].

An oil obtained from the seed contains 18.9% linoleic acid[240]. Total yields of oil are not given[K].

The seeds are used as an insecticide[4, 238]. Another report says that extracts of the fruits and upper parts of the plant show insecticidal activity[240].

A fibre is obtained from the stem bark[238].

A mucilage obtained from the roots is used as a size for paper[238].

Cultivation details

Easily grown in a rich well-drained soil in a sunny position[238]. Tolerates a pH in the range 6 to 7.8.

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -5°c and can be grown outdoors in the milder areas of the country[238]. The plant grows as a shrub in frost-free climates but is usually cut back to the ground in British winters. So long as these winters are not too cold, however, it can usually be grown as a herbaceous perennial with new shoots being produced freely from the root-stock. These flower in the summer[238]. It is probably wise to apply a good mulch to the roots in the autumn[K].

It is best to cut back the stems to about 15cm long in the spring even if they have not been killed back by the frost[238]. This will ensure an abundance of new growth and plenty of flowers in the summer.

The musk mallow is widely cultivated in tropical climates for its many uses[238].

There is at least one named form, selected for its ornamental value. 'Mischief' is somewhat smaller than the species, reaching a height of 50cm[238].

Propagation

Seed - sow April in a greenhouse. The seed germinates best at a temperature around 24 - 24°c[238]. When large enough to handle, prick out the seedlings into individual pots of rich soil and plant them out after the last expected frosts[K]. The seed can also be sown in situ in late April in areas with warm summers.

Cuttings of half-ripe wood, July in a frame[238].

Scent

No details on scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Species Database: ascii version

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
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References for *Abelmoschus moschatus subsp. moschatus* (a possible synonym).

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- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Malvaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief

cultivation details. There are no illustrations.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Abelmoschus+moschatus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Abelmoschus+moschatus`

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Plants For A Future: Database Search Results

Abelmoschus moschatus

Common name:	Musk mallow	Family:	Malvaceae
Author:	Medik.	Botanical references:	
Synonyms:	Hibiscus abelmoschus (L.)		
Known Hazards:	None known		
Range:	S.E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. moschatus subsp. moschatus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Abelmosco [E], Ambercicegi [E], Ambrette [H,E], Bisam Eibisch [E], Gombo Musqu, [H], Kapas Hantu [E], Kapas Hutan [E], Kapasan [E], Kasturi Dana [E], Kostuli [E], Moschus [E], Moskus [E], Mushk Dana [E], Musk Mallow [H,E], Musk Okra [B,P], Musk Seed [H], Muskus [E], Zatakasturika [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	Borneo; Britain; Colombia; Denmark; France; Germany; Guatemala; India; Iran; Italy; Java; Malaysia; Mexico; Netherlands; Philippines; Philippines(Tagalog); Samoa; Sanscrit; Spain; Trinidad; Turkey; Venezuela

Physical Characteristics

Perennial growing to 2m by 1m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Root; Seedpod.

Young leaves and shoots - cooked in soups[183]. Used as a vegetable[238]. The leaves are also used to clarify sugar[183].

Unripe seedpods - cooked as a vegetable in much the same way as okra (A. esculentus)[183, 238].

The seed is used as a flavouring for liqueurs or to scent coffee[183, 238].

An essential oil is obtained from the plant and is used to flavour baked goods, ice cream, sweets and soft drinks[183].

Root[183]. No more details are given, though the root is likely to have a bland flavour and a fibrous texture.

Medicinal Uses

Disclaimer

Antihalitosis; Antispasmodic; Aphrodisiac; Aromatherapy; Digestive; Nervine; Stomachic.

An emulsion made from the seed is antispasmodic and is especially effective in the digestive system[4, 238]. The seeds are also chewed as a nervine, stomachic and to sweeten the breath[4, 238]. They are also said to be aphrodisiac[4, 238].

The seeds are valued medicinally for their diuretic, demulcent and stomachic properties. They are also said to be stimulant, antiseptic, cooling, tonic, carminative and aphrodisiac.

The essential oil is used in aromatherapy for the treatment of depression and anxiety[238]. It is also applied externally to treat cramp, poor circulation and aching joints[238].

Other Uses

Essential; Fibre; Insecticide; Oil; Size.

An essential oil is obtained from the plant[238]. It is used as a food flavouring and in perfumery as a musk substitute[238]. However, it has been known to cause photosensitivity so this use has been largely discontinued[238].

An oil obtained from the seed contains 18.9% linoleic acid[240]. Total yields of oil are not given[K].

The seeds are used as an insecticide[4, 238]. Another report says that extracts of the fruits and upper parts of the plant show insecticidal activity[240].

A fibre is obtained from the stem bark[238].

A mucilage obtained from the roots is used as a size for paper[238].

Cultivation details

Easily grown in a rich well-drained soil in a sunny position[238]. Tolerates a pH in the range 6 to 7.8.

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -5°c and can be grown outdoors in the milder areas of the country[238]. The plant grows as a shrub in frost-free climates but is usually cut back to the ground in British winters. So long as these winters are not too cold, however, it can usually be grown as a herbaceous perennial with new shoots being produced freely from the root-stock. These flower in the summer[238]. It is probably wise to apply a good mulch to the roots in the autumn[K].

It is best to cut back the stems to about 15cm long in the spring even if they have not been killed back by the frost[238]. This will ensure an abundance of new growth and plenty of flowers in the summer.

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Cuttings of half-ripe wood, July in a frame[238].

Scent

No details on scent.

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No entries have been made for this species as yet.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Abelmoschus+moschatus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Abelmoschus+moschatus`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Database Search

The Field, Penpol, Lostwithiel, Cornwall, PL22 0NG, England
Telephone Bodmin (+44 1208) 873554

Back to Plants For A Future home page. Back to Database Intro.

The ASCII version

For those of you who haven't got a PC or a database management program the database is available in ascii format. This consists of a number of separate files one for each table in the database, i.e. files for edible, medicinal and other uses which look something like:

```
Abelia triflora[TAB]Wood[CR]
Abelmoschus esculentus[TAB]Fibre[CR]
Abelmoschus esculentus[TAB]Paper[CR]
Abelmoschus esculentus[TAB]Size[CR]
Abelmoschus moschatus[TAB]Essential[CR]
Abelmoschus moschatus[TAB]Fibre[CR]
Abelmoschus moschatus[TAB]Insecticide[CR]
Abelmoschus moschatus[TAB]Oil[CR]
Abelmoschus moschatus[TAB]Size[CR]
```

There are also files for the different habitats the plant prefers, interesting cultivars and the main table of species information. The latter has 54 different fields and is a bit hard to make sense of as it looks something like

```
Abelia triflora[TAB]R.Br. ex Wallich.[TAB]11, 200[TAB]Caprifoliaceae[TAB]
[TAB]Shrub[TAB]D[TAB]3.5[TAB]
3[TAB]6[TAB]0[TAB]None known[TAB]E. Asia - N.W. Himalayas.[TAB]
Dry scrub and rocky slopes in calcareous soils, 1200 - 4200m in Uttar
Pradesh[146,158].
[TAB]LM[TAB]SN[TAB]DM[TAB]0[TAB]0[TAB]NB[TAB]0[TAB]1[TAB]0[TAB][TAB]S[TAB]
[TAB]0[TAB]0[TAB]0[TAB]0[TAB]0[TAB]0[TAB][TAB]6[TAB][TAB]H[TAB][TAB]
[TAB]None known[TAB]Zabelia triflora. (Wallich.)Makino.[TAB]
Requires a well-drained open loamy soil[11] in a
sheltered sunny position[200]. Plants are best grown in
...[CR]
```

It should be straight forward to import the ascii version into most database/speadsheat/wordprocessors on Unix/Mac/DOS boxes, including word/excel/filemaker. I've also got some standalone C programs which can do simple database lookups. And if you're really adventurous you could set up your home computer as a web server, and you could have your very own version of the web version of the database running at home. No need for all that online time. This is easy peasy on unix boxes and I've managed to do it on my home PC.

Details of the meaning of each field can be found on the page Main Headings. And the references in the bibliography

You can get hold of the ascii version from me pfaf@comp.leeds.ac.uk. See the page on Getting hold of the

Database for more details.

Back to PFAF Home Page, Main Search Page, Help, Bibliography.

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A donation is appreaciated but not necessary. Last years version without the pictures. Just send us an email: webmaster@pfaf.org and you will be given download instructions. Please note it can take a month or so to answer your email.

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Licensing whole database for large scale use e.g. Web sites.	email for details

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There are six versions of the database, all contain the same data, its only the interface which is different:

Webpages version

> Similar to the website but with 400 photo gallery. Currently only basic search facilities. Not available for email service.

Standalone version

> Runs on all windows PCs. Uses a run time version of Access which is included

A Microsoft Access 2.0 version.

> Runs on all windows PC's, but requires you have a copy of Microsoft Access 2. Allows you to create your own queries.

A Microsoft Access 7 version.

> Runs on all windows PC's, but requires you have a copy of Microsoft Access 7. Allows you to create your own queries.

A Microsoft Access 2000 version.

> Runs on all windows PC's, but requires you have a copy of Microsoft Access 2000. Allows you to create your own queries.

Ascii text version

Just the data as plain ascii text. You should be able to import this into most database packages. Includes scripts for easy importation into MySQL.

Web-server version

Requires a web-server on your home computer (apache,Personal Webserver), (unix/win95/most other systems with a C compiler). Exactly the same as appears on the website. Its actually very easy to setup personal webserver on your machine as it comes on the WIndows CD-ROM.

All versions contain the same data. (The Java/Web Server versions have some more information which has been taken from other databases across the web).

We are also in the process of making a CD-ROM with a standalone version of the database on it. This will probably be pretty much like the online version but with over 2000 plant photos added and lots of other goodies. At the moment its in beta test stage and you can download a copy (sans pictures) from the ftp site.

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components (all files in the standalone access version bar the plantuse.mdb file and the documentation).

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Plants For A Future: Database Search Results

Abelmoschus moschatus

Common name:	Musk mallow	Family:	Malvaceae
Author:	Medik.	Botanical references:	
Synonyms:	Hibiscus abelmoschus (L.)		
Known Hazards:	None known		
Range:	S.E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	Borneo; Britain; Colombia; Denmark; France; Germany; Guatemala; India; Iran; Italy; Java; Malaysia; Mexico; Netherlands; Philippines; Philippines(Tagalog); Samoa; Sanscrit; Spain; Trinidad; Turkey; Venezuela

Physical Characteristics

Perennial growing to 2m by 1m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Root; Seedpod.

Young leaves and shoots - cooked in soups[183]. Used as a vegetable[238]. The leaves are also used to clarify sugar[183].

Unripe seedpods - cooked as a vegetable in much the same way as okra (A. esculentus)[183, 238].

The seed is used as a flavouring for liqueurs or to scent coffee[183, 238].

An essential oil is obtained from the plant and is used to flavour baked goods, ice cream, sweets and soft drinks[183].

Root[183]. No more details are given, though the root is likely to have a bland flavour and a fibrous texture.

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Disclaimer

Antihalitosis; Antispasmodic; Aphrodisiac; Aromatherapy; Digestive; Nervine; Stomachic.

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Other Uses

Essential; Fibre; Insecticide; Oil; Size.

An essential oil is obtained from the plant[238]. It is used as a food flavouring and in perfumery as a musk substitute[238]. However, it has been known to cause photosensitivity so this use has been largely discontinued[238].

An oil obtained from the seed contains 18.9% linoleic acid[240]. Total yields of oil are not given[K].

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A fibre is obtained from the stem bark[238].

A mucilage obtained from the roots is used as a size for paper[238].

Cultivation details

Easily grown in a rich well-drained soil in a sunny position[238]. Tolerates a pH in the range 6 to 7.8.

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -5°c and can be grown outdoors in the milder areas of the country[238]. The plant grows as a shrub in frost-free climates but is usually cut back to the ground in British winters. So long as these winters are not too cold, however, it can usually be grown as a herbaceous perennial with new shoots being produced freely from the root-stock. These flower in the summer[238]. It is probably wise to apply a good mulch to the roots in the autumn[K].

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The musk mallow is widely cultivated in tropical climates for its many uses[238].

There is at least one named form, selected for its ornamental value. 'Mischief' is somewhat smaller than the species, reaching a height of 50cm[238].

Propagation

Seed - sow April in a greenhouse. The seed germinates best at a temperature around 24 - 24°c[238]. When large enough to handle, prick out the seedlings into individual pots of rich soil and plant them out after the last expected frosts[K]. The seed can also be sown in situ in late April in areas with warm summers.

Cuttings of half-ripe wood, July in a frame[238].

Scent

No details on scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Abelmoschus+moschatus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Abelmoschus+moschatus`

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Add a comment on: *Abelmoschus moschatus*

Subject:

Abelmoschus moschatus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Abelmoschus moschatus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:23:47 2004

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Add a comment on: *Comments on the Database*

Subject:

Comments on the Database

Group:
Comments on the Database

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Your Name:

Your Email Address:

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Abies grandis

Common name:	Grand fir	Family:	Pinaceae
Author:	(Douglas. ex D. Don.) Lindl.	Botanical references:	11, 60, 200
Synonyms:	Abies excelsior (Franco.)		
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California, east to Montana and Idaho.		
Habitat:	Found in a variety of soils, but the best specimens are growing in deep rich alluvial soils[229] It ranges from the coast to inland elevations of about 2000 metres if growing by streams[60, 82].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Picea grandis[G] Pinus grandis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Grand Fir [B,H,L,P,FEIS,DEN1], Reuzenzilverspar [D], Silver Fir [H],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir; grandis = large;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database

	Canada(Kwakiutl); Canada(Salish); Us(Flathead)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 75m by 8m at a fast rate. It is hardy to zone 6 and is not frost tender. It is in leaf all year, and the seeds ripen from September to October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure. It cannot tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy, Deep Shade.

Edible Uses

Drink; Gum; Inner bark; Tea.

Inner bark - cooked. It is usually dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[161]. It is best used in the spring when it is rich and juicy[213]. An emergency food, it is only used when all else fails[183].

The gum from the trunk is hardened (probably in cold water[K]) and used as a chewing gum[257]. It can also be made into a drink[257].

Young shoot tips are used as a tea substitute[183, 257].

Medicinal Uses

Disclaimer

Antirheumatic; Laxative; Ophthalmic; Skin; Stomachic; TB; Tonic.

A gum that exudes from the bark is used externally as an ointment[245]. It has also been used as a wash for sore and infected eyes and as a gargle for sore throats[257]. A decoction is laxative and tonic, it is used to treat stomach problems[257]. Externally, the gum is applied as a poultice to cuts and sores[257].

A decoction of the root bark or stem is used in the treatment of stomach problems and TB[257]. A poultice is applied to joints to ease rheumatism or to the chest to treat lung haemorrhages[257].

A decoction of the leaves is used as a tonic and in the treatment of colds[257].

Other Uses

Baby care; Dye; Incense; Repellent; Roofing; Wood.

The aromatic leaves are used as a moth repellent[169]. The boughs have been used in the home as an incense[257].

A pink dye can be obtained from the bark[226].

The dried and hardened pitch can be chewed as a tooth cleanser[257].

A powder made from the dried and crushed leaves was used as a baby powder by the N. American Indians[226].

The bark can be used as a waterproof covering material for buildings and canoes[257].

Wood - light, soft, coarse grained, not strong, not very durable. Used for interior work, cases, etc[46, 61, 82]. Of little value as a lumber, it is used mainly for pulp and fuel[229, 257].

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils and succeeds in poor sandy soils[185]. Very shade tolerant, especially when young, but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Trees succeeds in very exposed positions, even if the top is blown out by the wind the trees make one or more new tops and continue growing with no loss of vigour[11, 185]. Prefers slightly acid conditions down to a pH of about 5[200]. Prefers growing on a north-facing slope[200].

This species thrives exceedingly well in the moister parts of Britain, where it grows very quickly[11]. It is cultivated for timber in W. and N. Europe[50]. Trees are slow growing for the first few years but they are then quite fast with trees growing 60 - 100cm in height and 8cm in girth per year even when they are quite large[1, 185]. New growth takes place from early May to July[185]. Trees grow best in the Perthshire valleys of Scotland and in the far west of Britain[11]. Some trees have reached heights in excess of 60 metres in 100 years in Wales and Scotland, making them amongst the tallest trees in Europe[200].

A very ornamental plant[1], it is rarely harmed by disease, insects or frost[1].

The crushed leaves have a fruity orange-flavoured aroma[185].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Alternatively, if you have sufficient seed, it is possible to sow in an outdoor seedbed. One report says that it is best to grow the seedlings on in the shade at a density of about 550 plants per square metre[78] whilst another report says that they are best grown on in a sunny position[80].

Scent

Leaves: Fresh Crushed

> The crushed leaves have a fruity orange-flavoured aroma. The growing plant exudes a pungent, balsamic fragrance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of

useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Abies+grandis`
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Plants For A Future: Database Search Results

Abies grandis

Common name:	Grand fir	Family:	Pinaceae
Author:	(Douglas. ex D. Don.) Lindl.	Botanical references:	11, 60, 200
Synonyms:	Abies excelsior (Franco.)		
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California, east to Montana and Idaho.		
Habitat:	Found in a variety of soils, but the best specimens are growing in deep rich alluvial soils[229] It ranges from the coast to inland elevations of about 2000 metres if growing by streams[60, 82].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Picea grandis[G] Pinus grandis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Grand Fir [B,H,L,P,FEIS,DEN1], Reuzenzilverspar [D], Silver Fir [H],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir; grandis = large;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Canada(Salish); Us(Flathead)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 75m by 8m at a fast rate. It is hardy to zone 6 and is not frost tender. It is in leaf all year, and the seeds ripen from September to October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure. It cannot tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy, Deep Shade.

Edible Uses

Drink; Gum; Inner bark; Tea.

Inner bark - cooked. It is usually dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[161]. It is best used in the spring when it is rich and juicy[213]. An emergency food, it is only used when all else fails[183].

The gum from the trunk is hardened (probably in cold water[K]) and used as a chewing gum[257]. It can also be made into a drink[257].

Young shoot tips are used as a tea substitute[183, 257].

Medicinal Uses

Disclaimer

Antirheumatic; Laxative; Ophthalmic; Skin; Stomachic; TB; Tonic.

A gum that exudes from the bark is used externally as an ointment[245]. It has also been used as a wash for sore and infected eyes and as a gargle for sore throats[257]. A decoction is laxative and tonic, it is used to treat stomach problems[257]. Externally, the gum is applied as a poultice to cuts and sores[257].

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Baby care; Dye; Incense; Repellent; Roofing; Wood.

The aromatic leaves are used as a moth repellent[169]. The boughs have been used in the home as an incense[257].

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The bark can be used as a waterproof covering material for buildings and canoes[257].

Wood - light, soft, coarse grained, not strong, not very durable. Used for interior work, cases, etc[46, 61, 82]. Of little value as a lumber, it is used mainly for pulp and fuel[229, 257].

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils and succeeds in poor sandy soils[185]. Very shade tolerant, especially when young, but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Trees succeeds in very exposed positions, even if the top is blown out by the wind the trees make one or more new tops and continue growing with no loss of vigour[11, 185]. Prefers slightly acid conditions down to a pH of about 5[200]. Prefers growing on a north-facing slope[200].

This species thrives exceedingly well in the moister parts of Britain, where it grows very quickly[11]. It is cultivated for timber in W. and N. Europe[50]. Trees are slow growing for the first few years but they are then quite fast with trees growing 60 - 100cm in height and 8cm in girth per year even when they are quite large[1, 185]. New growth takes place from early May to July[185]. Trees grow best in the Perthshire valleys of Scotland and in the far west of Britain[11]. Some trees have reached heights in excess of 60 metres in 100 years in Wales and Scotland, making them amongst the tallest trees in Europe[200].

A very ornamental plant[1], it is rarely harmed by disease, insects or frost[1].

The crushed leaves have a fruity orange-flavoured aroma[185].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

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Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Scent

Leaves: Fresh Crushed

> The crushed leaves have a fruity orange-flavoured aroma. The growing plant exudes a pungent, balsamic fragrance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Abies+grandis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Abies+grandis`

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Plants For A Future: Database Search Results

Abies grandis

Common name:	Grand fir	Family:	Pinaceae
Author:	(Douglas. ex D. Don.) Lindl.	Botanical references:	11, 60, 200
Synonyms:	Abies excelsior (Franco.)		
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California, east to Montana and Idaho.		
Habitat:	Found in a variety of soils, but the best specimens are growing in deep rich alluvial soils[229] It ranges from the coast to inland elevations of about 2000 metres if growing by streams[60, 82].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Picea grandis[G] Pinus grandis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Grand Fir [B,H,L,P,FEIS,DEN1], Reuzenzilverspar [D], Silver Fir [H],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir; grandis = large;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Canada(Salish); Us(Flathead)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 75m by 8m at a fast rate. It is hardy to zone 6 and is not frost tender. It is in leaf all year, and the seeds ripen from September to October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure. It cannot tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy, Deep Shade.

Edible Uses

Drink; Gum; Inner bark; Tea.

Inner bark - cooked. It is usually dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[161]. It is best used in the spring when it is rich and juicy[213]. An emergency food, it is only used when all else fails[183].

The gum from the trunk is hardened (probably in cold water[K]) and used as a chewing gum[257]. It can also be made into a drink[257].

Young shoot tips are used as a tea substitute[183, 257].

Medicinal Uses

Disclaimer

Antirheumatic; Laxative; Ophthalmic; Skin; Stomachic; TB; Tonic.

A gum that exudes from the bark is used externally as an ointment[245]. It has also been used as a wash for sore and infected eyes and as a gargle for sore throats[257]. A decoction is laxative and tonic, it is used to treat stomach problems[257]. Externally, the gum is applied as a poultice to cuts and sores[257].

A decoction of the root bark or stem is used in the treatment of stomach problems and TB[257]. A poultice is applied to joints to ease rheumatism or to the chest to treat lung haemorrhages[257].

A decoction of the leaves is used as a tonic and in the treatment of colds[257].

Other Uses

Baby care; Dye; Incense; Repellent; Roofing; Wood.

The aromatic leaves are used as a moth repellent[169]. The boughs have been used in the home as an incense[257].

A pink dye can be obtained from the bark[226].

The dried and hardened pitch can be chewed as a tooth cleanser[257].

A powder made from the dried and crushed leaves was used as a baby powder by the N. American Indians[226].

The bark can be used as a waterproof covering material for buildings and canoes[257].

Wood - light, soft, coarse grained, not strong, not very durable. Used for interior work, cases, etc[46, 61, 82]. Of little value as a lumber, it is used mainly for pulp and fuel[229, 257].

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils and succeeds in poor sandy soils[185]. Very shade tolerant, especially when young, but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Trees succeeds in very exposed positions, even if the top is blown out by the wind the trees make one or more new tops and continue growing with no loss of vigour[11, 185]. Prefers slightly acid conditions down to a pH of about 5[200]. Prefers growing on a north-facing slope[200].

This species thrives exceedingly well in the moister parts of Britain, where it grows very quickly[11]. It is cultivated for timber in W. and N. Europe[50]. Trees are slow growing for the first few years but they are then quite fast with trees growing 60 - 100cm in height and 8cm in girth per year even when they are quite large[1, 185]. New growth takes place from early May to July[185]. Trees grow best in the Perthshire valleys of Scotland and in the far west of Britain[11]. Some trees have reached heights in excess of 60 metres in 100 years in Wales and Scotland, making them amongst the tallest trees in Europe[200].

A very ornamental plant[1], it is rarely harmed by disease, insects or frost[1].

The crushed leaves have a fruity orange-flavoured aroma[185].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Alternatively, if you have sufficient seed, it is possible to sow in an outdoor seedbed. One report says that it is best to grow the seedlings on in the shade at a density of about 550 plants per square metre[78] whilst another report says that they are best grown on in a sunny position[80].

Scent

Leaves: Fresh Crushed

> The crushed leaves have a fruity orange-flavoured aroma. The growing plant exudes a pungent, balsamic fragrance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Abies grandis*

Subject:

Abies grandis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Abies grandis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:23:54 2004

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Plants For A Future: Database Search Results

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Abies lasiocarpa

Common name:	Subalpine fir	Family:	Pinaceae
Author:	(Hook.) Nutt.	Botanical references:	11, 60, 200
Synonyms:	Pinus lasiocarpa (Hook.), Abies subalpina (Engelm.)		
Known Hazards:	None known		
Range:	Western N. America - Alaska to Arizona and New Mexico.		
Habitat:	Often found in poor and rocky soils[229], it is rarely seen below 600 metres. It grows in forests right up to the timber line where it is no more than a shrub on exposed slopes at high altitudes[226].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. bifolia[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Fir [H], Rocky Mountain Alpine Fir [P], Subalpine Fir [B,P,DEN1,FEIS,L],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir; lasiocarpa = wooly fruit;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Us(Blackfoot); Us(Flathead)

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m by 4m at a slow rate. It is hardy to zone 5 and is frost tender. It is in leaf all year, and the seeds ripen in September. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Gum; Inner bark; Seed; Seedpod; Tea.

The shoot tips are used as a tea substitute[177, 183].

The cones can be ground into a fine powder, then mixed with fat and used as a confection[257]. It is said to be a delicacy and an aid to the digestion[257].

The resin from the trunk is used as a chewing gum[257]. It is said to treat bad breath[257].

Inner bark[257]. No more information is given, but inner bark is often dried, ground into a powder and then used with cereal flours when making bread etc[K].

Seeds[257]. No more information is given, but the seeds are very small and fiddly to use. Seeds of this genus are generally oily with a resinous flavour and can be eaten raw or cooked[K].

Medicinal Uses

Disclaimer

Antihalitosis; Antiseptic; Emetic; Foot care; Laxative; Poultice; TB; Tonic.

Antiseptic[46, 61]. The gummy exudate that appears on the bark was soaked in water until soft and then applied to wounds[213].

An infusion of the resin has been used as an emetic to cleanse the insides[257]. The resin has also been chewed to treat bad breath[257].

A decoction of the bark is used as a tonic and in the treatment of colds and flu[257].

A poultice of the leaves has been used to treat chest colds and fevers[257]. An infusion has been taken to treat the coughing up of blood, which can be the first sign of TB, and as a laxative[257].

Other Uses

Baby care; Deodorant; Gum; Hair; Incense; Miscellany; Repellent; Wood.

The fragrant young leaves and twigs are used to repel moths or are burnt as an incense[46, 61, 169, 257]. They were also ground into a powder and used to make a baby powder and perfumes[226, 257].

A gum is obtained from the bark. It is antiseptic[46, 61] and was chewed by the N. American Indians in order to clean the teeth[226]. It was also used to plug holes in canoes[226].

An infusion of the leaves is used as a hair tonic[257]. The leaves can also be placed in the shoes as a foot deodorant[257].

Wood - light, soft, not strong. It is little used except as a fuel and for pulp[46, 61, 82]. The native North American Indians used it for making chairs and insect-proof storage boxes[257]. It was also used as a fuel and was said to burn for a long time[257].

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils. Very shade tolerant, especially when young, but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Prefers slightly acid conditions down to a pH of about 5[200]. Prefers growing on a north-facing slope[200].

Occasionally planted for timber in N. Europe[50] but this species does not thrive in Britain[11]. It is a very cold-hardy tree but the milder winters of this country make it susceptible to damage by aphis and late frosts[1, 11, 81]. The sub-species A. lasiocarpa arizonica. (Merriam.)Lemmon. is growing somewhat better here[185].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200].

The crushed foliage has a balsam aroma[185].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Scent

Leaves: Crushed

> The crushed foliage has a balsam aroma.

Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Abies bifolia* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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[169] **Buchanan. R.** *A Weavers Garden.*
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Add a longer comment

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Plants For A Future: Database Search Results

Abies lasiocarpa

Common name:	Subalpine fir	Family:	Pinaceae
Author:	(Hook.) Nutt.	Botanical references:	11, 60, 200
Synonyms:	Pinus lasiocarpa (Hook.), Abies subalpina (Engelm.)		
Known Hazards:	None known		
Range:	Western N. America - Alaska to Arizona and New Mexico.		
Habitat:	Often found in poor and rocky soils[229], it is rarely seen below 600 metres. It grows in forests right up to the timber line where it is no more than a shrub on exposed slopes at high altitudes[226].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. bifolia[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Fir [H], Rocky Mountain Alpine Fir [P], Subalpine Fir [B,P,DEN1,FEIS,L],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir; lasiocarpa = wooly fruit;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Us(Blackfoot); Us(Flathead)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m by 4m at a slow rate. It is hardy to zone 5 and is frost tender. It is in leaf all year, and the seeds ripen in September. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Gum; Inner bark; Seed; Seedpod; Tea.

The shoot tips are used as a tea substitute[177, 183].

The cones can be ground into a fine powder, then mixed with fat and used as a confection[257]. It is said to be a delicacy and an aid to the digestion[257].

The resin from the trunk is used as a chewing gum[257]. It is said to treat bad breath[257].

Inner bark[257]. No more information is given, but inner bark is often dried, ground into a powder and then used with cereal flours when making bread etc[K].

Seeds[257]. No more information is given, but the seeds are very small and fiddly to use. Seeds of this genus are generally oily with a resinous flavour and can be eaten raw or cooked[K].

Medicinal Uses

Disclaimer

Antihalitosis; Antiseptic; Emetic; Foot care; Laxative; Poultice; TB; Tonic.

Antiseptic[46, 61]. The gummy exudate that appears on the bark was soaked in water until soft and then applied to wounds[213].

An infusion of the resin has been used as an emetic to cleanse the insides[257]. The resin has also been chewed to treat bad breath[257].

A decoction of the bark is used as a tonic and in the treatment of colds and flu[257].

A poultice of the leaves has been used to treat chest colds and fevers[257]. An infusion has been taken to treat the coughing up of blood, which can be the first sign of TB, and as a laxative[257].

Other Uses

Baby care; Deodorant; Gum; Hair; Incense; Miscellany; Repellent; Wood.

The fragrant young leaves and twigs are used to repel moths or are burnt as an incense[46, 61, 169, 257]. They were also ground into a powder and used to make a baby powder and perfumes[226, 257].

A gum is obtained from the bark. It is antiseptic[46, 61] and was chewed by the N. American Indians in order to clean the teeth[226]. It was also used to plug holes in canoes[226].

An infusion of the leaves is used as a hair tonic[257]. The leaves can also be placed in the shoes as a foot deodorant[257].

Wood - light, soft, not strong. It is little used except as a fuel and for pulp[46, 61, 82]. The native North American Indians used it for making chairs and insect-proof storage boxes[257]. It was also used as a fuel and was said to burn for a long time[257].

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils. Very shade tolerant, especially when young, but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Prefers slightly acid conditions down to a pH of about 5[200]. Prefers growing on a north-facing slope[200].

Occasionally planted for timber in N. Europe[50] but this species does not thrive in Britain[11]. It is a very cold-hardy tree but the milder winters of this country make it susceptible to damage by aphis and late frosts[1, 11, 81]. The sub-species A. lasiocarpa arizonica. (Merriam.)Lemmon. is growing somewhat better here[185].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200].

The crushed foliage has a balsam aroma[185].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Alternatively, if you have sufficient seed, it is possible to sow in an outdoor seedbed. One report says that it is best to grow the seedlings on in the shade at a density of about 550 plants per square metre[78] whilst another report says that they are best grown on in a sunny position[80].

Scent

Leaves: Crushed

The crushed foliage has a balsam aroma.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Abies bifolia* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for

casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a

few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Abies lasiocarpa

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Author:	(Hook.) Nutt.	Botanical references:	11, 60, 200
Synonyms:	Pinus lasiocarpa (Hook.), Abies subalpina (Engelm.)		
Known Hazards:	None known		
Range:	Western N. America - Alaska to Arizona and New Mexico.		
Habitat:	Often found in poor and rocky soils[229], it is rarely seen below 600 metres. It grows in forests right up to the timber line where it is no more than a shrub on exposed slopes at high altitudes[226].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. bifolia[P]
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Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Us(Blackfoot); Us(Flathead)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

An evergreen tree growing to 25m by 4m at a slow rate. It is hardy to zone 5 and is frost tender. It is in leaf all year, and the seeds ripen in September. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Gum; Inner bark; Seed; Seedpod; Tea.

The shoot tips are used as a tea substitute[177, 183].

The cones can be ground into a fine powder, then mixed with fat and used as a confection[257]. It is said to be a delicacy and an aid to the digestion[257].

The resin from the trunk is used as a chewing gum[257]. It is said to treat bad breath[257].

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Seeds[257]. No more information is given, but the seeds are very small and fiddly to use. Seeds of this genus are generally oily with a resinous flavour and can be eaten raw or cooked[K].

Medicinal Uses

Disclaimer

Antihalitosis; Antiseptic; Emetic; Foot care; Laxative; Poultice; TB; Tonic.

Antiseptic[46, 61]. The gummy exudate that appears on the bark was soaked in water until soft and then applied to wounds[213].

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Baby care; Deodorant; Gum; Hair; Incense; Miscellany; Repellent; Wood.

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Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils. Very shade tolerant, especially when young, but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Prefers slightly acid conditions down to a pH of about 5[200]. Prefers growing on a north-facing slope[200].

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Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200].

The crushed foliage has a balsam aroma[185].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Scent

Leaves: Crushed

The crushed foliage has a balsam aroma.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Abies lasiocarpa*

Subject:

Abies lasiocarpa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Abies lasiocarpa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:24:00 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Abutilon theophrasti

Common name:	China jute	Family:	Malvaceae
Author:	Medik.	Botanical references:	200
Synonyms:	Sida abutilon (L.), Abutilon avicennae (Gaertn.)		
Known Hazards:	None known		
Range:	Asia - tropical. Naturalised in S.E. Europe and the Mediterranean[50].		
Habitat:	Cultivated ground and waste places in the Mediterranean[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. abutilon[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Fluweelblad [D], Itibi [E], Velvetleaf [P,L,B],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	China
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado, Iowa, Minnesota, Oregon, Washington.

Physical Characteristics

Annual growing to 0.9m. It is hardy to zone 4. It is in leaf from May to October, in flower from July to August. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Fruit; Seed.

Seeds - raw or cooked. They can be eaten raw when they are under-ripe[179]. The ripe seed is dried and ground into a powder then used in soups, bread etc[177, 178]. It is washed first to remove any bitterness[179]. The seed contains about 17.4% protein, 16% fat, 33.8% carbohydrate, 4.4% ash[179].

Unripe fruit - raw[177]. This is really more of a seedpod[K].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 17.4 Fat: 16 Carbohydrate: 33.8 Ash: 4.4

Medicinal Uses

Disclaimer

Astringent; Demulcent; Diuretic; Emollient; Laxative; Ophthalmic; Poultice; Stomachic.

Ophthalmic. Used in the treatment of dysentery and opacity of the cornea[145, 178].

The leaves contain 0.01% rutin and are used as a demulcent[240]. A tea made from the dried leaves is used in the treatment of dysentery and fevers[222]. A poultice of the leaves is applied to ulcers[222].

The bark is astringent and diuretic[240].

A tea made from the dried root is used in the treatment of dysentery and urinary incontinence[222]. It is also used to treat fevers[240].

The seed is powdered and eaten in the treatment of dysentery, stomach-aches etc[222]. It is demulcent, diuretic, emollient, laxative and stomachic[218].

Other Uses

Fibre; Oil; Paper.

A fibre obtained from the stems is used as a jute substitute[123, 169]. It is coarse but flexible and strong[169, 171]. It is also used in rope-making[46, 61]. It takes dyes well[171]. The fibre is also used for making paper, the stems are harvested in the summer, the leaves removed and the stems steamed in order to remove the fibres[189].

The seeds contain about 19% of a semi-drying oil[240].

Cultivation details

Requires full sun or part day shade and a fertile well-drained soil[200]. Tolerates a pH in the range 5 to 8.2.

This species is cultivated for its fibre in China and Russia where it succeeds as far north as latitude 56°n in W. Siberia[61, 123]. It is hardier and more disease-resistant than Jute (Corchorus spp.)[123].

Introduced to N. America in the eighteenth century, it has become a pestilential weed in many parts of the country[207].

Propagation

Seed - sow early April in a greenhouse. Germination should take place within 2 - 3 weeks. When large enough to handle, prick the seedlings out into individual pots and plant them out in May or June, after the last expected frosts. An outdoor sowing in April to early May in situ could also be tried, especially in those areas with warm summers.

Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Abutilon avicennae* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Malvaceae.

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References

[K] **Ken Fern**
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Plants For A Future: Database Search Results

Abutilon theophrasti

Common name:	China jute	Family:	Malvaceae
Author:	Medik.	Botanical references:	200
Synonyms:	Sida abutilon (L.), Abutilon avicennae (Gaertn.)		
Known Hazards:	None known		
Range:	Asia - tropical. Naturalised in S.E. Europe and the Mediterranean[50].		
Habitat:	Cultivated ground and waste places in the Mediterranean[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. abutilon[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Fluweelblad [D], Itibi [E], Velvetleaf [P,L,B],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	China
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado, Iowa, Minnesota, Oregon, Washington.

Physical Characteristics

Annual growing to 0.9m. It is hardy to zone 4. It is in leaf from May to October, in flower from July to August. The flowers are hermaphrodite (have both male and female organs). We rate it 3

out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Fruit; Seed.

Seeds - raw or cooked. They can be eaten raw when they are under-ripe[179]. The ripe seed is dried and ground into a powder then used in soups, bread etc[177, 178]. It is washed first to remove any bitterness[179]. The seed contains about 17.4% protein, 16% fat, 33.8% carbohydrate, 4.4% ash[179].

Unripe fruit - raw[177]. This is really more of a seedpod[K].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 17.4 Fat: 16 Carbohydrate: 33.8 Ash: 4.4

Medicinal Uses

Disclaimer

Astringent; Demulcent; Diuretic; Emollient; Laxative; Ophthalmic; Poultice; Stomachic.

Ophthalmic. Used in the treatment of dysentery and opacity of the cornea[145, 178].

The leaves contain 0.01% rutin and are used as a demulcent[240]. A tea made from the dried leaves is used in the treatment of dysentery and fevers[222]. A poultice of the leaves is applied to ulcers[222].

The bark is astringent and diuretic[240].

A tea made from the dried root is used in the treatment of dysentery and urinary incontinence[222]. It is also used to treat fevers[240].

The seed is powdered and eaten in the treatment of dysentery, stomach-aches etc[222]. It is demulcent, diuretic, emollient, laxative and stomachic[218].

Other Uses

Fibre; Oil; Paper.

A fibre obtained from the stems is used as a jute substitute[123, 169]. It is coarse but flexible and strong[169, 171]. It is also used in rope-making[46, 61]. It takes dyes well[171]. The fibre is also used for making paper, the stems are harvested in the summer, the leaves removed and the stems steamed in order to remove the fibres[189].

The seeds contain about 19% of a semi-drying oil[240].

Cultivation details

Requires full sun or part day shade and a fertile well-drained soil[200]. Tolerates a pH in the range 5 to 8.2.

This species is cultivated for its fibre in China and Russia where it succeeds as far north as latitude 56°n in W. Siberia[61, 123]. It is hardier and more disease-resistant than Jute (Corchorus spp.)[123].

Introduced to N. America in the eighteenth century, it has become a pestilential weed in many parts of the country[207].

Propagation

Seed - sow early April in a greenhouse. Germination should take place within 2 - 3 weeks. When large enough to handle, prick the seedlings out into individual pots and plant them out in May or June, after the last expected frosts. An outdoor sowing in April to early May in situ could also be tried, especially in those areas with warm summers.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Abutilon avicennae* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Malvaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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Abutilon theophrasti

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Acer rubrum

Common name:	Red maple	Family:	Aceraceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Florida, west to Texas, Minnesota and Ontario.		
Habitat:	Usually found in swamps and uplands, it also occasionally grows on dry rocky hillsides and sand dunes[43, 82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Kirmizi Isfendan Agaci [E], Red Maple [DEN1,P,B,L,H,FEIS,E], Red Maple USA [H], Scarlet Canadian Maple UK [H], Swamp Maple [L],
Epithets:	From a Dictionary of Botanical Epithets
	acer = sharp, pungent; rubrum = red;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Maple family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious tree growing to 30m at a fast rate. It is hardy to zone 3. It is in flower from March to April, and the seeds ripen from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Inner bark; Leaves; Sap; Seed; Sweetener.

The sap contains sugar and this can be used as a drink or be concentrated into a syrup by boiling off the water[2, 11, 74, 159]. The syrup is used as a sweetener on many foods. This species only yields about half the quantity obtained from the sugar maple (A. saccharum)[4]. It makes a good maple syrup although the yield is comparatively small[183]. It can be harvested in late winter, the flow is best on warm sunny days following a frost. The best sap production comes from cold-winter areas with continental climates.

Inner bark - cooked[105, 177]. It is dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[161].

Self-sown seedlings, gathered in early spring, are eaten fresh or dried for later use[213].

Seeds - cooked. The wings are removed and the seeds boiled then eaten hot[213]. The seed is very small, about 5mm long, and is produced in small clusters[K].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Ophthalmic.

The bark has astringent properties and has been used as an application for sore eyes[4]. The inner bark was used according to one report[257].

An infusion of the bark has been used to treat cramps and dysentery[257].

Other Uses

Basketry; Dye; Pioneer; Preservative; Wood.

The leaves are packed around apples, rootcrops etc to help preserve them[18, 20].

The boiled inner bark yields a purple colour[4, 57, 82]. Mixed with lead sulphate this produces a black dye which can also be used as an ink[4]. The dye is dark blue according to another report[95].

The wood is used to make basket splints[257].

This species can successfully establish itself in recently cleared areas and partially open woodlands[229]. It can therefore be used as a pioneer species to speed the regeneration of woodland[K].

Wood - not strong, close grained, hard, very heavy[46, 82, 227]. It weighs 38lb per cubic foot[227]. The grain of some old specimens is undulated, this gives beautiful effects of light and shade on polished surfaces[4]. The wood is commonly used for making furniture, turnery, pulp, etc[46, 82, 227].

Cultivation details

Of easy cultivation, it prefers a good moist well-drained soil[11, 98], though this species succeeds in wetter soils than most other members of the genus. Grows well in heavy clay soils. Dislikes chalk according to one report[98], whilst others say that it does less well on chalk[200], often becoming chlorotic as a result of iron deficiency. Prefers a sunny position but tolerates some shade. Tolerates atmospheric pollution[200].

A fast-growing tree for the first 20 - 30years of its life, it may live for 75 - 100 years[229].

Red maple is a bad companion plant, inhibiting the growth of nearby plants[18, 20].

A variable species with several sub-species[227], there are also many named varieties that have been selected for their ornamental value[200].

This species is often confused with A. saccharinum[11].

Propagation

Seed - best sown as soon as it is ripe in the spring in a cold frame. It usually germinates immediately and by the end of summer has formed a small tree with several pairs of leaves[82]. Stored seed quickly loses its viability. Pre-soak stored seed for 24 hours and then stratify for 2 - 4 months at 1 - 8°c. It can be slow to germinate. When large enough to handle, prick the seedlings out into individual pots and grow them on until they are 20cm or more tall before planting them out in their permanent positions.

Layering, which takes about 12 months, is successful with most species in this genus.

Cuttings of young shoots in June or July. The cuttings should have 2 - 3 pairs of leaves, plus one pair of buds at the base. Remove a very thin slice of bark at the base of the cutting, rooting is improved if a rooting hormone is used. The rooted cuttings must show new growth during the summer before being potted up otherwise they are unlikely to survive the winter.

Cultivars

"

> There are many named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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Plants For A Future: Database Search Results

Acer rubrum

Common name:	Red maple	Family:	Aceraceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Florida, west to Texas, Minnesota and Ontario.		
Habitat:	Usually found in swamps and uplands, it also occasionally grows on dry rocky hillsides and sand dunes[43, 82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Kirmizi Isfendan Agaci [E], Red Maple [DEN1,P,B,L,H,FEIS,E], Red Maple USA [H], Scarlet Canadian Maple UK [H], Swamp Maple [L],
Epithets:	From a Dictionary of Botanical Epithets
	acer = sharp, pungent; rubrum = red;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Maple family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious tree growing to 30m at a fast rate. It is hardy to zone 3. It is in flower from March to April, and the seeds ripen from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Inner bark; Leaves; Sap; Seed; Sweetener.

The sap contains sugar and this can be used as a drink or be concentrated into a syrup by boiling off the water[2, 11, 74, 159]. The syrup is used as a sweetener on many foods. This species only yields about half the quantity obtained from the sugar maple (A. saccharum)[4]. It makes a good maple syrup although the yield is comparatively small[183]. It can be harvested in late winter, the flow is best on warm sunny days following a frost. The best sap production comes from cold-winter areas with continental climates.

Inner bark - cooked[105, 177]. It is dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[161].

Self-sown seedlings, gathered in early spring, are eaten fresh or dried for later use[213].

Seeds - cooked. The wings are removed and the seeds boiled then eaten hot[213]. The seed is very small, about 5mm long, and is produced in small clusters[K].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Ophthalmic.

The bark has astringent properties and has been used as an application for sore eyes[4]. The inner bark was used according to one report[257].

An infusion of the bark has been used to treat cramps and dysentery[257].

Other Uses

Basketry; Dye; Pioneer; Preservative; Wood.

The leaves are packed around apples, rootcrops etc to help preserve them[18, 20].

The boiled inner bark yields a purple colour[4, 57, 82]. Mixed with lead sulphate this produces a black dye which can also be used as an ink[4]. The dye is dark blue according to another report[95].

The wood is used to make basket splints[257].

This species can successfully establish itself in recently cleared areas and partially open woodlands[229]. It can therefore be used as a pioneer species to speed the regeneration of woodland[K].

Wood - not strong, close grained, hard, very heavy[46, 82, 227]. It weighs 38lb per cubic foot[227]. The grain of some old specimens is undulated, this gives beautiful effects of light and shade on polished surfaces[4]. The wood is commonly used for making furniture, turnery, pulp, etc[46, 82, 227].

Cultivation details

Of easy cultivation, it prefers a good moist well-drained soil[11, 98], though this species succeeds in wetter soils than most other members of the genus. Grows well in heavy clay soils. Dislikes chalk according to one report[98], whilst others say that it does less well on chalk[200], often becoming chlorotic as a result of iron deficiency. Prefers a sunny position but tolerates some shade. Tolerates atmospheric pollution[200].

A fast-growing tree for the first 20 - 30years of its life, it may live for 75 - 100 years[229].

Red maple is a bad companion plant, inhibiting the growth of nearby plants[18, 20].

A variable species with several sub-species[227], there are also many named varieties that have been selected for their ornamental value[200].

This species is often confused with A. saccharinum[11].

Propagation

Seed - best sown as soon as it is ripe in the spring in a cold frame. It usually germinates immediately and by the end of summer has formed a small tree with several pairs of leaves[82]. Stored seed quickly loses its viability. Pre-soak stored seed for 24 hours and then stratify for 2 - 4 months at 1 - 8°c. It can be slow to germinate. When large enough to handle, prick the seedlings out into individual pots and grow them on until they are 20cm or more tall before planting them out in their permanent positions.

Layering, which takes about 12 months, is successful with most species in this genus.

Cuttings of young shoots in June or July. The cuttings should have 2 - 3 pairs of leaves, plus one pair of buds at the base. Remove a very thin slice of bark at the base of the cutting, rooting is improved if a rooting hormone is used. The rooted cuttings must show new growth during the summer before being potted up otherwise they are unlikely to survive the winter.

Cultivars

"

> There are many named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
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Edible Trees and Shrubs Hardy in Britain

This is the old version of the list, you can find a version split into A-Z catogries Here.

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E.T.	Acacia longifolia	Wattle	Seed	Very mild areas only, sunny position, light soil
D.T.	Acer glabrum	Rock Maple	Young shoots, inner bark	Sunny position, moist well drained soil
D.T.	Acer saccharum	Sugar Maple	Sap - a sugar substitute	Sunny position, deep moist soil
	Other species that yield maple syrup include: A. argutum, A. carpinifolium, A. distylum, A. grandidentatum, A. interius, A. macrophyllum, A. mono, A. nigrum, A. negundo, A. palmatum, A. platanoides, A. rubrum, A. pseudo-platanus, A. saccharinum and A. tataricum			
D.T.	Acer tataricum		Seed, sap	Sunny position, moist well-drained soil
D.T.	Acer truncatum		Seed	Sunny position, moist well-drained soil
D.CL.	Actinidia arguta		Fruit - very rich in Vitamin C, sap	Very hardy. Good loamy soil. Dioecious
D.CL.	Actinidia chinensis	Chinese Gooseberry, Kiwi Fruit	Fruit - stores up to 4 months	Good loamy soil. Dislikes lime. Sunny position. Dioecious

	Other species with edible fruit include A. callosa, A. giraldii, A. kolomikta, A. melanandra, A. polygama, A. purpurea and A. rubricaulis. Most are best in southern England though A. arguta comes from Siberia and would be very worthwhile trying further north			
D.T.	Aesculus flava	Sweet Buckeye	Seed - as sweet as a chestnut	Good deep soil. Best in south east England
	Other species include Ae. californica, Ae. hippocastanum, Ae. parviflora and Ae. indica. However, they all contain saponins and need to be leached before being eaten so are best avoided. Even Ae. flava should be viewed with some suspicion			
D.CL.	Akebia quinata, Akebia trifoliata)	Akebia	Fruit - not freely produced in Britain	Partial shade. Probably self-sterile so more than one plant should be grown
D.T.	Albizzia julibrisin		Leaves	Mild areas only
D.T.	Alnus rubra	Red Alder	Sap, buds, inner bark	Succeeds in heavy damp soils
D.SH.	Amelanchier canadensis	Juneberry	Fruit - sweet	Most soils, sunny position
	The fruits of all members of this genus are edible, though sometimes dry and tasteless. The following are said to have desirable fruits. A. alnifolia, A. humilis, A. laevis, A. lamarckii, A. stolonifera			
D.CL.	Ampelopsis brevipedunculata		Leaves and young stems	Sunny position
D.SH.	Aralia chinensis	Angelica Tree	Young shoots	Shady position, good deep loam
D.T.	Aralia spinosa	Hercule's Club	Young leaves	Good deep loam
E.T.	Araularia araucana	Monkey Puzzle	Seed	Deep soil. Very wind resistant. Dioecious
E.T.	Arbutus unedo	Strawberry Tree	Fruit	Most soils. Wind resistant
	Other species with edible fruits include A. andrachne, A. menziesii			
E.SH.	Arctostaphyllos uva-ursi	Bearberry	Fruit - carbohydrate source	Lime-free soils
	Other species with edible fruits include A. columbiana, A. glauca, A. manzanita, A. nevadensis, A. patula and A. tomentosa			
D.SH.	Arctous alpinus		Fruit	Lime-free soil. Cool, damp position
E.SH.	Aristotelia chilensis	Macqui	Fruit - tastes like Bilberries	South and south-west Britain only

D.T.	Aristotelia serrata		Fruit	Moist, mild areas only
D.SH.	Aronia arbutifolia	Red Currant	Fruit	Most soils
E.SH.	Artemesia tridentata	Sage Brush	Leaves, seed	Sunny positon. Well-drained, lime-free, not rich soil
D.SH.	Asimina triloba		Fruit	Sunny position, rich loamy soil
E.SH.	Atriplex halimus	Sea Orch	Leaves, seed	Sunny position, light soil, even pure sand. Wind resistant
	Other species include A. canescens and A. confertifolia			
E.SH.	Azara microphylla		Fruit	Warm, sheltered position. Most soil

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E. & D.SH.	Berberis spp	Barberries	Fruit	Most soils
	Species mentioned for their fruit include B. aggregata, B. angulosa, B. aristata, B. asiatica, B. buxifolia, B. canadensis, B. darwinii, B. empetrifolium, B. lycium, B sibirica and B. vulgaris			
D.CL.	Berchemia lineata		Fruit	Good moist loam
D.CL.	Berchemia racemosa		Leaves, cooked	Good moist loam
D.T.	Betula pendula	Silver Birch	Leaves, inner bark, sap	Well-drained soil. Tolerates bad soils
	Other Betula spp include B. alleghaniensis, B. lenta, B. nigra, B. papyrifera, B. pubescens and B. utilis			
D.SH.	Broussonettia kazinoki		Fruit, flowers, leaves	Most soils
D.T.	Brousonetia papyrifera	Paper Mulberry	Fruit, leaves	Most soils
D.SH.	Callicarpa americana		Fruit	Sunny position. Milder areas only
D.SH.	Callicarpa mollis		Fruit	Sunny position. Milder areas only
E.SH.	Calligonum aphyllum		Root, young shoots	Sunny position. Dryish sandy loam

D.SH.	Calycanthus floridus	Carolina Allspice	Bark,a Cinnamon substitute	Sunny position. Deep moist light loamy soil
D.SH.	Calycanthus occidentalis	Californian Allspice	Bark,a Cinnamon and Allspice substitute	Sunny position. Most soils
E.SH.	Camellia oliefera	Camellia	Oil from seed	Lime free soil. Best in milder areas
	Other species yielding oil include C. japonica, C. sasanqua			
D.SH.	Caragana arborescens	Siberian Pea Shrub	Seed, pods	Full sun. Light sandy, not rich soil
D.SH.	Caragana pygmaea		Root	Full sun. Light sandy, not rich soil
D.SH.	Caragana sinica		Flowers	Full sun. Light sandy, not rich soil
D.T.	Carpinus caroliniana	American Hornbeam	Seed	Most soils
D.T.	Carya glabra	Pignut Hickory	Seed, sap	Deep loamy soil. Seed can be sweet or astringent
D.T.	Carya laciniosa	Shellbark Hickory	Seed, sap	Deep loamy soil. Sunny position
D.T.	Carya ovata	Shagbark Hickory	Seed, sap	Deep loamy soil. Sunny position
	Other species include C. buckleyi, C. carolinae-septentrivnalis, C. cathayensis, C. illinoensis, C. megacarpa, C. myristicaeformis, C. ovalis, C.pallida and C. tomentosa			
D.T.	Castanea sativa	Sweet Chestnut	Seed	Sunny position. Most soils but dislikes lime
	Other species include C. alnifolia, C. crenata, C. dentata, C. henryi, C. mollissima, C. pumila, C. ozarkensis and C. seguinii			
E.T.	Castanopsis cuspidata		Seed	Best in mild areas
E.T.	Castanopsis delavayi		Seed	Good deep loam
D.T.	Catalpa ovata		Flowers, young pods	Sunny, sheltered position
E.SH.	Ceanothus cuneatus	Buck Bush	Seed	Sunny position. Light soil low in lime
	Other species include C. fendleri and C. integerrimus			

D.CL.	Celastrus flagellaris		Young leaves	Deep loamy soil
D.CL.	Celastrus orbiculatus	Young leaves	Dioecious	
D.CL.	Celastrus scandens	Climbing Bittersweet	Bark and young shoots	Deep loamy soil. Dislikes lime. Dioecious
D.T.	Celtis occidentalis	Sugarberry	Fruit, seed	Most soils
	Other species include C. australis, C. bungeana, C. caucasia, C. jessoensis, C. Koraiensis, C. laevigata, C. reticulata, C. tournefortii, C. sinensis			
E.SH.	Cephalotaxus fortunei	Chinese Plum Yew	Fruit	Most soils. Tolerates heavy shade. Dioecious
E.SH.	Cephalotaxus harringtonia	Japanese Plum Yew	Fruit, seed	Most soils. Tolerates heavy shade. Dioecious
E.T.	Ceratonia siliqua	Carob	Seed, seed pod	Very mild areas only. Well-drained soil
D.T.	Cercis canadensis	Redbud	Flowers	Very sunny position. Deep sandy loam
D.T.	Cercis siliquastrum	Judas Tree	Flowers, seed pods	Very sunny position. Does best on poorish light soil

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.SH.	Chaenomeles cathayensis	Chinese Quince	Fruit	Sunny position. Most soils if well-drained
	Other species include C. japonica, C. speciosa			
E.SH.	Chamaerops humilis	Dwarf Fan Palm	Young shoots	Sunny position. Well-drained soil. Mild areas only
D.SH.	Chionanthus virginicus	Fringe Tree	Fruit	Sunny position
E.T.	Chrysolepsis chrysantha		Seed - sweet tasting	Lime-free soil. Sheltered, semi-shady position. Fruits well in Edinburgh
D.SH.	Clethra barbinervis		Leaves	Peaty, well-drained, lime-free soil. Mild areas
D.SH.	Comptonia peregrina asplenifolia	Sweet Fern	Young fruits	Peaty, lime-free soil

E.SH.	Coprosma species		Fruit	Mild areas only. All the species have edible fruits
E.T.	Cordyline australis	Cabbage Tree	Root, shoots	Mild areas. Very wind resistant
E.T.	Cordyline indivisa		Fruit	Mild areas. Very wind resistant
E.SH.	Corema conradii	Poverty Grass	Fruit	Lime-free soil
D.SH.	Coriaria sinica		Fruit	Seed is poisonous. Best in milder areas
	Other species include C. sarmentosa and C. terminalis			
D.T.	Cornus kousa chinense		Fruit, young leaves	Most soils
D.T.	Cornus mas	Cornelian Cherry	Fruit	Most soils. Sunny position
D.SH.	Cornus sanguinea	Dogwood	Oil from seed	Most soils
	Other species with edible fruits include C. amomum, C. capitata, C. controversa, C. macrophylla, C. occidentalis, C. officinalis and C. stolonifera			
D.SH.	Corylus avellana	Hazel Nut	Seed, oil from seed	Most soils and positions
D.SH.	Corylus maxima	Filberts	Seed	Most soils and positions
	Other species include C. americana, C. chinensis, C. colurna, C. cornuta, C. heterophylla, C. jacquemontii, C. pontica, C. sieboldiana mandschurica and C. tibetica			

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E.T.	Corynocarpus laevigata	New Zealand Laurel	Fruit, seed	Mild areas only. Seed must be leeched to remove toxins
D.SH.	Cotoneaster racemiflorus		Manna	Most soils
D.T.	Crataegus azarolus	Azarole	Fruit	Sunny position. Most soils
D.T.	Crataegus douglasii		Fruit	Sunny position. Most soils
D.T.	Crataegus monogyna	Hawthorn	Leaves, fruit	Most soils
	All species of Crataegus have edible fruits though they are often not very desirable. Some of the nicer ones include C. aprica, C. atrosangvinea, C. hupehensis, C. laciniata, C. pensylvanica, C. schraderana, C. succulenta, C. tanacetifolia and C. tomentosa			

D.T.	Cudrania tricuspidata	Silk-Worm Thorn	Fruit	Very hardy. Most soils. Dioecious
E.SH.	Cyathodes colensoi		Fruit	Peaty soil
E.SH.	Cyathodes fraseri		Fruit	Mild areas only
D.T.	Cydonia oblonga	Quince	Fruit	Sunny positon. Most soils
E.T.	Dacrycarpus dacrydioides	White Pine	Fruit	Very mild areas only
E.T.	Dacrydium cupressinum	Rimu	Fruit	Very mild areas only
D.SH.	Decaisnea fargesii		Fruit	Rich moist loamy soil
D.SH.	Deutzia scabra		Young leaves	Moist soils
D.T.	Diospyros kaki	Persimmon	Fruit	All these species are dioecious but female trees can produce seedless fruits without being pollinated. D. daki is best grown on a south-facing wall
D.T.	Diospyros lotus	Date Plum	Fruit	
D.T.	Diospyros virginiana	American Persimmon	Fruit	
E.SH.	Drimys lanceolata	Mountain Pepper	Fruit is a pepper substitute	Best in mild areas
E.SH.	Drimys winteri	Winter's Bark	Bark is a condiment	Best in mild areas. Moist soil
D.T.	Ehretia dicksonii		Fruit	Succeeds on chalk
	Other species include E. acuminata and E. elliptica			
D.SH.	Elaeagnus multiflora		Fruit	Sunny position. Light soil. Very drought and wind resistant
	Other species include E. angustifolia, E. commutata, E. glabra, E. macrophylla, E. montana, E. pungens and E. umbellata			
D.SH.	Eleutherococcus sieboldianus		Leaves	Sheltered position, warm loamy soil
	Other species include E. divaricatus, E. japonicus, E. senticosus, E. sessiliflorus and E. trifoliatus			
E.SH.	Empetrum nigrum	Crowberry	Fruit	Peaty soil. Dioecious
	Other species include E. hermaphroditum, E. rubrum			

Type	**BOTANICAL NAME**	**COMMON NAME**	**EDIBLE PARTS**	**NOTES**

E.SH.	Ephedra distachya	Sea Grape	Fruit	Sunny position. Well-drained soil.
E.SH.	Ephedra gerardiana		Fruit	
E.SH.	Ephedra nevadensis		Seed	
E.SH.	Epigaea asiatica		Fruit	Lime-free humus rich soil. Shade
E.SH.	Epigaea repens		Fruit	Lime-free humus rich soil. Shade
E.T.	Eriobotrya japonica	Loquat	Fruit - not often borne	Well drained soil
D.T.	Euodia daniellii		Oil from fruit	Most soils
D.T.	Euodia fraxinifolia		Fruit, oil from seed	Most soils. Hardy(?)
D.T.	Fagus sylvatica	Beech	Leaves, seed, oil from seed	Most soils except heavy wet soils
	Other species include F. crenata, F. grandifolia, F. japonica, F. longipetiolata, F. lucida and F. orientalis			
E.T.	Feijoa sellowiana	Feijoa	Fruit, flowers	Most soils. Sunny position. Mild areas
D.T.	Ficus carica	Fig	Fruit	Well-drained soil with lime
D.T.	Firmiana simplex		Seed	Sandy loam. Mild areas only
D.SH.	Forestiera neo-mexicana		Fruit - an olive substitute	Most soils. Very sunny position
D.SH.	Forsythia suspensa		Young leaves	Most soils
D.T.	Fraxinus ornus	Manna Ash	Sap	Moist soil
	Other species include F. floribunda and F. rotundifolia			
D.SH.	Fuchsia spp	Fuchsia	Fruit	Well-drained humus-rich soil
	All species of fuchsia have edible fruits though often of poor quality. Two species reasonably hardy in Britain are F. excorticata and F. magallenica. It is always worthwhile sampling the fruits of the many hardy garden hybrids			
E.SH.	Gaultheria procumbens	Checkerberry	Fruit, leaves	Lime-free soil, some shade
E.SH.	Gaultheria shallon	Shallon	Fruit	Lime-free soil, some shade
	Other species include G. adenothrix, G. antipoda, G. fragrantissima, G. hispida, G. hispidula, G. humifusa, G. miqueliana, G. ovatifolia and G. trichophylla			

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.SH.	Gaylussacia baccata	Black Huckleberry	Fruit	Well-drained, humus-rich, lime-free soil
	Other species include G. brachycera, G. dumosa, G. frondosa and G. ursina			
E.T.	Gevuina avellana	Chilean Hazel	Seed	Mild areas only. Woodland conditions
E.T.	Ginkgo biloba	Maidenhair Tree	Seed	Well-drained soil. Sheltered position
D.T.	Gleditschia triacanthos	Honey Locust	Seed pod - not often produced	Sunny position, good loamy soil
D.SH.	Grewia optiva		Fruit	Not very hardy
D.T.	Gymnocladus dioica	Kentucky Coffee Tree	Seed pods - not often borne	Rich, deep soil
E.SH.	Halimione portulacoides	Sea Purslane	Leaves	
D.SH.	Hamamelis virginiana	Witch Hazel	Seed	Most soils if moist
D.SH.	Helwingia japonica		Leaves, young shoots, flowers	Most soils. Dioecious
D.SH.	Hibiscus syriacus		Leaves, flowers, oil from seed	Most soils except badly drained ones. Sunny position
D.SH.	Hippophae rhamnoides	Sea Buckthorn	Fruit	Most soils, sunny position. Dioecious
D.T.	Hippophae salicifolia		Fruit	Most soils, sunny position. Dioecious
E.CL.	Holboellia coriacea		Fruit	Most soils. Prefers a shady wall or growing into a tree
	Other species include H. grandiflora and H. latifolia			
D.SH.	Holodiscus discolor		Fruit	Thin woodland. Most soils
D.SH.	Holodiscus dumosus		Fruit	Most soils
D.T.	Hovenia dulcis	Japanese Raisin Tree	Fruit	Sandy loam
D.SH.	Hydrangea macrophylla		Leaves - sweet	Well drained, but not dry, loamy soil
	Other species include H. hirta and H. serrata			

E.SH.	Hyssopus officinalis	Hyssop	Leaves	Sunny position. Light dry soil containing lime
D.T.	Idesia polycarpa		Fruit	Most soils. Dioecious
E.SH.	Illicium anisatum	Star Anise	Fruit - a flavouring	Light moist peaty loam.
E.SH.	Illicium floridanum	Aniseed Tree	Used as a flavouring	Sheltered position. Mild areas
D.SH.	Indigofera decora		Seed	Sunny position. Most well-drained soils. Mild areas
E.T.	Jubaea chilensis	Sugar Palm	Sap, seed, oil from seed	Very mild areas only
D.T.	Juglans ailantifolia	Japanese Walnut	Seed	Deep loamy soil. The hardiest walnut
D.T.	Juglans cinerea	Butternut	Seed, sap, oil from seed	Deep loamy soil. Very cold resistant
D.T.	Juglans regia	Walnut	Seed, sap, oil from seed	Most soils if deep and well drained
	Other species include J. cathayensis, J. hindsii, J. mandschurica, J. microcarpa and J. nigra			
E.SH.	Juniperus communis	Juniper	Fruit - a flavouring	Most soils. Likes lime
E.T.	Juniperus deppeana	Aligator Juniper	Fruit - sweet	Very sunny, hot and dry position. Likes lime
E.T.	Juniperus drupacea	Syrian Juniper	Fruit - sweet	Well-drained soils. Likes lime
	Other species include J. californica, J. conferta, J. monosperma, J. occidentalis, J. osteosperma, J. recurva, J. rigida, J. scopulorum, J. tetragona and J. virginiana			
D.SH.	Kerria japonica		Young leaves	Most soils
D.T.	Koelreuteria paniculata		Leaves, berries	Most soils. Sunny position

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E.CL.	Lapageria rosea	Chilean Bellflower	Fruit	Mild areas. Shady position. Lime-free soil
E.CL.	Lardizabala biternata		Fruit	Mild areas. Well-drained sandy loam. Dioecious

E.T.	Laurelia serrata	Peruvian Nutmeg	Seed - a spice	Mild areas only. Sheltered position. Dioecious
E.T.	Laurus nobilis	Bay Tree	Leaves - a flavouring	Most soils. Sun or light shade. Dioecious
E.SH.	Lavandula angustifolia	Lavander	Leaves - very aromatic	Sunny position. Most soils if well-drained
D.SH.	Lespedeza bicolor		Seed, young stems and leaves	Light soil. Sunny position
D.SH.	Lespedeza cyrtobotrya		Young shoots	Light soil. Sunny position
D.SH.	Lindera benzoin	Spice Bush	Bark - allspice substitute	Lime-free soil. Dioecious
D.T.	Liriodendron tulipifera	Tulip Tree	Bark - a flavouring	Rich, deep soil. Sheltered position
E.T.	Lithocarpus densiflorus		Seed - oily	Hardy at Kew
E.T.	Lithocarpus edulis		Seed	Mild areas
D.SH.	Lonicera coerulea edulis		Fruit	Sunny position
	Other species include L. angustifolia, L. chrysantha, L. gracilipes, L. involucrata and L. villosa			
D.SH.	Lycium barbarum	Box Thorn	Fruit, young shoots	Shoots should be used with caution. Sunny position. Well-drained soild. Very wind resistant
D.SH.	Lycium pallidum		Fruit	Sunny position. Well-drained soil
D.SH.	Maackia amurensis		Young leaves	Sunny position. Most soils
E.SH.	Mahonia aquifolia	Oregon Grape	Fruit	Most soils and situations. Tolerates heavy shade
	Other species include M. haematocarpa, M. nepaulensis, M. nervosa, M. nevinii, M. pinnata, M. repens and M. trifoliolata			

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.T.	Malus domestica	Apple	Fruit	Sunny position

	All species of Malus have edible fruits though they are often not very palatable. Some of the most palatable include M. floribunda, M. fusca, M. praecox, M. prunifolia rinki, M. sieversii and M. trilobata			
E.SH.	Margyricarpus pinnatus	Pearl Berry	Fruit	Sunny position. Well-drained, not rich soil
D.T.	Melia azedarach	Bead Tree	Leaves	Mild areas only
D.T.	Melicytus ramiflorus		Fruit	Mild areas only. Dioecious
D.SH.	Menziesia ferruginea		Fruit	Sun or light shade. Well-drained lime-free soil
D.T.	Mespilus germanica	Medlar	Fruit, bletted	Most soils. Sunny position
D.CL.	Metaplexis japonica		Root, young leaves, fruit	Most soils. Mild areas
D.SH.	Micromeria juliana		Leaves - a savoury flavouring	Well-drained soils
E.SH.	Mitchella repens	Partridge Berry	Fruit	Lime-free soil. Shady position
D.T.	Morus alba	White Mulberry	Fruit, young leaves	Sunny position. Warm, well-drained soil
D.T.	Morus nigra	Black Mulberry	Fruit	Sunny position. Warm, well-drained soil
	Other species include M. australis, M. mongolica, M. rubra and M. serrata			
D.CL.	Muehlenbeckia adpressa		Fruit	Very mild areas only
D.SH.	Myrica gale	Sweet Gale	Leaves and berries - a flavouring	Most soils, preferably lime-free. Dioecious
E.SH.	Myrica rubra		Fruit	Mild areas. Lime-free soil
	Other species used as a flavouring include M. cerifera and M. pensylvanica			
E.SH.	Myrsine africana		Fruit	
E.SH.	Myrtus communis	Myrtle	Fruit - a flavouring	Mild areas. Most soils
E.SH.	Myrtus luma		Fruit - sweet	Mild areas. Most soils
	Other species include M. nummularia and M. ugni			

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E.SH.	Nandina domestica	Sacred Bamboo	Fruit, young leaves	Best in mild areas. Rich soil. Sunny position
D.SH.	Nemopanthus mucronata		Fruit	Cold damp soil
D.T.	Nyssa sylvatica	Tupelo	Fruit	Dislikes lime
D.SH.	Oemleria cerasiformis	Oso Berry	Fruit	Most soils. Dioecious
E.T.	Olea europaea	Olive	Fruit, oil from fruit	Sunny position. Mild areas only
D.SH.	Oplopanax horridus		Young shoots	Cool moist soil. Dense shade
E.SH.	Osteomeles schwerinae		Fruit	Mild areas
D.T.	Oxydendron arboreum	Sorrel Tree	Leaves	Well drained lime-free soil. Likes shade
D.CL.	Parthenocissus quinquefolia		Fruit, stalks	Self-supports on walls
D.CL.	Parthenocissus tricuspidata		Sap	Self-supports on walls
D.CL.	Passiflora mollissima		Fruit - not freely borne	Best in mild areas
	Other species include P. edulis and P. incarnata			
D.SH.	Peraphyllum ramosissimum		Fruit - rarely borne	Very sunny position
E.SH.	Pernettya leucocarpa		Fruit	Lime-free well-drained soil. Dioecious
E.SH.	Pernettya pumila		Fruit	Lime-free well-drained soil. Dioecious
E.T.	Photinia arbutifolia	Californian Maybush	Fruit	Mild areas
E.T.	Picea sitchensis	Sitka Spruce	Young shoots	Wet soils. Tolerates exposed positions
E.T.	Pinus albicaulis	Whitebark Pine	Seed	Open, well-drained soil. Best in cold areas
E.T.	Pinus koraiensis	Korean Pine	Seed	Best in west and north Britain. Open, well-drained soil
E.T.	Pinus pinea	Stone Pine	Seed	Succeeds on chalk

	Other species include P. armandii, P. bungeana, P. cembra, P. cembroides, P. coulteri, P. culminicola, P. densiflora, P. edulis, P. flexilis, P. gerardiana, P. jeffreyi, P. lambertiana (sap also is edible), P. monophylla, P. monticolor, P. ponderosa, P. pumila, P. quadrifolia, P. remota, P. sibirica and P. torreyana			

Type	**BOTANICAL NAME**	**COMMON NAME**	**EDIBLE PARTS**	**NOTES**
E.T.	Pinus sabiniana	Digger Pine	Seed	Sunny position. Most soils
D.T.	Pistacia chinensis		Seed, young shoots and leaves	Most soils. Sunny position
E.SH.	Pistacia lentiscus	Mastic	Oil from seed	Mild areas. Sunny position. Most soils
D.T.	Pistacia terebinthus		Fruit, oil from seed	Most soils. Sunny position
E.SH.	Pittosporum phillyraeoides		Seed - bitter	Most soils
E.SH.	Podocarpus nivalis		Fruit	Mild areas. Dioecious
D.T.	Podocarpus totara	Totara	Fruit	Best in mild areas. Dioecious
D.T.	Poncirus trifoliata		Fruit, young leaves	Most soils. Sunny position
D.T.	Populus wislizenii		Catkins	Dislikes shallow or dry soils
D.T.	Populus sieboldii		Young leaves and shoots	
	Other species with edible leaves include P. simonii and P. sargentii			
D.T.	Populus fremontii		Inner bark, catkins	Dislikes shallow or dry soils
	The following also have edible inner bark: P. angustifolia, P. alba, P. deltoides, P. grandidentata, P. sargentii, P. tremula and P. tremuloides			
D.SH.	Prinsepia utilis		Fruit, oil from seed	Sunny position. Light, not too fertile soil
	Other species with edible fruits include P. sinensis and P. uniflora			
E.T.	Prumnopitys andina	Plum-Fruited Yew	Fruit, seed	Most soils. Dioecious

E.T.	Prumnopitys spicata	Matai	Fruit	Mild areas. Dioecious
D.T.	Prunus armeniaca	Apricot	Fruit, oil from seed	Warm sunny position. Some lime in the soil
D.T.	Prunus avium	Bird Cherry	Fruit, gum from trunk	Sunny position. Well-drained soil. Parent of Sweet Cherries
D.T.	Prunus cerasifera	Cherry Plum	Fruit	Sunny position. Well-drained soil with some lime
D.T.	Prunus cerasus	Sour Cherry	Fruit, gum from trunk, oil from seed	Most soils. Sunny position. Parent of many cherries
D.T.	Prunus domestica	Plum	Fruit, gum from trunk, oil from seed	Sunny position. Well-drained soil with some lime
D.T.	Prunus dulcis	Almond	Seed, gum from trunk, oil from seed	Sunny sheltered position. Well-drained soil with some lime
D.T.	Prunus insititia	Damson/Bullace	Fruit	Most soils. Sunny position
D.T.	Prunus persica	Peach/Nectarine	Fruit, gum from trunk, oil from seed	Sunny sheltered position. Well-drained soil
	All species of Prunus contain quantities of prussic acid, especially in the leaves and seeds. This is easily detected by a bitter almond-like flavour. If this flavour is not noticed or is only very mild then the fruit or seed of any species is edible though not always very palatable. Other species worth trying include P. americana, P. canescens, P. dasycarpa, P. divaricata, P. grayana, P. humilis, P. laurocerasus, P. maritima, P. mira, P. mume, P orthosepala, P. padus, P. pseudocerasus, P. pumila, P. salicifolia, P. serotina, P. simonii, P. spinosa, P. subcordata, P. tomentosa, P. virginiana and P. watsonii			

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.T.	Pseudocydonia sinensis		Fruit	Sunny position. Most soils
E.T.	Pseudotsuga menziesii	Douglas Fir	Young shoot tips	Moist soils. Dislikes lime

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.SH.	Ptelea baldwinii		Seed	Most soils if well-drained
D.T.	Pterocarya fraxinifolia	Wing Nut	Seed	Sunny position. Rich soil, preferably moist
D.T.	Punica granatum	Pomegranate	Fruit - not usually borne	Well-drained soil
E.SH.	Pyracantha angustifolia		Fruit	Full sun, well-drained soil. Tolerates chalk
E.SH.	Pyracantha coccinea	Pyracanth	Fruit	Full sun, well-drained soil. Tolerates chalk
D.SH.	Pyrularia pubera	Oil Nut	Fruit, oil from fruit	Parasitic on roots of trees and shrubs
D.T.	Pyrus communis	Pear	Fruit	Sunny position. Well-drained soils
	All species yield more or less edible fruits. Some of those worth trying include P. pashia, P. pyrifolia and P. ussuriensis			
E.T.	Quercus ilex	Holm Oak	Seed	Most soils. Very wind resistant
D.T.	Quercus prinus	Chestnut Oak	Seed	Good deep loam
	The seed of all species is a good source of carbohydrates although in many species the seed is also rich in tannin which is bitter and indigestible. Unfortunately, some of most palatable species do not fruit well in Britain though the following could be worth trying: Q. alba, Q. douglasii, Q. emoryi, Q. gambelii, Q. muhlenbergii and Q. virginiana			
D.T.	Rhamnus caroliniana	Indian Cherry	Fruit	Most soils. Might not be very hardy
D.T.	Rhamnus purshiana	Cascara Sagrada	Fruit	Most soils
E.SH.	Rhaphiolepis indica	Indian Hawthorn	Fruit	Mild areas only. Sunny position, fertile soil
E.SH.	Rhaphiolepis umbellata		Seed	Sunny position, fertile soil
D.SH.	Rhus glabra	Smooth Sumach	Fruit	Sunny position. Most soils
	The fruit of the above species is often steeped in warm water for 10 minutes to make a very refreshing drink. Other species with edible fruits that can also be used in this way include R. aromatica, R. copallina, R. integrifolia, R. punjabensis, R. trilobata and R. typhina			
D.SH.	Ribes divaricatum	Worcesterberry	Fruit	Most soils

D.SH.	Ribes nigrum	Blackcurrant	Fruit	Most soils if rich in humus
D.SH.	Ribes rubrum	Redcurrant	Fruit	Most soils
D.SH.	Ribes uva-crispa	Gooseberry	Fruit	Most soils. Dislikes clay
	The fruit of all species of Ribes is edible but not always very palatable. Some other species worth trying include R. aciculare, R. altissimum, R. americanum, R. aureum, R. bracteosum, R. cynosbati, R. hirtellum, R. longeracemosum, R. meyeri, R. montigenum, R. odoratum, R. oxyacanthoides, R. palczewskii, R. pauciflorum, R. procumbens, R. rotundifolium, R. sachalinense, R. sanguineum and R. valdivianum			
D.T.	Robinia pseudoacacia	Locust	Flowers. Seed - must be cooked	Most soils
D.SH.	Rosa rugosa	Ramanas Rose	Fruit, seed, flowers	Most soils
D.SH.	Rosa villosa	Apple Rose	Fruit, seed	Most soils. Sunny position
	The fruit of all species of Rosa is more or less edible, though the flesh is often very thin and there is a layer of seed hairs just below the flesh that can cause irritation if eaten. The following species are also worth trying: R. acicularis, R. californica, R. canina, R. centifolia, R. macrophylla, R. majalis, R. nutkana and R. sericea			
E.SH.	Rosmarinus officinalis	Rosemary	Leaves	Sunny position. Light, dry soil
D.CL.	Rubus discolor	Himalayan Giant Blackberry	Fruit	Most soils
D.CL.	Rubus fruticosus	Blackberry	Fruit, root	Most soils
D.SH.	Rubus idaeus	Raspberry	Fruit	Dislikes very heavy soils
D.SH.	Rubus laciniatus	Parsley-Leaved Blackberry	Fruit	Most soils
D.SH.	Rubus loganobaccus	Loganberry	Fruit	Well-drained soil
D.SH.	Rubus phoenicolasius	Japanese Wineberry	Fruit	Most soils
	A very large genus, the fruit of all species is more or less edible. Some of the most noteworthy include R. allegheniensis, R. amabilis, R. biflorus, R. caesius, R. corchorifolius, R. flagelliflorus, R. ichangensis, R. innominatus, R. kuntzeanus, R. lasiostylus, R. leucodermis, R. occidentalis, R. palmatus, R. parviflorus, R. setchuensis and R. tricolor			
D.T.	Salix daphnoides		Inner bark, young flowering shoots	Most soils. Dioecious
D.T.	Salix alba	White Willow	Leaves, inner bark	Rich soil. Dioecious

	Salix alba is only used for food in times of scarcity. The following species have also been used: S. babylonica, S. bakko, S. chaenomeloides, S. gracilistyla, S. japonica and S. nipponica			
D.SH.	Sambucus nigra	Elder	Flowers, fruit	Most soils and positions
	Other species include S. caerulea, S. callicarpa, S. canadensis, S. melanocarpa, S. pubens and S. racemosa			
D.SH.	Sarcobatus vermiculata	Greasewood	Seed, twigs	Most soils
D.T.	Sassafras albidum	Sassafras	Leaves, bark and fruit - a condiment	Deep fertile soil, sheltered position. Dioecious
E.SH.	Satureia montana	Winter Savoury	Leaves, a flavouring	Well-drained poor stony soil
D.CL.	Schisandra chinensis		Fruit, young leaves	Rich soil
	Other species with edible fruits include S. grandiflora, S. henryi and S. repanda			
D.SH.	Shepherdia argentea	Buffalo Berry	Fruit	Well-drained moist soil
D.SH.	Shepherdia canadensis		Fruit - rarely borne	Most well-drained soils
D.CL.	Sinofranchetia chinensis		Fruit	Most soils
D.CL.	Sinomenium acutum		Root, leaves	Most soils
E.CL.	Smilax aspera	Sarsaparilla	Root - used in soft drinks. Shoots	Very mild areas only. Any soil. Dioecious
D.CL.	Smilax bona-nox		Root, young shoots	Any soil. Dioecious
D.CL.	Smilax china	China Root	Root, young shoots, fruit	Any soil. Dioecious
	Other species with similar uses include S. hispida, S. laurifolia, S. pseudo-china and S. rotundifolia			
E.SH.	Solanum aviculare	Kangaroo Apple	Fruit	Very mild areas. Any soil
D.T.	Sorbus aria	Whitebeam	Fruit - bletted	Sunny position. Most soils
D.T.	Sorbus aucuparia	Rowan	Fruit	The variety Edulis is best. Most soils in cool position. Very wind resistant

D.T.	Sorbus domestica	Service Tree	Fruit - bletted	Sunny position. Well-drained soil
	Other species worth trying include S. americana, S. commixta, S. devoniensis, S. gracilis, S. hybrida, S. intermedia, S. lanata, S. mougeotii, S. sambucifolia and S. torminalis			
E.CL.	Stauntonia hexaphylla		Fruit	Mild areas only. Dioecious
D.SH.	Tamarix gallica	Manna Plant	Manna from stem	Sunny position. Deep loamy soil. Very wind resistant
E.T.	Taxus baccata	Yew	Fruit - sweet	Most soils. Shade tolerant. Leaves and seeds poisonous
	Other species also with poisonous leaves and seeds but edible fruits include T. brevifolia, T, canadensis and T. cuspidata			
E.SH.	Thymus vulgaris	Common Thyme	Leaves	Dry sunny position
	Other species include T. capitata, T. drucei and T. serpyllum			
D.T.	Tilia x europaea	Common Lime	Leaves, sap.Flowers a chocolate substitute	Sunny position. Most soils. Wind resistant
	Other species include T. americana, T. cordata, T. japonica, T. platyphyllos and T. mongolica			
D.T.	Toona sinensis	Chinese Cedar	Leaves and young shoots	Thrives on chalk
E.T.	Torreya nucifera	Kaya	Seed, oil from seed	Most soils. Prefers heavy shade
	Other species include T. californica, T. fargesii, T. grandis, T. jackii and T. yunnanensis			
E.T.	Trachycarpus fortunei	Chusan Palm	Young flower buds	Rich soil. Sheltered position
E.SH.	Triphasia aurantiola	Lime Berry	Fruit	Very mild areas only. Good loamy soil
E.T.	Tsuga heterophylla		Inner bark	Dislikes chalk. Prefers areas of heavy rainfall
	Inner bark is usually only eaten in times of shortage. Other species include T. canadensis and T. mertensiana			
D.T.	Ulmus glabra	Wych Elm	Leaves, immature fruits	Most soils

	Dutch Elm Disease has destroyed most Elm trees in Britain. However the trees often survive as suckers and a few forms are more resistant to the disease. Other species mentioned as edible include U. japonica, U. parvifolia, U. procera and U. pumila			
E.T.	Umbellularia californica	California Laurel	Seed, leaves - a condiment	Dislikes chalk. Prefers a moist soil
D.SH.	Vaccinium corymbosum	Blueberry	Fruit	Acid soils only
E.SH.	Vaccinium macrocarpon	Cranberry	Fruit	Moist or semi-boggy acid peaty soil
D.SH.	Vaccinium myrtillus	Bilberry	Fruit	Moist acid peaty soil. Best in an exposed position
E.SH.	Vaccinium oxycoccus	Small Cranberry	Fruit	Moist or semi-boggy acid peaty soil. Sunny position
D.SH.	Vaccinium praestans	Fruit	Moist acid soil. Best in Scotland and northern Britain	
	Vaccinium is a large genus, all the species bearing more or less edible fruits. Some of the nicer ones include V. angustifolium, V. ashei, V. atrococcum, V. caespitosum, V. canadense, V. deliciosum, V. floribundum, V. hirsutum, V. oldhamii, V ovatum, V. padifolium, V. parvifolium, V. scoparium and V. vacillans			
D.SH.	Viburnum edule		Fruit	Dislikes poor soils
D.SH.	Viburnum lantanoides	Hobbleberry	Fruit	Woodlands. Rich soil
D.T.	Viburnum prunifolium	Stagberry	Fruit	Dislikes poor dry soils
	Other species include V. cassinoides, V. cotinifolium, V. dilatatum, V. erosum, V. farreri, V. grandiflorum, V. lentago, V nudum, V. opulus. V oulus americanum and V. sieboldii			
D.SH.	Vitex agnus-castus	Chaste Tree	Fruit - pepper substitute	Mild areas. Warm position
D.CL.	Vitis vinifera	Grape	Leaves, tendrils, sap, fruit, oil from seed	Sunny, warm position
	Many other species are also edible though fruiting is problematic in Britain. They include V. aestivalis, V. cordifolia, V. davidii, V. riparia, V. rotundifolia and V. rupestris			

E.T.	Weinmannia racemosa		Fruit	Mild areas only. Light rich soil
D.T.	Xanthoceras sorbifolium		Leaves, flowers, fruit	Warm sunny position
E.SH.	Yucca filamentosa	Spoonleaf Yucca	Fruit	Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH.	Yucca glauca	Soapweed	Fruit, flower stalks, flowers	Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH.	Yucca gloriosa		Root	Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH.	Yucca baccata	Spanish Bayonet	Fruit, seed, flowers and stalks	Mild areas. Sunny position. Well-drained soil
	Other species include Y. angustissima, Y. harrimaniae and Y. whipplei			
D.SH.	Zanthoxylum piperitum	Pepper Tree	Young leaves, seed and bark - a spice	
	Other species include Z. alatum, Z. americanum, Z. planispinum, Z. schinifolium and Z. simulans			
D.T.	Ziziphus zizyphus	Jujube	Fruit	Mild areas only. Most soils

KEY TO ABBREVIATIONS

CL. Climber
D. Deciduous
E. Evergreen
SH. Shrub
T. Tree
DIOECIOUS means that all the flowers on a plant are either male or female and plants of both sexes must be grown in order to produce seeds.

When using this list it is important to remember that it can only contain a small portion of the information we hold on each plant. You are stronglt advised to seek more information on any plant before making use of it in the manner suggested. This is especially important with any of the comments on edibility. Information sheets on individual species can be obtained from Plants for a

Future, they cost 10p each to produce.

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A resource centre for edible and other useful plants

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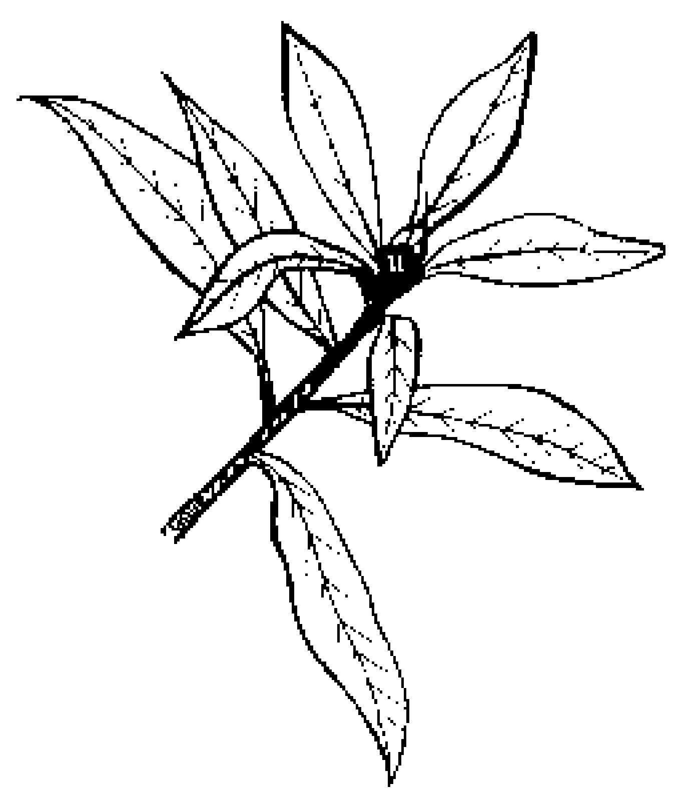
Edible Trees and Shrubs Hardy in Britain

This page list around 300 types of tree and shrubs which which have some edible part (not necessarily the fruit). We have divided this up into sub-pages for easier browsing. All these files uses tables. If you can't use tables or want to import the informion into a database then you may find the Plain Text file of use.

- A-B
- C
- D-E
- F-G
- H-K
- L-O
- P
- Q-R
- S-T
- U-Z



KEY

CL. Climber **D.** Deciduous **E.** Evergreen
SH. Shrub **T.** Tree
DIOECIOUS means that all the flowers on a plant are either male or female and plants of both sexes must be grown in order to produce seeds.

The picture shows Drimys Lanceolata one of the many trees with edible fruits. This ones fruits are a substitute for pepper.

The old version of this page where all the plants are listed in one very long page is also avaliable, this might be useful for searching.

You can also see our leflets on Edible Shrubs, Pioneer Species and Woodland Garden Plants for more information about trees and shrubs. Or you can see our Database UK, US for more information about any of these plants.

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Readers Comments:

Edible Trees and Shrubs Hardy in Britain

Jim Sat Apr 15 11:10:07 2000

very useful information

where can I purchase plants or seeds of *cordyline indivisa*?

This comment has also been added to: *cordyline indivisa*.

Add a Follow up to this comment

Edible Trees and Shrubs Hardy in Britain

Rinus van den Berg (rinusvandenberg@planet.nl) Wed Apr 17 22:14:26 2002

It is very hard to get this beauty... Try: http://www.trevenacross.co.uk/
http://www.textureplants.co.nz/texture_registered.html

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Edible Trees and Shrubs Hardy in Britain

A more readable is also available. The data here is TAB-deliminated to allow it to be imported into a database.

```
type    Botanical Name  Common Name     Edible Parts    Notes

E.T.    Acacia longifolia       Wattle  Seed    Very mild areas only, sunny position,
light soil
D.T.    Acer glabrum    Rock Maple      Young shoots, inner bark        Sunny
position, moist well drained soil
D.T.    Acer saccharum  Sugar Maple     Sap  - a sugar substitute       Sunny
position, deep moist soil
        Other species that yield maple syrup include: A. argutum, A. carpinifolium,
A. distylum, A. grandidentatum, A. interius, A. macrophyllum, A. mono, A. nigrum, A.
negundo,
        A. palmatum, A. platanoides, A. rubrum, A. pseudo-platanus, A. saccharinum
and A. tataricum
D.T.    Acer tataricum          Seed, sap       Sunny position, moist well-drained
soil
D.T.    Acer truncatum          Seed    Sunny position, moist well-drained soil
D.CL.   Actinidia arguta                Fruit - very rich in Vitamin C, sap     Very
hardy. Good loamy soil. Dioecious
D.CL.   Actinidia chinensis     Chinese Gooseberry, Kiwi Fruit  Fruit - stores up to
4 months   Good loamy soil. Dislikes lime. Sunny position. Dioecious
        Other species with edible fruit include A. callosa, A. giraldii, A.
kolomikta, A. melanandra, A. polygama, A. purpurea and A. rubricaulis.  Most are best
in southern England though A. arguta comes from Siberia and would be very worthwhile
trying further north
D.T.    Aesculus flava  Sweet Buckeye   Seed - as sweet as a chestnut   Good deep
soil.  Best in south east England
        Other species include Ae. californica, Ae. hippocastanum, Ae. parviflora and
Ae. indica.  However, they all contain saponins and need to be leached before being
eaten so are best avoided.  Even Ae. flava should be viewed with some suspicion
D.CL.   Akebia quinata, Akebia trifoliata )     Akebia  Fruit - not freely produced
in Britain  Partial shade.  Probably self-sterile so more than one plant should be
grown
D.T.    Albizzia julibrisin             Leaves  Mild areas only
D.T.    Alnus rubra     Red Alder       Sap, buds, inner bark   Succeeds in heavy
damp soils
D.SH.   Amelanchier canadensis  Juneberry       Fruit - sweet   Most soils, sunny
position
        The fruits of all members of this genus are edible, though sometimes dry and
tasteless.  The following are said to have desirable fruits.  A. alnifolia, A.
humilis, A. laevis, A. lamarckii, A. stolonifera
D.CL.   Ampelopsis brevipedunculata             Leaves and young stems  Sunny
position
D.SH.   Aralia chinensis        Angelica Tree   Young shoots    Shady position, good
```

deep loam
D.T. Aralia spinosa Hercule's Club Young leaves Good deep loam
E.T. Araularia araucana Monkey Puzzle Seed Deep soil. Very wind resistant. Dioecious
E.T. Arbutus unedo Strawberry Tree Fruit Most soils. Wind resistant Other species with edible fruits include A. andrachne, A. menziesii
E.SH. Arctostaphyllos uva-ursi Bearberry Fruit - carbohydrate source Lime-free soils
Other species with edible fruits include A. columbiana, A. glauca, A. manzanita, A. nevadensis, A. patula and A. tomentosa
D.SH. Arctous alpinus Fruit Lime-free soil. Cool, damp position
E.SH. Aristotelia chilensis Macqui Fruit - tastes like Bilberries South and south-west Britain only
D.T. Aristotelia serrata Fruit Moist, mild areas only
D.SH. Aronia arbutifolia Red Currant Fruit Most soils
E.SH. Artemesia tridentata Sage Brush Leaves, seed Sunny positon. Well-drained, lime-free, not rich soil
D.SH. Asimina triloba Fruit Sunny position, rich loamy soil
E.SH. Atriplex halimus Sea Orch Leaves, seed Sunny position, light soil, even pure sand. Wind resistant
Other species include A. canescens and A. confertifolia
E.SH. Azara microphylla Fruit Warm, sheltered position. Most soil
E. & D.SH. Berberis spp Barberries Fruit Most soils
Species mentioned for their fruit include B. aggregata, B. angulosa, B. aristata, B. asiatica, B. buxifolia, B. canadensis, B. darwinii, B. empetrifolium, B. lycium, B sibirica and B. vulgaris

D.CL. Berchemia lineata Fruit Good moist loam
D.CL. Berchemia racemosa Leaves, cooked Good moist loam
D.T. Betula pendula Silver Birch Leaves, inner bark, sap Well-drained soil. Tolerates bad soils
Other Betula spp include B. alleghaniensis, B. lenta, B. nigra, B. papyrifera, B. pubescens and B. utilis
D.SH. Broussonettia kazinoki Fruit, flowers, leaves Most soils
D.T. Brousonetia papyrifera Paper Mulberry Fruit, leaves Most soils

D.SH. Callicarpa americana Fruit Sunny position. Milder areas only
D.SH. Callicarpa mollis Fruit Sunny position. Milder areas only
E.SH. Calligonum aphyllum Root, young shoots Sunny position. Dryish sandy loam
D.SH. Calycanthus floridus Carolina Allspice Bark,a Cinnamon substitute Sunny position. Deep moist light loamy soil
D.SH. Calycanthus occidentalis Californian Allspice Bark,a Cinnamon and Allspice substitute Sunny position. Most soils
E.SH. Camellia oliefera Camellia Oil from seed Lime free soil. Best in milder areas
Other species yielding oil include C. japonica, C. sasanqua
D.SH. Caragana arborescens Siberian Pea Shrub Seed, pods Full sun. Light sandy, not rich soil
D.SH. Caragana pygmaea Root Full sun. Light sandy, not rich soil
D.SH. Caragana sinica Flowers Full sun. Light sandy, not rich soil
D.T. Carpinus caroliniana American Hornbeam Seed Most soils
D.T. Carya glabra Pignut Hickory Seed, sap Deep loamy soil. Seed can be sweet or astringent
D.T. Carya laciniosa Shellbark Hickory Seed, sap Deep loamy soil. Sunny position
D.T. Carya ovata Shagbark Hickory Seed, sap Deep loamy soil. Sunny position

Other species include C. buckleyi, C. carolinae-septentrivnalis, C. cathayensis, C. illinoensis, C. megacarpa, C. myristicaeformis, C. ovalis, C.pallida and C. tomentosa

D.T. Castanea sativa Sweet Chestnut Seed Sunny position. Most soils but dislikes lime

Other species include C. alnifolia, C. crenata, C. dentata, C. henryi, C. mollissima, C. pumila, C. ozarkensis and C. seguinii

E.T. Castanopsis cuspidata Seed Best in mild areas

E.T. Castanopsis delavayi Seed Good deep loam

D.T. Catalpa ovata Flowers, young pods Sunny, sheltered position

E.SH. Ceanothus cuneatus Buck Bush Seed Sunny position. Light soil low in lime

Other species include C. fendleri and C. integerrimus

D.CL. Celastrus flagellaris Young leaves Deep loamy soil

D.CL. Celastrus orbiculatus Young leaves Dioecious

D.CL. Celastrus scandens Climbing Bittersweet Bark and young shoots Deep loamy soil. Dislikes lime. Dioecious

D.T. Celtis occidentalis Sugarberry Fruit, seed Most soils

Other species include C. australis, C. bungeana, C. caucasia, C. jessoensis, C. Koraiensis, C. laevigata, C. reticulata, C. tournefortii, C. sinensis

E.SH. Cephalotaxus fortunei Chinese Plum Yew Fruit Most soils. Tolerates heavy shade. Dioecious

E.SH. Cephalotaxus harringtonia Japanese Plum Yew Fruit, seed Most soils. Tolerates heavy shade. Dioecious

E.T. Ceratonia siliqua Carob Seed, seed pod Very mild areas only. Well-drained soil

D.T. Cercis canadensis Redbud Flowers Very sunny position. Deep sandy loam

D.T. Cercis siliquastrum Judas Tree Flowers, seed pods Very sunny position. Does best on poorish light soil

D.SH. Chaenomeles cathayensis Chinese Quince Fruit Sunny position. Most soils if well-drained

Other species include C. japonica, C. speciosa

E.SH. Chamaerops humilis Dwarf Fan Palm Young shoots Sunny position. Well-drained soil. Mild areas only

D.SH. Chionanthus virginicus Fringe Tree Fruit Sunny position

E.T. Chrysolepsis chrysantha Seed - sweet tasting Lime-free soil. Sheltered, semi-shady position. Fruits well in Edinburgh

D.SH. Clethra barbinervis Leaves Peaty, well-drained, lime-free soil. Mild areas

D.SH. Comptonia peregrina asplenifolia Sweet Fern Young fruits Peaty, lime-free soil

E.SH. Coprosma species Fruit Mild areas only. All the species have edible fruits

E.T. Cordyline australis Cabbage Tree Root, shoots Mild areas. Very wind resistant

E.T. Cordyline indivisa Fruit Mild areas. Very wind resistant

E.SH. Corema conradii Poverty Grass Fruit Lime-free soil

D.SH. Coriaria sinica Fruit Seed is poisonous. Best in milder areas

Other species include C. sarmentosa and C. terminalis

D.T. Cornus kousa chinense Fruit, young leaves Most soils

D.T. Cornus mas Cornelian Cherry Fruit Most soils. Sunny position

D.SH. Cornus sanguinea Dogwood Oil from seed Most soils

Other species with edible fruits include C. amomum, C. capitata, C. controversa, C. macrophylla, C. occidentalis, C. officinalis and C. stolonifera

D.SH. Corylus avellana Hazel Nut Seed, oil from seed Most soils and positions

D.SH. Corylus maxima Filberts Seed Most soils and positions

Other species include C. americana, C. chinensis, C. colurna, C. cornuta, C.

heterophylla, C. jacquemontii, C. pontica, C. sieboldiana mandschurica and C. tibetica

E.T. Corynocarpus laevigata New Zealand Laurel Fruit, seed Mild areas only. Seed must be leeched to remove toxins

D.SH. Cotoneaster racemiflorus Manna Most soils

D.T. Crataegus azarolus Azarole Fruit Sunny position. Most soils

D.T. Crataegus douglasii Fruit Sunny position. Most soils

D.T. Crataegus monogyna Hawthorn Leaves, fruit Most soils

All species of Crataegus have edible fruits though they are often not very desirable. Some of the nicer ones include C. aprica, C. atrosangvinea, C. hupehensis, C. laciniata,

C. pensylvanica, C. schraderana, C. succulenta, C. tanacetifolia and C. tomentosa

D.T. Cudrania tricuspidata Silk-Worm Thorn Fruit Very hardy. Most soils. Dioecious

E.SH. Cyathodes colensoi Fruit Peaty soil

E.SH. Cyathodes fraseri Fruit Mild areas only

D.T. Cydonia oblonga Quince Fruit Sunny positon. Most soils

E.T. Dacrycarpus dacrydioides White Pine Fruit Very mild areas only

E.T. Dacrydium cupressinum Rimu Fruit Very mild areas only

D.SH. Decaisnea fargesii Fruit Rich moist loamy soil

D.SH. Deutzia scabra Young leaves Moist soils

D.T. Diospyros kaki Persimmon Fruit All these species are dioecious but female trees can produce seedless fruits without being pollinated. D. daki is best grown on a south-facing wall.

D.T. Diospyros lotus Date Plum Fruit

D.T. Diospyros virginiana American Persimmon Fruit

E.SH. Drimys lanceolata Mountain Pepper Fruit is a pepper substitute Best in mild areas

E.SH. Drimys winteri Winter's Bark Bark is a condiment Best in mild areas. Moist soil

D.T. Ehretia dicksonii Fruit Succeeds on chalk

Other species include E. acuminata and E. elliptica

D.SH. Elaeagnus multiflora Fruit Sunny position. Light soil. Very drought and wind resistant

Other species include E. angustifolia, E. commutata, E. glabra, E. macrophylla, E. montana, E. pungens and E. umbellata

D.SH. Eleutherococcus sieboldianus Leaves Sheltered position, warm loamy soil

Other species include E. divaricatus, E. japonicus, E. senticosus, E. sessiliflorus and E. trifoliatus

E.SH. Empetrum nigrum Crowberry Fruit Peaty soil. Dioecious

Other species include E. hermaphroditum, E. rubrum

E.SH. Ephedra distachya Sea Grape Fruit Sunny position. Well-drained soil.

E.SH. Ephedra gerardiana Fruit

E.SH. Ephedra nevadensis Seed

E.SH. Epigaea asiatica Fruit Lime-free humus rich soil. Shade

E.SH. Epigaea repens Fruit Lime-free humus rich soil. Shade

E.T. Eriobotrya japonica Loquat Fruit - not often borne Well drained soil

D.T. Euodia daniellii Oil from fruit Most soils

D.T. Euodia fraxinifolia Fruit, oil from seed Most soils. Hardy(?)

D.T. Fagus sylvatica Beech Leaves, seed, oil from seed Most soils except heavy wet soils

Other species include F. crenata, F. grandifolia, F. japonica, F.

longipetiolata, F. lucida and F. orientalis
E.T.   Feijoa sellowiana   Feijoa Fruit, flowers Most soils. Sunny position. Mild areas
D.T.   Ficus carica   Fig   Fruit   Well-drained soil with lime
D.T.   Firmiana simplex   Seed   Sandy loam. Mild areas only
D.SH.   Forestiera neo-mexicana   Fruit - an olive substitute   Most soils. Very sunny position
D.SH.   Forsythia suspensa   Young leaves   Most soils
D.T.   Fraxinus ornus Manna Ash   Sap   Moist soil
        Other species include F. floribunda and F. rotundifolia
D.SH.   Fuchsia spp   Fuchsia Fruit   Well-drained humus-rich soil
        All species of fuchsia have edible fruits though often of poor quality. Two species reasonably hardy in Britain are F. excorticata and F. magallenica. It is always worthwhile sampling the fruits of the many hardy garden hybrids

E.SH.   Gaultheria procumbens   Checkerberry   Fruit, leaves   Lime-free soil, some shade
E.SH.   Gaultheria shallon   Shallon Fruit   Lime-free soil, some shade
        Other species include G. adenothrix, G. antipoda, G. fragrantissima, G. hispida, G. hispidula, G. humifusa, G. miqueliana, G. ovatifolia and G. trichophylla
D.SH.   Gaylussacia baccata   Black Huckleberry   Fruit   Well-drained, humus-rich, lime-free soil
        Other species include G. brachycera, G. dumosa, G. frondosa and G. ursina
E.T.   Gevuina avellana   Chilean Hazel   Seed   Mild areas only. Woodland conditions
E.T.   Ginkgo biloba   Maidenhair Tree Seed   Well-drained soil. Sheltered position
D.T.   Gleditschia triacanthos Honey Locust   Seed pod - not often produced   Sunny position, good loamy soil
D.SH.   Grewia optiva   Fruit   Not very hardy
D.T.   Gymnocladus dioica   Kentucky Coffee Tree   Seed pods - not often borne   Rich, deep soil

E.SH.   Halimione portulacoides Sea Purslane   Leaves
D.SH.   Hamamelis virginiana   Witch Hazel   Seed   Most soils if moist
D.SH.   Helwingia japonica   Leaves, young shoots, flowers   Most soils. Dioecious
D.SH.   Hibiscus syriacus   Leaves, flowers, oil from seed Most soils except badly drained ones. Sunny position
D.SH.   Hippophae rhamnoides   Sea Buckthorn   Fruit   Most soils, sunny position. Dioecious
D.T.   Hippophae salicifolia   Fruit   Most soils, sunny position. Dioecious
E.CL.   Holboellia coriacea   Fruit   Most soils. Prefers a shady wall or growing into a tree
        Other species include H. grandiflora and H. latifolia
D.SH.   Holodiscus discolor   Fruit   Thin woodland. Most soils
D.SH.   Holodiscus dumosus   Fruit   Most soils
D.T.   Hovenia dulcis Japanese Raisin Tree   Fruit   Sandy loam
D.SH.   Hydrangea macrophylla   Leaves - sweet Well drained, but not dry, loamy soil
        Other species include H. hirta and H. serrata
E.SH.   Hyssopus officinalis   Hyssop Leaves Sunny position. Light dry soil containing lime

D.T.   Idesia polycarpa   Fruit   Most soils. Dioecious
E.SH.   Illicium anisatum   Star Anise   Fruit - a flavouring   Light moist peaty loam.

E.SH.   Illicium floridanum   Aniseed Tree   Used as a flavouring   Sheltered position. Mild areas
D.SH.   Indigofera decora   Seed   Sunny position. Most well-drained soils. Mild areas

E.T.   Jubaea chilensis   Sugar Palm   Sap, seed, oil from seed   Very mild areas only
D.T.   Juglans ailantifolia   Japanese Walnut Seed   Deep loamy soil. The hardiest walnut
D.T.   Juglans cinerea Butternut   Seed, sap, oil from seed   Deep loamy soil. Very cold resistant
D.T.   Juglans regia   Walnut   Seed, sap, oil from seed   Most soils if deep and well drained
Other species include J. cathayensis, J. hindsii, J. mandschurica, J. microcarpa and J. nigra
E.SH.   Juniperus communis   Juniper Fruit - a flavouring   Most soils. Likes lime
E.T.   Juniperus deppeana   Aligator Juniper   Fruit - sweet   Very sunny, hot and dry position. Likes lime
E.T.   Juniperus drupacea   Syrian Juniper   Fruit - sweet   Well-drained soils. Likes lime
Other species include J. californica, J. conferta, J. monosperma, J. occidentalis, J. osteosperma, J. recurva, J. rigida, J. scopulorum, J. tetragona and J. virginiana

D.SH.   Kerria japonica   Young leaves   Most soils
D.T.   Koelreuteria paniculata   Leaves, berries Most soils. Sunny position

E.CL.   Lapageria rosea Chilean Bellflower   Fruit   Mild areas. Shady position. Lime-free soil
E.CL.   Lardizabala biternata   Fruit   Mild areas. Well-drained sandy loam. Dioecious
E.T.   Laurelia serrata   Peruvian Nutmeg Seed - a spice   Mild areas only. Sheltered position. Dioecious
E.T.   Laurus nobilis   Bay Tree   Leaves - a flavouring   Most soils. Sun or light shade. Dioecious
E.SH.   Lavandula angustifolia   Lavander   Leaves - very aromatic   Sunny position. Most soils if well-drained
D.SH.   Lespedeza bicolor   Seed, young stems and leaves   Light soil. Sunny position
D.SH.   Lespedeza cyrtobotrya   Young shoots   Light soil. Sunny position
D.SH.   Lindera benzoin Spice Bush   Bark - allspice substitute   Lime-free soil. Dioecious
D.T.   Liriodendron tulipifera Tulip Tree   Bark - a flavouring   Rich, deep soil. Sheltered position
E.T.   Lithocarpus densiflorus   Seed - oily   Hardy at Kew
E.T.   Lithocarpus edulis   Seed   Mild areas
D.SH.   Lonicera coerulea edulis   Fruit   Sunny position
Other species include L. angustifolia, L. chrysantha, L. gracilipes, L. involucrata and L. villosa
D.SH.   Lycium barbarum Box Thorn   Fruit, young shoots   Shoots should be used with caution. Sunny position. Well-drained soild. Very wind resistant
D.SH.   Lycium pallidum   Fruit   Sunny position. Well-drained soil

D.SH.   Maackia amurensis   Young leaves   Sunny position. Most soils
E.SH.   Mahonia aquifolia   Oregon Grape   Fruit   Most soils and situations. Tolerates heavy shade
Other species include M. haematocarpa, M. nepaulensis, M. nervosa, M.

nevinii, M. pinnata, M. repens and M. trifoliolata
D.T. Malus domestica Apple Fruit Sunny position
All species of Malus have edible fruits though they are often not very palatable. Some of the most palatable include M. floribunda, M. fusca, M. praecox, M. prunifolia rinki, M. sieversii and M. trilobata
E.SH. Margyricarpus pinnatus Pearl Berry Fruit Sunny position. Well-drained, not rich soil
D.T. Melia azedarach Bead Tree Leaves Mild areas only
D.T. Melicytus ramiflorus Fruit Mild areas only. Dioecious
D.SH. Menziesia ferruginea Fruit Sun or light shade. Well-drained lime-free soil
D.T. Mespilus germanica Medlar Fruit, bletted Most soils. Sunny position
D.CL. Metaplexis japonica Root, young leaves, fruit Most soils. Mild areas
D.SH. Micromeria juliana Leaves - a savoury flavouring Well-drained soils
E.SH. Mitchella repens Partridge Berry Fruit Lime-free soil. Shady position
D.T. Morus alba White Mulberry Fruit, young leaves Sunny position. Warm, well-drained soil
D.T. Morus nigra Black Mulberry Fruit Sunny position. Warm, well-drained soil
Other species include M. australis, M. mongolica, M. rubra and M. serrata
D.CL. Muehlenbeckia adpressa Fruit Very mild areas only
D.SH. Myrica gale Sweet Gale Leaves and berries - a flavouring Most soils, preferably lime-free. Dioecious
E.SH. Myrica rubra Fruit Mild areas. Lime-free soil
Other species used as a flavouring include M. cerifera and M. pensylvanica
E.SH. Myrsine africana Fruit
E.SH. Myrtus communis Myrtle Fruit - a flavouring Mild areas. Most soils
E.SH. Myrtus luma Fruit - sweet Mild areas. Most soils
Other species include M. nummularia and M. ugni

E.SH. Nandina domestica Sacred Bamboo Fruit, young leaves Best in mild areas. Rich soil. Sunny position
D.SH. Nemopanthus mucronata Fruit Cold damp soil
D.T. Nyssa sylvatica Tupelo Fruit Dislikes lime

D.SH. Oemleria cerasiformis Oso Berry Fruit Most soils. Dioecious
E.T. Olea europaea Olive Fruit, oil from fruit Sunny position. Mild areas only
D.SH. Oplopanax horridus Young shoots Cool moist soil. Dense shade
E.SH. Osteomeles schwerinae Fruit Mild areas
D.T. Oxydendron arboreum Sorrel Tree Leaves Well drained lime-free soil. Likes shade

D.CL. Parthenocissus quinquefolia Fruit, stalks Self-supports on walls
D.CL. Parthenocissus tricuspidata Sap Self-supports on walls
D.CL. Passiflora mollissima Fruit - not freely borne Best in mild areas
Other species include P. edulis and P. incarnata
D.SH. Peraphyllum ramosissimum Fruit - rarely borne Very sunny position
E.SH. Pernettya leucocarpa Fruit Lime-free well-drained soil. Dioecious
E.SH. Pernettya pumila Fruit Lime-free well-drained soil. Dioecious

E.T.	Photinia arbutifolia	Californian Maybush	Fruit	Mild areas
E.T.	Picea sitchensis	Sitka Spruce	Young shoots	Wet soils. Tolerates exposed positions
E.T.	Pinus albicaulis	Whitebark Pine	Seed	Open, well-drained soil. Best in cold areas
E.T.	Pinus koraiensis	Korean Pine	Seed	Best in west and north Britain. Open, well-drained soil
E.T.	Pinus pinea	Stone Pine	Seed	Succeeds on chalk

Other species include P. armandii, P. bungeana, P. cembra, P. cembroides, P. coulteri, P. culminicola, P. densiflora, P. edulis, P. flexilis, P. gerardiana, P. jeffreyi, P. lambertiana (sap also is edible), P. monophylla, P. monticolor, P. ponderosa, P. pumila, P. quadrifolia, P. remota, P. sibirica and P. torreyana

E.T.	Pinus sabiniana	Digger Pine	Seed	Sunny position. Most soils
D.T.	Pistacia chinensis		Seed, young shoots and leaves	Most soils. Sunny position
E.SH.	Pistacia lentiscus	Mastic	Oil from seed	Mild areas. Sunny position. Most soils
D.T.	Pistacia terebinthus		Fruit, oil from seed	Most soils. Sunny position
E.SH.	Pittosporum phillyraeoides		Seed - bitter	Most soils
E.SH.	Podocarpus nivalis		Fruit	Mild areas. Dioecious
D.T.	Podocarpus totara	Totara	Fruit	Best in mild areas. Dioecious
D.T.	Poncirus trifoliata		Fruit, young leaves	Most soils. Sunny position
D.T.	Populus wislizenii		Catkins	Dislikes shallow or dry soils
D.T.	Populus sieboldii		Young leaves and shoots	

Other species with edible leaves include P. simonii and P. sargentii

D.T.	Populus fremontii		Inner bark, catkins	Dislikes shallow or dry soils

The following also have edible inner bark: P. angustifolia, P. alba, P. deltoides, P. grandidentata, P. sargentii, P. tremula and P. tremuloides

D.SH.	Prinsepia utilis		Fruit, oil from seed	Sunny position. Light, not too fertile soil

Other species with edible fruits include P. sinensis and P. uniflora

E.T.	Prumnopitys andina	Plum-Fruited Yew	Fruit, seed	Most soils. Dioecious
E.T.	Prumnopitys spicata	Matai	Fruit	Mild areas. Dioecious
D.T.	Prunus armeniaca	Apricot	Fruit, oil from seed	Warm sunny position. Some lime in the soil
D.T.	Prunus avium	Bird Cherry	Fruit, gum from trunk	Sunny position. Well-drained soil. Parent of Sweet Cherries
D.T.	Prunus cerasifera	Cherry Plum	Fruit	Sunny position. Well-drained soil with some lime
D.T.	Prunus cerasus	Sour Cherry	Fruit, gum from trunk, oil from seed	Most soils. Sunny position. Parent of many cherries
D.T.	Prunus domestica	Plum	Fruit, gum from trunk, oil from seed	Sunny position. Well-drained soil with some lime
D.T.	Prunus dulcis	Almond	Seed, gum from trunk, oil from seed	Sunny sheltered position. Well-drained soil with some lime
D.T.	Prunus insititia	Damson/Bullace	Fruit	Most soils. Sunny position
D.T.	Prunus persica	Peach/Nectarine	Fruit, gum from trunk, oil from seed	Sunny sheltered position. Well-drained soil

All species of Prunus contain quantities of prussic acid, especially in the leaves and seeds. This is easily detected by a bitter almond-like flavour. If this flavour is not noticed or is only very mild then the fruit or seed of any species is edible though not always very palatable. Other species worth trying include P. americana, P. canescens, P.

dasycarpa, P. divaricata, P. grayana, P. humilis, P. laurocerasus, P. maritima, P. mira, P. mume, P orthosepala, P. padus, P. pseudocerasus, P. pumila, P. salicifolia, P. serotina, P. simonii, P. spinosa, P. subcordata, P. tomentosa, P. virginiana and P. watsonii

D.T. Pseudocydonia sinensis Fruit Sunny position. Most soils
E.T. Pseudotsuga menziesii Douglas Fir Young shoot tips Moist soils. Dislikes lime
D.SH. Ptelea baldwinii Seed Most soils if well-drained
D.T. Pterocarya fraxinifolia Wing Nut Seed Sunny position. Rich soil, preferably moist
D.T. Punica granatum Pomegranate Fruit - not usually borne Well-drained soil
E.SH. Pyracantha angustifolia Fruit Full sun, well-drained soil. Tolerates chalk
E.SH. Pyracantha coccinea Pyracanth Fruit Full sun, well-drained soil. Tolerates chalk
D.SH. Pyrularia pubera Oil Nut Fruit, oil from fruit Parasitic on roots of trees and shrubs
D.T. Pyrus communis Pear Fruit Sunny position. Well-drained soils

All species yield more or less edible fruits. Some of those worth trying include P. pashia, P. pyrifolia and P. ussuriensis

E.T. Quercus ilex Holm Oak Seed Most soils. Very wind resistant
D.T. Quercus prinus Chestnut Oak Seed Good deep loam

The seed of all species is a good source of carbohydrates although in many species the seed is also rich in tannin which is bitter and indigestible. Unfortunately, some of most palatable species do not fruit well in Britain though the following could be worth trying: Q. alba, Q. douglasii, Q. emoryi, Q. gambelii, Q. muhlenbergii and Q. virginiana

D.T. Rhamnus caroliniana Indian Cherry Fruit Most soils. Might not be very hardy
D.T. Rhamnus purshiana Cascara Sagrada Fruit Most soils
E.SH. Rhaphiolepis indica Indian Hawthorn Fruit Mild areas only. Sunny position, fertile soil
E.SH. Rhaphiolepis umbellata Seed Sunny position, fertile soil
D.SH. Rhus glabra Smooth Sumach Fruit Sunny position. Most soils

The fruit of the above species is often steeped in warm water for 10 minutes to make a very refreshing drink. Other species with edible fruits that can also be used in this way include R. aromatica, R. copallina, R. integrifolia, R. punjabensis, R. trilobata and R. typhina

D.SH. Ribes divaricatum Worcesterberry Fruit Most soils
D.SH. Ribes nigrum Blackcurrant Fruit Most soils if rich in humus
D.SH. Ribes rubrum Redcurrant Fruit Most soils
D.SH. Ribes uva-crispa Gooseberry Fruit Most soils. Dislikes clay

The fruit of all species of Ribes is edible but not always very palatable. Some other species worth trying include R. aciculare, R. altissimum, R. americanum, R. aureum, R. bracteosum, R. cynosbati, R. hirtellum, R. longeracemosum, R. meyeri, R. montigenum, R. odoratum, R. oxyacanthoides, R. palczewskii, R. pauciflorum, R. procumbens, R. rotundifolium, R. sachalinense, R. sanguineum and R. valdivianum

D.T. Robinia pseudoacacia Locust Flowers. Seed - must be cooked Most soils
D.SH. Rosa rugosa Ramanas Rose Fruit, seed, flowers Most soils
D.SH. Rosa villosa Apple Rose Fruit, seed Most soils. Sunny position

The fruit of all species of Rosa is more or less edible, though the flesh is often very thin and there is a layer of seed hairs just below the flesh that can cause irritation if eaten. The following species are also worth trying: R. acicularis, R. californica, R. canina, R. centifolia, R. macrophylla, R. majalis, R. nutkana and R. sericea

E.SH. Rosmarinus officinalis Rosemary Leaves Sunny position. Light, dry soil

D.CL. Rubus discolor Himalayan Giant Blackberry Fruit Most soils

D.CL. Rubus fruticosus Blackberry Fruit, root Most soils

D.SH. Rubus idaeus Raspberry Fruit Dislikes very heavy soils

D.SH. Rubus laciniatus Parsley-Leaved Blackberry Fruit Most soils

D.SH. Rubus loganobaccus Loganberry Fruit Well-drained soil

D.SH. Rubus phoenicolasius Japanese Wineberry Fruit Most soils

A very large genus, the fruit of all species is more or less edible. Some of the most noteworthy include R. allegheniensis, R. amabilis, R. biflorus, R. caesius, R. corchorifolius, R. flagelliflorus, R. ichangensis, R. innominatus, R. kuntzeanus, R. lasiostylus, R. leucodermis, R. occidentalis, R. palmatus, R. parviflorus, R. setchuensis and R. tricolor

D.T. Salix daphnoides Inner bark, young flowering shoots Most soils. Dioecious

D.T. Salix alba White Willow Leaves, inner bark Rich soil. Dioecious

Salix alba is only used for food in times of scarcity. The following species have also been used: S. babylonica, S. bakko, S. chaenomeloides, S. gracilistyla, S. japonica and S. nipponica

D.SH. Sambucus nigra Elder Flowers, fruit Most soils and positions

Other species include S. caerulea, S. callicarpa, S. canadensis, S. melanocarpa, S. pubens and S. racemosa

D.SH. Sarcobatus vermiculata Greasewood Seed, twigs Most soils

D.T. Sassafras albidum Sassafras Leaves, bark and fruit - a condiment Deep fertile soil, sheltered position. Dioecious

E.SH. Satureia montana Winter Savoury Leaves, a flavouring Well-drained poor stony soil

D.CL. Schisandra chinensis Fruit, young leaves Rich soil

Other species with edible fruits include S. grandiflora, S. henryi and S. repanda

D.SH. Shepherdia argentea Buffalo Berry Fruit Well-drained moist soil

D.SH. Shepherdia canadensis Fruit - rarely borne Most well-drained soils

D.CL. Sinofranchetia chinensis Fruit Most soils

D.CL. Sinomenium acutum Root, leaves Most soils

E.CL. Smilax aspera Sarsaparilla Root - used in soft drinks. Shoots Very mild areas only. Any soil. Dioecious

D.CL. Smilax bona-nox Root, young shoots Any soil. Dioecious

D.CL. Smilax china China Root Root, young shoots, fruit Any soil. Dioecious

Other species with similar uses include S. hispida, S. laurifolia, S. pseudo-china and S. rotundifolia

E.SH. Solanum aviculare Kangaroo Apple Fruit Very mild areas. Any soil

D.T. Sorbus aria Whitebeam Fruit - bletted Sunny position. Most soils

D.T. Sorbus aucuparia Rowan Fruit The variety Edulis is best. Most soils in cool position. Very wind resistant

D.T. Sorbus domestica Service Tree Fruit - bletted Sunny position. Well-drained soil

Other species worth trying include S. americana, S. commixta, S. devoniensis, S. gracilis, S. hybrida, S. intermedia, S. lanata, S. mougeotii, S. sambucifolia and S. torminalis

E.CL. Stauntonia hexaphylla Fruit Mild areas only. Dioecious

D.SH. Tamarix gallica Manna Plant Manna from stem Sunny position. Deep loamy soil. Very wind resistant

E.T. Taxus baccata Yew Fruit - sweet Most soils. Shade tolerant. Leaves and seeds poisonous

Other species also with poisonous leaves and seeds but edible fruits include T. brevifolia, T, canadensis and T. cuspidata

E.SH. Thymus vulgaris Common Thyme Leaves Dry sunny position

Other species include T. capitata, T. drucei and T. serpyllum

D.T. Tilia x europaea Common Lime Leaves, sap.Flowers a chocolate substitute Sunny position. Most soils. Wind resistant

Other species include T. americana, T. cordata, T. japonica, T. platyphyllos and T. mongolica

D.T. Toona sinensis Chinese Cedar Leaves and young shoots Thrives on chalk

E.T. Torreya nucifera Kaya Seed, oil from seed Most soils. Prefers heavy shade

Other species include T. californica, T. fargesii, T. grandis, T. jackii and T. yunnanensis

E.T. Trachycarpus fortunei Chusan Palm Young flower buds Rich soil. Sheltered position

E.SH. Triphasia aurantiola Lime Berry Fruit Very mild areas only. Good loamy soil

E.T. Tsuga heterophylla Inner bark Dislikes chalk. Prefers areas of heavy rainfall

Inner bark is usually only eaten in times of shortage. Other species include T. canadensis and T. mertensiana

D.T. Ulmus glabra Wych Elm Leaves, immature fruits Most soils

Dutch Elm Disease has destroyed most Elm trees in Britain. However the trees often survive as suckers and a few forms are more resistant to the disease. Other species mentioned as edible include U. japonica, U. parvifolia, U. procera and U. pumila

E.T. Umbellularia californica California Laurel Seed, leaves - a condiment Dislikes chalk. Prefers a moist soil

D.SH. Vaccinium corymbosum Blueberry Fruit Acid soils only

E.SH. Vaccinium macrocarpon Cranberry Fruit Moist or semi-boggy acid peaty soil

D.SH. Vaccinium myrtillus Bilberry Fruit Moist acid peaty soil. Best in an exposed position

E.SH. Vaccinium oxycoccus Small Cranberry Fruit Moist or semi-boggy acid peaty soil. Sunny position

D.SH. Vaccinium praestans Fruit Moist acid soil. Best in Scotland and northern Britain

Vaccinium is a large genus, all the species bearing more or less edible fruits. Some of the nicer ones include V. angustifolium, V. ashei, V. atrococcum, V. caespitosum, V. canadense, V. deliciosum, V. floribundum, V. hirsutum, V. oldhamii, V ovatum, V. padifolium, V. parvifolium, V. scoparium and V. vacillans

D.SH. Viburnum edule Fruit Dislikes poor soils

D.SH. Viburnum lantanoides Hobbleberry Fruit Woodlands. Rich soil

D.T. Viburnum prunifolium Stagberry Fruit Dislikes poor dry soils

Other species include V. cassinoides, V. cotinifolium, V. dilatatum, V. erosum, V. farreri, V. grandiflorum, V. lentago, V nudum, V. opulus. V oulus americanum and V. sieboldii

D.SH. Vitex agnus-castus Chaste Tree Fruit - pepper substitute Mild areas. Warm position

D.CL. Vitis vinifera Grape Leaves, tendrils, sap, fruit, oil from seed Sunny, warm position

Many other species are also edible though fruiting is problematic in Britain. They include V. aestivalis, V. cordifolia, V. davidii, V. riparia, V. rotundifolia and V. rupestris

E.T. Weinmannia racemosa Fruit Mild areas only. Light rich soil

D.T. Xanthoceras sorbifolium Leaves, flowers, fruit Warm sunny position

E.SH. Yucca filamentosa Spoonleaf Yucca Fruit Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH. Yucca glauca Soapweed Fruit, flower stalks, flowers Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH. Yucca gloriosa Root Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH. Yucca baccata Spanish Bayonet Fruit, seed, flowers and stalks Mild areas. Sunny position. Well-drained soil

Other species include Y. angustissima, Y. harrimaniae and Y. whipplei

D.SH. Zanthoxylum piperitum Pepper Tree Young leaves, seed and bark - a spice

Other species include Z. alatum, Z. americanum, Z. planispinum, Z. schinifolium and Z. simulans
D.T. Ziziphus zizyphus Jujube Fruit Mild areas only. Most soils

KEY TO ABBREVIATIONS

CL. Climber
D. Deciduous
E. Evergreen
SH. Shrub
T. Tree
DIOECIOUS means that all the flowers on a plant are either male or female and plants of both sexes must be grown in order to produce seeds.

When using this list it is important to remember that it can only contain a small portion of the information we hold on each plant. You are stronglt advised to seek more information on any plant before making use of it in the manner suggested. This is especially important with any of the comments on edibility. Information sheets on individual species can be obtained from Plants for a Future, they cost 10p each to produce.

Back to Plants for a Future home page.

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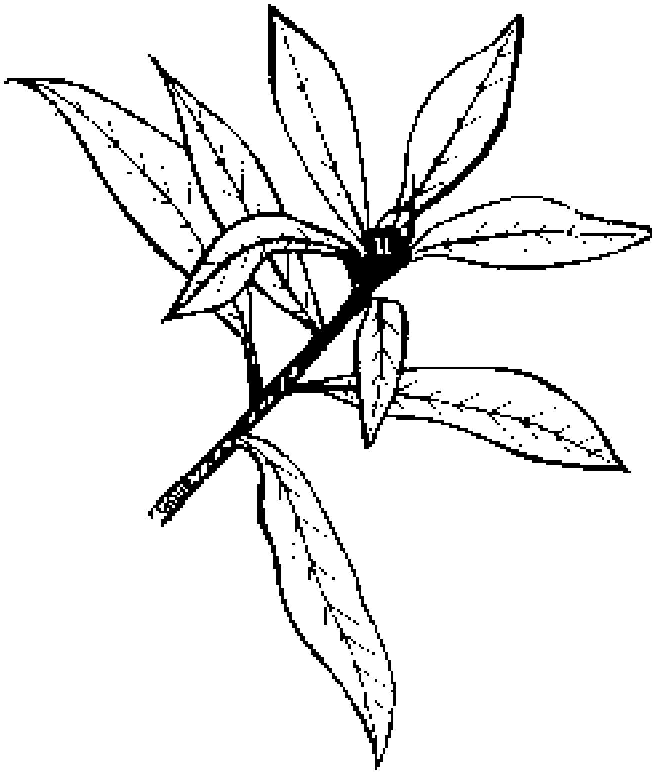
Plants for a Future
A resource centre for edible and other useful plants

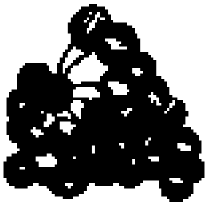
Back to Plants For A Future Home Page. Jump to Database Intro.

This is a sample page from the Plants For A Future Species Database, and is an example of one of the 7000 useful plants which you'll find in it. Note: I've chosen these particular examples because they are the plants I've got pictures for, the database as a whole does not contain picutures.

This plant also features in the catalogue, and the checklist on hedges and Edible Trees and Shrubs checklist.

Drimys Lanceolata





Drimys lanceolata

Common name:	Mountain pepper	Family:	Winteraceae
Author:	(Poir.)Baill.	Botanical references:	11, 200
Synonyms:	D. aromatica. (R.Br.)Muell. non Murray. Tasmannia aromatica. Winteriana lanceolata.		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania and Victoria.		
Habitat:	Moist places in mountain forests and also in alpine zones to 1500 metres[152].		

Other Posible Synonyms:	From various places across the web, may not be correct. See below.
	Tasmannia lanceolata, Winterana lanceolata
Epithets:	From a Dictionary of Botanical Epithets
	lanceolata = lance shaped;

Physical Characteristics

Habit:	Shrub			Decid/Ever:	E	Rating:	3
Height:	4.5	Width:	2.5	Hardyness:	8	Growth rate:	S
In leaf:	1 - 12	Flowering time:	4 - 5	Seed ripens:	9 - 10	Scented:	1
Flower Type:	D	Self-fertile:	N	Pollinators:			
Soil:	LM	Well-drained:	1	Heavy clay:	0	Poor Soil:	0
pH:	AN	Acid:	0	Alkaline:	0	Saline:	0
Shade:	S	Moisture:	M	Wind:	W	Drought:	0
Nitrogen fixer:	0	Wildlife:	0				
Pollution:		Frost tender:					

Habitats and Posible Locations

Meadow	N	Lawn	N	Pond	N	Bog Garden	N	Rock Garden	N
Hedge	Y	Hedgerow	N	Woodland	Y	Canopy	N	Secondary	N
Cultivated Beds	N	Sunny Edge	N	Dappled Shade	Y	Shady Edge	Y	Deep Shade	N
Walls	N	North Wall	N	South Wall	N	East Wall	N	West Wall	N
Ground Cover	N								

Edible Uses

Condiment.

The fruit and seed are used as a pepper and allspice substitute[1, 2, 11, 46, 61, 105, 183]. A pungent flavour[183, 193]. The aromatic berries are edible according to one report[238], whilst another says that they taste somewhat like cinnamon.

Medicinal Uses

Disclaimer

Antiscorbutic; Stomachic.

Antiscorbutic, stomachic[152].

Other Uses

Hedge; Wood.

This species makes an excellent windbreak in woodland, it is widely grown as a hedge in mild temperate regions[238].
Wood - soft, only moderate strength[154].

Cultivation details

Requires a light lime-free soil in semi-shade[200]. Prefers a fertile moist but well-drained soil[188].
A fairly hardy species, surviving very cold winters in various parts of the country so long as it is in a suitable position[120]. It tolerates temperatures down to about -15°c[184], but plants are liable to be damaged in cold winters. This species is hardier than D. winteri according to one report[120] whilst another says that it is less hardy than D. winteri[200].
All parts of the plant are very aromatic and pungent[182, 184].
Plants in this genus are notably resistant to honey fungus[200].
Plants are usually dioecious though monoecious and hermaphrodite forms are known. Male and female plants must usually be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.
Cuttings of half-ripe wood, 10 - 15 cm with a heel, July/August in a frame. Approximately 60%

take[78].
Layering in March/April. Takes 12 months[78].
Cuttings of mature wood of the current year's growth with a heel of older wood, November in a cold frame[78].

Scent

Plant: Crushed Dried

All parts of the plant are very aromatic and pungent.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- PFAF Plant Catalogue (D-E)
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Drimys aromatica* (a possible synonym).

- Details of Scandanavian and European Common names in Henriette's names database

References for *Tasmannia lanceolata* (a possible synonym).

- Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources or the The Gatherer where you can search many other sources all in one go.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[120] **?** *The Plantsman. Vol. 2. 1980 - 1981.* Royal Horticultural Society 1980
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Billardiera spp, Calochortus spp, Drimys spp.

[152] **Lassak. E. V. and McCarthy. T.** *Australian Medicinal Plants.*
A very good and readable guide to the subject.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments:

PFAF: Drimys Lanceolata

Unknown Sun Jul 22 02:52:39 2001

Only the male plant will fruit

Details of Growing Condition: Milabeena, Tasmania. Grows along side leatherwood trees, Tasmanian laurel trees, Blackwood trees and Myrtle trees..

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`http://www.comp.leeds.ac.uk/pfaf/`

Plants for a Future
A resource centre for edible and other useful plants

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Due to all the work which needs doing on the Eco-Village at the moment, we will not be running the catalogue at the moment. However, we are busy propigating plants to get ready for a new catalogue to be release in the Autumn '98. These pages are just intended as a guide for the type of plant which may appear in the new catalogue.

D-E

960201 *Dioscorea batatas* **Chinese yam**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Hardy perennial grows to 3m tall. Flowers in autumn.
An easily grown plant, succeeding in a fertile well-drained soil in a sunny position or light shade, though it is best in full sun. The yam is a climbing plant that supports itself by twining around the branches of other plants. It can be grown successfully into small bushes or, perhaps simpler when being grown as a root crop, it can be grown up a frame in a similar manner to growing runner beans. This species of yam is much cultivated in China and Japan for its edible root which can be up to 1 metre long. It has a great potential to be a commercial crop in Britain. Plants take 3 - 4 years to reach full maturity, though one year roots of well grown plants can weigh more than 500g. The cooked tuber has a floury texture with a pleasant taste that is similar to potatoes. They store well and for a long time and can also be left in the ground and harvested as required in the winter.

960018 *Drimys lanceolata* **Mountain pepper**
£3.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 4m, only hardy in mild areas. Flowers in Spring.
Requires a sheltered position in semi-shade in a well-drained soil. Dislikes heavy soils. A good woodland plant, where it can be grown as a hedge. Plants are only hardy to about -5 c. The fruit and seed are used as a pepper and allspice substitute, although one report says they taste like cinnamon.We only have male plants available at present.

960020 *Elaeagnus commutata* **Silverberry**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Deciduous shrub to 3m. Flowers in Spring.
Easily grown in a well-drained soil, requiring a sunny position. Plants produce nitrogen nodules on their roots and are tolerant of drought and poor soil. They can be grown as a hedge and are tolerant of maritime exposure.The fruit is dry, sweet and mealy and goes well in soups, or you can make jelly or sherbet with it. Our plants have not as yet fruited. The fibrous bark can be used to make rope or woven. The dried fruits have been used as beads.

960203 *Elaeagnus cordifolia*
£3.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Evergreen shrub to 4m tall. Probably not reliably hardy in the colder areas of Bitain. Flowers early winter.
We have very little specific information on this species and are not sure that this is the correct name for it. It is based on a name given to us by Probus gardens in Cornwall where a specimen is being grown. This plant, which is near to E. glabra, has a larger fruit than other members of the genus and ripens a week or two earlier, usually in mid April in Cornwall. The fruit must be fully ripe before it develops its full flavour, prior to that it is acid and somewhat astringent. The oval fruit is up to

20mm long and 14mm wide, it contains a single large seed, which can also be eaten, though the case is best removed. This plant can be grown as a hedge, and will tolerate maritime conditions. It can also be planted under trees that have lost their lower branches to fill in a windbreak. We are only supplying a strictly limited number of small plants this year.

960021 *Elaeagnus glabra*
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Evergreen shrub to 6m, hardy in the milder areas of the country. Flowers in Autumn.
An easily grown and very tolerant plant, succeeding in most situations and soils so long as they are well-drained. Plants produce nitrogen nodules on their roots and are tolerant of drought and poor soil. They can be grown as a hedge and are tolerant of maritime exposure.The edible fruits and seeds are produced in April, long before any other fresh fruit can be obtained from the garden. The fruit has a rich pleasant flavour when fully ripe, though is astringent before then. The seed has a pleasant mild flavour. Some research needs to be carried out to find out how to make the plant yield well, since in most years yields are very disappointing.

960113 *Elaeagnus macrophylla*
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Evergreen shrub to 3m. Flowers in Autumn.
An easily grown and very tolerant plant, succeeding in most situations and soils so long as they are well-drained. Plants produce nitrogen nodules on their roots and are tolerant of drought and poor soil. They can be grown as a hedge and are tolerant of maritime exposure.The edible fruits and seeds are produced in April, long before any other fresh fruit can be obtained from the garden. The fruit has a rich pleasant flavour when fully ripe, though is astringent before then. The seed has a pleasant mild flavour. These plants are seedlings from a plant that produces very good crops of good sized fruits.

960271 *Elaeagnus parvifolia*
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous shrub to 4m. Flowers in Spring.
Easily grown in a well-drained soil, requiring a sunny position. Plants produce nitrogen nodules on their roots and are tolerant of drought and poor soil. They can be grown as a hedge and are tolerant of maritime exposure.The pleasantly acid fruit can be eaten raw but is usually used in pies and preserves. It is usually produced in abundance, though it is fairly small and quite fiddly to pick. The seed can also be eaten raw or cooked - it is best to remove the fibrous seed case.

960022 *Elaeagnus umbellata* **Autumn olive**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous shrub to 4.5m. Flowers late Spring.
Easily grown in a well-drained soil, requiring a sunny position. Plants produce nitrogen nodules on their roots and are tolerant of drought and poor soil. They can be grown as a hedge and are tolerant of maritime exposure.The fruit and the seeds are edible, the fruit having an acid flavour, whilst the seed is quite bland. Our plants have yet to produce fruit, though we have seen specimens in the drier east of Britain with very good crops. The wood makes a good fuel.

960115 *Elaeagnus x ebbingei* **Elaeagnus**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 5m tall. Flowers late Autumn to early Winter.
An easily grown and very tolerant plant, succeeding in most situations and soils so long as they are well-drained. Plants produce nitrogen nodules on their roots and are tolerant of drought and poor soil. They can be grown as a hedge and are tolerant of maritime exposure.The edible fruits and seeds are produced in April, long before any other fresh fruit can be obtained from the garden. The fruit has a rich pleasant flavour when fully ripe, though is astringent before then. The seed has a pleasant mild flavour. These plants are seedlings from a plant that produces very heavy crops of good sized fruits.

960206 *Ephedra distachya* **Sea grape**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Hardy evergreen shrub grows to 1 metre tall. Flowers in the Summer.
Requires a well-drained loamy soil and a sunny position. It is drought resistant and lime tolerant. It has a sweet edible fruit, but does not seem to flower well in Britain. It is dioecious, so male and female must be grown together for seed. It can be used as a ground cover, spaced about 60cm apart each way. Members of this genus contain the alkaloid ephedrine which is widely used in the treatment of asthma and heart problems.

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Plants for a Future

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Due to all the work which needs doing on the Eco-Village at the moment, we will not be running the catalogue at the moment. However, we are busy propigating plants to get ready for a new catalogue to be release in the Autumn '98. These pages are just intended as a guide for the type of plant which may appear in the new catalogue.

B-C

960010 *Baccharis patagonica*
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 3m tall, only hardy in milder areas. Flowers late Spring.
Requires a sunny position and a well-drained soil, but it is very easy to grow so long as the temperature does not fall much below -5 c. It does well on sand or thin coastal soils and can be used as a soil-binder to prevent erosion. Very tolerant of maritime exposure, it makes an excellent if slow-growing hedge.

960132 *Bunias orientalis* **Turkish rocket**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1 metre tall. Flowers late Spring to mid-Summer.
One of the very easiest of plants to grow, succeeding in a sunny position in most soils and tolerant of considerable neglect.The leaves and young stems have a mild cabbage/radish flavour and can be eaten raw or cooked. They go well as part of a mixed salad, you can add some of the flower buds to the salad as well.

960108 *Camassia quamash* **Quamash**
£1.50 How is it supplied? 5 Bulbs When is it supplied: Winter? Yes Summer? No
Hardy bulb to 40cm tall. Flowers late Spring.
Growing well in most soils in full sun or light shade, quamash can be naturalised in thin grass and so could be grown in an orchard or under specimen trees in a lawn.The bulb can be eaten raw or cooked. It tastes a bit like sweet chestnuts and develops an excellent flavour when slow baked. You can harvest the bulbs all year round, or dry them after the leaves die down in the summer and grind them into a flour that can be added to cereals or used as a thickener in soups etc. You can even boil down the bulbs to make molasses.

960109 *Campanula glomerata 'Superba'*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Perennial to 1 metre tall. Flowers in Summer.

An easily grown plant for a well-drained soil in full sun or light shade. Dislikes very heavy soils. The slugs love it, so some protection might be necessary.The leaves have a pleasant sweetness, which makes them ideal as a major salad ingredient. You can also eat them as a cooked green vegetable. The flowers also have a sweet flavour and make an attractive decoration on a salad.

960089 *Campanula persicifolia* **Harebell**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 1 metre tall. Flowers much of the Summer.
An easily grown plant for a well-drained soil in full sun or light shade. Dislikes very heavy soils. It does well in open woodland. The slugs love it, so some protection might be necessary.The leaves have a mild flavour with a slight sweetness, but they are rather thin and slightly tough, so we tend not to use them much, They are often available in the winter. The flowers are the nicest part, both to look at and to eat. Their slightly sweet flavour goes well in a salad. The root is also edible, but is small and rather fiddly.

960090 *Campanula poscharskyana*
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 15cm tall. Flowers for much of the Summer.
An easily grown plant for a well-drained soil in full sun or light shade. Dislikes very heavy soils. The slugs love it, so some protection might be necessary. It makes an excellent fast-growing ground cover , succeeding in dry and in poor soils, and can even be grown on an old brick wall.The slightly-sweet tasting leaves are a bit fibrous, but make a reasonable salad, especially since they are available all year round. You can also cook the leaves as a vegetable.

960197 *Campanula pyramidalis* **Chimney bellflower**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Perennial to 1.5m tall. Only hardy in the milder areas of Britain and tends to be short-lived. Flowers in summer.
It succeeds in most fertile well-drained soils, though it prefers a moist but very well-drained rich sandy loam and a neutral or alkaline soil in full sun. One report says that it is intolerant of too much sun. The leaves have a mildly sweet flavour and can be used in quantity in salads. The flowers are also sweetly-flavoured and make a pretty addition to the salad bowl.

960198 *Campanula takesimana*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Hardy perennial to 50 cm tall. Flowers in the early summer.
It prefers a moist but well-drained rich sandy loam and a neutral or alkaline soil in sun or partial shade, but will succeed in most well-drained soils. The plants spread freely at the roots and soon make a large clump. Both the leaves and the flowers can be eaten, the leaves tasting remarkably like lettuce.

960110 *Campanula versicolor*
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 1.2m tall, only hardy in the milder areas. Flowers mid-Summer to Autumn.
An easily grown plant for a well-drained soil in full sun or light shade. Dislikes very heavy soils. It can be short-lived, and will not be happy if the temperatures fall much below -5 c. The slugs love it, so some protection might be necessary.This is one of our most favourite leaves. They taste like

sweet garden peas and can usually be harvested all year round. Don't let the plants flower too late into the autumn, however, or they will weaken themselves and may die. The flowers are nearly as nice to eat as the leaves.

960175 *Centella asiatica*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Evergreen perennial to 20cm tall, only hardy in the milder parts of Britain. Flowers in summer.
It is said to prefer moist to wet soil in sun or partial shade, but since it grows well on walls, it should be able to tolerate drier conditions. The leaves have an aromatic flavour, they can eaten in salads and are good in a curry. This is possibly the most important medicinal herb in India, where it is used to treat a variety of complaints, especially those related to degeneration of the nervous system. Extracts of the plant are added to cosmetic masks and creams to increase collagen and firm the skin. There is a warning that the plant can irritate the skin, though it is widely used to treat skin complaints.

960092 *Chaenomeles japonica* **Dwarf quince**
£2.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Hardy shrub only grows to 1 metre tall. Flowers in spring.
It is easily grown in any reasonably good soil and will tolerate heavy clay. It tolerates full shade but requires a sunny position for best fruit production. It will tolerate atmospheric pollution, so is suitable for a city garden. However, it suckers freely so it could take over. The fruit is very hard and acid when raw, but on cooking it becomes very pleasant, if rather strong in taste. It is best used combined with apples or used to flavour jams and jellies.

960093 *Chaenomeles speciosa* **Japanese quince**
£2.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Deciduous shrub to 3m tall. Flowers mid-Winter to early Summer.
A very easily grown plant, succeeding in most soils and in deep shade or full sun, though plants will not fruit well in the shade. It can be used as a hedge.The fruit is about the size of an apple and is usually produced in abundance. It is eaten cooked, having a rich aromatic flavour that goes well as a flavouring in apple pies etc, or as a jelly.

960012 *Chamaemelum nobile* **Camomile**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 15cm tall. Flowers in Summer.
Easily grown in a sunny position or in light shade, requiring a well-drained soil.Camomile is best known as a medicinal herb, an infusion of the flowers being used to treat stomach disorders, it is especially useful for young children. The young sprigs can be used as a seasoning and a flavouring in herb beers, and the fresh or dried flowers are used to make herb teas. Camomile is also used as a liquid feed and general plant tonic, effective against a number of plant diseases. The flowers are an ingredient of 'QR' herbal compost activator. They also produce yellow to gold dyes.

960246 *Chamaemelum nobile 'Flore Pleno'* **Camomile**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Double flowered form of Chamaemelum nobile above.
This cultivar is much less bitter in taste than the species, so it mkes a nicer herb tea.

960154 *Chamaemelum nobile 'Treneague'* **Lawn camomile**

£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 10cm tall. It does not produce flowers.
Easily grown in a sunny position or in light shade, requiring a well-drained soil. This form does not flower and so cannot be used medicinally. It has been grown as an alternative to grass in a lawn, though is much more labour intensive to maintain and needs lots of weeding. A camomile lawn is a delightful place to sit in the summer, the smell of the bruised foliage will keep the biting insects away.

960111 *Chenopodium bonus-henricus* **Good king henry**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 30cm tall. Flowers late Spring to early Summer.
An easily grown and very tolerant plant, preferring a sunny position.The leaves can be eaten raw but have a somewhat earthy flavour and are much nicer when cooked like spinach. They are best in the Spring and early Summer, turning bitter in the hotter weather. The young shoots (in a good soil they can be as thick as a pencil) are cut under the ground, peeled and used like asparagus. The cooked young flower buds are considered a gourmet food. The seeds can be eaten but need to be soaked over night to remove saponins. You can get green/gold dyes from the whole plant.Whilst this plant is on the whole very nutritious and productive, there are a few words of caution. All parts of the plant contain toxic saponins. Whilst small quantities eaten raw will cause no harm, it is inadvisable to eat large quantities. Cooking destroys these saponins.

960013 *Chlorogalum pomeridianum* **Soap lily**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Bulb to 2m tall, only hardy in milder areas. Flowers late Spring.
Requires a very well-drained soil and full sun or light shade. This plant comes into growth in the autumn and will not tolerate wet winters or temperatures much below about -5 c. It grows well against a sunny wall.The bulb of well-grown plants can be 12cm or more in diameter. This is rich in saponins and, when dried, can be grated and used like soapflakes. It makes an excellent gentle cleaner for the skin, clothes etc. Although saponins are toxic, thorough cooking destroys them and the baked bulb has a very nice sweet flavour, whilst the sap that exudes from a baking bulb can be used as a glue. The cooked shoots are also edible. A fibre obtained from the outer covering of the bulb is used to make small brushes or as a filling for mattresses etc.

960163 *Conopodium majus* **Pignut**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 30cm tall. Flowerslate Spring.
Can be grown in the light shade of a woodland, along the bases of hedges and in grassland. It dislikes alkaline soil.This is in no way a productive plant, but it does produce a small delicious tuber that can be eaten raw or cooked. It tastes rather nutty and, if you want to spend a few days harvesting the tubers, could be used as a potato substitute in a meal. There is the possibility of increasing tuber size by growing the plants in well-cultivated soils.

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Español Nederlands

Blagdon Plant Research And Demonstration Gardens

New (Dec 02)! have a look at the Blagdon Cross Photo Album

The next stage in the Plants For A Future project is the establishment of a major plant research and visitors' centre based around the practice of permaculture and useful plants. We have acquired an 84 acre site (35 hectares) in North Devon in summer '97 and obtained planning permission in June 2000. Work is now focused on developing the site and infrastructure. There is a great need for volunteers to help in the establishment of this pioneering centre. Please ring us first on 01208 872 963/0845 458 4719 before coming as we are very short staffed at the moment and can only accept visitors/volunteers are certain times such as the Plants For A Future Autumn Gathering, 20th-23rd September 2002.

After three years the Alders are shooting up!

The major elements of the site will include:

Visitors' Centre

Illustrating all the ideas behind the PFAF concept:

- The hundreds of plants which can be used to supply our food needs and help us to escape from our reliance on the 20 or so which form the basis of today's food supply.
- The thousands of medicinal plants which are used through out the world.
- The many other uses of plants such as alternative fibres, oils and dyes.
- The benefits of sustainable agriculture and permaculture techniques.
- Alternatives to mono-culture growing techniques such as woodland gardens, permaculture and the use of perennial plants.

Cafe

A place you will be able to try dishes made from more unusual plants.

Shop

Selling plants and other items such as clothing made from plants we grow.

Woodland Garden

Comprising about 3 acres and illustrating how many different plants can be grown in a small area by utilizing the different layers available in a woodland. See Woodland Garden Plants for more information on the concept.

Small Urban Gardens

Illustrating how it's possible to grow lots of foods and other materials in a small area without having to spend all the time weeding. (See the Urban Garden leaflet.)

Special Needs Garden

Gardens for people with disabilities, the blind and small children.

Native Areas

Conservation is a strong theme in the project. Much of the site will consist of native woodlands and rare Culm grassland, helping to attract wildlife. Nature walks will be provided and we hope to construct a lake.

Workshops

Providing spaces for crafts people to work with the plants we grow and experiment with novel plant uses. This will also help the site to move towards self-sufficiency.

Experimental Area

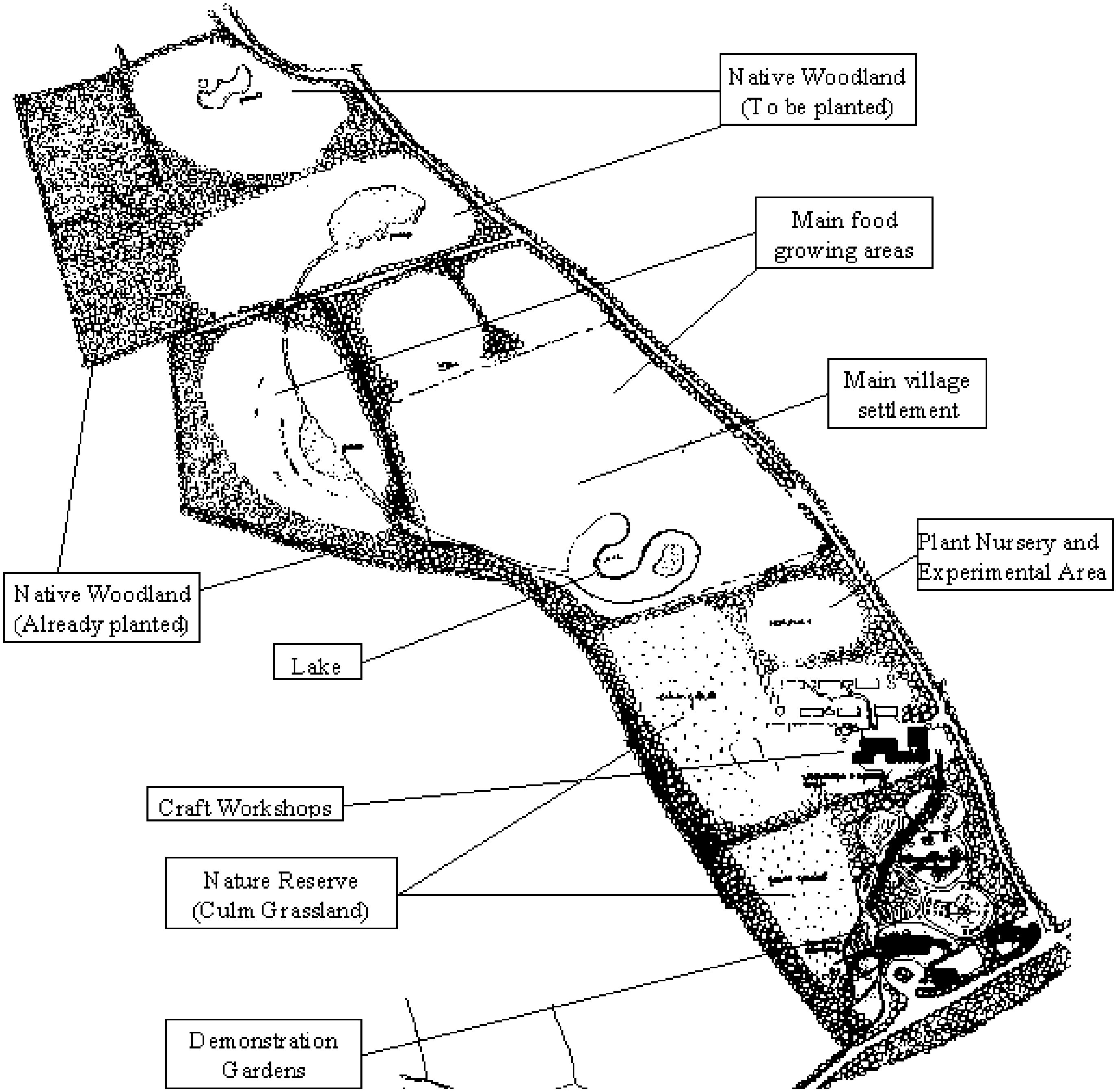
Here we will carry out research into new potentially useful plants. We will also be working to improve yields, nutritional quality and disease resistance of many other plants.

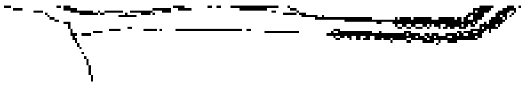
Nursery

Growing plants for sale in the shop and through our Catalogue.

As well as all this the site will provide a space for running courses and workshops.

It is hoped that the village will contain several types of housing including underground, cob and Walter Segal self-build. Other aspects of alternative design will be evident throughout the site.


Native Woodland (To be planted)
Main food growing areas
Main village settlement
Plant Nursery and Experimental Area
Native Woodland (Already planted)
Lake
Craft Workshops
Nature Reserve (Culm Grassland)
Demonstration Gardens



Site Map, courtesy of Gale and Snowdon Architects

Current Status

We have had the site since July '97 and gained planning permission in June 2000. The site is already showing its value as an educational centre which several successful courses being run there, including the South West Permaculture Convergence in May 01 and a Buddhist retreat/permaculture workshop in April 01.

We recently heard (Aug 2001) that we have been awarded a 25 thousand pound grant from the Devon and West Somerset Key Fund. This will go to establishing the infrastructure for the Blagdon site and includes money for constructing the car-park and access road, water supply and power supply, equipment for a restroom, an agricultural shed, a computer and projector for doing presentations and lots of tools. There are quite a few conditions that need to be met to fulfil the grant which include the training of 500 people and a short time scale to achieve it all.

Lots of work has already been carried out on the site: 20,000 trees have been planted, many of the trees are pioneer species like Alders which grow very quickly and help build up the soil, some of the trees have already reached head height. These will provide shelter for the other plants. The existing native woodland has also received much needed attention through coppicing. Several temporary structures have been acquired to provide space for volunteers and a temporary visitors centre.

The start of one of the beds at Blagdon

The planning Saga

Initially the site did not have the planning permission we needed, but it did have outline planning permission for 28 'holiday' chalets and 1.7 hectares (4 acres) of lakes. We have also got planning permission for five poly-tunnels. One of the first tasks was to apply for planning permission to allow people to live on site as well as the other essentials for the site such as a car park, camping pitches and a lake.

The original application was submitted to the District Council on '98 which was rejected. The application was reworked and resubmitted in July '99. Again this was rejected and we decided to appeal the decision. A public Inquiry was held in May 2000 which lasted for three days. This appeal was upheld. So we now have temporary planning permission for two mobile homes (one to act as a visitors' centre and one for accommodation for the workers); five camping pitches; a hard core area for visitors and workers parking plus access route, and a lake.

Money:

A fairly successful fundraising appeal has raised a significant amount of the money needed to buy the site, and a short-term loan has been offered to make up the shortfall, but this does need to be repaid before long. More investment is needed: any size of donation is welcome, or you can lend money on a five-year basis, with interest up to 4%. For more information, see our funding leaflet.

Other Links

- Eco Village Information Service. Other Eco-villages around the world.

A few more Eco-village links can be found on the main links page.

Back to Plants For A Future home page.

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HTML version prepared by Rich Morris Home Page - Contact Info

Plants for a Future

A resource centre for edible and other useful plants

Regresar a la Plantas para un Futuro página principal: Español English

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English Nederlands

Centro de Investigación Botánica de Blagdon y Jardines de Demostración.

La siguiente etapa en el proyecto de Plantas Para un Futuro consiste en establecer un centro de investigación y demostración basado en las ideas de permacultura y plantas útiles. Hemos adquirido un sitio de 35 hectáreas en el norte de Devon durante el verano de 1997 y estamos ocupados plantando árboles nativos en todo el lugar. Los elementos principales del lugar serán:

Centro de visitantes.

Ilustrando toda la idea que respalda el concepto de PFAF:

- Los cientos de plantas que pueden usarse para suplir nuestras necesidades de alimentación y nos ayudarán a liberarnos de la dependencia que actualmente tenemos en 20 de ellas y que forman la base de nuestra alimentación.
- Los miles de plantas medicinales que se usan a lo largo y ancho del mundo.
- Los muchos otros usos alternativos de plantas para aprovechar sus fibras, aceites y tintes.
- Los beneficios de las técnicas sustentables de agricultura y permacultura.
- Alternativas a la técnica de cultivo de mono-cultura tales como bosques cultivados, permacultura y el uso de plantas perennes.

Café.

Un lugar donde usted tendrá la oportunidad de probar platillos elaborados con las más inusuales plantas.

Tienda.

Donde se venderán plantas y otros productos obtenidos de ellas como ropa, tintes, aceites, etc.

Bosque demostrativo.

Comprenderá cerca de 1 =BD hectáreas e ilustrará cuántas plantas diferentes pueden cultivarse en una pequeña área utilizando las diferentes capas o niveles disponibles en un terreno boscoso. Vea (Plantas para jardines boscosos) Woodland Garden Plants para mayor información sobre el concepto.

Pequeños jardines urbanos.

Que mostrarán como es posible cultivar considerables cantidades de alimentos y otros materiales en una pequeña área sin tener que gastar todo el tiempo desyerbando el terreno. Vea la hoja (Jardín Urbano) Urban Garden

Jardines para necesidades especiales.

Jardines para el discapacitado, el ciego y niños pequeños.

Areas Naturales.

La conservación es uno de los principales temas del proyecto. La mayor parte del lugar estará integrado por bosque nativo y pradera de pasto y grama, para que atraiga la vida silvestre. Se proveerá con senderos naturales y esperamos construir un lago.

Talleres.

Proveerán espacio para los artesanos que trabajarán con las plantas y experimentarán nuevos usos para ellas. Esto ayudará también a que logremos la autosuficiencia.

Area Experimental.

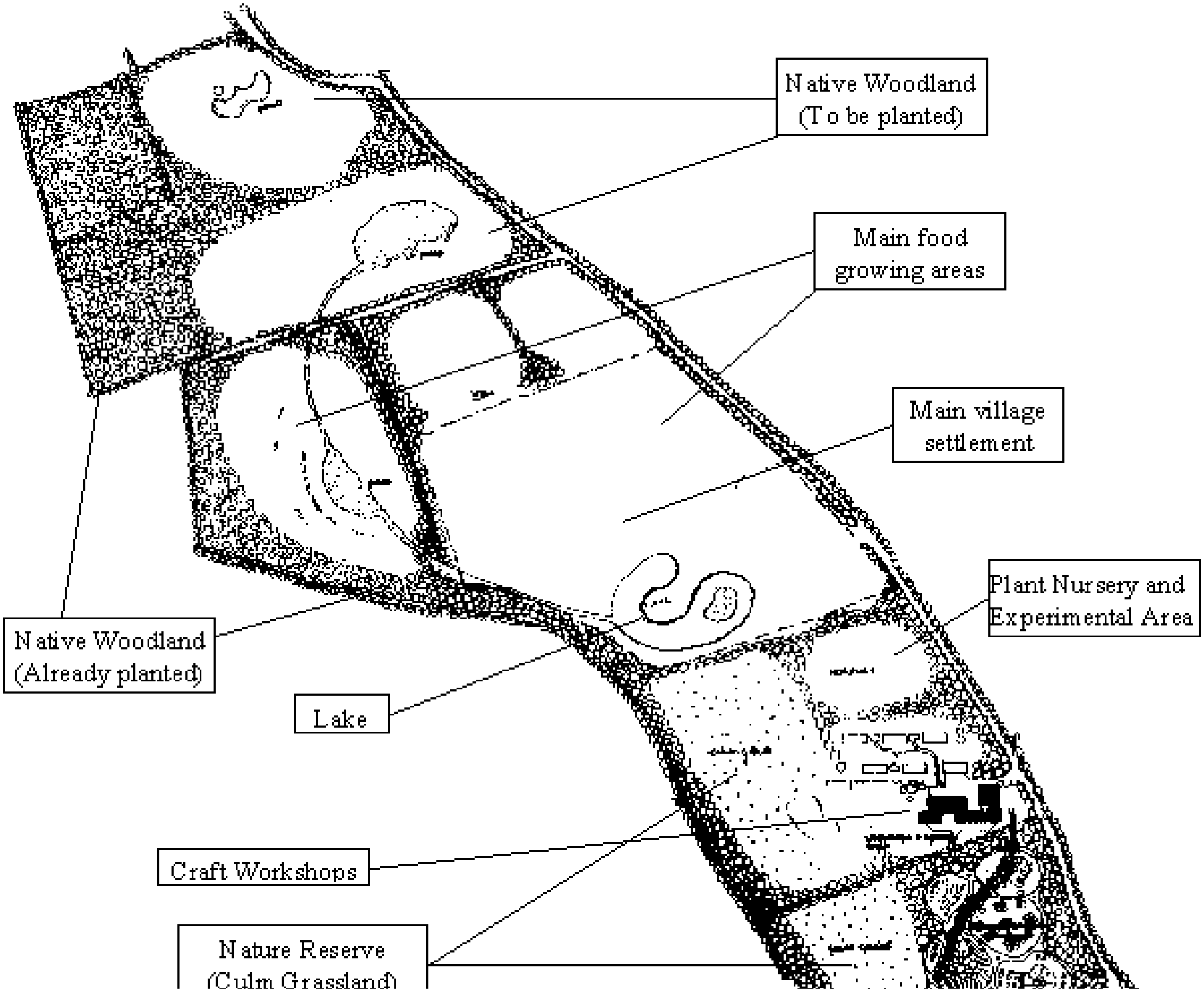
Aquí experimentaremos acerca de nuevos usos potenciales de las plantas. Trabajaremos también en aumentar la productividad, las cualidades nutricionales y la resistencia a las plagas y enfermedades de muchas otras plantas.

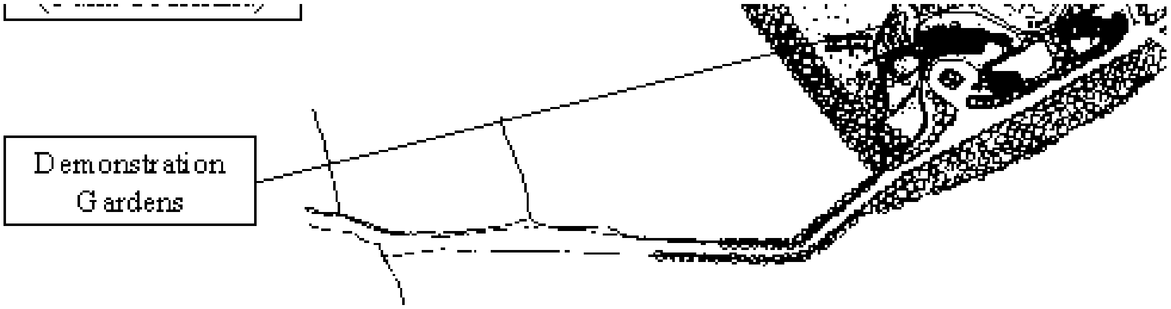
Viveros.

Cultivaremos plantas para venta en la tienda y por medio de nuestro catálogo. (Catalogue).

Aparte de todo esto, el lugar proveerá espacio para ofrecer cursos y talleres.

Esperamos que la villa contenga también varios tipos de alojamientos, incluyendo alojamientos subterráneos, cobertizos y auto-construíbles Walter Segal. Los arquitectos permaculturistas, Gale and Snowdon han dibujado planos para el centro de visitantes (visitors center) y otros edificios. Otros aspectos de diseño alternativo serán evidentes a través del lugar.


Native Woodland (To be planted)
Main food growing areas
Main village settlement
Plant Nursery and Experimental Area
Native Woodland (Already planted)
Lake
Craft Workshops
Nature Reserve (Culm Grassland)



Mapa del Centro, cortesía de los Arquitectos Gale and Snowdon

Estado actual del proyecto.

Hemos tenido el lugar por cerca de dos años hasta ahora (desde julio de 1997) y hemos estado ocupados plantando 15,000 árboles, instalando costosas cercas contra roedores y preparando los jardines de demostración. Muchos de los árboles son especies pioneras como los Alisos que crecen muy rápido y ayudarán a construir el suelo y a proveer protección a las otras plantas. Hemos también incrementado la variedad de plantas para venta en la tienda y por medio de nuestro catálogo (Catalogue), Estas incluyen árboles y arbustos frutales, raíces no usuales y árboles de nueces

El lugar no tiene aún construcciones pero se tienen planos y permisos para construir 28 chalets 'holiday' y 1.7 hectáreas (4 acres) de lagos. Tenemos permiso también para cinco túneles polivalentes.

Las construcciones principales planeadas son dos casas móviles, una que será el centro de visitantes y otra para los trabajadores; cinco sitios para acampar; Un área de estacionamiento para visitantes y trabajadores, rutas de acceso y un lago. El Consejo del Distrito ha rechazado ésta última construcción, pero insistiremos sobre ella dentro de las próximas semanas (Abril de 1999).

Se necesita su apoyo:

Como es el caso en muchos proyectos similares ha habido algunas objeciones locales a nuestras solicitudes de construcción. Nos ayudará mucho si ustedes nos apoyan a través de cartas o manifestaciones escritas. Sin embargo, no deben ser enviadas hasta que hagamos la solicitud de nuevo. Mándeme un correo pfaf@scs.leeds.ac.uk y yo podré enviarle más información y orientación sobre los puntos que usted puede destacar. También puede escribirnos o llamar por teléfono a:

The Field,
Penpol,
Lostwithiel,
Cornwall,
PL22 0NG,
England
Telephone Bodmin (+44 1208) 873554 or (+44 1208) 872963.

Haremos la nueva solicitud en las próximas semanas (Abril '99).

Hay un buen número de razones por las cuales sentimos que debemos residir en el Centro: Atender las plantas en los politúneles, necesitan regarse temprano en la mañana y tarde en la noche; Protegerlas del clima, gente y animales; Coordinar y orientar a los voluntarios y demostrar la forma de vida sustentable en contacto íntimo con los recursos que usamos. (Esto es, la tierra).

Dinero:

Una clara y exitosa solicitud de fondos a logrado una significativa cantidad del dinero que se necesitó para comprar el sitio y se nos ha ofrecido un préstamo a corto plazo para sanar nuestras carencias, pero esto deberá pagarse pronto. Por eso necesitamos mayores inversiones: cualquier donativo es bienvenido, o puede prestarnos dinero a término de cinco años con intereses hasta del 4%. Para mayor información consulte nuestra hoja funding

Puede también ayudarnos financieramente utilizando nuestros servicios de asesorías en plantas y jardines. Garden and Plant Advisory

Otros enlaces

- Gale & Snowden arquitectos del centro de visitantes visitors center y otros edificios del lugar.
- Servicio de Información acerca de villas ecológicas Eco Village Information Service. Otras Eco-villas alrededor del mundo.

Algunos enlaces más acerca de Eco-villas pueden encontrarse en la página principal de enlaces main links page.

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Regresar a la Plantas para un Futuro página principal: Español English

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versión HTML preparada por Rich Morris pfaf@scs.leeds.ac.uk - Home Page
Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

PLANTAS PARA UN FUTURO

Un Centro de Recursos e Informaciones sobre Plantas Comestibles y otras plantas útiles

ORGANIZACION SIN FINES DE LUCRO - REGISTRO NUMERO 1057719
The Field, Penpol, Lostwithiel, Cornwall, PL22 0NG, England
Telefono Bodmin (+44 1208) 873554 ó 872963

English

Plantas para un Futuro (Plants for a Future - PFAF) es un centro donde se pueden obtener plantas raras o no usuales, especialmente aquellas que tienen usos comestibles, medicinales u otras utilizaciones prácticas. Practicamos un sistema de permacultura vegan - orgánica, con énfasis en la creación de un medio ambiente sostenible ecológicamente y concentrándonos en la utilización de plantas. perennes Tenemos dos terrenos, uno en Devon y otro en Cornwall, donde demostramos nuestros principios agrícolas y llevamos a cabo la investigación de plantas interesantes. También tenemos muchos folletos acerca del uso de las plantas.

Nuestro proyecto principal ha sido la construcción de una base de datos de plantas útiles que contiene mas de 7000 especies, Esta puede ser consultada en línea en dos sitios, uno en el Reino Unido UK y otro en los Estados Unidos de Norteamérica US.

La próxima fase más estimulante del proyecto PFAF es la creación de un Eco pueblo en un nuevo sitio de nuestro terreno en Davon. Esto nos permitirá desarrollar una comunidad verdaderamente sostenible donde todas las necesidades serán cubiertas mediante el uso de las plantas cultivadas en el mismo sitio. El primer árbol se plantó en éste nuevo lugar el 12 de julio de 1997.

"Plants For A Future": el libro, ya está disponible. Este contiene mucho más información del mismo tipo que la que aquí damos, asi como anécdotas personales, 24 páginas de fotos a color y varios apéndices. Lo puede obtener de Permanent Publications a un precio de £19.00 inc p&p, 320pp.

Nuestro catalogo de plantas aparecerá proximamente. Mientras tanto puede ver nuestra vieja versión que le dará alguna idea de los tipos de plantas que ofrecemos.

Indice principal

Los folletos se agrupan bajo las siguientes secciones:

- Acerca de nosotros
- Servicios que ofrecemos
- Como puede usted ayudar o involucrarse en el proyecto
- Folletos sobre el uso de las plantas
- Usos comestibles
- Usos no comestibles
- Plantas para habitats especificos
- Descripcion de plantas acerca de plantas particularmente maravillosas.
- Listas para checar grandes listas de plantas para usos particulares.
- Otros folletos incluyendo extractos de nuestro periodico "Amigos de PFAF".
- Amigos y relaciones folletos de otras personas.

Otras características del sitio en la Red incluyen:

- La base de datos de 7000 plantas útiles, Esta puede ser consultada en línea en dos sitios, uno en el UK y uno en los US pronto tendremos uno en Australia.
- Enlaces a varios lugares útiles de la Red.
- Traducciones traducciones a otros lenguajes.
- Contactos como establecer contacto con nosotros.
- Que hay de nuevo muestra las novedades que hay en nuestro sitio en la Red y en PFAF.

Acerca de nosotros

- Introducción a Plantas para un futuro (English, Español, Esperanto, Italiano, Nederlands).
- La historia de Plantas para un futuro (English, Español).
- Plantas para un futuro - la comunidad (English, Español).
- Objetivos e ideales de PFAF (English, Español).
- El proyecto del eco-pueblo (English, Español, Nederlands).

Services

- Base de datos de las especies cerca de 7,000 plantas útiles.
    - Máquina de búsqueda UK.
    - Máquina de búsqueda US.
    - Bibliografía de la base de datos Listas de todos los libros de referencia de la base de datos.
- Servicio de asesoría en plantas y jardines ¿Desea ayuda para el cultivo de plantas no

usuales? ¿O le gustaría un diseño completo de permacultura? Podemos darle toda clase de asesoría y estariamos felices de que venga a tomar cursos.
- El catálogo Más de 200 plantas útiles. Actualmente tenemos descontinuado el catálogo, pero iniciaremos de nuevo en el Otoño.
- El libro PFAF detalles de el libro que contiene información de toda clase de plantas interesantes, escrito por el miembro fundador de Plantas para un Futuro.

¿Quiere ayudar o involucrarse en el proyecto?

- Amigos de Plantas para un futuro relación de los amigos que nos patrocinan.
- Fundación como puede ayudarnos financieramente.
- Otras formas en que puede ayudarnos y ser voluntario
- Cuentas de teléfono de patrocinadores Ahorre dinero en su cuenta de teléfono - mientras dona el 5% del costo a la beneficencia de Plantas para un Futuro. NEW

Folletos sobre el uso de plantas

1. ¿Por qué perennes? (English, Español, Italiano).
2. Plantas para la salud (Español).
3. Vegan - orgánica (English, Español).
4. ¿Por qué plantas? (English, Esperanto (ISO-3), Español).
5. Jardinería de conservación (Español).

Usos comestibles

1. Plantas alimenticias alternativas (English, Español).
2. La fruta - alimento de los dioses NEW (Español).
3. Frutas alternativas (Español).
4. Raíces alternativas
5. Oro verde - ¡Las hojas de la vida! NEW
6. Ensaladas de invierno
7. Principales cosechas de semillas de las perennes
8. Aceites vegetales

Usos no comestibles

1. Alumbrado alternativo - ceras y aceites de plantas
2. Fibras de las plantas
3. Jabón de las plantas

Plantas para Habitats particulares

1. Especies pioneras árboles apropiados para establecer un bosque. NEW
2. El prado comestible (English, Español).
3. Plantas ornamentales comestibles (English, Español).
4. El estanque y la ciénaga comestibles
5. Arbustos comestibles (English, Español).
6. El jardín urbano (English, Español).
7. Plantas para jardín arbolado
8. Plantas de cubierta
9. Setos y su uso (English, Deutsch)

Descripción de plantas

Folletos dedicados a plantas útiles particulares.

1. Especies Allium Las cebollas perennes (English, Español).
2. *Allium ursinum* El ajo silvestre (English, Español).
3. Arbutus unedo El árbol de fresas NEW
4. Crataegus Species Los espinos blancos
5. Elaeagnus x ebbingei Una planta para todos los motivos.
6. Asclepias species Las asclepias
7. Dioscorea batatas La resistente dioscorea NEW
8. Ginkgo biloba El árbol del culantrillo NEW
9. Hemerocallis Species Los lirios de un día
10. Hippophae salicifolia El ramno de mar de hojas de sauce
11. Oxalis deppei La planta de la cruz de hierro

Listados

Estos enlistan un gran número de plantas con usos particulares e incluyen información sobre sus condiciones de crecimiento.

1. Listado de plantas para cubierta
2. Listado de plantas para seto y rompevientos
3. Listado de árboles y arbustos para cinturones de protección
4. Arboles y arbustos comestibles resistentes en Inglaterra

Otros folletos

1. Abuso de los animales en la sociedad actual
2. Cooperativas

Los siguientes artículos, así como varias de las descripciones de plantas, fueron tomadas del periodico de Amigos de plantas para un Futuro:

1. Introducción e historia de PFAF.
2. Obteniendo plantas
3. Visitas a jardines - Kew
4. Tips de jardinería - sembrado de las semillas
5. El jardín de amor - una visita al Jardín Forestal de Robert Harts (Nederlands: De Tuin Van Liefde)

En general los artículos aparecerán en nuestro sitio en la Red un año después de que aparezcan en el periodico.

En el ejemplar de Julio de 1997 de la Revista de Permacultura (Permaculture Magazine) (no. 15 Julio '97). Hay un artículo de Ken de PFAF llamado Plants to Pigout On! que trata de sus frutas no usuales favoritas.

Amigos y relaciones

Algunos artículos de almas que piensan como nosotros alrededor del mundo.

- Cold Hardy Citrus (Citricos resistentes al frío) por William M. Morton bio-boys@worldnet.att.net

Si usted tiene algo interesante que decir y le gustaría tener un lugar para decirlo, mandenos un email y veremos que podemos hacer.

Enlaces

Página de enlaces principales

Incluyendo: Permacultura, Agricultura sustentable, Otros sistemas, Orgánica, Jardinería general, Plantas raras/semillas hereditarias, Plantas interesantes, Librerias, Hierbas y plantas medicinales, Jabones, tintes y otros usos de plantas, Plantas silvestres, Comunidades y eco - pueblos, Material para Vegan, Genética, Construyendo Verdor, Medio ambiente y lo verde, Otros sitios interesantes.

Grupos de noticias y listas de correo

Uno de los mejores caminos para encontrar respuestas a preguntas especificas es preguntar a otros en el Internet. Hay ahí muchas gentes con amplios conocimientos.

Bases de datos, botánica y fotos

Varios lugares donde puede encontrar más información acerca de plantas específicas: Botánica, Bases de datos, Fotografias y retratos.

Organizaciones fuera de línea de Permacultura en el Reino Unido

Montones de direcciones de grupos útiles en UK.

Proveedores

Lugares a lo ancho del mundo donde puede encontrar plantas (Fournisseurs de Plantes, Francais fuera de fecha).

Otros enlaces

Otros enlaces a lugares no relacionados con las plantas, y enlaces reciprocos.

Nuevos enlaces

Agregados recientes a la página de enlaces.

Página personal del Dr. Dick

Mi propia página personal, tiene enlaces con eco - activistas del Reino Unido, Taoísmo, Tai-chi y Feng-Shou y matemáticas.

Traducciones

Nos gustaría romper el dominio Anglo - centrico del mundo de cualquier forma posible. Entonces, si usted desea ayudarnos a traducir estas páginas a otros idiomas por favor contáctenos a pfaf@scs.leeds.ac.uk.

- PFAF Página Personal, Español
- Plantas para un Futuro - Introducción

- La Historia de PFAF, Español
- Centro de Investigación Botánica de Blagdon y Jardines de Demostración, Español
- Objetivos e Ideales de PFAF, Español
- PFAF - La Comunidad, Español
- Vegan-Orgánica Los principios básicos, Español
- ¿Porqué perennes?, Español
- Cultivos alimenticios alternativos, Español
- Plantas para la Salud, Español
- Frutas aternativas, Español
- Frutas - Alimento de los Dioses, Español
- Jardinería de conservación, Español
- El jardín urbano, Español
- Plantas ornamentales comestibles, Español
- Arbustos comestibles, Español
- El prado comestible, Español
- Especies Allium - Las cebollas perennes, Español
- *Allium ursinum*, El Ajo silvestre, Español
- Introduction, Esperanto (ISO-3 varianto)
- Kial Plantojn? Esperanto (ISO-3 varianto)
- Introduzione, Italiano
- Perche Piante Perenni?, Italiano
- Fournisseurs de Plantes, Francais NEW
- Planten Voor Een Toekomst - Inleiding, Nederlands

- De Tuin Van Liefde, Nederlands
- Eco Village, Nederlands
- Hecken und ihre Nutzung, Deutsch

Contáctenos

Si le gusta esta página, quiere mantenerse informado, tiene cualquier información útil o simplemente quiere saludarnos, por favor mandenos email pfaf@scs.leeds.ac.uk. Nos interesa saber también como llegó a estas páginas.

Deseo aclarar que Yo (Rich Morris) no vivo actualmente en ninguno de los lugares de Plantas para un Futuro. Entonces, hay ciertas cosas con las cuales realmente no puedo ayudarlo y sería mejor que escribiera a

The Field, Penpol, Lostwithiel, Cornwall, PL22 0NG, England
Telephone Bodmin (+44 1208) 872963

- **Ordenes de Catálogo** Yo puedo mandarle un email cuando el nuevo catálogo salga al público. Pero es mejor que se comuniquen a la beneficencia y ellos le mandarán una versión impresa cuando este disponible.
- **Pedidos de la Base de datos** Yo puedo decirle donde descargar la base de datos vía ftp pero no puedo mandársela en CD-ROM ó floppy disk. Puedo ayudarlo con cualquier problema en su operación. Por favor vea el folleto obteniendo la base de datos antes de preguntar.
- **Información sobre plantas.** Yo no se mucho acerca de las plantas, por eso no puedo darle un consejo experto. Yo sé de la Red (web), por lo que puedo algunas veces ayudarlo a encontrar otra información acerca de las plantas. Los expertos en plantas están en la dirección que dí anteriormente. Sin embargo, ellos tienen mucho correo que contestar, de modo que, tenga paciencia para esperar sus respuestas. Si usted quiere servicio prioritario trate nuestro Servicio de asesoría en plantas y jardines.
- **Voluntarios y visitantes.** Si usted quiere visitar el proyecto o quiere ser voluntario, escriba a la dirección dada arriba y ellos se pondrán de acuerdo con usted.
- **Asuntos con la Beneficencia.** Soy un fideicomisario de la Beneficencia y me dará gusto recibir preguntas acerca de ella.

FTP

Para aquellos de ustedes que no pueden usar la Red, estos archivos pueden obtenerse vía ftp en formatos Word 6.0 y texto envíeme un email y le diré donde obtenerlos.

¿Qué hay de nuevo?

Oct '99

Nuevos enlaces todos los sitios nuevos en la Red serán agregados aquí.

Nueva traducción al español de: PFAF - La Comunidad, El jardín urbano, Cultivos alimenticios alternativos, Plantas ornamentales comestibles, Arbustos comestibles, El prado comestible, *Allium ursinum*, El Ajo silvestre.

Sept '99

Nueva traducción al español de Especies Allium - Las cebollas perennes, bien Leonel.

Aug '99

Tip del sombrero de Pedro para arreglar mi Gramática y deletreo.

Nuevo folleto sobre Formas en que puede ayudarnos y ser voluntario.

Nuevas traducciones al español de ¿Porqué perennes? y Centro de Investigación Botánica de Blagdon y Jardines de Demostración (eco - pueblo).

Una gran lista de plantas del UK y proveedores de semillas se agregó a la página de Proveedores.

Aquellos de ustedes que estuvieron en nuestro lugar en Cornwall en el verano, advertirían el problema que tuvimos con la plaga de hierbas nocivas y pasarían muchas horas felices arrancándolas. Bien, estarán felices de saber que este año hemos estado virtualmente libres de ellas. Nadie sabe a ciencia cierta porque desaparecieron, quizá todas las semillas que estaban en la capa superior del suelo germinaron y como no lo hemos removido, las semillas en las capas inferiores no fueron sacadas a la superficie. También, como el terreno se parece cada día más a un ambiente de bosque, el hábitat de las hierbas a sido alterado desfavorablemente para ellas, un signo de que las técnicas de permacultura y jardinería de áreas boscosas está trabajando efectivamente.

Disculpas a los amigos que trataron de accesar nuestro sitio en la Red durante el feriado de Agosto. Estuvimos fuera por mantenimiento general y eléctrico al servidor. Ahora las cosas han vuelto a la normalidad.

July '99

Desdichadamente no obtuvimos el permiso de planeación para nuestro sitio en Blagdon ¡Por lo tanto estamos apelando!

Nuevas traducciones al español de los folletos Objetivos e Ideales de PFAF, y Vegan-Orgánica - Los principios básicos.

June '99.

La última versión de la base de datos está ahora en línea, tiene cerca de 300 nuevas plantas. La máquina de búsqueda de UK incluye ahora referencias cruzadas con otros sitios.

La máquina de búsqueda Australiana está en camino.

Está en desarrollo una versión en formato Java de la base de datos de la Red. Tenga la base de datos completa en su computadora casera. (Detalles).

Nueva traducción al español de los folletos Introducción y La Historia de PFAF .

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StudyWeb Award

Strategian

¡Wow! Obtuvimos algunos de los mejores premios del tipo "Lo mejor de la Red", ¿Quién lo hubiera pensado?. Y somos un sitio de oro en la NetGuide (Guía de la Red). Nuestro sitio hermano "The Plant Tracker"(El rastreador de plantas) tuvo grandes cantidades de "fama en la Red" mientras su base de datos de las especies estuvo en línea. Obtuvimos la selección de la semana de webcrawler, yahoo, Netscape y algunos otros. Aún más (y estoy muy orgulloso de este) el "plant tracker" fue el sitio lo que destaca En diciembre en enviro-link (enlaces ambientales). Y nosotros fuimos el hot-spot/site of the day (sitio punto - caliente/ del día)(17/10/97) en Planet Science (Ciencia del Planeta), el nuevo sitio de la Red del New Scientist magazines (Nuevas Revistas Científicas). Premio máximo de BioMedNet: la comunidad internacional de Biological and Medical Research (Investigación Médica y Biológica), ¡La cuál nunca había tenido la medicina herbal en su lista de categorías! Y lo más reciente (1/3/99) nuestro sitio es de los mejores 10 en todo de ciencia en Marzo para Strategian que tiene uno de los criterios más exigentes y las mejores artículos que yo conozco.

Bien por School of Computer Science (Escuela de Ciencia Computacional) en la Universidad de Leeds por su espacio en la Red.

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Los originales de respaldo se encuentran en Warwick y modificados por rjm (adivine la simetría). Banderas de aquí y allá.

Ahora estoy usando el programa gratis de Programmers File Editor para editar mis páginas web y los scripts con ayuda ocasional de gvim.

Plants for a Future
A resource centre for edible and other useful plants

Regresar a la Plantas para un Futuro página principal: Español English

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English

Vegan-Orgánica Los principios básicos.

La horticultura Vegan - orgánica es una forma de cultivo que evita el uso de fertilizantes químicos, fumigaciones, etc., y sin usar ningún producto animal (excepto aquellos obtenidos de humanos). Es un sistema de cuidado del suelo en una forma continua para asegurarse que retiene su fertilidad para las generaciones futuras. Un método de cultivo que trabaja en armonía con la naturaleza, procurando una amplia variedad de vida vegetal y animal que comparta la tierra con nosotros.

Esta hoja es una guía general de los principios básicos del sistema vegan – orgánico. Si desea una información más específica, al final enlistamos algunas publicaciones cuya lectura sugerimos.

Los principios básicos:

1. Siempre que sea posible, evite remover la tierra

Hay muchas razones para esto:

- En la tierra viven muchas criaturas y organismos que ayudan a crear en ella drenaje y la fertilizan. Al remover la tierra matamos a muchas de ellas y rompemos el drenaje natural que crearon.
- Al remover la tierra provocará una descomposición más rápida de la materia orgánica. Entonces, si desea mantener la fertilidad del suelo, usted caerá en un circulo vicioso, ya que tendrá que obtener más materia orgánica para fertilizar el suelo y necesitará remover la tierra para que esa nueva materia orgánica se descomponga exigiéndole un mayor trabajo y esfuerzo.
- Al remover la tierra la expone a la erosión por la lluvia y el viento. También aumenta la pérdida de nitrógeno y otros nutrientes solubles al agua perdiendo fertilidad.
- Al remover la tierra sacará a la superficie semillas de hierbas que rápidamente germinarán y crecerán creándole la necesidad de deshierbar el terreno.

- Remover la tierra no es en realidad un ejercicio saludable, exige un gran esfuerzo de la espalda y a menudo causa lesiones.

Entonces, ¿Cuáles son las alternativas?

Cubiertas

Si su suelo está aceptablemente libre de semillas de hierbas, es posible simplemente aplicar anualmente una cubierta de materia orgánica o composta, de preferencia al final del invierno o principios de la primavera. Aplique alrededor de 5 cm cubriendo todo el terreno. Si a su suelo le falta humus, verá como ésta cubierta será asimilada rápidamente en el curso del año. Aplique otra cubierta similar cada año, hasta lograr un suelo fértil de 5 cm de profundidad. A medida que la fertilidad del suelo aumenta, notará que cada año requiere menos material de cubierta pues será mayor la cantidad de la cubierta anterior que quede sobre el terreno. Este método para mejorar el suelo requiere, al principio, una fuerte inversión de materia orgánica – el siguiente párrafo da detalles acerca de cómo obtenerla.

Cubriendo terrenos infestados de hierba..

La mayoría de los jardineros orgánicos, cuando se enfrentan a un terreno altamente infestado de hierbas, inmediatamente traerán sus herramientas de trabajo y pasarán muchas horas removiendo la tierra laboriosamente retirando tantas hierbas como sea posible. No sólo es un trabajo excesivamente pesado, sino además, la mayor parte de las veces es poco exitoso. Muchas de las hierbas, tales como el zacate o los cardos, pronto brotarán con renovada energía si queda en el terreno la más mínima parte de su raíz. Habrá también una germinación explosiva de las grandes cantidades de semilla enterradas en el suelo, que tendrán las mejores condiciones para germinar al remover el terreno. El reluciente terreno muy pronto estará cubierto de hierbas otra vez. La alternativa, otra vez, es cubrirlo. Pero esta vez, debe ponerse una barrera bajo la cubierta que evite que las hierbas crezcan a través de ella. Hemos encontrado que el cartón con el que se hacen las cajas es la barrera ideal. Se obtiene fácilmente como desperdicio en las tiendas locales y formará una excelente barrera durante un año cuando menos, en este tiempo habrán muerto la mayoría de las semillas persistentes y el cartón mismo se degradará integrándose a la materia orgánica fertilizando el suelo. Otros materiales que pueden usarse incluyen el papel periódico (pero evite sobremanera los que tienen tintas de color y menos los use si va a cultivar alimentos) y alfombras (solo las hechas de materiales biodegradables y naturales). Es muy importante asegurarse de que la barrera de cubierta es suficientemente gruesa, de otro modo, las semillas de más vitalidad tales como cardos y bardanas encontrarán su camino a través de ésta. Serán normalmente suficientes; un tapete que no esté demasiado gastado y abierto, cajas de cartón dobladas pero no extendidas o abiertas ó papel periódico con 15 hojas de espesor. Asegúrese de que las orillas del cartón, papel o cualquier cosa que use, se traslapen al menos 8 cm, de otro modo las hierbas tendrán un camino fácil hacia la superficie. El final del invierno es el tiempo ideal para cubrir estos terrenos, pero puede hacerse en cualquier época del año con tal de que el terreno esté húmedo (la cubierta ayuda a retener la humedad del suelo, pero también puede evitar que el suelo se humedezca, por eso, si se pone la cubierta sobre un suelo seco, éste permanecerá seco hasta que haya suficiente humedad para atravesar la cubierta). Es posible plantar dentro de esta cama cubierta dentro de los tres primeros meses después de cubrirla. Simplemente haga un agujero en el cartón y siembre en este agujero, algunas hierbas crecerán en él pero será fácil controlarlas a mano. Usando este método, es posible obtener un suelo aceptable a partir del terreno infestado de hierbas, a mediados del siguiente verano

Métodos sin remover la tierra.

Una vez que ha cubierto una buena superficie de su terreno, ¿puede plantar y sembrar en él?. Suponiendo que la materia orgánica que usó es suficientemente fina (tal como una composta bien degradada) entonces simplemente trate la cubierta igual que a la superficie de su terreno, sembrando y plantando directamente en él. Si usó un material más grueso como pedacería de cortezas y ramas o bien hojas comprimidas, la siembra de semillas no tendrá éxito a menos que use semillas tales como el chícharo o frijol. Sin embargo, es posible sembrar papa o hacer trasplantes desde macetas.

2. Agregue tanta materia orgánica como le sea posible.

Esto es esencial, si quiere mantener o incrementar la fertilidad natural del suelo, asegúrese de que aplica suficiente materia orgánica. El aspecto más difícil del cultivo orgánico es a menudo obtener suficiente materia orgánica. Hay varias fuentes potenciales

Composta de jardín.

No desperdicie la más mínima porción de materia orgánica que encuentre en su jardín o su casa. Cualquier cosa que vivió se degradará y proveerá nutrientes al suelo y a las plantas que crecen en él. Casi nunca se justifica quemar materia orgánica, las únicas excepciones ocurren cuando la planta fuente de la materia orgánica estaba enferma, y las causas de su enfermedad no pueden ser destruidas en el proceso de degradación. Por ejemplo, gangrena del manzano, madera infestada con hongos de la miel, etc., Si no puede obtener suficiente materia orgánica de su jardín (pocos podemos) puede acudir a muchas otras fuentes. Muchos otros jardineros acostumbran mantener muy limpio su jardín y tiran las podas y las hojas caducas, estarían muy contentos si usted las recoge. Los verduleros a menudo le permiten recoger todo el desperdicio que ellos tiran. Cuando activa su pila de composta utilice orina, es un recurso absolutamente gratuito y un fertilizante muy valioso que también es generalmente desperdiciado. Si no se puede recurrir a la orina, aún así su pila de composta se degradará por su propia cuenta, aunque tomará más tiempo. Puede acelerar la degradación agregando capas de material rico en nitrógeno tales como ortigas, algas marinas o recortes tiernos de zacate, o puede usar activador herbal QR, aunque este puede contener mieles.

Algas marinas.

Mucha de la fertilidad natural de la tierra se va al mar. Las lluvias fuertes, por ejemplo, arrastran suelo y nutrientes a los ríos y de ahí al mar. La mayoría de nosotros al jalarle al excusado mandamos valiosas cantidades de fertilizantes a una húmeda tumba. Tiene sentido entonces, que recuperemos parte de la fertilidad perdida usando en nuestras tierras las algas marinas. Si vive cerca de las costas las podrá recolectar usted mismo, si no, puede conseguir harinas de algas marinas en los centros de jardinería. No use algas marinas calcificadas, vea más adelante las razones.

Desperdicios de lúpulo..

Si usted vive cerca de alguna cervecería puede ser bastante afortunado para obtener grandes cantidades de este material gratis. Es un acondicionador de la tierra excelente, pero si es posible úselo junto con harinas de alga marina o composta para incrementar sus contenidos minerales.

Hojas de árboles..

Son otro excelente acondicionador del suelo. Es posible obtenerlas en otoño en grandes cantidades de los árboles en la calle. Puede inclusive lograr que las recojan por usted, si conoce algún concejal simpático o un barrendero local que esté dispuesto a juntarle algunos sacos de hojas. Sin embargo, se deben tener algunas precauciones, si las hojas provienen de avenidas de mucho tráfico, pueden estar contaminadas con grandes cantidades de plomo debido a los gases de escape de los vehículos.

Consuelda.

Muchos jardineros orgánicos cultivan una cama de consuelda. Al mismo tiempo que obtienen material para la pila de composta, puede ser usada como cubierta alrededor de las plantas o en surcos antes de plantar papas o sembrar chícharo, ejote, frijol, etc. Es posible segarla varias veces al año, con la primer siega en abril. Asegúrese de dejarla secar en el sol por varias horas para que vuelva a enraizar y se vuelva un problema. Hay algunos tipos de consuelda que no asemillan por lo que no causan problemas en su jardín. Trate de obtener *Bocking 14*, que se puede obtener de muchos buenos proveedores para jardinería orgánica.

Desperdicio biodegradado de jardín.

Muchos municipios tienen ya centros de reciclado donde los desperdicios de jardín son molidos y biodegradados. Es igual en calidad que la mayoría de la composta hecha en casa. Este material frecuentemente se empaca y se vende como acondicionador para la tierra bajo varios nombres comerciales. Si tiene usted suerte, puede conseguir permiso para recolectar gratis material sin empacar, o con un pequeño cargo, obtenerlo directamente del centro de reciclado.

Abonos verdes.

Hay muchas plantas que pueden cultivarse con la finalidad de incrementar la fertilidad del suelo. Básicamente entierra la semilla y deja que la planta crezca durante algunas semanas antes de cortarla. Muchos jardineros entierran las plantas mezclando con la tierra, aunque también es posible dejarlas degradar sobre el terreno o recolectarlas y descomponerlas en una pila de composta. Algunos abonos verdes, en particular los chícharos y el frijol, enriquecen la tierra con nitrógeno y materia orgánica. Los abonos verdes tienen muchos beneficios y pueden cultivarse en terrenos que de otra manera estarían vacíos. Las especies a considerar incluyen el trigo sarraceno, centeno, algarroba de invierno, tréboles, girasol y alfalfa

Hay algunas fuentes de materia orgánica que no recomendamos:

Turba.

Ha habido mucha publicidad acerca de pantanos de cieno o turba destruidos con el fin de proveer material para composta, cubiertas, etc. Evite usar este material si es posible.

Algas calcificadas..

Aunque es un excelente fertilizante y acondicionador del suelo, especialmente para suelos ácidos, Se obtiene de arrecifes de coral en forma destructiva e inadecuada.

Desperdicio de composta para cultivo de hongos.

Solo en caso de que no lo sepa, este material esta compuesto de estiércol de caballo y esta muy contaminado con productos químicos que se usan en el cultivo de los hongos

Bagazo de coco.

Se esta usando cada vez más como reemplazo de la turba. Pensamos que, aunque es un excelente acondicionador del suelo, es preferible dejarlo en su lugar de origen para que mantenga la fertilidad de su suelo.

3. Nutrientes líquidos.

La mayoría de las plantas, si no todas, se benefician al recibir alimentos concentrados durante la estación de crecimiento. Las anuales, especialmente, se benefician porque ellas no tienen el sistema organizado de raíces de las perennes. Es posible comprar alimentos líquidos vegan o puede hacerlos usted mismo. El proceso es simple. Llene un contenedor, quizá un recolector de basura, con materia vegetal tan apretada como sea posible y llénelo con agua (se sorprenderá de la cantidad de agua que necesita para llenarlo) déjelo en reposo por una o dos semanas. Para entonces estará muy oloroso, dilúyalo en una relación de 10 a 1 con agua y vacíelo en la tierra alrededor de las plantas. Alternativamente, puede rociarlo sobre sus hojas, de preferencia ya puesto el sol o en días nublados. Algunos materiales que puede usar son:

Algas marinas.

Puede colectarlas de la playa o comprarlas como líquido en centros de jardinería. Es un excelente nutriente general, muy rico en una amplia variedad de minerales.

Consuelda.

Es muy buena fuente de potasio, especialmente buena para papas y tomates. Las ortigas proveen nitrógeno y son muy ricas en minerales o usando una mezcla de pastos de jardín se obtendrán muy buenos nutrientes para uso general

4. Plagas y enfermedades.

Se pueden conseguir una amplia variedad de fumigantes orgánicos para tratar las plagas y enfermedades de las plantas. En general, sentimos que éstos deben ser armas a usarse como un último recurso ya que también matan a otras criaturas, muchas de ellas, benéficas para el cultivo. Si cree que es esencial usar estos materiales necesita investigar cuál es el mejor. Lea un buen catálogo de un proveedor orgánico, es a menudo una guía suficiente. Hay también varios pesticidas que pueden ser hechos usando plantas de jardín. Aunque debe usted ser un buen conocedor antes de usarlas, pues a menudo, estas pueden ser más dañinas para la vida silvestre que las compradas. Si usted quiere considerar alternativas a los pesticidas le presentamos algunas opciones:

Manzanilla y ajo.

Agregue un ajo machacado y un manojo de flores de manzanilla a medio litro de agua hirviendo. Apártelo del fuego, cúbralo y déjelo reposar 12 horas. Obtendrá un excelente tónico para las plantas que las ayudará a luchar contra las plagas y enfermedades.

Mezcla y asociación de plantas.

Las plagas y las enfermedades de las plantas cunden más rápidamente cuando hay un gran grupo de plantas de la misma especie creciendo juntas. Trate de mezclar más sus plantas – encontrará que esto lo ayudará a obtener mayores beneficios de su tierra. Sembrando plantas aromáticas entre sus cultivos notará que la incidencia de plagas y enfermedades disminuye. En este caso son muy útiles la manzanilla, el ajo y muchas de las hierbas Mediterráneas.

Promueva la vida silvestre.

Hay muchas criaturas que amarán el poder compartir su jardín con usted, y como agradecimiento se comerán muchas de las plagas que lo atacan. Construya un estanque, por ejemplo, y cualquier rana que viva en él comerá grandes cantidades de babosas. El puercoespin y las culebras también lo limpiarán de babosas y caracoles. Los tordos son también útiles en este caso, pero ellos además desearán compartir sus frutas con usted.

Control biológico.

Hay ahora muchas compañías que ofrecen criaturas parásitas que puede introducir en su sembradío o invernadero para controlar plagas. Yo tengo cierta resistencia a usarlas, especialmente si no son especies nativas. Sin embargo, estos parásitos son muy específicos para la plaga que deben controlar, por lo que son mucho más seguros para el ambiente que las fumigaciones.

Técnicas de jardinería.

Hay muchos pequeños trucos que usted puede usar para reducir la incidencia de plagas y enfermedades. Por ejemplo, dejando la siembra principal de zanahoria hasta principios de junio se reduce el riesgo de que aparezca la mosca de la raíz. Dejar hojas de ruibarbo sobre el terreno atraerá las babosas y se cubrirán con ellas – entonces solo es cuestión de recoger las babosas y tirarlas donde quiera que usted quiera tirarlas. Cualquier buen libro de jardinería orgánica incluirá muchas de estas técnicas. Es muy importante ser muy ordenado y limpio en la jardinería. Dejar cosas tiradas, por ejemplo, les dará a las babosas y caracoles un sitio para cubrirse. No hay problema si esta usted dispuesto a revisar todos estos lugares a diario – pero si hay, si le da flojera y no esta dispuesto a hacerlo. Si tiene una enfermedad en las plantas, trátelas tan pronto como sea posible. Remueva las plantas enfermas quemándolas si es absolutamente necesario.

5. Promueva la vida silvestre.

Ya hemos mencionado el valor que tiene la vida silvestre en el jardín para el control de plagas y enfermedades. Es también importante que tratemos de proveer condiciones adecuadas para el desarrollo de la fauna nativa, para remediar de algún modo la destrucción de sus nichos ecológicos, que esta ocurriendo en este país. Hay una gran área de terreno ocupada por jardines y lotificaciones que pueden proveer un hábitat adecuado para un amplio rango de criaturas. Promover la vida silvestre no significa arrojar todos los días migajas de comida a los pájaros o poner un paquete de cacahuates en un alimentador de pájaros. Aunque es adorable mirarlos comerse los bocados, lo que esta haciendo es hacerlos dependientes de usted para su alimentación. Si deja de alimentarlos, por que se mude de casa o cualquier otra razón, estos animalitos habrán perdido su fuente de alimentación y pueden morir.

Es mejor proveerles de una fuente de alimentación más natural y permanente sembrando las plantas apropiadas para ellos. Por ejemplo, hay muchos árboles y arbustos frutales que proveerán de alimento a pájaros y otras criaturas silvestres. Otras plantas proveerán polen y néctar para abejas y mariposas. Un estanque atraerá una amplia variedad de insectos, anfibios y otros. Cultive un lote de flores silvestres y se sorprenderá de la cantidad de mariposas, palomitas, abejas, etc., que acudirán a agradecerlo – y probablemente será invitado a verlos en sus cacerías de insectos en el pasto bajo donde éstos abundarán. Siempre que sea posible, escoja especies nativas para su promoción de la vida silvestre, aunque hay muchas que sin ser nativas pueden ser también muy útiles (buddleia y cotoneasters).

6. Cultive especies perennes cuando sea posible.

El mundo de la jardinería, especialmente tratándose de cultivar alimentos, ha llegado a ser entorpecido con los cultivos anuales. Estos requieren un trabajo mucho más duro, simplemente porque hay que preparar almácigos, sembrar las semillas, deshierbar, etc., cada año, si quiere obtener una buena cosecha. Hay disponible una gran variedad de alternativas en el cultivo de especies perennes frutales. Son mucho más fáciles de cultivar – una vez establecidas producirán cosechas año tras año con poca atención. Pueden ser también más productivas – especialmente si se hacen plantaciones mixtas o con plantas complementarias

Lectura adicional.

Hay muchos buenos libros sobre jardinería orgánica - aquí hay algunos de donde escoger.

L. Hills.

Grow your own Fruit and Vegetables

Excelente guía básica.

M. E. Bruce. *Commonsense Compost Making.* Faber. 0-571-09990-4

Excelente librito que trata sobre la forma de hacer buena composta usando hierbas.

J. Larkcom. *Salads all the Year Round.* Hamlyns

Guía sobre plantas para ensalada de clima templado.

L. Woodward. *Green manures.* Elm Farm

Cosechas de abonos verdes para áreas templadas.

P. Allardice *A - Z of Companion Planting* Cassell, 0-304-34324-2

Bien realizado y muy comprensible.

Esta hoja fue realizada en asociación con el Vegan-Organic Horticulture And Agriculture Network, (Red de agricultura y horticultura Vegan-orgánica) Anandavan, 58 High Lane, Chorlton, Manchester. M21 9DZ. Teléfono 0161 860 4869

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el

nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

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Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

Plants for a Future
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Back to Plants For A Future home page.

Español

Vegan-Organics - The Basic Principles.

Vegan organic horticulture is a method of growing plants without the use of chemical fertilizers, sprays etc and without using any animal products (except those obtained from humans). It is a system of caring for the soil in a sustainable way to ensure it retains its fertility for future generations. It is a method of growing plants that works in harmony with nature, encouraging a wide diversity of plant and animal life to share the land with us.

This leaflet is a brief guide to the basic principles of vegan organics. A list of suggested reading is given at the end should you want to find more specific information.

The Basic Principles:

1. Wherever possible, do not dig the soil.

There are many reasons for this:

- There are many creatures and organisms living in the soil, helping to create drainage and build up fertility. Digging the soil will kill many of these creatures and break up the natural drainage they have created.
- By digging the soil you will encourage much more rapid breakdown of organic matter. Thus, if you wish to maintain the soil fertility, you will become locked into a vicious circle of having to obtain more organic matter to feed the soil whilst putting in lots of effort through your digging in order to destroy that organic matter.
- Digging the soil exposes it to erosion from rain and wind. It also increases the leaching of nitrogen and other water-soluble nutrients from the soil.
- Digging soil will bring weed seeds to the surface where they will quickly germinate and grow. Thus digging actually increases the need to weed.
- Rather than being healthy exercise, digging is actually a great strain in the back and often leads to damage.

So, what are the alternatives?

Mulching

If your soil is fairly weed-free, it is possible to simply apply an annual mulch, preferably in late winter or early spring, of some organic matter such as compost. Apply this about 5cm deep all over the ground. If your soil is lacking in humus then you will find that this dressing of organic matter will rapidly be drawn into the soil in the course of the year. Apply another mulch each succeeding year, to make a total depth of about 5cm. As the fertility of the soil is built up, you will notice that less mulch material is required because more is left over from the previous dressing. This method of gardening does require large initial inputs of organic matter - see item 2 below for details of obtaining this.

Mulching weed-infested sites.

Most organic gardeners, when confronted by a heavily weed-infested site, will reach immediately for the fork or spade and spend many hours laboriously digging out as many weeds as they can. Not only is this exceedingly hard work, but it is often far less than successful. Many of the weeds, such as couch grass or thistles, will soon regrow with renewed vigour if even small parts of the roots are left in the ground. There will also usually be an explosion of germination from literally millions of seeds that have been given ideal germination conditions. The newly-dug ground will very soon be covered in weeds again. The alternative, once more, is to mulch. But this time there must be some barrier placed below the mulch to prevent all the weeds from growing through. We have found that cardboard boxes are an ideal barrier to use. They are usually freely available in quantity from local shops etc, will form an excellent barrier for a year or so, in which time most of the persistent weeds will have died, and then will rot down nicely to add their own organic matter to the fertility of the soil. Other materials that can also be used include newspapers (but try to avoid too many with colour printing and do not use colour supplements on land where you intend to grow food) and carpets (but only those made of natural materials such as hessian - avoid foam-backed carpets). It is very important to ensure that you apply a sufficient thickness of barrier mulch, otherwise the more vital weeds such as thistles and docks will push their way through it. A carpet that is not too worn is usually sufficient, cardboard boxes folded flat but not opened out are generally enough, and newspapers about 15 sheets thick are generally enough. Make sure that the edges of boxes, paper or whatever overlap by at least 8cm, otherwise the weeds will soon find their way to the surface. Late winter is the ideal time to mulch weed-infested beds, though it can be done at any time of the year so long as the soil is not dry (as well as helping to retain moisture in the soil, a mulch can also prevent moisture from reaching the soil, so a mulched dry soil will remain dry until there has been sufficient rain to soak the mulch and then penetrate into the soil). It is possible to plant into this mulched bed within three months of mulching. You simply use a trowel to make a hole into the cardboard and then plant into this hole. You may find that some weeds will start to grow out of this planting hole, but these are easily controlled by hand weeding. By using this method, it is actually possible to produce a semi-mature bed from weed-infested land by the middle of the first summer.

No-digging methods.

Once you have applied a good surface mulch to your ground, how do you go about planting and sowing seeds in it? Assuming that the organic matter you have used is fairly fine (such as well- rotted compost) then you just treat this as the surface of your soil, sowing and planting directly into it. If you used a coarser material such as shredded bark or leaf mould, then seed sowing will not be very successful unless using larger seeds such as peas and beans. It is possible to grow potatoes, however, and also to plant out pot- grown plants.

2. Add as much organic matter to the soil as you can.

It is essential, if you want to maintain or increase the natural fertility of the soil, to make sure that you apply sufficient organic matter. Obtaining sufficient organic matter is often the most difficult aspect of organic gardening. There are several potential sources.

Garden compost.

Do not waste a single scrap of organic matter in the garden or the house. Everything that once lived will rot down to provide nutrients for the soil and plants growing in the soil. There is almost never any reason to burn organic matter, the only exceptions to this being when plant matter is diseased and this disease will not or might not be destroyed in the composting process. Canker of apple trees is one example, wood infested with honey fungus is another. If you cannot obtain sufficient organic matter from your garden (and few of us can) then there are plenty of other sources to look for. Many other gardeners, for example, regularly throw out large quantities of garden waste and will be only too happy for you to collect it. Greengrocers will often let you have all the organic matter that they throw out. When activating your compost heap, consider using urine. This is an absolutely free commodity and a very valuable source of fertility that is all too often wasted. If urine does not appeal, then the heap will still rot down of its own accord, though it will take longer. You can speed it up by adding layers of nitrogen-rich material such as nettles, seaweed or young grass mowings, or you can use QR herbal activator, though this can contain honey.

Seaweed.

Much of the natural fertility of the land is washed out to sea. Heavy rain, for example, will wash away soil and nutrients into the rivers and hence to the sea. Most of us regularly use flush toilets and send valuable consignments of fertility on their way to a watery grave. It therefore seems sensible to return some of this fertility to the land by using seaweed. If you live near the coast then you could collect it yourself, otherwise you can buy seaweed meal from most garden centres. Do not use calcified seaweed, see below for the reasons.

Spent hops.

If you live near a brewery then you might be lucky enough to pick up large quantities of this material free. It is an excellent soil conditioner, but if possible use it in conjunction with seaweed meal or compost to improve the mineral content.

Tree leaves.

Another excellent soil conditioner, it is often possible to obtain large quantities of leaves in the autumn from street trees. You might even get the work of collecting them done for you, if you have a sympathetic council or a local road-sweeper who is willing to drop off some sacks to you. Some caution is advised, however. If the leaves come from trees growing close to busy roads then they are likely to contain quite a lot of lead pollution from car exhausts.

Comfrey.

Many organic gardeners grow a bed of comfrey. As well as providing a bulk of material for the compost heap, comfrey can be used as a mulch around plants, or can be placed in trenches before planting potatoes or sowing peas, beans etc. It is possible to harvest top growth several times a year, with the first harvest being available in April. Make sure you leave it in the sun for a few hours to wilt, just to make sure it does not root and become a nuisance. There are special forms of comfrey that do not set seed and so cannot become a problem in the garden. Try to obtain *Bocking 14*, which is available from many good organic garden suppliers.

Composted garden waste.

Many councils now have recycling centres where garden waste is shredded and then composted. It is then equal in quality to most home-made composts. This material is often then bagged up and sold as a soil conditioner under various commercial names. If you are very lucky, you might find that you will be able to collect the unbagged material free, or for a very small charge, direct from the recycling centre.

Green manures.

There are many plants that can be grown in order to increase the fertility of the soil. Basically you sow the seed and allow the plant to grow for some weeks before cutting it down. Many gardeners will then dig this into the soil, though it is also possible to either let it break down in situ or to remove it and compost it. A number of green manure crops, in particular the peas and beans, will enrich the soil with nitrogen as well as providing organic matter. Green manures have many benefits and can be grown as catch-crops in land that would otherwise be empty. Species to consider include buckwheat, rye, winter tares, clovers, sunflowers and alfalfa.

There are some sources of organic matter that we would not recommend:-

Peat.

There has been a lot of publicity about peat bogs being destroyed in order to provide peat for composts, mulching etc. Please try to avoid this material if possible.

Calcified seaweed.

Although it is an excellent fertilizer and soil conditioner, especially for acid soils, it is obtained from the temperate ocean equivalent of coral reefs, and is being harvested in an unsustainable way.

Spent mushroom compost.

Just in case you were not aware of it, this material is usually made from animal manures, especially horse manure. It is also heavily polluted with all the chemicals they use in growing mushrooms.

Coir.

This is being used in increasing quantities as a peat replacement. We feel that, although this is an excellent soil conditioner, it should be left in the countries where it grew in order to improve the fertility of their soils.

3. Liquid feeds.

Most, if not all, plants benefit from being given concentrated feeds during the growing season. Annuals, especially, benefit because they do not have the established root system of perennials. It is possible to buy vegan liquid feeds or you can make your own. The process is simple. You fill a container, perhaps a dustbin, with plant material, pushing it in tightly to get as much in as possible. You then fill the container with water (and you will be surprised how much water will fit in) and leave it for a week or two. It will by then be very smelly, and you dilute it by perhaps 10 - 1 with water and then pour it on the soil around the plants. Alternatively, you can spray it over the leaves of plants, preferably in the evening or on cloudy days. Some possible materials to use include:-

Seaweed.

> You can either collect the seaweed from the beach, or buy liquid seaweed from garden centres. Very rich in a wide range of minerals, it is an excellent general feed.

Comfrey.

> A very good source of potassium, it is especially good for potatoes and tomatoes. Nettles. Rich in most minerals, and also providing some nitrogen, it is a good general feed. Weeds. Just using a mixture of garden weeds will provide a good general-purpose feed.

4. Pests and diseases.

There are many organic sprays available for treating pests and diseases in plants. In general, we feel that these should be weapons of last resort since they will also kill other creatures, many of which are very beneficial in the garden. If you feel it is essential to use such materials, then you will need to read up on which material is best to use. A read of a good catalogue from an organic supplier will often be sufficient guide. There are also various sprays that can be made from plants growing in the garden. In general, you have to be very knowledgeable before using these, since they are often more harmful to wildlife than the sprays you can buy. If you want to consider alternatives to spraying, then the following are some options:-

Camomile and garlic.

> Add a crushed garlic clove and a small handful of camomile flowers to half a litre of water that has just been boiled. Cover and leave to soak for 12 hours. This will make an excellent tonic for plants that will help them to fight pests and diseases.

Mixed and companion planting.

> Pests and diseases spread much more easily when lots of plants of the same species are growing together. Try to mix your plants more - you will find that this will also help to produce higher overall yields from your ground. By planting aromatic plants amongst your other plants you will find that the incidence of pests and diseases will fall. Camomile, garlic and many of the Mediterranean herbs are very useful here.

Encourage the wildlife.

> There are many creatures who would love to be able to share your garden with you, and who would repay you by eating many of the pests in your garden. Put n a pond, for example, and any frogs who live in it will eat up lots of slugs. Hedgehogs and slow worms will also eat

their fair share of slugs and snails. Thrushes are also useful here, though they will also want to share your fruit with you.

Biological control.

There are now many companies who supply parasitic creatures that you can introduce into your garden or greenhouse to control pests. I do have some reluctance to use these, especially if they are not native species. However, these parasites are very specific to the pest they are intended to control, and are therefore much safer in the environment than organic sprays.

Gardening techniques.

There are many little tricks you can use in order to reduce the incidence of pests and diseases. Leaving the main carrot sowing until early June, for example, will reduce the risk of rootfly. Laying rhubarb leaves on the ground will attract slugs to shelter there - it is then a simple matter to collect the slugs up and move them on to wherever you want to move them. Any good book on organic gardening will include many of these techniques. It is very important to try and be as tidy as possible in the garden. Leaving things lying around, for example, will give slugs a place to shelter. Great if you are prepared to check all these places each day - but not if you have just been lazy and are not prepared to check. If you do get a disease in the garden, then try to treat it as soon as possible. Remove the diseased material, burning it if absolutely necessary.

5. Encourage the wildlife.

We have already mentioned the value of wildlife in the garden for helping to control pests and diseases. It is also important that we all try and provide suitable conditions for native creatures in order to counteract to some extent all the habitat destruction that is or has taken place in this country. There is a very large area of land taken up by gardens and allotments and these can provide a wonderful habitat for a wide range of creatures. Encouraging wildlife is not about putting out scraps of food each day for the birds, or putting out a bag of peanuts on a bird table. Whilst it might be lovely to watch the tits feeding, what you are actually doing is making the creatures dependant on you for their food. If you should stop feeding, perhaps because you move house, then these creatures will have lost their food source and might die.

It is better to provide a more permanent and natural source of food by planting appropriate plants. There are many fruit-producing trees and shrubs, for example, that will supply food for the birds and various other creatures. Many other plants will provide nectar and pollen for bees and butterflies. A pond will attract a very wide range of insects, amphibians and other creatures. Grow a wildflower meadow and you will be surprised at just how many butterflies and moths will come along to say thank you - and you will also probably be treated to the sight of swallows swooping low over the grass to catch some of the insects that will abound there. Wherever possible, choose native species for wild-life plantings, though there are many non-natives such as buddleia and cotoneasters that would also be very useful.

6. Grow perennial species where possible.

The gardening world, especially when it comes to growing food, has become besotted with annual crops. These are much harder work to grow simply because you have to be preparing seed beds, sowing seeds, weeding etc every year if you want your crops. There are plenty of alternative perennial food crops available. These are much easier to grow - once established they will come back of their own accord year after year. They can also be much more productive - especially if grown in mixed plantings of complimentary plants.

Further Reading.

There are many good books on organic gardening - here are just a few to choose from.

L. Hills. *Grow your own Fruit and Vegetables*

Excellent basic guide.

M. E. Bruce. *Commonsense Compost Making.* Faber. 0-571-09990-4

Excellent little booklet dealing with how to make good compost by using herbs.

J. Larkcom. *Salads all the Year Round.* Hamlyns

Comprehensive guide to temperate salad plants.

L. Woodward. *Green manures.* Elm Farm

Green manure crops for temperate areas.

P. Allardice *A - Z of Companion Planting* Cassell, 0-304-34324-2

Well produced and very readable.

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Plants for a Future
A resource centre for edible and other useful plants

Regresar a la Plantas para un Futuro página principal: Español English

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English Italiano

¿Porqué perennes?

Sentado en el ferrocarril de regreso a casa desde Londres, estaba comiendo un aperitivo que incluía castañas tostadas. Frente a mí había una pareja de personas comiendo sándwichs. Empece a pensar acerca de los diferentes alimentos que comíamos. Nutricionalmente eran en cierto sentido similares, ambos, el trigo y las castañas son una buena fuente de carbohidratos aunque las castañas contienen menos proteína. Pensé en el trabajo involucrado en el cultivo, cosecha y utilización de cada uno de estos alimentos.

Con las castañas dulces todo lo que tiene usted que hacer (una vez que los árboles han sido plantados y son suficientemente viejos para dar fruto) es venir en el otoño y cosechar las semillas las plantas seguirán produciendo posiblemente por cientos de años sin requerir atención de su parte. El trigo, sin embargo, es un asunto muy diferente. En este caso, la tierra debe cultivarse cada año para preparar una cama para las semillas; la semilla debe ser sembrada; debe encontrarse la forma de controlar las yerbas; agregar fertilizantes para obtener una cosecha satisfactoria; agregar fungicidas e insecticidas para controlar las plagas y enfermedades y luego usar maquinaria pesada para levantar la cosecha.

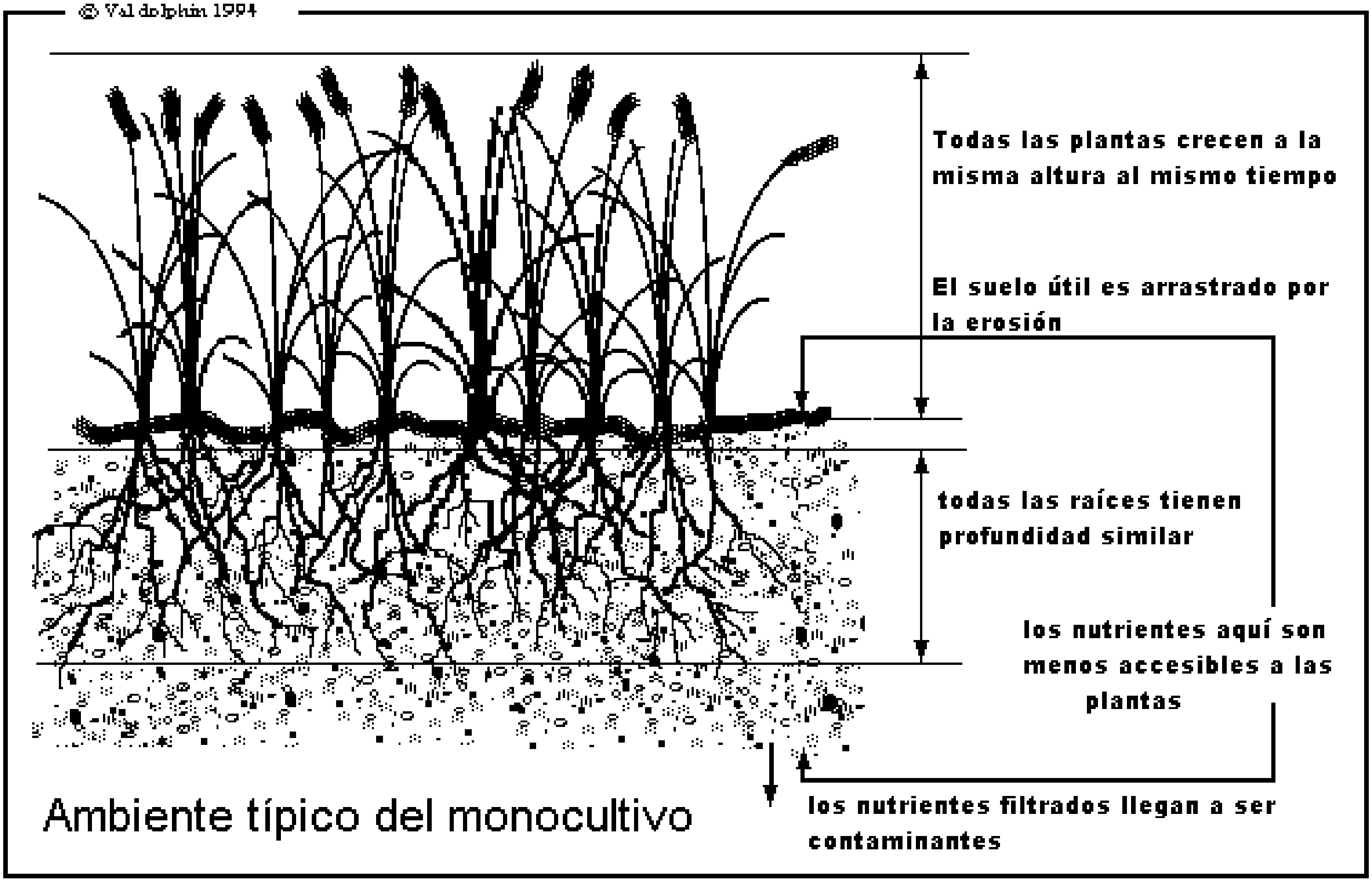
Esto significa mucho trabajo extra, especialmente si considera que aún con todo este esfuerzo de cultivo, la cosecha de trigo es menor que la que se obtendría de castañas en áreas similares de terreno. Esto me hace preguntarme porqué en la tierra la gente ha caído en la trampa de hacer cultivos anuales?.

Cuándo usted se pone a considerar los amplios efectos implicados en las cosechas anuales, tales como la del trigo, comparada con los árboles y otras cosechas perennes, entonces el asunto parece moverse desde lo cómico hasta lo totalmente ridículo. No solo entregamos mucho trabajo extra para obtener bajas recompensas, sino que hemos desarrollado métodos de cultivo de nuestros alimentos que son extremadamente dañinos a nuestro ambiente y a todas las plantas y animales que viven en él (incluyéndonos nosotros por supuesto).

Permítanme tratar de explicar est en más detalle y, como un ejemplo, analizar un campo de trigo y entonces compararlo con un área de bosque.

Monocultura anual.

Los cultivos anuales desarrollados con sistemas convencionales, demandan que el suelo sea preparado. El simple acto de preparar el suelo sirve para destruir la materia orgánica, mata mucha de la fauna del suelo y lo deja expuesto a la erosión por el viento y la lluvia. La estructura del suelo se daña y con el cultivo continuo el subsuelo llega a estar muy compactado resultando incapaz de permitir un drenaje adecuado y evitando que las raíces penetren y obtengan los nutrientes necesarios. Cuando llueve el suelo se deslava y es arrastrado con la lluvia. Solo sitúese un día lluvioso en un camino campestre y vea el agua lodosa que corre por sus orillas, éste es el suelo útil y fértil arrastrado por la corriente hacia los arroyos y luego hacia el mar.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Todas las plantas crecen a la misma altura al mismo tiempo
El suelo útil es arrastrado por la erosión
todas las raíces tienen profundidad similar
los nutrientes aquí son menos accesibles a las plantas
los nutrientes filtrados llegan a ser contaminantes
Ambiente típico del monocultivo

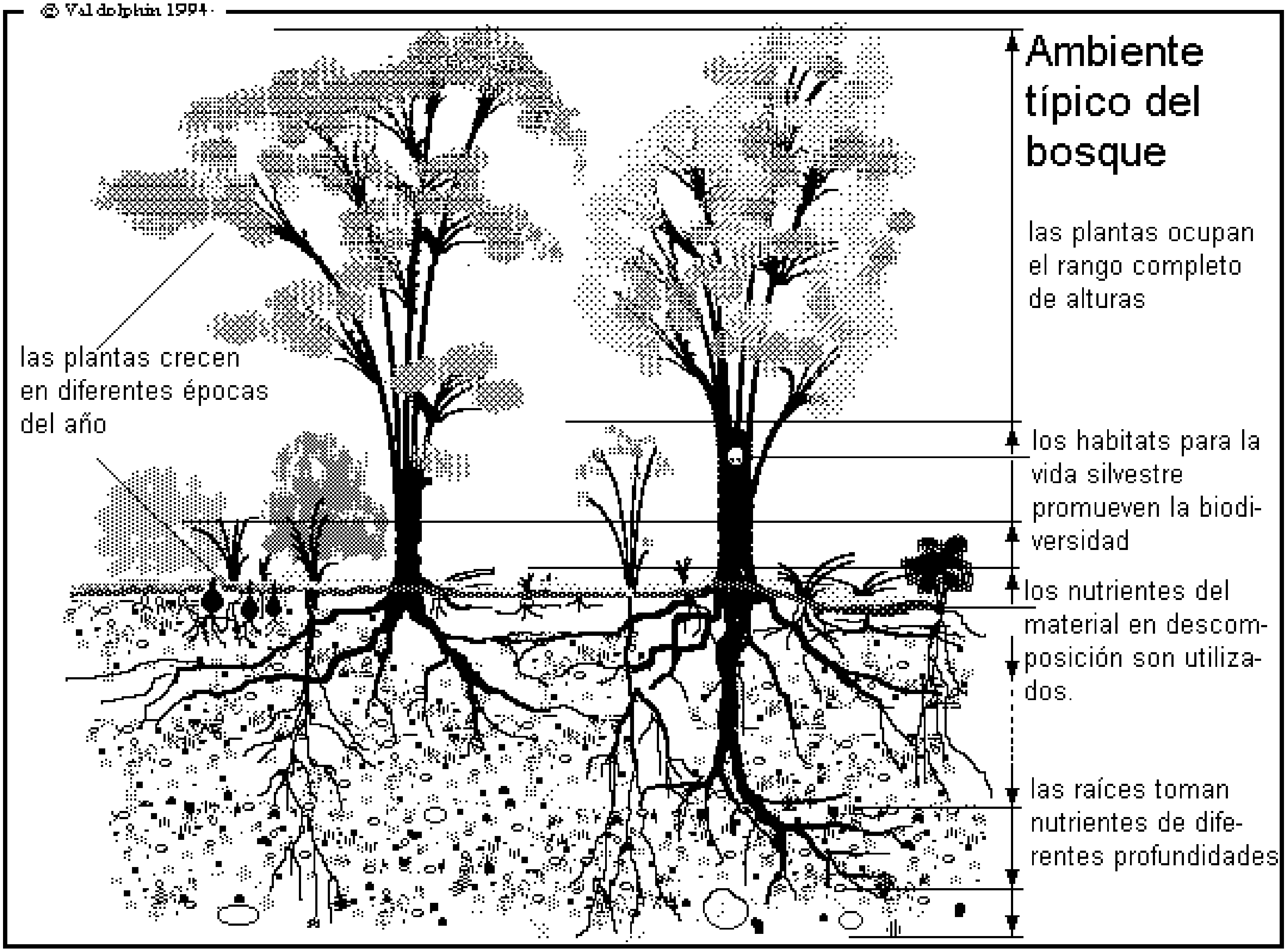
En un campo de trigo todas las plantas tienen los mismos requerimientos nutricionales, sus raíces ocupan los mismos niveles de profundidad en el suelo y únicamente serán capaces de obtener nutrientes en este nivel. Los nutrientes arrastrados por el agua por abajo de este nivel no serán aprovechados y eventualmente encontrarán su salida hacia niveles freáticos y ya sea que encuentren su salida al mar o bien contaminen el agua que bebemos. Muy similares genéticamente, todas las plantas serán susceptibles a las mismas plagas y enfermedades y todas tendrán requerimientos climáticos iguales. Si una sufre todas sufren. El sistema es dependiente de grandes aplicaciones de fertilizantes, herbicidas, pesticidas, fungicidas, etc. El suelo es poco más que el medio que sostiene a la planta de pie, y aún esto se pierde a medida que la estructura y profundidad del suelo es destruida. Las "Fenlands", por ejemplo, están perdiendo 30 mm de suelo superficial cada año.

Un campo de trigo es como un desierto para la mayoría de las plantas y animales silvestres el régimen de crecimiento intensivo significa que muy pocas especies de plantas serán capaces de crecer en este campo y consecuentemente muy pocos animales podrán sobrevivir en él. En la edición del 12/08/94 del periódico "The Guardian" había un articulo sobre la declinación de la población de algunas de nuestras más comunes especies de pájaros. Aparentemente, en el período entre 1969 y 1991 la población de tres tipos de gorriones descendió en un 85%, el verderón en un 76%, la perdiz gris en un 73%, la tórtola en 75% y la alondra en el 50%. El articulo culpa de esto a las prácticas actuales de agricultura que destruye setos y cubiertas, arranca praderas y siega los campos antes de que los pájaros tengan tiempo de terminar de criar a sus hijos. Dice que los coros del amanecer, el momento encantador de la mañana cuando el aire se llena del trino y canto de los pájaros, se han perdido en muchas partes de Este de Inglaterra, donde ahora un silencio atemorizante saluda al amanecer.

Se puede alegar que las cosechas de trigo se han incrementado dramáticamente en los últimos 100 años, desde 1 tonelada por acre al inicio del siglo hasta 3 o más toneladas por acre actualmente. Pero es esto sostenible? No, no lo es!. De hecho, si toma en cuenta toda la energía gastada para hacer la maquinaria agrícola, en el combustible que usa, en la fabricación de fertilizantes, etc. y todas las otras cosas que se necesitan para producir los alimentos, se usa mucha más energía actualmente para producir los alimentos que la que estos proporcionan!. Esta ridícula situación es solo posible debido a la actual abundancia de combustibles fósiles, pero cuánto tiempo durarán?.

Sistema de bosques.

Veamos ahora a un bosque natural. Quién lo alimenta con fertilizantes artificiales? Quién esparce fungicidas? Quién aplica los herbicidas y porqué no esta todo devorado por los insectos?. Año tras año el bosque produce grandes masas de alimento y sostiene grandes grupos de mamíferos, aves e insectos. Una amplia variedad de plantas crecen lado a lado, algunas veces compitiendo pero más a menudo ocupando diferentes nichos ecológicos en el bosque. Por ejemplo, algunas plantas tendrán sistemas de raíces profundas y obtendrán sus nutrientes de una mayor profundidad en el suelo, más allá del alcance de otras plantas. Cuándo sus hojas mueren en el otoño muchos de sus nutrientes servirán para otros miembros de la comunidad. Otras plantas tendrán raíces superficiales y obtendrán sus nutrientes del estrato inferior de la superficie del suelo. Similarmente, habrá diferentes gradaciones de altura, algunas plantas serán árboles altos, algunas árboles pequeños a arbustos, habrá enredaderas alcanzando altura apoyándose en los troncos de otras plantas, en la superficie del suelo habrá pequeñas plantas perennes capaces de vivir a la sombra del bosque. Algunas plantas pequeñas crecerán a inicios de año, cuando los árboles aun no tengan hojas y completarán su ciclo de vida a inicios del verano. Hay diferentes nichos para las diferentes plantas que ocupan el suelo, arriba del suelo y en diferentes tiempos.


© Val dolphin 1994
Ambiente típico del bosque
las plantas ocupan el rango completo de alturas
las plantas crecen en diferentes épocas del año
los habitats para la vida silvestre promueven la biodiversidad
los nutrientes del material en descomposición son utilizados.
las raíces toman nutrientes de diferentes profundidades

Las ramas y hojas de los árboles altos crean dentro del bosque un ambiente protegido y más estable. Las fluctuaciones de temperatura son menos extremas que a campo abierto, hay menos viento y heladas de modo que las plantas están menos sujetas a las volubilidades de nuestro clima. Los diferentes nichos ecológicos existentes en el bosque permiten que vivan en ellos una mayor variedad de criaturas y mientras mayor sea la diversidad de vida silvestre en un ecosistema, éste será más estable. La fuerza de la lluvia es amortiguada por los árboles y la rica carpeta orgánica sobre el suelo absorbe la lluvia y permite que el agua se filtre al suelo y mejore su humedad en lugar de que corra hacia los ríos y arroyos y descargue al mar los nutrientes y el suelo fértil que arrastre.

Hay varias actividades de las bacterias y los hongos que ocurren en los sistemas radicales de las plantas del bosque que aumentan la capacidad de las plantas para absorber los nutrientes del suelo y además producen nutrientes que las plantas pueden utilizar. Investigaciones recientes demuestran que mientras mayor es la diversidad de las plantas que crecen en un área mayor es la cantidad de crecimiento que tiene lugar. Entonces, podemos apreciar que el bosque no solo es autosuficiente y altamente productivo, también provoca un aumento gradual de la fertilidad del suelo, a diferencia del suelo cultivado anualmente que necesita insumos constantes para que permanezca fértil.

El valor de la diversidad.

Cultivando varias especies diferentes juntas de tal modo que se evite agrupamientos grandes de una sola especie, los insectos que buscan visualmente una determinada planta pueden ser confundidos por las diferentes formas de las hojas y ser menos capaces de encontrar la planta que buscan. Si usted se imagina a unos pocos insectos de una plaga determinada que llegan a un extenso trigal, una vez que se establecen en una planta no importa para donde se muevan de cualquier modo llegarán a otra planta de trigo pues están totalmente rodeados por ellas. Un paraíso para el insecto, con condiciones ideales de alimentación. El resultado es una explosión demográfica que generalmente solo puede controlarse por medio de costosas aplicaciones de fumigaciones químicas. Si, por otra parte, el campo contiene una diversidad de plantas como en un bosque natural, el insecto tendrá que trabajar más duro para buscar otra planta huésped, moverse más y se arriesgará mientras tanto a encontrarse con predadores, a los cuales la diversidad de plantas, les ofrece más sitios donde vivir. El resultado es un menor daño a las plantas y un mejor balance en las poblaciones de plagas y predadores

Había un artículo en la edición de la primavera de 1994 de la revista 'Kew'. Hablaba de un grupo de chimpancés que viven en una pequeña área boscosa llamada Gombe, en Africa. El bosque es una reserva y está rodeado por tierra de cultivo. El artículo continuaba:

'Fuera de Gombe, la población local esta luchando por vivir con algunos 30 diferentes tipos de alimentos, la mayoría especies de plantas introducidas a la región que crecen en condiciones difíciles en suelos fácilmente erosionablesPero los chimpancés parecen ser botánicos expertos, conocen exactamente donde y cuando se dará la próxima cosecha de fruta. Puede haber solo seis tipos de planta alimenticia cada mes pero, a lo largo del año, utilizan más de 150 especies. Algunas de las frutas que comen son deliciosas y ciertamente pueden enseñarnos mucho acerca de una dieta balanceada y el cuidado de la salud. Pero aunque se conoce bastante acerca del comportamiento social del chimpancé, nuestro entendimiento de sus conocimientos botánicos y su significado está en la infancia para nosotros. Pocas de sus plantas alimenticias han sido probadas en sus propiedades alimenticias y medicinales. " Parece que los chimpancés son más inteligentes que nosotros!"

Selección de las plantas.

Por supuesto, si usted trata de depender para alimentarse durante el año del típico bosque Británico, entonces usted tendrá que elegir entre caer rápidamente en un estado de hambruna o aprender a comer una gran variedad de plantas a veces no agradables de sabor como las bellotas. Es posible que ninguna de estas alternativas sea de su agrado pero hay aún otra alternativa. Es posible planear y diseñar el bosque, usando las guías que la naturaleza nos ha mostrado acerca del bosque y su desarrollo, pero usando especies que puedan proveernos de frutas, semillas, hojas, raíces y flores apetecibles para nosotros. Bien diseñado, tal sistema puede:

- Ser bastante más productivo que un campo de plantas anuales
- Producir un rango más amplio de alimentos
- Requiere bastante menos trabajo
- Requiere bastantes menos insumos como pesticidas o fertilizantes

- Provee un valioso hábitat para la vida silvestre
- Ser muy agradable estéticamente.

Todo esto se logra mediante la selección adecuada de la mezcla de especies. Hay más de 5,000 especies de plantas comestibles que pueden crecer en el exterior en Bretaña y alrededor de 2,100 de ellas pueden crecer en el bosque, entonces, es grande la variedad de plantas de donde escoger

La principal dificultad es que la gente ha estado cultivando selectivamente las especies tradicionales anuales durante miles de años. En este tiempo las plantas cultivadas han sufrido a menudo cambios dramáticos desde su forma original silvestre (las coliflores, la col de Bruselas y el repollo se derivan de la misma planta silvestre) y mientras tanto el rendimiento de la cosecha y el sabor ha tenido también grandes cambios. La lechuga cultivada fue obtenida de una planta venenosa y amarga y el ancestro silvestre de la zanahoria era una delgada raíz que no era placentero comer.

Este cuidado selectivo, sin embargo, ha tenido también algunas desventajas. Podemos haber obtenido una lechuga con hojas de sabor apetecible que va bien con las ensaladas, pero también tenemos una planta que es muy susceptible a plagas y enfermedades, por esto requiere también una gran atención en su crecimiento ya que es incapaz de competir con muchas otras de las plantas. Entonces, si alguien desea comer lechuga durante todo el año necesita sembrar al menos en 10 ocasiones durante este tiempo lo que significa preparar la tierra, deshierbar, regar si el tiempo es seco, tratar de evitar que la planta asemille si el tiempo es caluroso y prevenir que se pudra si el tiempo es húmedo. Debemos además suplir nutrientes y materia orgánica al suelo si queremos producir una planta de buena calidad. Aún con toda esta atención, produciremos una planta que es considerablemente más pobre en nutrientes que la planta silvestre de donde fue creada.

La mayoría de las plantas perennes que recomendamos para plantaciones boscosas nunca han sido cuidadas selectivamente para mejorar su productividad, sabor, etc. Entonces su cultivo y cuidado deben ser menores que el que ha de darse a un cultivo anual, o puede ser más innecesario pero todas las plantas en la siguiente lista producen cosechas de muy buen gusto. Una vez establecidas estas plantas continuaran proporcionando cosechas por muchos años exigiendo muy poco trabajo y cuidado del hortelano. No solo eso, además tendrán menos tendencia a sufrir por las plagas o enfermedades, no requerirán demasiados fertilizantes y serán más resistentes a las veleidades del clima. Como muy diferentes especies ocuparán el mismo terreno, la productividad puede ser mucho mayor que la de las plantas anuales. Hay también muchas posibilidades de intentar con estas plantas cuidados selectivos para mejorar su productividad y facilidad de cultivo. Cualquier tratamiento selectivo, sin embargo, deberá tomar en cuenta cualquier efecto potencial negativo sobre las plantas.

Un jardín arbolado.

La primer cosa que necesita es un terreno arbolado. Si es suficientemente afortunado para tener ya algunos árboles maduros puede empezar desde luego a plantar las otras plantas del bosque. Si no tiene árboles ya, lo mejor es plantarlos primero y esperar a que crezcan durante unos años hasta que estén plenamente establecidos antes de poner las otras plantas. Hay ciertos puntos generales que recordar cuando este considerando cuando y donde cultivar un jardín boscoso.

1. Es posible que crezcan árboles casi en cualquier lugar en Inglaterra (el 97% de la tierra estaba cubierta con árboles antes de que la gente empezara a talarlos). Lo que es importante es

escoger el tipo de árboles correcto para el lugar Si planta a la orilla de la costa, por ejemplo, necesita árboles que toleren los vientos y la sal en ellos. Una vez establecidos, los árboles proveerán protección contra los elementos de modo que otras plantas menos tolerantes pueden crecer junto a ellos.

2. No necesita grandes áreas de terreno para cultivar su bosque. Escogiendo árboles pequeños es posible tener un mini-bosque aún en un pequeño patio trasero.
3. Defina que frutos o alimentos desea cultivar y escoja las especies apropiadas.
4. Plante los adoradores del sol en el lado más asoleado del terreno La mayoría de las especies frutales se logran mejor cuando crecen a pleno sol.
5. Los árboles más altos deberán estar en el norte para que no den sombra a las especies más pequeñas.
6. Tome en cuenta el vigor de cada planta y plante de acuerdo a esto. Si por ejemplo, planta una vigorosa enredadera junto a un árbol pequeño es muy probable que la enredadera someta al árbol y lo mate.

No hay espacio en esta hoja para hablar acerca de las plantas que pueden cultivarse en este sistema boscoso si desea más información sobre esto pregunte por nuestro folleto Woodland Garden Plants (Plantas para jardín arbolado). Sin embargo, me gustaría enlistar a continuación algunas de las plantas que puede cultivar para tener alimento durante el año.

Semillas

> Araucaria araucana (Piñón o pehuén); Caragana arborescens (árbol de chícharo siberiano); Castanea sativa (Castaño dulce); Cephalotaxus drupacea harringtonii; especies Corylus (Avellanas); Juglans regia (Nogal) y Quercus ilex (Bellota de encino) todas se dan bien al menos en algunas partes de Inglaterra.

Frutas

> Son tantas que solo mencionaré algunas de ellas.
>
> Actinidia deliciosa (Kiwi); Amelanchier alnifolia (Fresa de junio); especies Cornus; especies Crataegus; Elaeagnus x ebbingei; Malus sylvestris domestica (Manzana); Prunus doméstica (Ciruela); Pyrus communis (Pera); especies Ribes (Grosella y uva espín) y especies Rubus (Frambuesa, zarzamora, etc.). Proveerán una sucesión de frutos durante todo el año.

Hojas.

> Allium ursinum (Ajo silvestre); Campanula persicifolia (Jacinto silvestre); Cryptotaenia japonica (perejil japonés); Fagopyrum dibotrys (Trigo sarraceno perenne); Montia sibirica (Lechuga del minero); Myrrhis odorata (Perifollo); Rumex acetosa (Acedera); Tilia species (Arboles de lima); Urtica dioica (Ortiga espinosa) and Viola odorata (violeta dulce) son algunas de las especies a escoger y entre ellas le proporcionarán hojas frescas todo el año.

Raíces.

> Erythronium species (Violeta de diente de perro); Lathyrus tuberosus; Lilium lancifolium (Lirio de tigre); Medeola virginica (Raíz de pepino) y Streptopus amplexifolius son algunas de las más interesantes raíces que puede cultivar.

El bosque no es el único sitio donde se pueden cultivar plantas perennes, por supuesto, hay muchos otros hábitats donde pueden crecer. Para mayor información lea las hojas The Edible Lawn (el prado comestible), Edible Pond and Bog Garden Plants (Plantas de estanque y ciénaga comestibles) y Edible Ornamental Plants.(Plantas ornamentales comestibles).

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Regresar a la Plantas para un Futuro página principal: Español English

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versión HTML preparada por Rich Morris pfaf@scs.leeds.ac.uk - Home Page
Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

Plants for a Future

A resource centre for edible and other useful plants

Back to Plants For A Future home page.

Italiano Español Dansk

Why Perennials

Sitting on a coach on the way home from London, I was eating a meal that included roasted chestnuts. Opposite me were a couple of people eating sandwiches. I started to think about the different foods we were eating. Nutritionally they were somewhat similar, both chestnuts and wheat being good sources of carbohydrate, though the chestnuts are rather lower in protein. I then thought about the work involved in growing, harvesting and utilizing each of these foods.

With the sweet chestnuts all you have to do (once the trees have been planted and are old enough to bear fruit) is come along in the autumn and harvest the seeds - the plants will continue to yield for possibly hundreds of years without any help from you. With the wheat, however, it is quite a different matter. Here the ground must be cultivated every year in order to prepare a seed bed; the seed must then be sown; a method found of controlling the weeds; fertilizers added in order to achieve satisfactory yields; fungicides and insecticides applied in order to control pests and diseases and then large machinery used in order to harvest the crop.

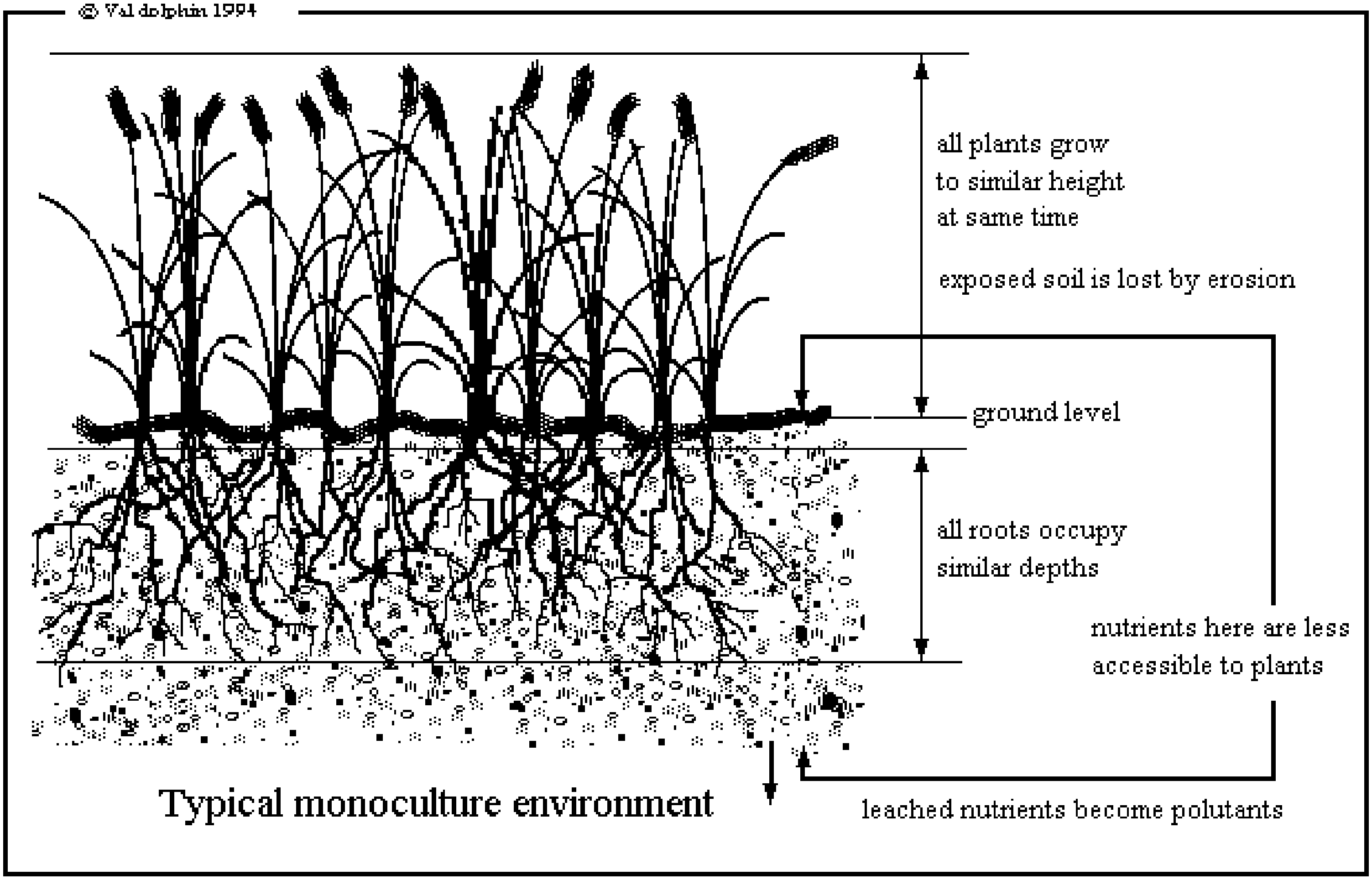
This is all so much extra work, particularly when you consider that, even with all this effort put into growing it, the yields of wheat will still be less than the yields of chestnuts could be from the same area of ground. It made me wonder why on earth people had fallen into the trap of growing annual crops.

When you go on to consider the wider effects of growing annual crops such as wheat compared with tree and other perennial crops then the issue seems to move from the farcical to the totally ridiculous. Not only have we given ourselves so much extra work for lower returns, we have also devised a method of growing our food that is extremely damaging to our environment and to all the plants and creatures that live in it (which includes us of course).

Let me try and explain this in more detail and, as an example, let me first look at a field of wheat and then compare this with a woodland.

Annual monoculture

Annual crops, grown in conventional systems, demand that the soil is cultivated. The very act of cultivating the soil serves to destroy organic matter, kills much of the soil fauna and leaves the soil at risk of erosion from wind and rain. The soil structure is damaged and, with continued cultivation, the sub-soil becomes very compacted and is unable to drain properly or allow roots to penetrate and obtain their nutrients. When it rains soil is washed away. Just go and stand in a country lane on a wet day and you will see all the muddy water flowing along the sides of the lane. This is our valuable top soil, being carried off to streams and thence to the sea.



Typical monoculture environment

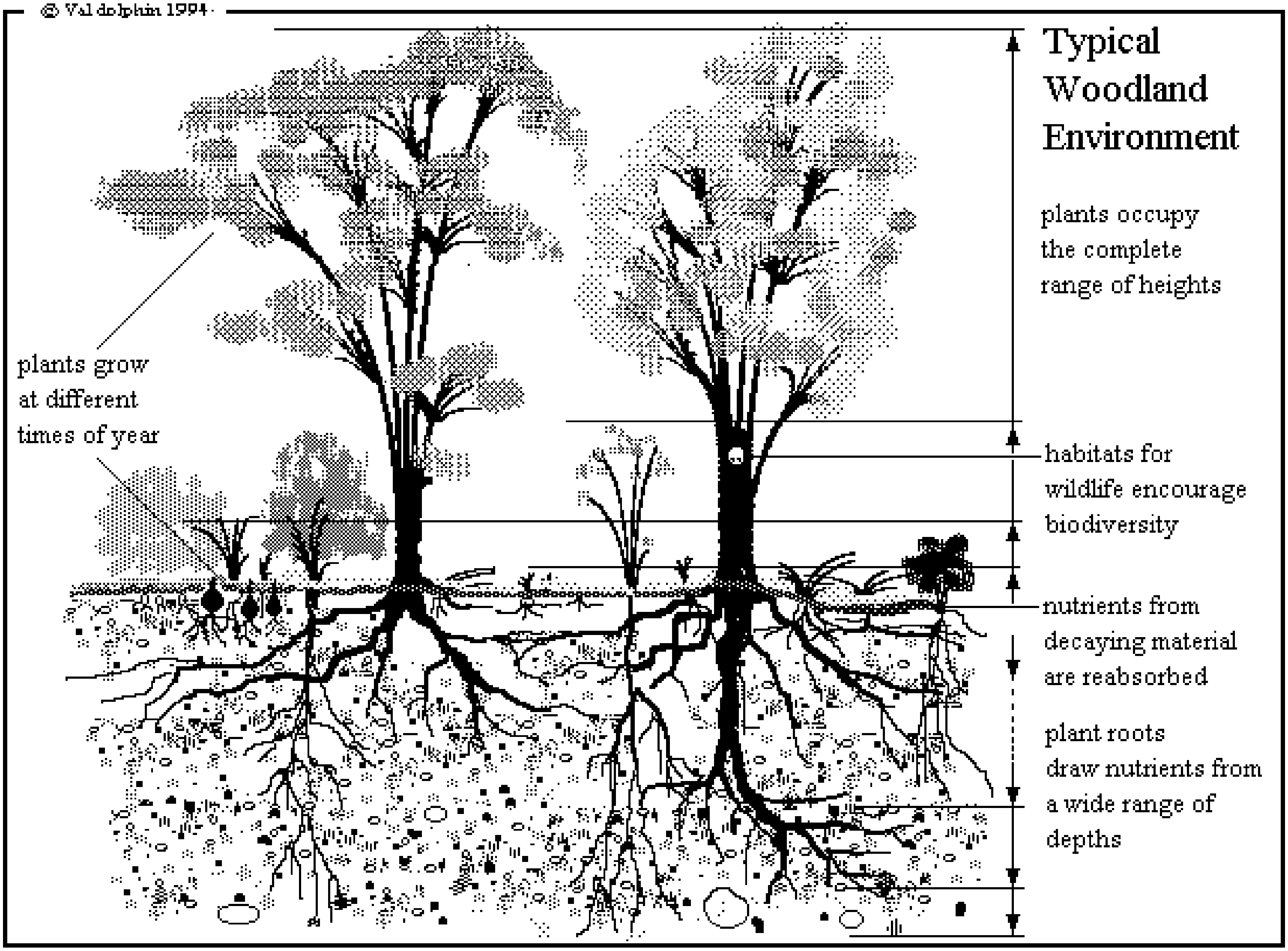
In a field of wheat all the plants have the same nutritional requirements, their roots occupy the same levels in the soil and will only be able to obtain nutrients from this one level of the soil. Any nutrients that have been washed lower down into the soil will be lost to the plants and will eventually find their way into the water system either to be washed out to sea or to pollute our drinking water. Genetically very similar, these plants are all susceptible to the same pests and diseases and all have similar climatic requirements. If one suffers, they all suffer. The system is dependent on large inputs of fertilisers, herbicides, pesticides, fungicides etc. The soil is little more than a medium to hold the plant up, and even this it is becoming less able to do well as soil structure and depth are destroyed. The Fenlands, for example, are losing 30 mm of topsoil every year.

A field of wheat is like a desert to most of our wild animals and plants - the intensive growing regime means that very few species of plants will be able to grow in the field and thus there will be very few animals that will be able to survive in and around the field. In the edition of The Guardian newspaper dated 12/08/94 there was an article about the declining population of some of our commonest species of birds. Apparently, in the period between 1969 and 1991 tree sparrow populations declined by 85%, corn bunting by 76%, grey partridge by 73%, turtle doves by 75% and skylarks by 50%. The article went on to blame current agricultural practices that have seen hedgerows destroyed, meadows ploughed up and fields harvested before the birds had a chance to finish rearing their young. It said that the dawn chorus, that enchanting time of the morning when the air is alive to the sound of bird song, is heard no more in many parts of E. Anglia, where an eerie silence now greets the dawn.

It can be argued that yields of wheat have increased dramatically in the last 100 years, from around 1 ton per acre at the beginning of the century to 3 tons or more now. But is this sustainable? No it is not! In fact when you take into account all the energy that is expended in making the farm machinery, in fuelling it, in making the fertilisers etc. and all the other things that need to be done in order to produce the food, far more energy is actually used up in growing the food than the food itself yields in energy! This ridiculous state of affairs is only possible due to the current abundance of fossil fuels, but how long are they going to last?

Woodland systems

Let us now look at a native woodland. Who feeds this with artificial fertilisers? Who sprays fungicides? Who applies the herbicides and why isn't everything eaten up by insects? Year after year the woodland produces masses of plant growth feeding a host of mammals, birds and insects. A wide range of plants grow side by side, sometimes competing but more often occupying subtly different niches in the woodland. For example, some plants will have deep root systems and these will obtain many of their nutrients from deep down in the soil in areas beyond the reach of other plants. When their leaves die in the autumn many of these nutrients will be made available to other members of the plant community. Other plants will have shallower root systems and these will obtain their nutrients from nearer the soil surface. Similarly, there will be gradations of height in the woodland, some of the plants will be tall trees, some will be small trees or shrubs, there will be climbers making their way up the trunks of the trees, smaller perennials able to grow in the shade of the trees will be found on the woodland floor. Some of the smaller plants will come into growth early in the year, before the trees have leafed out, and will complete most of their life-cycle by early summer. Thus there are different niches for plants to occupy in the soil, above the ground and in time.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Typical Woodland Environment
plants occupy the complete range of heights
plants grow at different times of year
habitats for wildlife encourage biodiversity
nutrients from decaying material are reabsorbed
plant roots draw nutrients from a wide range of depths

The canopy of trees creates a sheltered and more stable environment inside the woodland. Temperature fluctuations are less extreme than in an open field, there is less wind and frost and so plants are less subject to the vagaries of our weather. Because of all the different available habitats there is a wide range of creatures able to live in the woodland and the more diverse the numbers of species that live in an eco-system, the more stable it becomes. The force of the rain is broken by the trees and the rich carpet of organic matter in a woodland absorbs the rain and allows it to drain into the soil and enhance the water table instead of running off into the rivers and thence to the sea, taking valuable soil and nutrients with it.

There are various fungal and bacterial activities taking place on the root systems of the woodland plants which increase the abilities of plants to take up nutrients from the soil and also produce nutrients for all the plants to utilise. Recent research has demonstrated that the greater the diversity of plants growing in an area then the greater the total amount of growth that takes place. Thus we see that a woodland is not only self-sustaining and highly productive, it can also lead to a gradual build-up of fertility, unlike annually cultivated soil which needs constant inputs if it is to remain fertile.

The value of diversity.

By growing a number of different species together so that there isn't a large planting of one single species, insects that seek out plants visually may be confused by the different shapes of plants and be less able to find the species that they are looking for. If you can imagine a few pest insects arriving at a large wheat field, once they have landed on one wheat plant no matter what way they move they cannot avoid moving on to the next wheat plant simply because they are totally surrounded by them. Heaven on earth for the insect and ideal breeding conditions for it. The result is a very rapid population explosion usually only controlled by an expensive regime of chemical sprays. If, on the other hand, the field contains a diversity of plants, as is found in a native woodland, the insect is going to have to work much harder to find the next host plant and it is also going to be much more at risk from predation, both because it has got to move about a lot more and also because this diversity of plants offers more places for its predators to live in. The result is far less damage to the plants and a more balanced population of pests and predators.

There was an article in the Spring 1994 edition of 'Kew' magazine. It was talking about a group of chimpanzees that live in a small area of forest, called Gombe, in Africa. The forest is a reserve and is surrounded by cultivated land. The article continued:-

> 'Outside Gombe, the local people are struggling to live off perhaps 30 different types of foods, mostly introduced species of plants grown in drought conditions on easily eroded soils.... But the chimps seem to be expert botanists, knowing exactly where and when the next crop of fruit will be. There may be only six major plant foods each month but, over the year, more than 150 species are used. Some of the fruits they eat are delicious and they can certainly teach us a great deal about a balanced diet and preventative health-care. But although a lot is known about the chimps' social behaviour, our understanding of their botanical knowledge and its significance to us is in its infancy. Few of their food plants have been tested for nutrients or medicinal properties.'

It seems that the chimpanzees are more intelligent than we are!

Selecting the plants.

Of course, if you try to depend on a typical British woodland to provide you with all your food for the year, then you are either going to die fairly quickly of starvation, or you are going to have to learn to eat a lot of rather unpleasant tasting foods such as acorns. It is quite probable that neither of these possibilities appeal to you - but there is an alternative. It is possible to plan out a woodland, using the guidelines that nature has shown us, but using species that can provide us with tasty fruits, seeds, leaves, roots and flowers. When well designed, such a system can:-

- be far more productive than a field of annuals

- produce a much wider range of foods
- require far less work
- require far less inputs such as fertilizers and pesticides
- provide valuable habitats for wildlife
- be very pleasing aesthetically.

It all comes down to selecting the right mixture of species .There are over 5,000 species of edible plants that can be grown outdoors in Britain and about 2,100 of these can be grown in a woodland so there really is no lack of variety to choose from.

The main difficulty is that people have been selectively breeding the traditional annual crops over a period of thousands of years. In that time the cultivated plants have often changed dramatically from the original wild species (cauliflowers, brussel sprouts and cabbage all derive from the same wild plant) whilst the taste and yield has also undergone great changes. Thus the cultivated lettuce was derived from a bitter tasting poisonous plant and the wild ancestor of carrots has a thin woody root that really does not make very pleasant eating.

This selective breeding, however, has also had a number of disadvantages. We might have ended up with a lettuce that has mild flavoured leaves that go well in a salad, but we also have a plant that is very susceptible to pests and diseases, whilst it also requires a lot of attention when growing since it is unable to compete with most other plants. Thus if anyone wants to eat lettuce all the year round they have to sow seed on at least 10 occasions over the year - which means preparing the soil, weeding, watering if the weather is dry, trying to prevent the plants running to seed if the weather is hot and trying to prevent them rotting if the weather is wet. We also have to supply nutrients and organic matter to the soil if we are to produce a good quality plant. Even with all this attention, we will produce a plant that is considerably lower in nutrients than the wild plant it was bred from.

Most of the perennial plants that we recommend for woodland plantings have never been selectively bred for yields, flavour etc. Thus the harvest might be lower than you would expect from cultivated annuals, or it might be more fiddly - but all the plants on the lists below produce very tasty crops. Once established these plants will continue to yield their harvests for many years with very little work on behalf of the grower. Not only that, but they will tend to suffer far less from pests and diseases, will not require much in the way of fertilising and will be far more resilient to the vagaries of the weather. Since many different species will be able to occupy the same area of land, overall yields can be much higher than from annual plants. There is also a lot of scope for careful selective breeding in order to produce more productive and easier to harvest cultivars. Any selective breeding, however, should always take into account any potential negative effects on the plants.

A woodland garden.

The first thing that you need is a woodland. If you are fortunate enough to already have a few mature trees then you can begin straight away planting out the other plants of the woodland. If you do not have some trees already, then it is best to plant the trees first and allow them to grow for a few years to become established before putting in the other plants. There are a number of general points to remember when deciding whether or where to grow a woodland garden.

1. It is possible to grow trees almost anywhere in Britain (97% of the land used to be covered with trees before people started chopping them down). What is important is to choose the correct trees for the site - if planting right by the coast, for example, then you need to select species that can tolerate the strong salt laden winds. Once the trees are established they will provide shelter from the elements so that other less tolerant plants can be grown amongst them.

2. You do not need large areas of land on which to grow your woodland. By choosing small trees it is possible to have a mini-woodland even in a small back yard.
3. Be clear in your mind what crops you want to grow and then choose the appropriate species.
4. Plant the sun worshippers on the sunny side of the woodland - most fruit-bearing species crop better when grown in full sun.
5. Taller trees should be towards the north side so that they do not shade out the smaller species
6. Be aware of the vigour of each plant and plan accordingly. If, for example, you plant a very strong-growing climbing plant into a small tree then it is very likely that the tree will be smothered by the climber and die.

There is no space in this leaflet to talk about the plants that can be grown in this woodland system - if you would like more information on these then please ask for our leaflet titled Woodland Garden Plants. However, I would like to list just a few of the plants that you could be growing to supply food all the year round.

Seeds

Araucaria araucana (Monkey puzzle); Caragana arborescens (Siberian pea tree); Castanea sativa (Sweet chestnut); Cephalotaxus drupacea harringtonii; Corylus species (Cobnuts and Filberts); Juglans regia (Walnut) and Quercus ilex (Holm oak) all bear well at least in parts of Britain.

Fruits

There is such a wide range here that I can only mention just a very few of them. Actinidia deliciosa (Kiwi fruit); Amelanchier alnifolia (Juneberry); Cornus species; Crataegus species; Elaeagnus x ebbingei; Malus sylvestris domestica (Apple); Prunus domestica (Plum); Pyrus communis (Pear); Ribes species (Gooseberries and currants) and Rubus species (Raspberries and blackberries) will provide a succession of fruit all year round.

Leaves

Allium ursinum (Wild garlic); Campanula persicifolia (Harebell); Cryptotaenia japonica (Japanese parsley); Fagopyrum dibotrys (Perennial buckwheat); Montia sibirica (Miner’s lettuce); Myrrhis odorata (Sweet Cicely); Rumex acetosa (Sorrel); Tilia species (Lime trees); Urtica dioica (Stinging nettles) and Viola odorata (Sweet violet) are just a few of the species to choose from and between them you should be able to pick fresh leaves all the year round.

Roots

Erythronium species (Dog's tooth violets); Lathyrus tuberosus; Lilium lancifolium (Tiger lily); Medeola virginica (Cucumber root) and Streptopus amplexifolius are some of the more interesting root crops that you could grow.

A woodland is not the only place in which to grow perennial crops of course, there are many other habitats in which they can also be grown. For more information on this see some of our other leaflets such as The Edible Lawn, Edible Pond and Bog Garden Plants and Edible Ornamental Plants.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments:

Cryptotaenia japonica

Chris Brown (sienna@pond.net) Fri, 14 May 1999 13:44:48

I recently obtained a *Cryptotaenia japonica* plant from a local plant sale (Eugene, Oregon); the grower said it was an edible, so that made it a very appealing addition to my garden. As it was not in any of my horticultural reference books, I decided to do an internet search to see what kind of conditons it would flourish in. To my surprise, the North Carolina State University declared it a poisonous plant!

I then discovered your page, which confirmed my original information, which lists it as an edible plant. I don't know which source is correct, yours or the University's, but I don't think I will be eating it anytime soon!

This comment has also been added to: Cryptotaenia japonica.

This comment has been added to the web pages: Woodland Garden Plants.

Add a Follow up to this comment

Why Perennials

Unknown Fri Jan 19 18:47:02 2001

I am doing a science fair project at my school.My experiant is on if talking to your plants helps them grow any better. I am using perennial plants is this a good coice?

Details of Growing Condition: It is cold outside but warm inside (which is were they are)and I would like to know if that is good for them..

Add a Follow up to this comment

Cryptotaenia japonica

Shani Sun Aug 26 21:55:18 2001

This is what the site has to say regarding edibility of this plant.

North Carolina State University website (link - http://www.ces.ncsu.edu/depts/hort/consumer/poison/Cryptja.htm)

Poisonous Part Leaves. Symptoms Severe skin irritation following repeated contact. Edibility EDIBLE PARTS: Cooked, starchy Oriental vegetable (root) or salad greens. Toxic Principle Unidentified. Severity TOXIC ONLY IF LARGE QUANTITIES EATEN.

This comment has also been added to: Cryptotaenia japonica.

This comment has been added to the web pages: Woodland Garden Plants.

Add a Follow up to this comment

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page.

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Plants for a Future

A resource centre for edible and other useful plants

Ritorno alla homepage di Piante per un futuro.

English Español

Perché piante perenni?

Seduto in pullman di ritorno da Londra, stavo gustando la mia cena di castagne al forno. Accanto a me, due persone mangiavano panini. Pensai alle differenze tra i nostri cibi. In termini nutrizionali erano molto simili: le castagne e il frumento sono buone fonti di carboidrati, benché le castagne abbiano meno proteine, poi ho però pensato al lavoro che ci vuole per coltivare, raccogliere ed utilizzare questi cibi.

Con le castagne, quando l'albero è maturo abbastanza per fruttificare, bisogna solo passare in autunno e raccogliere i ricci. Un castagno può fruttificare anche per cent'anni senza l'intervento dell'uomo. Per il frumento tuttavia la questione è ben diversa. La terra deve essere coltivata ogni anno per preparare un semenzaio; i semi devono essere piantati; bisogna trovare un metodo per controllare le erbe infestanti; devono essere aggiunti fertilizzanti per una resa soddisfacente, al pari di fungicidi e pesticidi per controllare malattie e insetti, e alla fine ci vogliono grosse macchine per la raccolta.

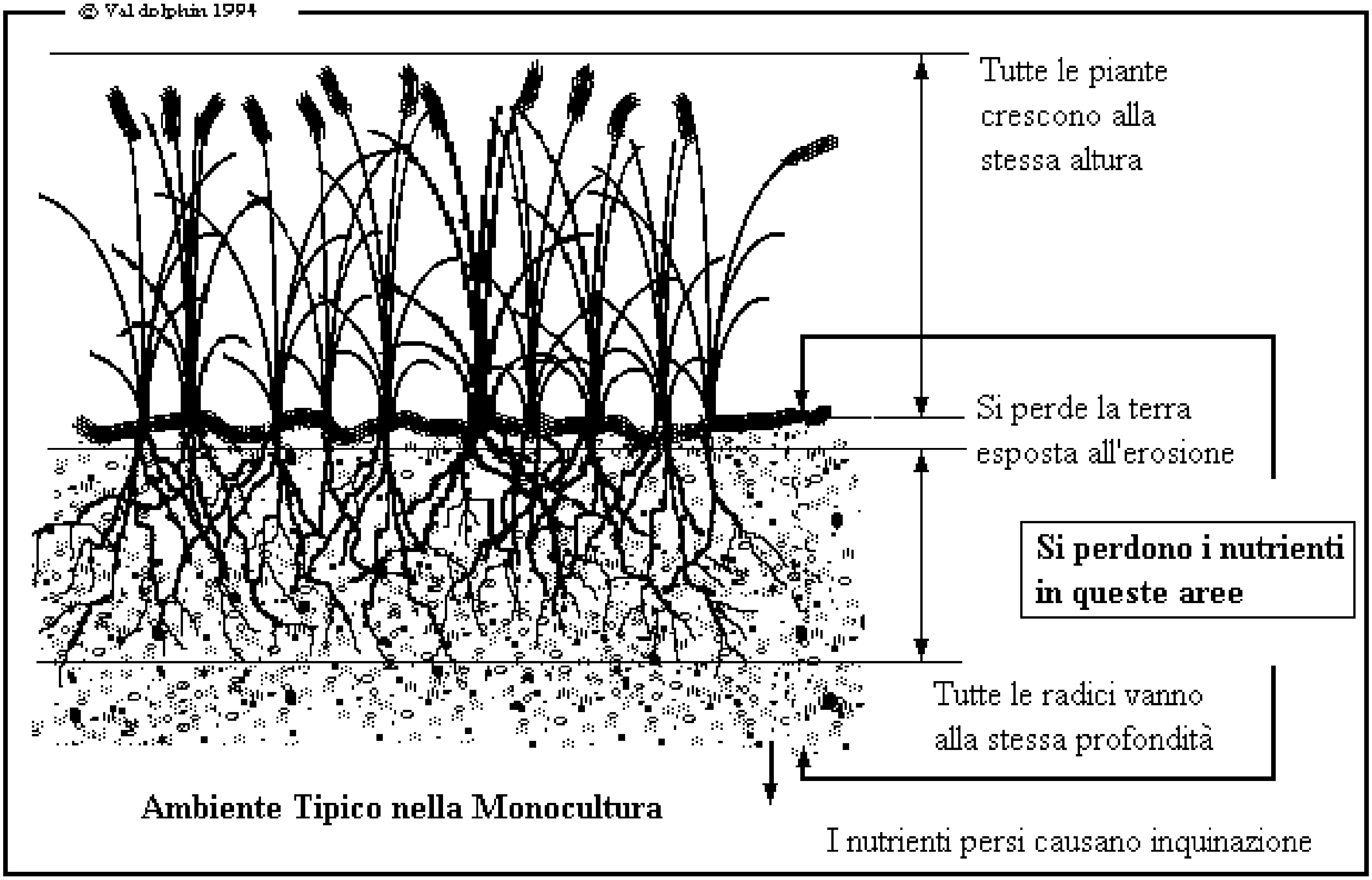
Ci vuole molto lavoro in più, soprattutto quando si vede che - pur con tutti gli sforzi - la resa di castagne potrebbe essere uguale a quella di una superficie equivalente coltivata, che mi sono chiesto perché la gente sia caduta nella trappola di coltivazioni a raccolto annuale.

Se poi si considerano gli effetti più ampi dei raccolti annuali, come quello del frumento, in confronto alla raccolta dagli alberi, si capisce che è una scelta priva di credibilità. Oltre ad aver effettuato molto lavoro in più per rese minori, abbiamo anche inventato un metodo di produzione alimentare che causa molti danni all'ambiente, agli animali e alle piante che ci vivono, noi stessi compresi.

Cerco di spiegarmi meglio. Come primo esempio, prendiamo in considerazione un campo di frumento e un bosco.

La monocultura annuale

Con i sistemi convenzionali, i raccolti annuali richiedono che il suolo sia coltivato. Questo processo di coltivazione distrugge la materia organica, uccide una gran parte della fauna del suolo e lascia la terra a rischio di erosione da parte di vento ed acqua. La struttura del suolo viene danneggiata e, persistendo nella coltivazione, il sottosuolo diventa troppo compatto e non permette più un drenaggio adeguato e la penetrazione delle radici in cerca di sostanze nutritive. Quando piove il suolo si sgretola. Basta osservare una strada di campagna sotto la pioggia per vedere tutta l'acqua piena di fango che scorre via. Quel fango è il prezioso terreno superficiale che si perde nei fiumi e infine nel mare.


© Val dolphin 1994
Tutte le piante crescono alla stessa altura
Si perde la terra esposta all'erosione
Si perdono i nutrienti in queste aree
Tutte le radici vanno alla stessa profondità
Ambiente Tipico nella Monocultura
I nutrienti persi causano inquinazione

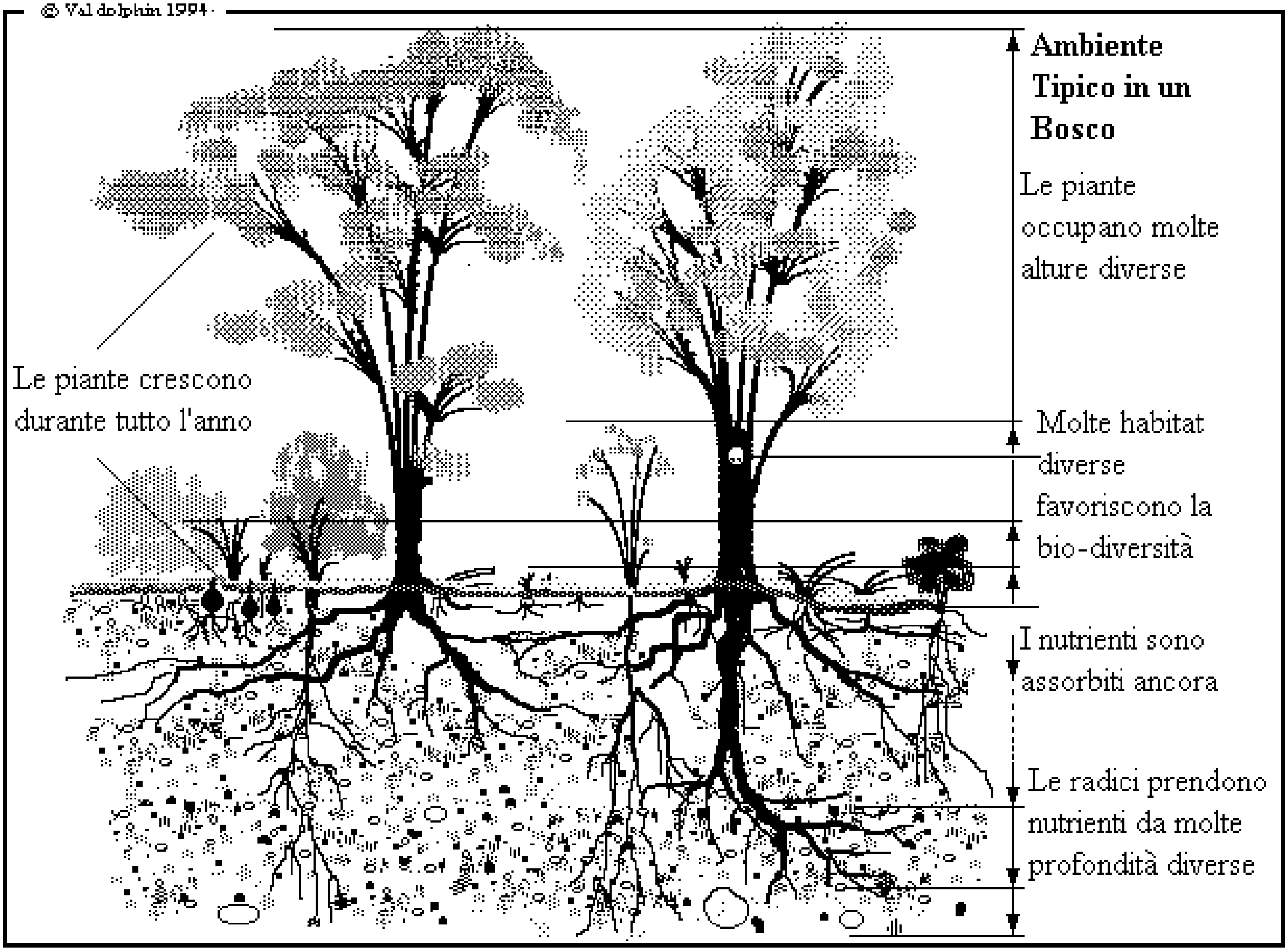
In un campo di frumento tutte le piante hanno bisogno delle stesse sostanze nutritive, le radici penetrano ad un identico livello nel suolo, e potranno ottenere nutrimento solo da questo unico livello. Le sostanze nutritive che si trovano a livelli più profondi andranno perdute e alla fine verranno dilavate, si perderanno nel mare o inquineranno l'acqua potabile. Da un punto di vista genetico tutte le piante sono molto simili, sono tutte vulnerabili agli stessi insetti e malattie e hanno le stesse esigenze climatiche. Se soffre una, soffrono tutte. Il sistema è dipendente da una grande quantità di fertilizzanti, erbicidi, pesticidi, fungicidi, ecc. Il suolo è poco più di un mezzo che sostiene fisicamente la pianta e anche questo diventa più difficile quando se ne distrugge la struttura e si diminuisce la profondità dello strato fertile. In Inghilterra nella zona delle Fenlands ogni anno viene eroso uno strato superficiale di 30 mm.

Per la maggioranza delle piante e degli animali selvatici un campo di frumento è come un deserto. Il regime intensivo fa sì che poche specie di piante possano sopravvivere e di conseguenza anche poche specie di animali, e il fenomeno coinvolge anche i terreni adiacenti. Sul giornale inglese The Guardian del 12/08/94 è apparso un articolo sul declino della popolazione delle specie più comuni di uccelli in Inghilterra: nel periodo dal 1969 al 1991, le popolazioni di passeri sono diminuite dell'85%, gli zigoli del 76%, le pernici del 73%, le colombe del 75% e le allodole del 50%. L'articolo dava la colpa all'agricoltura moderna che ha causato la distruzione delle siepi, all'aratura dei prati naturali e ai raccolti troppo precoci, che non lasciano il tempo agli uccelli di allevare i piccoli. Si dice che il coro dell'alba, quel tempo magico del mattino quando l'aria si ravviva con il canto degli uccelli, in certe zone dell'Inghilterra non si sente più. C'è solo un silenzio inquietante a dare il benvenuto al sole.

Si potrebbe dire che la resa di frumento è aumentata molto negli ultimi cent'anni, da circa una tonnellata per acro all'inizio del secolo a tre tonnellate e più adesso. Ma questo può continuare? No. Infatti, quando si somma tutta l'energia impiegata nella costruzione delle macchine agricole, nella produzione di benzina, fertilizzanti e di tutto ciò che si impiega per produrre il cibo, si constata che viene utilizzata più energia nella coltivazione del cibo che nel suo consumo! Questa situazione assurda è possibile solo a causa dell'attuale abbondanza di combustibili fossili. Ma quanto tempo dureranno?

Sistemi silvestri

Consideriamo ora un bosco naturale. Chi lo nutre con fertilizzanti? Chi applica i fungicidi? Chi distribuisce gli insetticidi e perché non viene tutto divorato dagli insetti? Anno dopo anno, il bosco produce un'abbondante vegetazione che nutre numerosi mammiferi, uccelli ed insetti. Nel bosco crescono una accanto all'altra tutta una serie di piante, a volte in concorrenza tra loro, ma di solito ciascuna di esse occupa una nicchia individuale. Molte piante ad esempio hanno apparati radicali profondi che assorbono le sostanze nutritive fuori del raggio di azione delle altre piante. Quando in autunno le foglie muoiono, molte di queste sostanze diventano disponibili per altre piante. Alcune forme vegetali hanno radici più contenute che assorbono le sostanze nutrienti dallo strato di terreno più superficiale. Allo stesso modo, nel bosco ci sono diversi livelli di crescita: alcune piante sono alte, altre sono cespugli, ci sono rampicanti che usano i tronchi degli alberi e piante perenni che crescono in posizione ombreggiata tappezzando il suolo del bosco. Alcune delle piante più piccole cominciano a crescere all'inizio dell'anno, prima che gli alberi abbiano messo le foglie, e terminano il ciclo di crescita all inizio dell'estate. In questo modo la terra, l'aria e il tempo forniscono nicchie differenti.


© Val dolphin 1994
Ambiente Tipico in un Bosco
Le piante occupano molte alture diverse
Le piante crescono durante tutto l'anno
Molte habitat diverse favoriscono la bio-diversità
I nutrienti sono assorbiti ancora
Le radici prendono nutrienti da molte profondità diverse

Le superfici coperte da alberi creano un ambiente più protetto e stabile all'interno del bosco. Gli sbalzi di temperatura non sono così estremi come negli spazi aperti, c'è meno gelo e vento e in questo modo la vegetazione risente meno degli agenti atmosferici. A causa della vasta gamma di habitat diversi, nel bosco coesistono molte forme viventi che si stabilizzano mano a mano che l'ambiente silvestre diventa più differenziato. L'attenuazione della pioggia ad opera degli alberi e il tappeto superficiale ricco di materiale organico fanno sì che le precipitazioni vengano assorbite dal suolo innalzando così il livello dell'acqua disponibile, invece di arrivare direttamente ai fiumi e al mare portando con sé detriti e nutrienti preziosi.

Le radici della vegetazione boschiva ospitano una vivace attività fungina e batterica. Questa aumenta la capacità delle piante di assorbire e produrre sostanze nutritive. Recenti indagini hanno dimostrato che sein un'area vive una grande varietà di vegetazione, la produzione globale aumenta. Vediamo quindi che un sistema boschivo non solo si autoconserva con un'alta produzione, ma può contemporaneamente contribuire a migliorare lentamente la fertilità, a differenza della coltivazione annuale che necessita di un'alimentazione costante per mantenere i livelli produttivi.

Il valore della diversità

Se si coltivano molte piante di specie differenti una accanto all'altra, in modo che una singola specie non abbia il monopolio su un'area estesa, gli insetti che cercano piante specifiche possono restare confusi di fronte alle differenti forme vegetali e così avere più difficoltà a trovare la specie desiderata. Se un insetto arriva in un campo di frumento, una volta posato su un esemplare non importa dove andrà in seguito, essendo circondato da piante identiche: un paradiso terrestre per l'insetto, che gode così di condizioni ideali per la sua riproduzione. Questo porta a un'esplosione della popolazione di insetti, che si può controllare soltanto con il ricorso a costosi insetticidi chimici. Se, al contrario, il terreno ospita molte piante diverse, come nel bosco, l'insetto dovrà faticare molto di più per trovare la pianta successiva. Correrà anche più rischi, perché dovrà muoversi di più e perché la maggiore varietà di vegetazione offrirà più opportunità ai predatori. Il risultato sarà un danno inferiore alle piante ed una popolazione più equilibrata di insetti nocivi e predatori.

Nel periodico 'Kew' (primavera 1994), in un articolo si parlava di un gruppo di scimpanzé che abitano in una piccola area di foresta di nome Gombe in Africa. La foresta è una riserva circondata da terre coltivate:

'Fuori da Gombe la popolazione locale stenta a sopravvivere con circa 30 tipi diversi di cibo, di solito specie importate coltivate su terreni aridi e facilmente soggetti ad erosione... Ma gli scimpanzé sembrano botanici esperti, perché sanno esattamente dove e quando trovare il prossimo raccolto di frutta. Ci sono soltanto sei grandi fonti di cibo al mese, ma nel corso di un anno vengono mangiate più di 150 specie. Alcuni dei frutti che fanno parte del loro regime alimentare sono deliziosi e le scimmie hanno molto da insegnarci su una dieta salutare e di medicina preventiva. Benché si sappia molto sul comportamento sociale degli scimpanzé, la nostra comprensione della loro conoscenza botanica e del suo reale significato è appena agli inizi. Poche piante sono state studiate per le loro sostanze nutritive e le loro proprietà medicinali. Sembra che le scimmie siano più intelligenti di noi!'

La selezione delle piante

Certo, se un inglese vuole nutrirsi esclusivamente utilizzando un bosco britannico, o muore in breve tempo o deve imparare a mangiare molti cibi poco gustosi come le ghiande. E' probabile che nessuna di queste possibilità sia molto piacevole, ma c'è un'alternativa. Si può coltivare un bosco usando i principi osservati nella natura, ma piantando specie che daranno frutti, semi, foglie, radici e fiori saporiti. Con una buona pianificazione un sistema del genere può:

- essere molto più produttivo di un campo di piante annuali
- produrre una gamma più ampia di cibi
- richiedere molto meno lavoro, nutrienti e pesticidi

- fornire habitat preziosi per specie selvatiche
- essere esteticamente piacevole

Bisogna solo scegliere una combinazione di specie adeguata. In Gran Bretagna per esempio ci sono più di 5.000 specie di piante commestibili e circa 2.100 di queste possono crescere in un bosco: non manca quindi certo la scelta.

Il problema maggiore è che l'umanità ha selezionato le piante annuali nel corso di migliaia di anni. In questo arco di tempo, le piante coltivate hanno subito molte mutazioni rispetto alle specie selvatiche originarie (il cavolfiore, il cavolo e i cavolini di Bruxelles derivano tutti dalla stessa pianta selvatica), lo stesso dicasi per il sapore e la resa. Allo stesso modo, la lattuga deriva da una pianta amara e velenosa e l'antenato della carota era una radice piccola e legnosa, molto poco appetitosa.

Questa selezione ha però presentato anche numerosi problemi. Abbiamo una lattuga con foglie di buon sapore che va bene per l'insalata, ma anche una pianta che è facilmente preda di insetti e malattie. Richiede anche molta attenzione poiché non può competere con le altre piante. In questo modo, se si vuole mangiare la lattuga tutto l'anno, bisogna seminare almeno 10 volte: bisogna preparare la terra, diserbare, irrigare, evitare che la pianta vada in semente se fa caldo ed evitare che marcisca se piove troppo. Bisogna anche nutrire il suolo se si vuole produrre una buona pianta. Pur con tutte queste attenzioni, la pianta ha un valore nutritivo inferiore a quello della pianta selvatica originaria.

La maggioranza delle piante perenni che raccomandiamo per la silvicoltura non sono state selezionate per la resa, il sapore, ecc., pertanto il raccolto sarà ridotto e più laborioso rispetto a quello delle piante annuali. Tutte le piante nella lista qui sotto sono comunque molto saporite. Una volta mature, continueranno a fruttificare per molti anni, con poco lavoro per il coltivatore. Sono inoltre meno vulnerabili a insetti e malattie, non avranno grandi necessità di fertilizzanti e saranno molto più resistenti agli agenti atmosferici. Siccome molte specie potranno occupare la stessa area di terreno, la resa totale potrà essere molto superiore a quella delle piante annuali. Esistono anche molte possibilità di selezionare specie più produttive o il cui raccolto risulta più agevole, ma in questo caso bisogna sempre considerare gli aspetti negativi.

Un giardino boschivo

Per prima cosa serve un bosco. Se si ha già la fortuna di possedere alcuni alberi maturi si può cominciare immediatamente a coltivare le altre piante boschive. Se non ci sono ancora alberi, meglio piantarli prima ed aspettare che crescano alcuni anni prima di piantare le altre specie. Ci sono alcune regole generali da ricordare quando si decide di coltivare un giardino boschivo.

1. Si possono piantare alberi in qualsiasi luogo. In Inghilterra, circa il 97% della superficie era coperta da vegetazione prima che si cominciasse a disboscare. L'importante è scegliere la specie adatta alla posizione geografica: se si vuole piantare un albero vicino alla costa, per esempio, è necessaria una specie in grado di tollerare venti forti e un alto grado di salinità. Una volta maturi, gli alberi proteggeranno le piante meno resistenti.
2. Non è necessaria una superficie estesa per coltivare un bosco: se si scelgono alberi di piccole dimensioni è possibile avere un mini-bosco anche in un orto angusto.
3. Bisogna avere le idee chiare sul tipo di raccolto che si desidera ottenere, quindi bisogna scegliere specie adatte.
4. Le piante amanti del sole devono essere piantate sul lato del bosco dove l'esposizione è più soleggiata. La maggioranza degli alberi da frutta cresce meglio quando riceve molto sole.
5. Gli alberi più alti devono essere disposti sul lato ombroso, per non togliere sole alle specie più basse.
6. Bisogna conoscere il vigore delle piante e pianificare di conseguenza. Se per esempio si mette un

rampicante veloce accanto a un albero piccolo, è probabile che il rampicante soffochi completamente l'albero fino a farlo morire.

Per ulteriori informazioni sulle piante coltivabili in un giardino boschivo potete consultare Piante per il giardino boschivo. Segue una lista di piante che fruttificano lungo tutto il corso dell'anno.

Semi

Araucaria araucana (Monkey puzzle); Caragana arborescens (Siberian pea tree); Castanea sativa (Castagno); Cephalotaxus drupacea harringtonii; Specie Corylus (Cobnuts and Filberts); Juglans regia (Noce) e Quercus ilex (Quercia). Crescono tutti senza problemi per lo meno in alcune zone della Gran Bretagna.

Alberi da frutto

Esiste una gamma così vasta che posso menzionarne solo alcuni. Actinidia deliciosa (Kiwi); Amelanchier alnifolia (Juneberry); Specie Cornus; Specie Crataegus; Elaeagnus x ebbingei; Malus sylvestris domestica (Melo); Prunus domestica (Prugno); Pyrus communis (Pero); Specie Ribes (Uva spina e altri ribes) e Specie Rubus (More e lamponi) daranno frutti durante tutto l'anno.

Foglie

Allium ursinum (Aglio selvatico); Campanula persicifolia (Harebell); Cryptotaenia japonica (prezzemolo giapponese); Fagopyrum dibotrys (Perennial buckwheat); Montia sibirica (Miner's lettuce); Myrrhis odorata (Sweet Cice ly); Rumex acetosa (Sorrel); Tilia species (Lime trees, cedro?, Tiglio?); Urtica dioica (Ortica) e Viola odorata (viola). Queste sono soltanto un piccolo esempio delle specie che si possono scegliere e tutte daranno foglie fresche per tutto l'anno.

Radici

Erythronium species (Dog's tooth violets); Lathyrus tuberosus; Lilium lancifolium (Tiger lily); Medeola virginica (Cucumber root) e Streptopus amplexifolius sono alcune delle specie di radici più interessanti che si possono coltivare.

Il bosco non è l'unico posto dove coltivare specie commestibili perenni. Ci sono molti altri habitat. Per ulteriori informazioni, consultate queste altre pagine: Il prato commestibile, Piante acquatiche e paludonse commestibili e Piante ornamentali commestibili.

Ritorno alla homepage di Piante per un futuro.

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Plants for a Future

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Woodland Garden Plants

The present-day cultivation of large areas of single annual crops such as wheat might seem, on the surface, to be a very productive and efficient use of land (average wheat yields this century have increased more than three-fold to over 3 tons per acre). When other factors are taken into account, however, it can be argued that this is a very unproductive and unsustainable use of the land.

A woodland, on the other hand, might seem to be a very unproductive area for human food (unless you happen to like eating acorns). By choosing the right species, however, a woodland garden can produce a larger crop of food than the same area of wheat, will require far less work to manage it and will be able to be sustainably harvested without harm to the soil or the environment in general.

I do not intend to go into any more details of the pros and cons of annuals versus perennials here. If you would like more information on this subject then please see our leaflet Why Perennials.

One of the main reasons why a woodland garden can be so productive is that such a wide range of plants can be grown together, making much more efficient use of the land. The greater the diversity of plants being grown together then the greater the overall growth of plant matter there is.

Thus you can have tall growing trees with smaller trees and shrubs that can tolerate some shade growing under them. Climbing plants can make their own ways up the trees and shrubs towards the light, whilst shade-tolerant herbaceous plants and bulbs can grow on the woodland floor.

This leaflet is going to look at some of the many plants that can be grown as part of a woodland garden. A wide range of edible plants are discussed together with brief details of their cultivation needs. Although other details of the plants uses are not mentioned here, it should be realised that woodlands can also provide a wide range of non-food uses. The most obvious is their wood, of course, but they can also provide fibres for cloth and paper, oils, medicines and a whole host of other commodities.

Unless stated otherwise, the plants detailed below are fairly tolerant of most soil types so long as they are not water-logged. The larger trees and climbers will obviously be able to make their own way up into the sun, the smaller plants will grow well in the dappled shade of the trees unless the text says otherwise.

Trees and Shrubs.

Amelanchier alnifolia. The Juneberry is a small shrub, growing about 6ft tall and suckering to form a thicket. The fruit ripens in early July and looks somewhat like a blackcurrant. It is juicy and has a delicious flavour with a hint of apple in the taste. For best yields grow it on the sunny edge of the woodland. Birds absolutely adore this fruit so either grow lots so that there will be some for you, or put a net over the plants just before the fruit is ripe.

Araucaria araucana. The monkey puzzle is a large tree that has the potential of being the highest yielding nut crop that can be grown in Britain. A staple food of the native Indians in areas of Chile, the nuts are about the size of an almond and have a very pleasant mild flavour. The main problems with the tree are that it is very slow-growing (it takes about 40 years before it bears its first crop of seeds) and you need to grow both male and female plants in order to obtain the seed. Unfortunately there is no way of telling the sexes apart until they flower and so you need to grow at least 5 trees in order to be fairly sure that you have a mix of the sexes. When grown for its seed, this tree is not really suitable for small areas of land, but if you have the space then why not plant a grove of them to feed future generations? The trees are very wind- resistant and grow best in the wetter western half of the country.

Caragana arborescens. The Siberian pea tree is a very easily grown shrub or small tree. It demands a sunny position, so put it on the sunny edge of the woodland, and it is happier in the eastern half of the country where it prefers the drier conditions and the colder winters. The seed is about the size of a lentil and is usually freely borne. It is best cooked and can be used in all the ways that you normally use cooked beans.

Castanea sativa. Sweet chestnuts are large trees that prefer a well-drained slightly acid loam though they also grow very well in acid infertile sandy soils. Seeds are usually freely produced in Britain, though they are seldom as large as the seeds you can buy in shops. There are some named varieties such as ‘Marron de Lyon’, though you will still not usually obtain quite the same standard of seed as those from shops. This is because the sweet chestnut is really a tree for continental climates and prefers areas with hotter summers than we normally experience in Britain. It is at its best in the south-eastern part of the country and should be given a sunny position.

Cephalotaxus harringtonia drupacea. The Japanese plum yew prefers light soils though it is not too fussy so long as you don’t try and grow it on dry gravelly or chalky soils. It is a medium to large shrub, growing well in the shade of other trees and disliking full sun unless grown in less sunny areas of the country such as western Scotland. The fruit is about 3cm long and, when fully ripe is sweet and juicy. It contains a single large oily seed and this is also edible, though it often has a slight bitterness if eaten raw. There are male and female plants, the females produce prolific crops most years if there is one male for about every five females.

Cornus mas. The Cornelian cherry is a large shrub or small tree for the sunny edges of a woodland. The oval fruits are ready in late summer and early autumn, when fully ripe they have a pleasant rich flavour. *Cornus kousa* is a larger tree with fruits that look a bit like a strawberry. Whilst the skin is tough and bitter, the inside is soft and lush with a delicious sweet flavour. We find that the easiest way to eat it is to bite a small hole in the skin and then suck out the delectable flesh. The sub-species *C. kousa chinensis* is said to grow and fruit better in this country.

Corylus species. Our native hazel is a common large shrub of woodlands, succeeding in most soils and in full sun or light shade. The plants flower in early spring and, since the weather is so unpredictable at this time of year, there are years when the crop is extremely poor. If you want to grow the plant for its edible seeds then there are many named varieties available with larger seeds.

Crataegus species. Whilst I would not really recommend our native hawthorns for their fruits, there are a number of N. American and Asiatic species with very pleasant fruits. These are about the size of a large cherry and contain 5 seeds which usually stick together and are thus effectively like the seed of a cherry. The fruits range in colour from yellow to red and deep purple. In the tastiest species they are juicy and have a very rich flavour. My personal favourites include *C. arnoldiana* with a mealy texture, *C. schraderiana* which is so juicy that it almost melts in the mouth and *C. tanacetifolia* which is crisp and somewhat apple-like. Grow these small trees on the sunny edge of the woodland.

Elaeagnus x ebbingei. This is a plant that is commonly grown as a hedge in gardens where it forms an extremely wind- resistant screen 6ft or more high. Left to its own devices it grows about 15ft tall and wide. An extremely tolerant plant, it grows in full sun, deep shade and most soils - its only real dislike is waterlogged soils. The plant flowers in late autumn and ripens its fruit in April, long before the traditional early fruits such as strawberries and unripe gooseberries. When fully ripe these fruits have a delicious rich flavour, their single large seed can also be eaten and has a vague hint of peanut in its taste. This plant is an extremely good companion, helping to enrich the soil with nitrogen and thereby boosting the growth of neighbouring plants. It has been found, for example, that when planted in an orchard it can increase the yields of fruit treess such as plums and nuts by 10%. Not all forms of this plant fruit well, but we are in the process of developing reliable cultivars and believe that this plant has the potential to become a commercial crop in the future.

Juglans regia. The walnut is an extremely useful tall-growing tree with edible nuts and many non-food uses. It is rather antisocial in a woodland, however, since it secretes certain substances that inhibit the growth of other plants.Grow at least a couple of trees close to each other to help with fertilization, but do not grow lots of trees close together since this will depress or even prevent the growth of other plants around them. There are many named varieties available with larger fruits - you could try obtaining some of the Polish varieties that have recently become available since these are likely to do well in this country.

Malus sylvestris domestica. This is the cultivated apple. I do not intend to go into details of the common fruits in this leaflet, other than to say that apples make excellent small or large trees (depending on rootstock used) for the sunny side of woodland gardens.

Prunus species. This genus contains the cultivated plums and cherries, both excellent plants for a sunny position in a woodland garden.

Pyrus communis. Pears are another commonly cultivated fruit for sunny areas in the woodland.

Quercus ilex. The holm or holly oak is a large spreading but slow-growing evergreen tree. Very tolerant of maritime exposure, it will in time offer a high degree of shelter from the elements, though its dense shade will severely limit what can grow underneath it. The seed is rather smaller than our native acorns, but unlike them it is very often free of bitter tannins and can be eaten raw or cooked like sweet chestnuts. Trees usually fruit very well in this country. The sub- species *Q. ilex ballota* has been cultivated in southwestern Europe for its sweet-tasting seeds, though it is not such a reliable cropper in this country.

Ribes species. This genus includes the cultivated gooseberries and currants, all of which are excellent small shrubs for the sunny edges of a woodland or for light shade.

Rubus species. This includes the cultivated blackberries and raspberries, both of which are excellent woodland plants in sun or light shade. There are also a number of N. American species of raspberries, including *R. deliciosus, R. leucodermis, R. occidentalis, R. parviflorus* and *R. spectabilis* which also do very well in the woodland. They need a warm fairly sunny position if they are to fruit well. The flavour is very nice in a good summer, though in cooler summers the flavour does not develop fully. *R. phoenicolasius*, the Japanese wineberry, is a very ornamental raspberry from Asia. Its fruits are about half the size of cultivated raspberries but the have a lovely flavour and are virtually free of maggot damage since the developing fruit is enveloped in the calyx until just before it comes ripe.

Tilia x europaea. Our native lime trees have the nicest-tasting leaves that I have yet eaten from a tree. We use them as a major ingredient in salads, replacing lettuces which are so much hassle to grow. Only the young leaves should be used, though these can be produced from April right round to September from the sucker growth that is often found at the base of the trees. *T. cordata* and *T. platyphyllos* are our other natives and can also be used.

Climbing plants.

Actinidia deliciosa. The Kiwi fruit has become relatively well known in recent years, though many people do not realise that it can fruit very heavily when grown in this country. A very vigorous climber, it can either be grown on a frame or into a large mature tree (though harvesting fruit 70ft or more above the ground can be quite a problem). Try to place the plant on the southwestern side of the garden so that it gets plenty of sun but is sheltered from the rising sun since the young growth in spring can be damaged by frosts.

Apios americana. This is a herbaceous climbing plant with a delicious edible root that can be eaten raw but is best baked. Grow it on the sunny side of the woodland and either give it supports or let it climb into small shrubs. Yields of the wild species are fairly low, but new cultivars are being developed with much higher yields and this plant might become commercially cultivated in the future. *One correspondant says that this plant has some "anti nutritional factors, such as trypsin inhibitors ... so it should be cooked before being eaten"*

Humulus lupulus. Our native hop can climb to a height of 20 feet and succeeds in sun or semi-shade. The young shoots can be eaten in the spring, you harvest them when they are about 1 ft long and cook them like asparagus. The flavour is said to be unique and to many tastes delicious, I just find them unique. Female plants produce a cone-like seed head which is used as the bitter flavouring and preservative in beer. This seed head is also widely used as a medicinal herb, its sedative properties make it an ideal material to stuff pillows with since it aids restful sleep.

Lathyrus tuberosus. This low-growing herbaceous climber produces small black tubers that are absulutely delicious baked. Unfortunately the yields are rather low but since it can be grown along the woodland edge below other productive plants (and also helps to enrich the soil with nitrogen) then its harvest can be viewed as a very tasty bonus from the land.

Schisandra grandiflora rubriflora. This deciduous climber grows about 20ft tall and produces bunches of small red fruits looking somewhat like small loose bunches of grapes. The fruits are about a third of an inch in diameter and have a delicious sweet flavour. Grow it in semi-shade in a slightly acid soil, though it will succeed in slightly alkaline soils if lots of organic matter is added.

Vitis vinifera. Grapes are well enough known, so I will not give them much space here. If you live in the warmer parts of the country then you could try growing them along the sunny edge of the woodland.

Other perennial species.

Allium ursinum. The native wild garlic grows abundantly in hedgerows and woods. It comes into growth in mid to late winter and we use the leaves raw or cooked. They have a very pleasant mild garlic flavour and add a zest to salads at this time of the year. The flowers and small bulbs can also be used. A. triquetrum, the three-cornered leek grows well on the sunnier edges of the woodland. These plants come into growth in the autumn and can supply their leaves throughout the winter. (See our leaflet on Wild garlic for more information about this plant.)

Campanula persicifolia. This harebell (or bluebell if you live in Scotland) is a beautiful plant that produces a flowering stem about 3 ft tall in the summer. The flowers have a delicate sweet flavour and make a very attractive addition to the salad bowl. The mild-flavoured leaves can be harvested for about 9 months of the year and used in salads.

Cryptotaenia japonica. Japanese parsley is not really a parsley but the leaves taste vaguely like it if you use a considerable amount of imagination. All other parts of the plant can also be eaten, the seeds being used as a flavouring, the stem used as a celery substitute and the root eaten raw or coooked. The plant grows about 1½ feet tall and prefers a moist shady position under trees, where it will often self-sow. Keep it away from slugs, though, because they will decimate it.

Erythronium species. Dog's tooth violets are dainty low-growing woodland bulbs related to lilies. They flower in early spring and disappear completely by early summer. The bulbs can be eaten raw or cooked and have a nice sweet flavour. Any of the species can be used, we find that the cultivars 'Pagoda' and 'White Beauty' are easy to grow and increase freely.

Fagopyrum dibotrys. Perennial buckwheat is a very vigorous plant for light shade in the woodland. It can grow 2 metres tall and spreads freely when well placed. The leaves can be cooked and eaten like spinach, for which they make an acceptable though not inspiring substitute. The leaves, however, are a good source of rutin and this can have a very beneficial effect on the circulatory system - it is used in the treatment of arteriosclerosis, high blood pressure and rheumatism, for example.

Lilium species. Lilies are ideal plants for the woodland. Although it might seem a sacrilege, some lily species are cultivated for their edible bulbs (the growers actually prevent the plant from flowering so that it puts more energy into the bulb). If you ever find that you have too many of any particular species then you could always try eating a few bulbs. If you want to cultivate plants for their bulbs then I would recommend trying the tiger lily, *L. lancifolium.*

Montia sibirica. Miner's lettuce is an evergreen herbaceous plant that succeeds in deep shade as well as in the sunnier areas. A short-lived perennial, it usually self-sows freely and makes an excellent ground cover in the woodland. The leaves can be harvested for salads all the year round and the flowers can also be used.

Myrrhis odorata. Sweet Cicely has delicious aniseed-flavoured leaves that are available from late winter until early the next winter. This herbaceous perennial prefers moister soils and is a native plant that is well able to look after itself.

Rumex acetosa. We have a form of sorrel that virtually never flowers and produces its lemon-flavoured leaves all twelve months of the year. You cannot eat it in large quantities because it contains oxalic acid (which is what gives it the lemon flavour) and this can bind up certain of the nutrients in food, making them unavailable to the body. In moderate amounts, however, it is a very tasty and nutritious food. Grow it in the sunnier parts of the woodland.

Streptopus amplexifolius. Wild cucumber grows very well in the cool shade of a woodland where it can reach a height of 3 feet. Its fruit can be eaten raw or cooked and is juicy with a cucumber flavour. Do not eat it in large quantities at your first try since it can be laxative until your body gets used to it. The young shoots can be eaten raw in salads or cooked like asparagus and also have a cucumber-like flavour whilst the root is sometimes used in salads and, surprise surprise, also has a cucumber flavour. I wonder if this is why they call it the wild cucumber?

Urtica dioica. Stinging nettles are well enough known to anyone who has had a brush with them. Surprisingly few people, however, know that the leaves are edible when cooked, are highly nutritious and are also very tasty. Harvest the young shoot tips in spring and early summer - if you want to harvest them later in the year then cut down a patch to encourage fresh growth. Do not eat the older shoots since these can develop substances that are an irritant to the kidneys. Wear gloves when harvesting the leaves to avoid being stung - when cooked the leaves lose all of their ability to sting.

Viola odorata. Sweet violet is a low-growing carpeting plant that provides mild-flavoured edible leaves all the year round and deliciously sweet edible flowers throughout the winter. This plant has become quite a favourite salad of mine in the last year. A native plant, it is quite capable of looking after itself along the woodland edge.

More comprehensive information can be supplied on any of the above species if it is required, we can also often supply these plant - please ask us for our latest catalogue. All information is supplied on a donations basis that should at least cover our costs (10p per species plus postage) whilst there is a fixed charge for plants. You can also see our Database UK, US for more information about any of these plants. Or see the Pioneer Species leaflet for ideas of trees to plant to get your woodland going.

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Readers Comments:

Cryptotaenia japonica

Chris Brown (sienna@pond.net) Fri, 14 May 1999 13:44:48

I recently obtained a *Cryptotaenia japonica* plant from a local plant sale (Eugene, Oregon); the grower said it was an edible, so that made it a very appealing addition to my garden. As it was not in any of my horticultural reference books, I decided to do an internet search to see what kind of conditons it would flourish in. To my surprise, the North Carolina State University declared it a poisonous plant!

I then discovered your page, which confirmed my original information, which lists it as an edible plant. I don't know which source is correct, yours or the University's, but I don't think I will be eating it anytime soon!

This comment has also been added to: Cryptotaenia japonica.

This comment has been added to the web pages: Why Perennials.

Add a Follow up to this comment

Woodland Garden Plants

Unknown Sun May 20 14:09:44 2001

i think jeeves is great but i want information and pictures that kids 10 and under could understand please help

Add a Follow up to this comment

Cryptotaenia japonica

Shani Sun Aug 26 21:55:18 2001

This is what the site has to say regarding edibility of this plant.

North Carolina State University website (link - http://www.ces.ncsu.edu/depts/hort/consumer/poison/Cryptja.htm)

Poisonous Part Leaves. Symptoms Severe skin irritation following repeated contact. Edibility EDIBLE PARTS: Cooked, starchy Oriental vegetable (root) or salad greens. Toxic Principle Unidentified. Severity TOXIC ONLY IF LARGE QUANTITIES EATEN.

This comment has also been added to: Cryptotaenia japonica.

This comment has been added to the web pages: Why Perennials.

Add a Follow up to this comment

Ground cover plants.

Erik Johnson (e-johnson1@northwestern.edu) Sat Sep 29 05:04:44 2001

Unfortunately, USDA zones aren't useful except for perhaps determining maximum cold resistence (all they measure are miniumum temps). Britain is smack dab in front of the Gulf Stream, so has warm winters. However it is very far north, so has long winters and cool summers. USDA zones 8 and 9 in the US are perhaps equivalent to Europe in the maritime Pacific Northwest and northern California, but not in the Southeast US.

270 frost free days leaves about 95 with frost. # Frost-free days is somewhat useful for annuals but little else. Temperate perennials/trees need winter chilling (hours between 32 and 45 Fahrenheit). I guarrantee that NW FL (USDA zone 8) does not have 95 days of potential frost (& presumptively "chill"). It usually has only 400 (or less) chilling hours, and only about 3-7 days (nights?) of frost. Temps get down to low 20s F (in some cases 15 F), but these killing frosts occur unpredictably, scattered amoungst 60/70 Fahrenheit days from late December to late February. W. European weather is probably more regular. Spain and Italy can raise both subtropical crops (citrus, banana passionfruit)--lack of killing frosts--and European plums/apples/hazels/etc--prolonged winter chill. Neither group is reliable in the Deep South of the US; indeed, native species (mayhaw, rabbiteye

blueberry, scuppernong) and a small number of exotics from Asia (kaki) and Uruguay (feijoa, jelly palm) are the only ones to thrive. And if the Limeys saw wild scuppernongs--120+ ft woody lianas with aerial roots (Bartram's "flying buttresses of the live oak forest"), I don't think they'd recommend planting vines, let alone grapes, at "woodland edges." Kinda hard to harvest and control.

I have a hard time taking gardening advice/books from Europe and West Coast USA seriously. Unfortunately most authors come from such areas, so the rest of us waste alot of money planting things and watching them die, in order to find the tiny percentage that work. Some of the species that "work" become weeds--witness Kudzu, which swallowed Georgia after FDR's bureaucrats decided it would be good for errosion control.

Anyone have scuppernong (*Vitis rotundifolia*) recipes?

Details of Growing Condition: Northern Gulf (of Mexico) coast, USA. Conditions as described above, but additionally: 15-60 inches of rain (usually 40), extremely acid, sandy, poor soil, very hot (from May to October) and humid (year round)..

This comment has also been added to: Vitis rotundifolia.

This comment has been added to the web pages: Ground cover plants..

Add a Follow up to this comment

Woodland Garden Plants

jrb (jnbaker1@aol.com) Thu Jan 30 19:03:22 2003

Found this page interesting. Have in the past tried a number of wild edible plants. Now find myself with a large thin soiled rocky garden which is mainly shaded by copper beech trees. Any suggestions on things to plant in such conditions appreciated. jrb.

Add a Follow up to this comment

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Español

Plant Portrait - *Allium ursinum*, Wild Garlic

This article originally appeared in the January 1997 issue of the Friends of PFAF newsletter.

It was late December when I was deciding which plants to include in this edition of the newsletter. We were in the grip of a period of very cold weather that had seen the ground frozen hard for only the second time in the seven years I have been living in Cornwall. I was walking along a country lane and my thoughts were moving longingly ahead to the spring and warmer weather. I started thinking about the first signs of the spring - for us it is the snowdrops and the wild garlic. I suddenly remembered that in no more than six weeks time I would actually be harvesting wild garlic from the banks at the side of the lane I was walking down. Suddenly, spring did not seem so far away.

Wild garlic grows abundantly in this part of Cornwall, and also in many other areas of the country. It is a plant that seldom needs to be cultivated, just give it a position in semi-shade, preferably under trees, and leave it to its own devices. It will succeed in most soils and prefers moist conditions, though it will also succeed where the soil is very wet in the winter. When given suitable conditions, it will form a dense carpet of growth and can be very invasive. The plant comes into growth in the middle to late winter, flowers in the spring and then dies down completely by the middle of summer. This allows many other plants that come into growth in spring to grow in the same space.

This is an excellent companion plant in the garden, it grows well with most plants and seems to positively affect their health and their ability to resist pests and diseases. It does not seem to grow so well with plants in the pea and bean family, however, with many gardeners noticing reduced growth and vigour in both species. It is also said to repel moles from the garden, though I am not at all sure that the moles have read the same reports, or that they would agree with them if they had!

We eat all parts of this plant in quantity when it is in season. The leaves are delicious raw or cooked and we have harvested them as early as the middle of January in mild winters. They have a distinct garlic flavour, though are milder than garlic cloves, and really add something special to a winter salad. When cooked, they are normally used as a flavouring in soups, stews etc, though we have at times used them like spinach.

As the flowers begin to open in the middle of spring, the leaves start to lose their vitality. At this time we simply switch our attention to the flowers, using them in exactly the same way as the leaves. They have a somewhat stronger flavour and make a decorative and very tasty addition to salads. The flowering heads can still be eaten as the seed pods are forming, though the flavour gets even stronger as the seeds ripen.

The bulb can also be eaten raw or cooked, and can be harvested all year round, though is best used when the plant is dormant from July to December or January. It has a fairly strong garlic flavour, though it is quite small and fiddly to harvest.

From the health perspective, wild garlic has most of the benefits of the cultivated garlic, A. sativum. It is therefore a very beneficial addition to the diet, promoting the general health of the body when used regularly. It is particularly effective in reducing high blood pressure and blood cholesterol levels. The juice of the plant has been used as a general household disinfectant.

Once you have this plant growing, you are unlikely to be without it, or to need to propagate it. However, should you want to introduce it to a new site, this is a simple thing to do. You can either harvest the seed in early summer and sow it immediately either in situ (if you have masses of the seed) or in trays in a cold frame. It usually germinates well and should produce plants large enough for harvesting in the third year of growth.

Alternatively, dig up some bulbs in the summer once the plants have died down and plant them immediately into their new site. They will be ready for harvesting from their second year of growth.

You can look at our leaflet on Perennial Onions for other intresting members of the onion family.

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Readers Comments:

Allium vineale

Michael J. Orlove D.I.C., D. Phil (mo42@cornell.edu) Sun, 25 Jul 1999

Universe! Dear Rich, 24-July-1999

I discovered your page with the following URL:

http://www.scs.leeds.ac.uk/pfaf/onions.html

In it you made reference to *Allium ursinum*, as "wild garlic". I always thought *A. ursinum* was a rare species in North American woods, and that in Britain and North America the term was usually applied to A vineale. It is also applied to A. canadesne as you know, and also feral populations of A. sativum whose origin in the New world is considered mysterious, Native Americans and early White settlers have both been suspected of introducing it, or possibly it spread on its own without human agency (which I doubt). A. vineale is a tubular leaved species but it is much more closely related to A. ampeloprasum, A. sativum, A., scorodoprasum, A. shaeonoprasum, and A. rosem than to A. cepa, or A. fistulosum. It is the one that is a pest in wheatfields because of the similarity of its bulbils in shape and density to wheat kernels, making mechanical separation very difficult.

what has fascinated me so much about A. vineale is its extreme variation in umbel contents even within a local population. some plants have flowers some bulbils, and some both. When bulbils are few or absent in the umbel, the blossoms are VERY showy --being companulate instead of ovatge.

At such times they are purple instead of green. The very showy form is known as A. V. capsuliferum in reference to its seed capsules. the half and half (bulbils and blossoms) form is called A. V. typicum, and the all bulbil one is A. v. compactgum. Two dark pigmented bulbilforms are also described, one reproduces like compactum, and is called A. v. fuscescens, and the other appears to have viviparous bulbils, but the "sprouts" are actually non-vestigal blades on scale leaves on the bulbils, and is known as A. v. crinitum. crinitum usually has one or 2 ovate flowers per umbel which are lavender or purple in color. All sorts of intermediates exist between these forms. Here in Ithaca fuscescens-like ones have flowers, and crinitum like ones don't or crinitum like ones will have many flowers and viable flowers with many capsuls forming.

I once found a clump of capsuliferum surrounded by a vast field of hundreds and thousands of typicum. Those typicum near the capliferum had purple flowers like the capsuliferum, but the ones farther out had the green flowers typical of typicum. The blossoms of this species are usually visited by tiny ants, sweat bees, or nothing at all, but the capsuliferum where being actively and aggressively visited by large bumblebees (Bombus pennsylvanicus --a large pocket maker, related to the British species B agrorum, but as big as B. terristris). Large paper wasps (Polistes fuscatus) were equally present and interested in the nectar.

An article by Hugo Iltis in the 1940's (it was either in Scientific Monthly or Atlantic Monthly) claimed that this showy capsuliferum form made it as far north a as North Carolina, and . v. typicum was as good as you could get in the Northeast.

Nevertheless this wonderful clump of capsuliferum I found was in the Bronx! that was in 1979, and it continued to persist there until 1983. could this have been global warming? the real question was this capsuliferum more related to the non - sexual nonspecific neighbors around it, or capsuliferum in N. Ccarolina? did it evolve denovo from non-sexual or less sexual forms?

Many biologists say it is a mystery how sex evolved to begin with (the origin - of- sex question" and it is equally a mystery how sex stays in the population and doesn't get selected against (the maintenance - of -sex question). John Maynard Smith (at the University of Susex), Goeffrey Parker (University of Liverpool), and George Williams (University of the State of New York at Stonybrook) have become famous elucidating and trying to solve this mystery. It seems that mating with a stranger may further the fitness of your offspring, but it appears not enough to justify throwing half-of your genes away, as a female does when mating. Plants with both cleistogamous and chasmogamous flowers, like Violo sp., Impatiens capensis (Orange balsam), and I. noli-tangeri (touch-me-not), and the very similar North American I. palida, not to mention the hog peanut, Amphicarpaea xxx, present a similar example of this mystery.

What are your thoughts on this issue? How far north does A. v. capsuliferum make it in Britain? I have found capsuliferum in Interlaken, N. Y. Near Ithaca, N. Y. where Cornell University is, but these ones were not as tall or showy as the ones from the much warmer Bronx. but they were capsuliferum, and made good seed. I have 2 accessions of them, one from a bulbil, and the other from a seed collected from the same umbel in Interlaken.

I have been unable to get them to blossom or even bolt with bulbils in my garden, just getting non scapigqarous growth every spring.

There is some folklore in this country that A. vineale takes on its capsuliferum form when in the vacinity of an underground stream, and dowsers exploit the information provided by the occurrence of the plant in particular instances.

Well I must go now, Please forgive my sloppy typing, I am disabled and it takes me eons to proofread things. Incidentally, are you in Cornwall, or Yorkshire?

Some day I will, if I only live, compare the DNA of different forms of A. V. vineale from different locations. the Bronx material seems to be now absent from the original site, I have been back 3 times over the years, and the material I collected now exists as seed in cold storage, but I lack access to it over a technicality (it was shipped to another storage facility instead to Harvard where I was going to grow it out, due to an accident, and it would take a very large sum to recover it, as well as the permission of the person who became its accidental owner who is not willing to release it to me. this is very frustrating.

sincerely yours,

Michael J. Orlove D.I.C., D. Phil

This comment has also been added to: Allium ursinum , Allium canadense , Allium canadense mobilense , Allium sativum , Allium sativum ophioscorodon , Allium vineale , Impatiens capensis , Impatiens noli-tangere , Impatiens pallida.

This comment has also been added to the genera: Viola , Amphicarpaea.

This comment has been added to the web pages: Allium Species - the Perennial Onions.

Add a Follow up to this comment

Allium ursinum, Wild Garlic

Unknown Tue Dec 25 19:00:47 2001

Hello! I have a book about medicinal plants in my own language (romanian) written by Mrs. Maria Trben. It's a great book.(By the way, this book has been translated in 17 languages). I have a condition that i always have hard headaches and i barely can sleep at night. i read the book,in my language,and i found that (leurda) ALLIUM URSINUM (by the way for each medicinal plant, they put the well-famous latin translation.) it's great to use as tea-type, and its great for my condition, and for a total disinfection of the body, as you mention in your report. That's how i found out of the translation by the latin name. I encourage that in any medicinal book, the writters? to include the latin name of the plant, because as far as i know, every language use it. uhm, but now that i know that in English it is called Wild Garlic, i am looking for the tea-type product of it. i know some medicinal stores, and im going to see if they have what i want. wish me luck.

i found about this site by the latin name of the plant i was looking for.

Add a Follow up to this comment

Allium ursinum, Wild Garlic

Konni Worsley (kgworsley@hotmail.com) Mon Apr 8 17:45:03 2002

Does anyone out there know how to get hold of some bulbs? We encountered Baerlauch, or Allium ursinum in Germany, but have been unable to successfully germinated the seeds.

This comment has also been added to: Allium ursinum.

Add a Follow up to this comment

Allium ursinum, Wild Garlic

(agour@octoink.com) Wed May 29 18:17:37 2002

does anyone know how to pickle wild garlic

Add a Follow up to this comment

Allium ursinum, Wild Garlic

Caitlin () Mon Oct 21 03:57:29 2002

Here is a very interesting website about this plant: Alli Urs According to this site, it grows in many places in Europe and is used in local recipes, but has been difficult to commercially cultivate. It's American cousin is ramp, Allium tricoccum, used in a very similar way.

Add a Follow up to this comment

Allium ursinum, Wild Garlic

E Lewis (elwynlewis@ntlworld.com) Sat Apr 5 21:12:39 2003

Please help, My garden borders are infested with wild garlic. I've tried to dig it out over and over again but if I leave just a little in it is twice as bad in the next season. Is there a way chemically to rid myself of it? My wife and I are both galic lovers but at the present time it's jut too much.

Add a Follow up to this comment

Allium ursinum, Wild Garlic

() Tue Apr 29 14:31:44 2003

you can get wild garilc bulbs here:-
http://www.users.dircon.co.uk/~nfarley/thomas-etty/bulbs/allium.htm

This comment has also been added to: Allium ursinum.

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Regresar a la Plantas para un Futuro página principal: Español English

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English

Retrato de una Planta - *Allium ursinum*, El Ajo silvestre

Este artículo apareció originalmente en el ejemplar de Enero de 1997 del periódico Friends of PFAF (Amigos de PFAF).

Fue a finales de Diciembre cuando estaba decidiendo que plantas incluir en esta edición del periódico. Estabamos en las garras de un período de tiempo muy frío que había visto la tierra endurecerse de hielo por segunda vez en los siete años que tengo de vivir en Cornwall. Caminaba a lo largo de una vereda campestre y mis pensamientos se iban hacia delante hacia la primavera y el tiempo tibio. Inicié pensando acerca de los primeros signos de la primavera - para nosotros es el tiempo de la campanilla blanca y el ajo silvestre. De pronto recordé que en no más de seis semanas estaría cosechando ajo silvestre de los bancos de tierra a los lados de la vereda en que caminaba. De pronto, la primavera no me pareció tan lejana.

El ajo silvestre crece en abundancia en esta parte de Cornwall, y también en muchas otras áreas del país. Es una planta que rara vez necesita ser cultivada, solo déle una posición medio sombreada, preferiblemente bajo los árboles, y déjela que se cuide sola. Tendrá éxito en la mayoría de los suelos y prefiere condiciones de humedad, aunque también prosperará donde el suelo está muy mojado en el invierno. Cuando tiene condiciones adecuadas, formará una densa alfombra de crecimiento y puede ser muy invasiva. La planta empieza su crecimiento de la mitad al final del invierno, florece en la primavera y se marchita completamente a mediados del verano. Esto permite que otras plantas que empiezan su crecimiento en primavera crezcan en el mismo espacio.

Es una excelente planta de compañía en el jardín, crece bien con la mayoría de las plantas y parece afectar positivamente su salud y su capacidad para resistir plagas y enfermedades. No parece crecer bien con plantas de las familias del chícharo y el frijol, muchos jardineros notan que ambas especies reducen su crecimiento y su vigor. También se dice que repelen a los topos del jardín, Aunque yo no estoy muy seguro de que los topos hayan leído también ese reporte ¡o que estén de acuerdo con él si lo leyeron!

Nosotros comemos todas las partes de esta planta en cantidad cuando está en estación. Las hojas son deliciosas crudas o cocidas y las hemos cosechado tan temprano como mediados de enero si el invierno no ha sido muy severo. Tienen un distintivo sabor a ajo, aunque más suave que el del diente de ajo, y en realidad le agrega algo especial a las ensaladas de invierno. Cuando se cocina, normalmente lo usamos para sazonar las sopas, los estofados, etc., aunque a veces lo usamos como la espinaca.

A medida que las flores empiezan a abrir a mediados de la primavera, las hojas empiezan a perder su vitalidad. En este tiempo nosotros simplemente cambiamos nuestra atención hacia las flores, usándolas exactamente en la misma forma que a las hojas. Las flores tienen un sabor algo más fuerte y son una adición muy sabrosa y decorativa para las ensaladas. Las cabezas de floración pueden aún ser comidas cuando las vainas de las semillas se están formando, aunque el sabor es aún más fuerte a medida que las semillas maduran.

El bulbo puede también comerse crudo o cocido, y puede cosecharse durante todo el año, aunque se usa mejor cuando la planta está durmiendo desde julio hasta diciembre o enero. Tiene un fuerte sabor a ajo, el bulbo es pequeño y se pierde mucho tiempo para cosecharlo.

Desde la perspectiva de la salud, el ajo silvestre tiene la mayoría de los beneficios del ajo cultivado, A. sativum. Es por esto una adición muy benéfica en la dieta, promueve la salud general del organismo cuando se usa regularmente. Es particularmente efectivo para reducir la hipertensión y el nivel de colesterol en la sangre. El jugo de esta planta se ha usado como un desinfectante general casero.

Una vez que usted tiene esta planta en cultivo, no querrá estar sin ella, ni necesitará propagarla. Sin embargo, puede desear introducirla en un nuevo sitio, esto es muy fácil de hacer. Puede ya sea colectar la semilla a principios del verano y sembrarla inmediatamente en donde desea (si usted tiene mucha semilla) o en almácigo. Generalmente germina bien y producirá plantas de tamaño suficiente para cosechar en el tercer año de crecimiento.

Alternativamente, desentierre algunos bulbos en verano una vez que la planta se ha marchitado y plántelos inmediatamente en el nuevo sitio. Estarán listas para cosechar desde su segundo año de crecimiento.

Puede consultar nuestro folleto acerca de las Cebollas perennes (Español English) para ver otros miembros interesantes de la familia de la cebolla.

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Regresar a la Plantas para un Futuro página principal: Español English

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versión HTML preparada por Rich Morris pfaf@scs.leeds.ac.uk - Home Page
Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

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Regresar a la Plantas para un Futuro página principal: Español English

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English

Especies Allium - Las cebollas perennes

Este género contiene algunas especies que son cultivadas comúnmente como plantas comestibles. La mayoría de la gente que cultiva sus propios vegetales cultivará cebollas y Puerro, a menudo tendrá también ajo, chalotes y cebollinos, mientras que aquellos que son más aventurados estarán cultivando ajo-cebollín, cebollas de árbol, cebolla perenne y cebolla de Gales. Todas estas son cosechas importantes y productivas pero hay muchos otros miembros de este género que son más que merecedoras de un lugar en el jardín de alimentos. Muchas de estas especies alternativas son también muy ornamentales y a menudo se cultivan en el jardín de flores.

Usos comestibles.

Todos los miembros de este género son, al menos teóricamente, comestibles. Sus sabores varían desde la cebolla dulce y el poro hasta la cebolla de sabor fuerte y el ajo. Todas las partes de la planta son comestibles - generalmente nos limitamos a las hojas y las flores, pero muchas especies producen bulbos que también pueden ser comidos, aunque ellos serán mucho más chicos que los bulbos de cebolla cultivada. Las flores tienden a tener un sabor más fuerte que las hojas y las cabezas de semillas jóvenes en desarrollo aún más fuerte.

Comemos las hojas y las flores en ensaladas principalmente, y normalmente tenemos una fuente plena de ellas durante todo el año. Las hojas pueden cocinarse como saborizante junto con otros vegetales en las sopas, etc. o pueden ser usadas como un guisado verde, aunque esto es probablemente demasiado de una buena cosa para la mayoría de la gente. Unos pocos tienden a ir más allá, ¡si usted es como nosotros incrementará la cantidad que use con el paso del tiempo!.

Otros usos

Hay una gran evidencia que demuestra los grandes beneficios a la salud que se obtienen al incluir Alliums en la dieta. El ajo, por ejemplo, tiene una muy larga historia popular sobre su uso en el tratamiento de un amplio rango de enfermedades, particularmente en padecimientos como la tiña, la cándida y la vaginitis donde sus propiedades fungicidas, antisépticas, tónicas y parasiticidas han probado su efectividad. Se dice también que es activo contra el cáncer y estudios demográficos sugieren que el uso del ajo es responsable de la baja incidencia de arteriosclerosis en áreas de Italia y España donde se consume en abundancia.

Los componentes que hacen al ajo tan potente medicinalmente (y le dan su sabor distintivo) también se encuentran en muchos otros miembros del género, aunque usualmente en menores concentraciones. Los mismos componentes, en grandes concentraciones, pueden ser dañinos a la salud. Se requiere una cantidad espantosa de cebollas para causar problemas a la mayor parte de la gente, aunque se han registrado casos ocasionalmente. La mayoría de los mamíferos pueden ser afectados por ellas, y por alguna razón, los perros parecen ser los más susceptibles de todos.

Así como son benéficos para su salud, la especie Alliums es también una buena compañía para las plantas que crecen en su jardín. Crecen bien con la mayoría de las plantas, especialmente rosas, zanahoria, betabel y manzanilla, pero inhiben el crecimiento de las legumbres. Cuando crecen cerca de otras plantas tienden a incrementar la resistencia de esas plantas a las enfermedades y reducen la infestación de insectos. Por ejemplo, muchos jardineros plantan cebollas con zanahorias para reducir el daño de estas por la mosca de la raíz. Sin ser 100% efectivo, reduce los ataques de la mosca a la zanahoria pues el olor de la cebolla enmascara el olor de la zanahoria. Sin embargo, si la mosca ve la zanahoria, no se dejará engañar por el olor. También se dice que la especie Alliums detiene a los conejos y a los topos, pero con nosotros no sucedió así. ¡Encontramos topos haciendo sus madrigueras justo bajo las cebollas!.

Usted puede hacer tónico excelente para rociar las plantas a partir de bulbos de cebolla o de ajo que aumentará la resistencia de las plantas contra las plagas y las enfermedades, en tanto que los bulbos de ajo se han usado en el pasado como fungicidas. Simplemente pique los bulbos y déjelos remojar durante la noche en agua fría. Nosotros acostumbramos poner unos cuantos dientes en medio litro de agua, en realidad yo no acostumbro manejar cantidades exactas. A menudo agregamos también algunas flores de manzanilla ya que esto parece aumentar su efectividad.

El jugo de la cebolla común se usa como repelente de la polilla. Puede también usarse como preventivo de la corrosión en los metales y como abrillantador para el cobre y el vidrio. No veo por que otros miembros del género no puedan ser usados en la misma forma, pero no hemos experimentado aún en este sentido.

Cultivo

La mayoría de los miembros de este género prefiere lugares asoleados pero protegidos en un suelo ligero y bien drenado, aunque son sorprendentemente tolerantes en otras condiciones. Muchas especies progresarán en suelos muy pesados, si estos han sido mejorados con la adición de bastante materia orgánica. En teoría al menos, la mayoría de las especies no crecerán bien en áreas de mucha lluvia o humedad. Sus posibilidades de éxito serán mejores si siembra en el lado oeste de Inglaterra. En la práctica no siempre sucede así, hay una excelente colección de especies de Allium creciendo en Cumbria, por ejemplo, donde la cantidad de lluvia anual debería causar la muerte de la mayoría de ellas. El truco es estar seguro de que el suelo esté muy bien drenado, si hay agua estancada las plantas se pudrirán. Hay excepciones a cada regla y, de las especies mencionadas más adelante en este articulo, A. Ursinum es una especie nativa del bosque que a menudo se encuentra en suelos muy húmedos.

Generalmente las plantas están muy libres de plagas y enfermedades, el único problema real que hemos tenido a lo largo de los años han sido las babosas. De acuerdo a nuestra experiencia solo son atacadas las especies con sabor a cebolla, con nuestro clima húmedo de Cornish algunas veces hemos perdido cientos de plantas, literalmente hablando. De las especies que cultivamos, la cebolla de Gales (A. fistulosum) y algunas variedades de la cebolla común (A. cepa) han sido las más afectadas. No usamos pesticidas, pero gradualmente hemos desarrollado un ecosistema balanceado en nuestra tierra tomando medidas tales como alentar la existencia de puerco espín y crear estanques para alentar la población de ranas. Esto ha tenido efectos gradualmente, pero es un proceso lento.

A menos que el texto lo establezca de otra manera, todas las especies mencionadas a continuación serán resistentes en la mayor parte del país, siempre y cuando se tenga cuidado en sus necesidades de cultivo.

La mayoría de las especies en este género provienen de áreas con muy diferentes estaciones y una temporada seca durante al menos una parte del año, cuando ellas y la mayoría de las otras plantas están durmiendo. En el clima húmedo de Inglaterra, donde las hierbas tienden a crecer durante todo el año, Los Alliums no compiten bien y la mayoría de las plantas mencionadas abajo desaparecerán en el curso de un año o algo así si no se deshierba ocasionalmente. Una excepción es A. ursinum ya mencionada y que forma una gran carpeta de plantas en el bosque. Nuestra nativa A. ampeloprasum y la naturalizada A. triquetrum crecen silvestres en setos y tolerarán bastante bien la competencia de las hierbas.

Propagación

La propagación es un asunto muy simple. Si se usa el método de semillas, debe sembrarse a finales del invierno o inicios de la primavera en un invernadero frío - siembre ralo y solo cubra ligeramente las semillas. La germinación es generalmente rápida y buena. En tanto no siembre la semilla muy tupida, es posible que el primer año crezcan sin necesidad de clarear o trasplantar. Aplique alimento líquido ocasionalmente para estar seguro de que las plantas no tienen hambre. Nosotros generalmente trasplantamos a un bote o maceta tan pronto como se puedan manejar, ponemos tres plantas en una maceta de 8 cm. de diámetro. Aunque es más trabajo, generalmente logra plantas más grandes al final de la estación. Cierto número de especies de tipo de clima mediterráneo generalmente crece en el otoño, florean en primavera y mueren en el verano. Nosotros sembramos las semillas de estas especies en el inicio del otoño y las cultivamos durante el invierno. Debe tener cuidado de que la humedad no acabe con ellas. A. neapolitanum, mencionada adelante, es un buen ejemplo de estas.

Algunas especies crecen muy vigorosas a partir de semilla y pueden ser plantadas en el exterior en el verano del primer año. La mayoría de las especies que nosotros cultivamos, sin embargo, son más lentas y aprecian pasar cuando menos su primer año en invernadero. Estas se trasplantarán en el exterior a finales de primavera de su segundo año de crecimiento, o a veces un año después si la planta es aún muy pequeña.

La especie Alliums es muy fácil de dividir. Esto puede hacerse en la primavera en las especies que descansan en invierno, o al final del verano en las que descansan en verano. Las especies siempre verdes pueden dividirse en cualquier tiempo del año, aunque la primavera es el mejor momento. El método de división depende del hábito de crecimiento de la planta. En algunas especies, como el cebollino, el bulbo se está constantemente dividiendo y se forman grupos de bulbos. Es fácil desenterrar el grupo de bulbos, dividirlo en pequeñas secciones (que pueden ser tan pequeñas como un bulbo) y replantar. En otras especies, cierto número de pequeños bulbos, o vástagos, se forman en la base del bulbo original. Para un rápido incremento, es posible desenterrar cada año la planta y plantar los bulbos o vástagos - si son muy pequeños es posible obtener mejores resultados si se ponen en maceta cuando menos hasta que han crecido suficiente. Alternativamente, puede dejar las plantas durante varios años para que se desarrollen grupos de bulbos más grandes, desenterrándolos y dividiéndolos cuando usted tenga ganas o si parece que setén perdiendo vigor. Puede comerse cualquier bulbo retirado, por supuesto

Otro grupo de especies no forma bulbos definidos claramente, pero forman grupos de rizomas parecidos a raíces. En este caso saque el grupo en la primavera, córtelo en secciones con un cuchillo filoso (asegúrese de que cada sección tenga al menos una yema de crecimiento) y replántelo en el sitio.

Otro grupo de especies produce también pequeños bulbos en el tope del tallo de florecimiento. Algunas veces se producen junto con las flores y otras en lugar de ellas. Posiblemente el mejor ejemplo de esto es el árbol de cebolla (A. cepa proliferum) aunque muchos jardineros han visto también estos bulbillos en las plantas de ajo. Estos bulbillos permiten una forma muy fácil de propagar la planta - simplemente siémbrelos tan pronto como puedan desprenderse fácilmente del tallo floral. Una palabra de advertencia, algunas especies de allium pueden llegar a ser hierbas nocivas y generalmente son aquellas con bulbillos las culpables. No debe tener miedo del árbol de cebolla o ajo si van en el alboroto, pero si cultiva especies que forman bulbillos trátelas con alguna precaución.

Las especies.

Veamos ahora a algunas de las especies que estamos cultivando. De ningún modo es una lista exhaustiva, pero incluye aquellas especies que nos han dado un mejor resultado. Eso no quiere decir que usted no experimente con otras especies.

Allium ampeloprasum: El puerro silvestre es nativo de Inglaterra, creciendo en setos. Las hojas son pequeñas en el tiempo áspero, pero las plantas crecen en el otoño y pueden ser cosechadas en el invierno y la primavera. Hay dos formas del puerro silvestre que son posiblemente las más interesantes para el cultivador de alimentos. El ajo elefante se ve como un bulbo de ajo gigantesco con cuatro grandes dientes. Es mucho más suave en sabor que el ajo verdadero, debe ser un consuelo escuchar esto, y hace un agradable saborizante para los guisados. El cultivado 'Perlzwiebel' se siembra en Alemania por los bulbillos que produce en lugar de flores. Estos bulbillos son sólidos en lugar de estar hechos por capas y son popularmente usados como encurtidos. Este cultivo no se encuentra actualmente en Inglaterra, aunque esperamos asegurar su abastecimiento en un futuro cercano.

Allium canadense : Llamado ajo silvestre en Norteamérica, pero no debe confundirse con nuestro ajo nativo silvestre, A. ursinum. Estas especies crecen cerca de 50 cm. de altura y pueden difundirse libremente cuando están bien situadas. Hay una forma que produce bulbillos y se considera una hierba mala en América. La forma accesible en este país, sin embargo, tiene mucho mejor comportamiento. Tanto las hojas como las flores tienen un sabor suave y delicioso mientras que el bulbo es frágil y suave con un placentero sabor que lo hace un sustituto del puerro o el ajo de acuerdo con aquellos criterios de gusto en que usted cree.

Allium cepa: Así como la cebolla común y el chalote, estas especies también incluyen un grupo de otras formas interesantes. Allium cepa 'Perutile' es una cebolla perenne, una variedad siempre verde que es capaz de proporcionar hojas frescas todo el invierno. Tiene un sabor como el de la cebolla de primavera. Allium cepa proliferum es la cebolla de árbol, produce bulbillos en lugar de flores, estos bulbillos tienen un agradable sabor a cebolla y pueden ser usados crudos, cocinados o como encurtidos

Allium cernuum: La cebolla nutante crece hasta cerca de 50 cm. de altura y es una de mis especies favoritas. No solo es una planta extremadamente bonita, además sus flores y sus hojas tienen un fuerte y delicioso sabor a cebolla - las flores lucen especialmente atractivas en una ensalada mixta. Las hojas pueden obtenerse muy temprano en la primavera hasta finales de otoño, y las flores a mediados del verano. La variedad 'Major' es una forma más vigorosa y con mayores grupos de flores.

Allium fistulosum: La cebolla de Gales es una especie muy resistente que algunas veces se cultiva en el jardín por sus hojas y pequeños bulbos comestibles. Se usa como una cebolla de primavera y puede producir durante el invierno si este no es muy severo. Es un vegetal popularmente cultivado en el Oriente, las variedades que crecen ahí se conocen como cebolla jorobada y tiende a ser más resistente y más robusta que la cebolla de Gales.

Allium moly: Este bulbo crece hasta 30 cm. de altura y es a menudo cultivado en el jardín de flores. Probablemente no resista los lugares más fríos del país, aunque los bulbos hibernantes probablemente soporten temperaturas del suelo hasta de -10º C. Los bulbos son pequeños pero se producen con abundancia y tienen un suave sabor a ajo muy agradable. Algunas formas de estas especies, especialmente A. moly bulbiferum, producen bulbillos en la cabeza de floración y pueden ser muy invasivos. Este tipo de especies algunas veces se consideran también invasivas, aunque esto no esta comprobado, de modo que con mayoría de la gente y en al menos un jardín húmedo, ha probado ser útil para naturalizarlo entre arbustos y también crece bien en la base de cercos de Haya.

Allium neapolitanum: El ajo narciso resiste únicamente en las partes de clima moderado del país, tolerando temperaturas mínimas entre -5 y -10ºC. Este bulbo crece hasta 30 cm. de altura, Crece durante el otoño proveyendo hojas comestibles durante todo el invierno siempre y no lo coseche excesivamente. Tiene un placentero sabor suave de ajo, Las flores se producen en la primavera y su sabor es más fuerte. La planta se ha difundido libremente en nuestros campos, tanto por semilla como por bulbos. De hecho, cuando está bien situada se difundirá por si sola hasta el grado de fastidiar.

Allium sativum: El Ajo es ampliamente conocido de modo que no hablaré mucho de él. Sin embargo, no solo se puede usar el bulbo. Los Chinos a menudo lo cultivan especialmente por sus hojas, que pueden ser aprovechadas a mediados del invierno, en inviernos benignos, y tienen un suave sabor a ajo. Los tallos de floración también pueden ser usados como saborizante, mientras que la semilla puede espolvorearse sobre las ensaladas. Otros usos de las plantas incluyen la utilización del jugo del bulbo como repelente de insectos, el jugo tiene un olor muy fuerte y algunas personas preferirían ser picadas por los insectos, sin embargo, si ya le picaron, póngase jugo de ajo en el piquete para calmar el dolor. Para hacer un insecticida mezcle en un litro de agua 3 - 4 cucharadas de ajo picado y 2 cucharadas de jabón desmenuzado y deje enfriar. También puede hacer un excelente pegamento con el jugo y usado para unir vidrio y porcelana.

Allium schoenoprasum: El cebollino es otra planta bien conocida que no requiere que hable mucho de ella. Cultivamos muchas de estas plantas y además otras sub-especies más vigorosas como A. schoenoprasum sibiricum. Estas plantas nos proveen con una abundancia de hojas desde principios de la primavera hasta el final del otoño.

Allium triquetrum: El poro de tres esquinas crece hasta 30 cm. de altura y se ambienta bien en setos y en las orillas de terreno arbolado en algunos lugares de Inglaterra. Nos provee con una muy buena cantidad de hojas comestibles desde octubre hasta abril, además de sus flores en primavera y sus pequeños bulbos durante casi todo el año. La planta no resiste los lugares más fríos del país, tolera temperaturas hasta -10ºC.

Allium tuberosum: El ajo cebollino es ampliamente cultivado en el Este por sus hojas y sus tallos florales, hay muchas variedades nominadas. Esta siendo más conocido en Inglaterra, pero aun no se cultiva tonto como debería de ser. Es una planta muy adaptable, prospera tanto en climas templados como tropicales y parece ser plenamente resistente en toda Inglaterra. Las plantas permanecen verdes hasta que la temperatura baja de 4 - 5ºC. Entonces muere y vuelve a crecer en la primavera cuando la temperatura sube de 2 - 3ºC. Aquí en Cornwall podemos cosechar sus hojas a menudo, durante 10 - 11 meses en el año.

Allium ursinum: El ajo silvestre es una planta nativa de terreno boscoso, que crece alrededor de 30 cm. de altura y frecuentemente forma grandes y densos tapetes verdes creciendo a principios de la primavera. Hemos promovido que esta planta se ambiente a lo largo de nuestros setos, donde ha empezado a prosperar agradablemente. Normalmente no necesita cuidados - proporciónele las condiciones adecuadas y ella se cuidará de si misma. Las hojas forman una adición muy recomendable a nuestras dietas cuando aparecen a finales de invierno. Nosotros comemos bastantes, ya sea cruda o cocida y gozamos su sabor suave a ajo. Durante su desarrollo, en abril nos comemos las flores y a principios de verano terminamos comiendo sus vainas de semillas tiernas, mucho más fuertes de sabor. (Vea nuestro folleto sobre Wild garlic (ajo silvestre) para más información sobre esta planta).

Estas especies son solamente algunas de las que comemos a lo largo del año. Se pueden disfrutar crudas o cocinadas y crecen fácilmente por lo general. Son muy benéficas para la salud tanto para la nuestra como para la de nuestros jardines. ¿Por qué no trata de cultivar algunas de ellas, y quizá experimentar con alguno de los cientos de especies en el Género?

Si desea más información sobre alguna de estas plantas puede buscar en nuestra base de datos UK, US

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Regresar a la Plantas para un Futuro página principal: Español English

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Español

Allium Species - the Perennial Onions

This genus contains a number of species that are commonly cultivated as food plants. Most people who grow their own vegetables will grow onions and leeks, they will often also grow garlic, shallots and chives, whilst those who are more adventurous might be growing garlic chives, tree onions, everlasting onions and welsh onions. These are all very worthwhile and productive crops but there are also many other members of this genus that are more than worthy of a place in the food garden. Many of these alternative species are also very ornamental and are often grown in the flower garden.

Edible Uses

All members of this genus are, at least theoretically, edible. Their flavours range from mild onions and leeks right through to strong onion and garlic. All parts of the plants are edible - we normally confine ourselves to the leaves and the flowers, but many species produce bulbs and these can also be eaten, though they will be much smaller than cultivated onion bulbs. The flowers tend to have a stronger flavour than the leaves and the young developing seed-heads are even stronger.

We eat the leaves and flowers mainly in salads, and normally have a plentiful supply all through the year. The leaves can also be cooked as a flavouring with other vegetables in soups etc. or they can be used as a cooked green, though this is probably too much of a good thing for most people. A little tends to go a long way, though if you are like us then the quantity you use may well increase with the passage of time!

Other uses

There is plenty of evidence to demonstrate the health benefits of including Alliums in the diet. Garlic, for example, has a very long folk history of use in the treatment of a wide range of diseases, particularly ailments such as ringworm, candida and vaginitis where its fungicidal, antiseptic, tonic and parasiticidal properties have proved of benefit. It is also said to have anticancer activity and demographic studies suggest that garlic is responsible for the low incidence of arteriosclerosis in areas of Italy and Spain where consumption of the bulb is heavy.

The compounds that make garlic so medically potent (and give it its distinct flavour) can also be found in most other members of the genus, though usually in rather lower concentrations. These same compounds, in large concentrations can actually be harmful to the health. It would take an awful lot of onions to cause problems for most people, though cases are occasionally recorded. Most mammals can be affected by them and, for some reason, dogs seem to be more susceptible than most.

As well as being beneficial for our health, alliums are also good companion plants to grow in the garden. They grow well with most plants, especially roses, carrots, beet and camomile, but they inhibit the growth of legumes. When grown close to other plants they tend to increase that plants resistance to disease and reduce insect infestation. For example, many gardeners grow onions with carrots in order to reduce damage by the carrot root fly. By no means 100% effective, it reduces carrot fly attacks because the smell of the onions masks the carrot smell. Any carrot flies that come within viewing range of the carrots, however, will not be fooled. Alliums are also said to deter rabbits and moles, but this has certainly not been the case with us. Indeed, we have had moles making their hills right under onion plants!

You can make a very good tonic spray from onion or garlic bulbs that will also increase the resistance of plants to pests and diseases, whilst garlic bulbs have in the past been used as a fungicide. Simply chop up the bulbs and soak them overnight in cold water. We tend to put a few cloves in a pint of water, I'm not really one for measuring out exact quantities. We also often add some camomile flowers since this seems to increase the effectiveness.

The juice of the common onion is used as a moth repellent. It can also be used as a rust preventative on metals and as a polish for copper and glass. I can see no reason why other members of the genus cannot also be used in the same way, but have not experimented with this as yet.

Cultivation

Most members of the genus prefer a sunny but sheltered position in a light well-drained soil, though they are surprisingly tolerant of other conditions. Many species will thrive in quite heavy soils, so long as they are broken up by the addition of plenty of organic matter. In theory at least, most species do not grow well in areas with heavy rainfall. Therefore you are more likely to be successful if you garden on the eastern side of Britain. In practice, this is by no means always the case. There is an excellent collection of Allium species growing in Cumbria, for example, where the annual rainfall should really spell the death of most of them. The trick is to make sure that the soil is very well-drained, if you get standing water then the plants will rot. There are exceptions to every rule and, of the species mentioned later in this article, A. ursinum is a native woodland species that will often be found in quite wet soils.

Plants are generally quite free from pests and diseases. the only real problem we have had over the years has been with slugs. In our experience it is only the onion-flavoured species that are badly attacked, but in our wet Cornish climate we have sometimes lost literally hundreds of plants. Of those species we grow, the Welsh onion (A. fistulosum) and varieties of the common onion (A. cepa) have been worst affected. We do not use pesticides, but are gradually developing a balanced eco-system on the land by measures such as encouraging hedgehogs and building ponds to encourage frogs. This is gradually having an affect, but it is a slow process.

Unless the text says otherwise, all of the species mentioned below should be hardy in most parts of the country, so long as their cultivation needs are taken care of.

The majority of species in this genus come from areas with quite distinct seasons and a dry spell for at least part of the year when they and most other plants become dormant. In the wetter climate of Britain, where weeds tend to grow all year round, the Alliums do not compete well and most of the plants mentioned below will quietly disappear in the course of a year or so if they are not weeded occasionally. Exceptions to this include A. ursinum which was mentioned earlier and can form a large carpet of plants in a woodland. Our native A. ampeloprasum and the naturalised A. triquetrum grow wild in hedgerows and they will also tolerate quite a lot of weed competition.

Propagation

Propagation is quite a simple matter. If seed is the method used, then this should be sown in late winter or in early spring in a cold greenhouse - sow thinly and only cover the seed lightly. Germination is normally quite quick and good. So long as you do not sow the seed too thickly, it should be possible to grow the seedlings on without transplanting for the first season. Apply a liquid feed occasionally to make sure that the plants don't get hungry. We usually pot the seedlings up as soon as they are large enough to handle, putting three plants in a three inch pot. Although this is more work, you usually end up with larger plants at the end of the season. A number of species from Mediterranean-type climates usually come into growth in the autumn, flower in the spring and then die down for the summer. We usually sow the seed of these species in the early autumn and grow them on over the winter. You do have to be careful that they don't damp off. A. neapolitanum, mentioned below, is a good example of this.

Some species grow very vigorously from seed and can be planted out in the summer of their first year. Most of the species that we grow, however, are a bit slower and appreciate at least their first year in a greenhouse. These will be planted out in late spring of their second year of growth, or sometimes a year later if the plants are still small.

Alliums are very easy to divide. This can be carried out in the spring for the winter-dormant species, or in the late summer for the summer-dormant species. The evergreen species can be divided at almost any time of the year, though spring is probably best. The method of division depends largely on the growth habit of the plant. In some species, like chives, the bulb is constantly dividing and a clump of bulbs is formed. It is a simple matter to dig up this clump, break it into smaller sections (which can be as small as one bulb) and then replant. In other species, a number of small bulbs, or offsets, are produced at the base of the parent bulb. For rapid increase, it is possible to dig up these plants every year to plant out these offsets - if they are rather small then you will probably have better results if you pot them up at least until they are growing away well. Alternatively, you can leave the plants for a number of years to let a large clump develop, digging them up and dividing them when the fancy takes you or if they seem to be losing vigour. Any spare bulbs can, of course, be eaten.

A number of species do not form clearly defined bulbs, but form a clump of rhizome-like roots. In this case you dig up the clump in the spring, cut it into sections with a sharp knife (making sure that there is at least one leaf- growing point on each section) and replant in situ.

A number of species also produce small bulbs, or bulbils, at the top of the flowering stem. Sometimes these are produced together with flowers, sometimes instead of flowers. Possibly the best known example of this is the tree onion (A. cepa proliferum) though many gardeners will have also seen bulbils on garlic plants. These bulbils afford a very easy means of increase - merely pot them up or plant them out as soon as they part easily from the flowering stem. A word of warning here. Some allium species can become noxious weeds and it is usually those with bulbils that are the culprits. You need have no fears about tree onions or garlic going on the rampage, but if you grow a species that forms bulbils then do view it with some caution.

The Species

Let us look now at a few of the species that we are growing. This is by no means an exhaustive list, but does include those species that have performed best for us. There is nothing to prevent you experimenting with other species.

Allium ampeloprasum: The wild leek is a native of Britain, growing in hedgerows. The leaves are a bit on the tough side, but the plants come into growth in the autumn and can therefore be harvested in the winter and spring. There are two forms of the wild leek that are probably of more interest to the food grower. Elephant garlic looks like a gigantic garlic bulb with four huge cloves. It is much milder in flavour than the true garlic, you might be relieved to hear, and makes a nice flavouring in food. The cultivar 'Perlzwiebel' is grown in Germany for the bulbils it produces instead of flowers. These bulbils are solid rather than made up of layers and are popularly used for making pickles. This cultivar is not currently available in Britain, though we are hoping to secure a supply in the near future.

Allium canadense : Called wild garlic in N. America, though not to be confused with our native wild garlic, A. ursinum. This species grows about 18 inches tall and can spread quite freely when well sited. There is a form that produces bulbils and this is a pernicious weed in America. The form available in this country, however, is much better behaved. Both leaves and flowers have a delicious mild flavour whilst the bulb is crisp and mild with a pleasant flavour that is a leek or garlic substitute according to whose taste buds you believe.

Allium cepa: As well as the common onion and the shallot, this species also includes a number of other interesting forms. Allium cepa 'Perutile' is the everlasting onion, an evergreen form that is capable of supplying fresh leaves all winter. These taste much like spring onions. Allium cepa proliferum is the tree onion, it produces bulbils instead of flowers, these bulbils have a nice onion flavour and can be used raw, cooked or pickled.

Allium cernuum: The nodding onion grows about 18 inches tall and is one of my very favourite species. Not only is it an exceedingly beautiful plant, but both flowers and leaves have a delicious strong onion flavour - the flowers look especially attractive in a mixed salad. The leaves are available from quite early in the spring until late autumn, and the flowers in mid-summer. The cultivar 'Major' is a more vigorous form with larger flower clusters.

Allium fistulosum: The welsh onion is a very hardy species that is sometimes cultivated in the garden for its edible leaves and small bulbs. These are used as a spring onion and can be produced throughout the winter if the weather is not too severe. This is a very popular cultivated vegetable in the Orient, the forms grown there are known as bunching onions and tend to be hardier and more robust than the welsh onion.

Allium moly: This bulb grows about 1ft tall and is often grown in the flower garden. It is probably not hardy in the colder parts of the country, though the dormant bulbs will withstand soil temperatures down to at least -10 c. The bulbs are rather small but are very freely produced and have a pleasant mild garlic flavour. Some forms of this species, especially A. moly bulbiferum, produce bulbils in the flowering head and can be invasive. The species type is sometimes also considered to be invasive, though it has not proved so with most people and in at least one wet garden has proved to be useful for naturalising between shrubs and also grows well at the base of a beech hedge.

Allium neapolitanum: Daffodil garlic is only hardy in the milder parts of the country, tolerating temperatures down to somewhere between -5 and -10 c. This bulb grows about 1ft tall, coming into growth in the autumn and providing edible leaves all through the winter so long as you do not over-crop it. A pleasant mild garlic flavour, the flowers are produced in the spring and have a stronger flavour. The plant has been increasing very freely with us, both by bulbs and by seed. Indeed, when well suited it can self-sow to the point of nuisance.

Allium sativum: Garlic is fairly well know so I do not want to say much about it here. However, it is not only the bulbs that can be used. The Chinese often cultivate garlic especially for the leaves, which can be produced in the middle of winter in mild winters and have a mild garlic flavour. The flowering stems can also be used as a flavouring, whilst the sprouted seed can be added to salads. Some of the plants non-edible uses include the juice from the bulb, which is used as an insect repellent. This does have a very strong smell and some people might prefer to be bitten! If you do get bitten, then the juice can also be applied to any stings in order to ease the pain. In the past, 3 - 4 tablespoons of chopped garlic and 2 tablespoons of grated soap were infused in 2 pints of boiling water, allowed to cool and then used as an insecticide. An excellent glue can be made from the juice, which is used in mending glass and china.

Allium schoenoprasum: Chives are another well-known plant that do not really require much information from me. We grow a lot of this plant, plus the more vigorous sub-species A. schoenoprasum sibiricum. These plants provide us with an abundance of leaves from early spring right round to late autumn.

Allium triquetrum: The three-cornered leek grows about 1ft tall and is naturalised in hedgerows and woodland edges in parts of Britain It provides us with a very good source of edible leaves from October round to April, plus its flowers in the spring and its small bulbs at almost any time of the year. The plant is not hardy in the colder areas of Britain, tolerating temperatures down to about -10 c.

Allium tuberosum: Garlic chives is widely grown in the East for its leaves and flowering stems, there are many named varieties. It is becoming more widely known in Britain, but is still not grown anywhere near as widely as it should be. A very adaptable plant, garlic chives succeeds in tropical and in temperate climates - it appears to be fully hardy in Britain. Plants remain green until temperatures fall below 4 - 5 c, then they die down and come into new growth in spring when temperatures go above 2 - 3 c. Here in Cornwall that means that we can often harvest the leaves for 10 - 11 months of the year.

Allium ursinum: Wild garlic, or ramsons, is a native woodland plant growing about 1ft tall that often forms large dense green carpets of growth in the early spring. We have encouraged this plant to naturalise along our hedgerows, where it is beginning to increase nicely. You do not normally need to cultivate it - give it the right conditions and it can more than look after itself. The leaves form a very welcome addition to our diets when they appear in late winter. We eat them in quantity both raw or cooked and enjoy their mild garlic flavour. As they grow old in April then we move onto the flowers and end up eating the much hotter young seed-pods as spring turns into summer. (See our leaflet on Wild garlic for more information about this plant.)

These species are just a few of the many alliums we eat each year. They are very enjoyable both raw or cooked and are generally easily grown. They also have many health benefits both for ourselves and for our gardens. Why don't you try growing some of them, and perhaps also experimenting with some of the several hundred other species in the genus.

You can look at our Database UK, US for more information about any of these plants.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments:

Allium vineale

Michael J. Orlove D.I.C., D. Phil (mo42@cornell.edu) Sun, 25 Jul 1999

Universe! Dear Rich, 24-July-1999

I discovered your page with the following URL:

http://www.scs.leeds.ac.uk/pfaf/onions.html

In it you made reference to *Allium ursinum*, as "wild garlic". I always thought *A. ursinum* was a rare species in North American woods, and that in Britain and North America the term was usually applied to A vineale. It is also applied to A. canadesne as you know, and also feral populations of A. sativum whose origin in the New world is considered mysterious, Native Americans and early White settlers have both been suspected of introducing it, or possibly it spread on its own without human agency (which I doubt). A. vineale is a tubular leaved species but it is much more closely related to A. ampeloprasum, A. sativum, A., scorodoprasum, A. shaeonoprasum, and A. rosem than to A. cepa, or A. fistulosum. It is the one that is a pest in wheatfields because of the similarity of its bulbils in shape and density to wheat kernels, making mechanical separation very difficult.

what has fascinated me so much about A. vineale is its extreme variation in umbel contents even within a local population. some plants have flowers some bulbils, and some both. When bulbils are few or absent in the umbel, the blossoms are VERY showy --being companulate instead of ovatge.

At such times they are purple instead of green. The very showy form is known as A. V. capsuliferum in reference to its seed capsules. the half and half (bulbils and blossoms) form is called A. V. typicum, and the all bulbil one is A. v. compactgum. Two dark pigmented bulbilforms are also described, one reproduces like compactum, and is called A. v. fuscescens, and the other appears to have viviparous bulbils, but the "sprouts" are actually non-vestigal blades on scale leaves on the bulbils, and is known as A. v. crinitum. crinitum usually has one or 2 ovate flowers per umbel which are lavender or purple in color. All sorts of intermediates exist between these forms. Here in Ithaca fuscescens-like ones have flowers, and crinitum like ones don't or crinitum like ones will have many flowers and viable flowers with many capsuls forming.

I once found a clump of capsuliferum surrounded by a vast field of hundreds and thousands of typicum. Those typicum near the capliferum had purple flowers like the capsuliferum, but the ones farther out had the green flowers typical of typicum. The blossoms of this species are usually visited by tiny ants, sweat bees, or nothing at all, but the capsuliferum where being actively and aggressively visited by large bumblebees (Bombus pennsylvanicus --a large pocket maker, related to the British species B agrorum, but as big as B. terristris). Large paper wasps (Polistes fuscatus) were equally present and interested in the nectar.

An article by Hugo Iltis in the 1940's (it was either in Scientific Monthly or Atlantic Monthly) claimed that this showy capsuliferum form made it as far north a as North Carolina, and . v. typicum was as good as you could get in the Northeast.

Nevertheless this wonderful clump of capsuliferum I found was in the Bronx! that was in 1979, and it continued to persist there until 1983. could this have been global warming? the real question was this capsuliferum more related to the non - sexual nonspecific neighbors around it, or capsuliferum in N. Ccarolina? did it evolve denovo from non-sexual or less sexual forms?

Many biologists say it is a mystery how sex evolved to begin with (the origin - of- sex question" and it is equally a mystery how sex stays in the population and doesn't get selected against (the maintenance - of -sex question). John Maynard Smith (at the University of Susex), Goeffrey Parker (University of Liverpool), and George Williams (University of the State of New York at Stonybrook) have become famous elucidating and trying to solve this mystery. It seems that mating with a stranger may further the fitness of your offspring, but it appears not enough to justify throwing half-of your genes away, as a female does when mating. Plants with both cleistogamous and chasmogamous flowers, like Violo sp., Impatiens capensis (Orange balsam), and I. noli-tangeri (touch-me-not), and the very similar North American I. palida, not to mention the hog peanut, Amphicarpaea xxx, present a similar example of this mystery.

What are your thoughts on this issue? How far north does A. v. capsuliferum make it in Britain? I have found capsuliferum in Interlaken, N. Y. Near Ithaca, N. Y. where Cornell University is, but these ones were not as tall or showy as the ones from the much warmer Bronx. but they were capsuliferum, and made good seed. I have 2 accessions of them, one from a bulbil, and the other from a seed collected from the same umbel in Interlaken.

I have been unable to get them to blossom or even bolt with bulbils in my garden, just getting non scapigqarous growth every spring.

There is some folklore in this country that A. vineale takes on its capsuliferum form when in the vacinity of an underground stream, and dowsers exploit the information provided by the occurrence of the plant in particular instances.

Well I must go now, Please forgive my sloppy typing, I am disabled and it takes me eons to proofread things. Incidentally, are you in Cornwall, or Yorkshire?

Some day I will, if I only live, compare the DNA of different forms of A. V. vineale from different locations. the Bronx material seems to be now absent from the original site, I have been back 3 times over the years, and the material I collected now exists as seed in cold storage, but I lack access to it over a technicality (it was shipped to another storage facility instead to Harvard where I was going to grow it out, due to an accident, and it would take a very large sum to recover it, as well as the permission of the person who became its accidental owner who is not willing to release it to me. this is very frustrating.

sincerely yours,

Michael J. Orlove D.I.C., D. Phil

This comment has also been added to: Allium ursinum , Allium canadense , Allium canadense mobilense , Allium sativum , Allium sativum ophioscorodon , Allium vineale , Impatiens capensis , Impatiens noli-tangere , Impatiens pallida.

This comment has also been added to the genera: Viola , Amphicarpaea.

This comment has been added to the web pages: Allium ursinum, Wild Garlic.

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Allium ursinum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Wild garlic	Family:	Alliaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	There have been cases of poisoning caused by the consumption, in very large quantities and by some mammals, of this species. Dogs seem to be particularly susceptible[76].		
Range:	Britain.		
Habitat:	Damp soils in woods, copses, valleys and similar moist shady localities[9].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ayisarimsagi [E], Bear's Garlic [H], Broad-leaved Garlic [H], Daslook [D], Ramsoms [H], Ramson [E], Ramsons [L,H], Ramsons, Wild Garlic [MS], Wild Garlic [H], Wild Wood Garlic [H], Wood Garlic [H],
Epithets:	From a Dictionary of Botanical Epithets
	ursinum = of the bear;
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Turkey

Physical Characteristics

Bulb growing to 0.3m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in leaf from February to June, in flower from May to June, and the seeds ripen from May to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves - raw or cooked[2, 5, 9, 12, 24]. Usually available from late January[K]. One report says that they have an overpowering garlic odour that dissipates on cooking[183], though our experience is that they are considerably milder than garlic[K]. The leaves make a very nice addition to salads, and are especially welcome as a vital and fresh green leaf in the middle of winter[K].

Flowers - raw or cooked. These are somewhat stronger than the leaves, in small quantities they make a decorative and very tasty addition to salads[K]. The flowering heads can still be eaten as the seed pods are forming, though the flavour gets even stronger as the seeds ripen[K].

Bulb - raw or cooked[2]. A fairly strong garlic flavour, though it is quite small and fiddly to harvest[K]. The bulbs can be harvested at any time the plant is dormant from early summer to early winter. Harvested in early summer, they will store for at least 6 months[K]. The bulbs can be up to 4cm long and 1cm in diameter[00].

The small green bulbils are used as a caper substitute[183].

Medicinal Uses

Disclaimer

Anthelmintic; Antiasthmatic; Anticholesterolemic; Antiseptic; Antispasmodic; Astringent; Cholagogue; Depurative; Diaphoretic; Diuretic; Expectorant; Febrifuge; Hypotensive; Rubefacient; Stimulant; Stomachic; Tonic; Vasodilator.

Ramsons has most of the health benefits of the cultivated garlic, A. sativum[7, 238], though it is weaker in action[254]. It is therefore a very beneficial addition to the diet, promoting the general health of the body when used regularly. It is particularly effective in reducing high blood pressure and blood cholesterol levels[9]. It is recognised as having a good effect on fermentative dyspepsia[244]. All parts of the plant can be used, but the bulb is most active.

The plant is anthelmintic, antiasthmatic, anticholesterolemic, antiseptic, antispasmodic, astringent, cholagogue, depuritive, diaphoretic, diuretic, expectorant, febrifuge, hypotensive, rubefacient, stimulant, stomachic, tonic and vasodilator[7, 21]. Ramsons ease stomach pain and are tonic to the digestion, so they can be used in the treatment of diarrhoea, colic, wind, indigestion and loss of appetite[254]. The whole herb can be used in an infusion against threadworms, either ingested or given as an enema[254]. The herb is also beneficial in the treatment of asthma, bronchitis and emphysema[254]. The juice is used as an aid to weight loss and can also be applied externally to rheumatic and arthritic joints where its mild irritant action and stimulation to the local circulation can be of benefit[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Disinfectant; Repellent.

The juice of the plant is used as a moth repellent. The whole plant is said to repel insects and moles[20].

The juice of the plant has been used as a general household disinfectant[7].

Cultivation details

Prefers woodland conditions in a moist well-drained soil[203]. Plants are often found in the wild growing in quite wet situations[K].

When growing in suitable conditions, wild garlic forms a dense carpet of growth in the spring and can be a very invasive plant[24, 203, K]. It dies down in early summer, however, allowing other plants to grow in the same space[K].

The bulbs should be planted fairly deeply[1].

The seeds are dispersed by ants[244].

Grows well with most plants, especially roses, carrots, beet and chamomile, but it inhibits the growth of legumes[18, 20, 54]. This plant is a bad companion for alfalfa, each species negatively affecting the other[201].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - best sown as soon as it is ripe either in situ or in a cold frame. It germinates quickly and can be grown on in the greenhouse for the first year, planting out the dormant bulbs in the late summer of the following year. Stored seed can be sown in spring in a greenhouse.

Division in summer after the plants have died down. Very easy, the divisions can be planted out straight into their permanent positions.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Allium ursinum* (wild garlic, ransoms)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- PFAF Catalogue: Checklist of plants
- Allium Species - the Perennial Onions
- The Urban Garden

- Why Perennials
- Winter Salads
- Woodland Garden Plants
- PFAF - Allium ursinum, Wild Garlic
- PFAF Plant Catalogue (A)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[203] **Davies. D.** *Alliums. The Ornamental Onions.* Batsford 1992 ISBN 0-7134-7030-5
Covers about 200 species of Alliums. A very short section on their uses, good details of their cultivation needs.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two

separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Allium ursinum, Wild Garlic

Konni Worsley Mon Apr 8 17:45:03 2002

Does anyone out there know how to get hold of some bulbs? We encountered Baerlauch, or Allium ursinum in Germany, but have been unable to successfully germinated the seeds.

Cross references: *Web-pages: PFAF - Allium ursinum, Wild Garlic*.

Allium ursinum, Wild Garlic

Tue Apr 29 14:31:44 2003

you can get wild garilc bulbs here:-
http://www.users.dircon.co.uk/~nfarley/thomas-etty/bulbs/allium.htm

Cross references: *Web-pages: PFAF - Allium ursinum, Wild Garlic*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Email Address:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Allium+ursinum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Allium+ursinum`

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Plants For A Future: Database Search Results

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A photo of this plant will appear in the forthcoming CD-ROM.

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Range:	Britain.		
Habitat:	Damp soils in woods, copses, valleys and similar moist shady localities[9].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ayisarimsagi [E], Bear's Garlic [H], Broad-leaved Garlic [H], Daslook [D], Ramsoms [H], Ramson [E], Ramsons [L,H], Ramsons, Wild Garlic [MS], Wild Garlic [H], Wild Wood Garlic [H], Wood Garlic [H],
Epithets:	From a Dictionary of Botanical Epithets
	ursinum = of the bear;
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Turkey

Physical Characteristics

Bulb growing to 0.3m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in leaf from February to June, in flower from May to June, and the seeds ripen from May to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no

shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves - raw or cooked[2, 5, 9, 12, 24]. Usually available from late January[K]. One report says that they have an overpowering garlic odour that dissipates on cooking[183], though our experience is that they are considerably milder than garlic[K]. The leaves make a very nice addition to salads, and are especially welcome as a vital and fresh green leaf in the middle of winter[K].

Flowers - raw or cooked. These are somewhat stronger than the leaves, in small quantities they make a decorative and very tasty addition to salads[K]. The flowering heads can still be eaten as the seed pods are forming, though the flavour gets even stronger as the seeds ripen[K].

Bulb - raw or cooked[2]. A fairly strong garlic flavour, though it is quite small and fiddly to harvest[K]. The bulbs can be harvested at any time the plant is dormant from early summer to early winter. Harvested in early summer, they will store for at least 6 months[K]. The bulbs can be up to 4cm long and 1cm in diameter[00].

The small green bulbils are used as a caper substitute[183].

Medicinal Uses

Disclaimer

Anthelmintic; Antiasthmatic; Anticholesterolemic; Antiseptic; Antispasmodic; Astringent; Cholagogue; Depurative; Diaphoretic; Diuretic; Expectorant; Febrifuge; Hypotensive; Rubefacient; Stimulant; Stomachic; Tonic; Vasodilator.

Ramsons has most of the health benefits of the cultivated garlic, A. sativum[7, 238], though it is weaker in action[254]. It is therefore a very beneficial addition to the diet, promoting the general health of the body when used regularly. It is particularly effective in reducing high blood pressure and blood cholesterol levels[9]. It is recognised as having a good effect on fermentative dyspepsia[244]. All parts of the plant can be used, but the bulb is most active.

The plant is anthelmintic, antiasthmatic, anticholesterolemic, antiseptic, antispasmodic, astringent, cholagogue, depuritive, diaphoretic, diuretic, expectorant, febrifuge, hypotensive, rubefacient, stimulant, stomachic, tonic and vasodilator[7, 21]. Ramsons ease stomach pain and are tonic to the digestion, so they can be used in the treatment of diarrhoea, colic, wind, indigestion and loss of appetite[254]. The whole herb can be used in an infusion against threadworms, either ingested or given as an enema[254]. The herb is also beneficial in the treatment of asthma, bronchitis and emphysema[254]. The juice is used as an aid to weight loss and can also be applied externally to rheumatic and arthritic joints where its mild irritant action and stimulation to the local circulation can be of benefit[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Disinfectant; Repellent.

The juice of the plant is used as a moth repellent. The whole plant is said to repel insects and moles[20].

The juice of the plant has been used as a general household disinfectant[7].

Cultivation details

Prefers woodland conditions in a moist well-drained soil[203]. Plants are often found in the wild growing in quite wet situations[K].

When growing in suitable conditions, wild garlic forms a dense carpet of growth in the spring and can be a very invasive plant[24, 203, K]. It dies down in early summer, however, allowing other plants to grow in the same space[K].

The bulbs should be planted fairly deeply[1].

The seeds are dispersed by ants[244].

Grows well with most plants, especially roses, carrots, beet and chamomile, but it inhibits the growth of legumes[18, 20, 54]. This plant is a bad companion for alfalfa, each species negatively affecting the other[201].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - best sown as soon as it is ripe either in situ or in a cold frame. It germinates quickly and can be grown on in the greenhouse for the first year, planting out the dormant bulbs in the late summer of the following year. Stored seed can be sown in spring in a greenhouse.

Division in summer after the plants have died down. Very easy, the divisions can be planted out straight into their permanent positions.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Allium ursinum* (wild garlic, ransoms)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- PFAF Catalogue: Checklist of plants
- Allium Species - the Perennial Onions
- The Urban Garden
- Why Perennials
- Winter Salads
- Woodland Garden Plants

- PFAF - Allium ursinum, Wild Garlic
- PFAF Plant Catalogue (A)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979

Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[203] **Davies. D.** *Alliums. The Ornamental Onions.* Batsford 1992 ISBN 0-7134-7030-5
Covers about 200 species of Alliums. A very short section on their uses, good details of their cultivation needs.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent

photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Allium ursinum, Wild Garlic

Konni Worsley Mon Apr 8 17:45:03 2002

Does anyone out there know how to get hold of some bulbs? We encountered Baerlauch, or Allium ursinum in Germany, but have been unable to successfully germinated the seeds.

Cross references: *Web-pages:* *PFAF - Allium ursinum, Wild Garlic*.

Allium ursinum, Wild Garlic

Tue Apr 29 14:31:44 2003

you can get wild garilc bulbs here:-
http://www.users.dircon.co.uk/~nfarley/thomas-etty/bulbs/allium.htm

Cross references: *Web-pages:* *PFAF - Allium ursinum, Wild Garlic*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Allium+ursinum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Allium+ursinum`

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A resource centre for edible and other useful plants

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Herb Factsheets

We have detailed factsheets about the medicinal uses of 372 different plants. An example of one of these is Maca.

The factsheets are available via from email webmaster@pfaf.org. Please note I am snowed under with email and it can take over a month to get back to you. The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation to help our project with PayPal.

If you ask very nicely I might be able to supply a copy of all the factsheets on a CD-ROM for £10.

Available factsheets

This list is only approximate and some factsheets maynot be available.

1. **Aconite** *Aconitum napellus* for the relief of neuralgic pain.
2. **Agnus-Castus** *Vitex agnus-castus* the Woman's Herb.
3. **Agrimony** *Agrimonia eupatoria* a gentle remedy for all ages.
4. **Alder Buckthorn** *Rhamnus frangula* for the treatment of constipation.
5. **Alfalfa** *Medicago sativa* for maintaining and promoting good health.
6. **Almond** *Prunus dulcis*.
7. **Aloe vera** *Aloe vera* for the skin and the digestion.
8. **American Arbor-Vitae** *Thuja occidentalis* an effective antiviral and antifungal.
9. **American Mandrake** *Podophyllum peltatum*.
10. **Angelica** *Angelica archangelica* for the digestion and respiratory system.
11. **Aniseed** *Pimpinella anisum* for the digestion and respiratory system.
12. **Apricot** *Prunus armeniaa* for the treatment of dry coughs.
13. **Arjuna** *Terminalia arjuna* for the heart.
14. **Arnica** *Arnica montana* an external treatment for bruises and sprains.
15. **Asafoetida** *Ferula assa-foetida* for the lungs and digestive system.
16. **Ashwagandha** *Withania somnifera* the Indian Ginseng.

17. **Asthma Weed** *Euphorbia hirta* for relieving asthma.
18. **Ba Ji Tian** *Morinda officinalis* a tonic for the kidneys.
19. **Bai Jiang** *Patrinia scabiosifolia* for the liver.
20. **Bai Shao Yao** *Paeonia lactiflora* the woman's herb.
21. **Bai Zhi** *Angelica dahurica* for the relief of headaches.
22. **Bai Zhu** *Atractylodes macrocephala* a tonic for the spleen and digestion.
23. **Balm of Gilead** *Populus x jackii* for treating respiratory complaints.
24. **Balmony** *Chelone glabra* a digestive tonic.
25. **Bay** *Laurus nobilis* for the digestion.
26. **Bayberry** *Myrica cerifera*.
27. **Bei Sha Shen** *Glehnia littoralis* for the respiratory system.
28. **Benzoin** *Styrax benzoin* an effective expectorant.
29. **Barberry bark** *Berberis vulgaris* an effective antibacterial..
30. **Betel Palm** *Areca catechu* to rid the body of parasites.
31. **Beth Root** *Trillium erectum* a woman's herb.
32. **Bilberry** *Vaccinium myrtillus* for the circulation.
33. **Biota** *Thuja orientalis* for the respiratory system.
34. **Bistort** *Polygonum bistorta* for the control of bleeding.
35. **Bitter Gourd** *Momordica charantia* a new treatment for AIDS and cancer?.
36. **Bitter Orange** *Citrus aurantium* for the digestion.
37. **Black Catechu** *Acacia catechu* a powerful and effective astringent.
38. **Black Cohosh** *Cimicifuga racemosa* for treating rheumatism and the menopause.
39. **Black Haw** *Viburnum prunifolium* for the relief of pain in the uterus.
40. **Black Horehound** *Ballota nigra* for relieving nausea.
41. **Black Root** *Veronicastrum virginicum* for the liver.
42. **Blackberry** *Rubus fruticosus* an astringent tonic.
43. **Blackcurrant** *Ribes nigrum* a cleansing herb.
44. **Blood Root** *Sanguinaria canadensis* a powerful expectorant.
45. **Blue Cohosh** *Caulophyllum thalictroides* to facilitate birth and treat menstrual irregularities.
46. **Blue Flag** *Iris versicolor* an effective detoxifier.
47. **Bogbean** *Menyanthes trifoliata* for the digestion.
48. **Boldo** *Peumus boldus* for the liver..
49. **Boneset** *Eupatorium perfoliatum* for the treatment of colds.
50. **Borage** *Borago officinalis* to drive away depression.
51. **Brahmi** *Bacopa monnieri* food for the brain.
52. **Broom** *Cytisus scoparius* for the heart.
53. **Buchu** *Agathosma betulina* a urinary antiseptic.

54. **Buckthorn** *Rhamnus cathartica* a strong laxative.
55. **Buckwheat** *Fagopyrum esculentum* for the circulation.
56. **Bugle** *Ajuga reptans* for wounds and bruises.
57. **Bugleweed** *Lycopus virginicus* for an overactive thyroid.
58. **Bur Marigold** *Bidens tripartita* an effective astringent.
59. **Burdock** *Arctium lappa* an effective detoxifying herb to treat skin complaints.
60. **Butterbur** *Petasites hybridus*.
61. **Butternut** *Juglans cinerea* a gentle and effective laxative.
62. **Calamus** *Acorus calamus* for the digestion.
63. **Californian Poppy** *Eschscholzia californica*.
64. **Calumba** *Jateorrhiza calumba* for the digestion.
65. **Cang Zhu** *Atractylodes lancea* for the digestive system.
66. **Cannabis** *Cannabis sativa* bringing relief from many diseases.
67. **Caraway** *Carum carvi* for the digestion
68. **Carrot** *Daucus carota* for the urinary system.
69. **Cascara Sagrada** *Rhamnus purshianus* for the treatment of constipation.
70. **Castor Oil** *Ricinus communis* a potent laxative.
71. **Catmint** *Nepeta cataria* for treating childhood fevers.
72. **Cat's Claw** *Uncaria tomentosa and Uncaria guianensis*.
73. **Catuaba** *Erythroxylon catuaba* for the nervous and reproductive systems.
74. **Celery** *Apium graveolens* to cleanse the system and treat arthritis.
75. **Centaury** *Centaurium erythraea* for the digestion.
76. **Chai Hu** *Bupleurum chinense* medicine for the liver.
77. **Chaparral** *Larrea tridendata*.
78. **Chickweed** *Stellaria media* for treating itchy skin conditions.
79. **Chicory** *Cichorium intybus* for the liver.
80. **Chinese Asparagus** *Asparagus cochinchinensis* for the lungs.
81. **Chinese motherwort** *Leonurus heterophyllus* for regulating menstruation.
82. **Chinese Privet** *Ligustrum lucidum* to restore vitality.
83. **Chiretta** *Swertia chirayita, though better known under its old name of Swertia chirata* .
84. **Chrysanthemum** *Dendranthema x grandiflorum* a Chinese tonic tea.
85. **Chuan Bei Mu** *Fritillaria cirrhosa* for the lungs.
86. **Chuan Xiong** *Ligusticum wallichii* for treating absent and painful periods.
87. **Cineraria** *Senecio cineraria* for the treatment of cataracts.
88. **Cinnamon** *Cinnamomum zeylanicum* a warming herb for the digestion.
89. **Cleavers** *Galium aparine* to Detoxify the Body.
90. **Cloves** *Syzygium aromaticum* for effective pain relief.

91. **Club Moss** *Lycopodium clavatum* for the kidneys.
92. **Cocklebur** *Xanthium strumarium*.
93. **Cola** *Cola acuminata* for increased mental and physical alertness.
94. **Coleus** *Plectranthus barbatus* but probably still best known under its old name of *Coleus forskohlii* for the treatment of glaucoma, asthma and heart diseases.
95. **Coltsfoot** *Tussilago farfara* for soothing and treating coughs.
96. **Comfrey** *Symphytum officinale* for cuts and bruises.
97. **Common Cockscomb** *Celosia argentea cristata* for the eyes.
98. **Copaiba** *Copaifera lansdorffii* an effective antiseptic.
99. **Cordyceps** *Cordyceps sinensis* one of the most powerful Chinese tonics.
100. **Coriander** *Coriandrum sativum* for the digestion.
101. **Cornsilk** *Zea mays* for the urinary system.
102. **Costus** *Saussurea costus* for the digestion.
103. **Couch Grass** *Agropyron repens* for the kidneys and bladder.
104. **Cowslip** *Primula veris* for the respiratory system.
105. **Cranesbill** *Geranium maculatum* for all forms of bleeding and digestive disorders..
106. **Cumin** *Cuminum cyminum* for the digestion.
107. **Damiana** *Turnera diffusa aphrodisiaca* to lift the spirits.
108. **Dan Shen** *Salvia multiorhiza* for the heart and blood circulation.
109. **Dandelion** *Taraxacum officinale* detoxifying and replenishing the body.
110. **Dang Gui** *Angelica sinensis* for the Female system.
111. **Dang Shen** *Codonopsis pilosula* a tonic for the whole body.
112. **Deadly Nightshade** *Atropa belladonna*.
113. **Devils Claw** *Harpagophytum procumbens* for the relief of pain and arthritis.
114. **Devil's Club** *Oplopanax horridus* the Alaskan Ginseng?.
115. **Di Huang** *Rehmannia glutinosa* a famous Chinese tonic.
116. **Dill** *Anethum graveolens* for the digestion.
117. **Curled Dock** *Rumex crispus* a cleansing and laxative herb.
118. **Echinacea** *Echinacea purpurea* to Boost the Immune System.
119. **Eclipta** *Eclipta prostrata*.
120. **Elder** *Sambucus nigra* the medicine chest of country people.
121. **Elecampane** *Inula helenium* for treating chest complaints.
122. **Siberian Ginseng** *Eleutherococcus senticosus* for the Mentally or Physically active.
123. **Eucalyptus** *Eucalyptus globulus* a powerful antiseptic.
124. **Eyebright** *Euphrasia officinalis* for bright eyes.
125. **False Jasmine** *Gelsemium sempervirens* for the effective relief of pain.
126. **False Unicorn Root** *Chamaelirium luteum* a woman's herb.

127. **Fang Feng** *Ledebouriella seseloides* an antidote to several poisons.
128. **Fennel** *Foeniculum vulgare* for the digestion.
129. **Fenugreek** *Trigonella foenum-graecum* for restoring health.
130. **Feverfew** *Tanacetum parthenium* for the Relief of Migraine.
131. **Figwort** *Scrophularia nodosa, though S. umbrosa can also be used* for the treatment of skin diseases.
132. **Frankincense** *Boswellia thurifera* an ancient herb.
133. **Fringetree** *Chionanthus virginicus* for the liver and gallbladder.
134. **Fu Ling** *Wolfiporia cocos* a Chinese tonic herb.
135. **Fumitory** *Fumaria officinalis* to support the liver.
136. **Galangal** *Alpinia officinarum* for the digestive system.
137. **Gan Cao** *Glycyrrhiza uralensis* for the adrenal glands.
138. **Garlic** *Allium sativum* for all round health.
139. **Gentian** *Gentiana lutea, though several other species can also be used* A tonic for the liver and the digestion.
140. **German Chamomile** *Matricaria chamomilla* a safe and gentle treatment for the digestion.
141. **Ginger** *Zingiber officinale* for the stomach and blood circulation.
142. **Ginkgo** *Ginkgo biloba* the Memory Tree.
143. **Ginseng** *Panax ginseng* the ancient Chinese Herb.
144. **Globe Artichoke** *Cynara scolymus* for the liver.
145. **Goat's Rue** *Galega officinalis* for the treatment of high blood sugar.
146. **Golden Rod** *Solidago virgaurea*.
147. **Goldenseal** *Hydrastis canadensis* for the treatment of infections.
148. **Gotu Kola** *Centella asiatica* an Ancient Indian Herb.
149. **Gou Teng** *Uncaria rhynchophylla*.
150. **Grains of Paradise** *Aframomum melegueta* for the digestion.
151. **Grape** *Vitis vinifera* more than just a fruit.
152. **Gravel Root** *Eupatorium purpureum* for treating kidney and bladder stones.
153. **Greater Celandine** *Chelidonium majus* for the removal of warts.
154. **Ground Ivy** *Glechoma hederacea* for the removal of catarrh.
155. **Guarana** *Guarana* the Safe and Effective Stimulant.
156. **Guelder Rose** *Viburnum opulus* for easing painful cramps.
157. **Gum Arabic** *Acacia senegal* for its soothing qualities.
158. **Gumplant** *Grindelia camporum* for respiratory complaints.
159. **Gutta Percha** *Eucommia ulmoides* for strong bones and muscles.
160. **Gipsywort** *Lycopus europaeus* for an overactive thyroid.
161. **Hawthorn** *Crataegus laevigata* for the heart and circulation.

162. **He Huan** *Albizia julibrissin* to strengthen the mind and emotions.
163. **He Shou Wu** *Polygonum multiflorum* a Famous Chinese Tonic.
164. **Heartsease** *Viola tricolor* a soothing and cleansing herb.
165. **Henna** *Lawsonia inermis*.
166. **Herb Robert** *Geranium robertianum* an effective astringent.
167. **Hibiscus** *Hibiscus sabdariffa* a gentle and tasty tonic for the digestion.
168. **Holy Thistle** *Cnicus benedictus* a tonic for the digestion.
169. **Hops** *Humulus lupulus* a safe and effective sedative.
170. **Horse Chestnut** *Aesculus hippocastanum* a safe and effective treatment for varicose veins.
171. **Horseradish** *Armoracia rusticana* for the digestive system.
172. **Horsetail** *Equisetum arvense* for the control of bleeding.
173. **Hua Jiao** *Zanthoxylum bungeanum* for getting rid of tapeworms.
174. **Huai Niu Xi** *Achyranthes bidentata* for the relief of joint pain.
175. **Huang Bai** *Phellodendron amurense* a potent antimicrobial.
176. **Huang Jing** *Polygonatum sibiricum* for the lungs and spleen.
177. **Huang Lian** *Coptis chinensis* for the control of fevers.
178. **Huang Qi** *Astragalus membranaceus* a famous Chinese tonic herb.
179. **Huang Qin** *Scutellaria baicalensis* for cooling the body and treating allergies.
180. **Hyssop** *Hyssopus officinalis* for treating chest complaints.
181. **Iceland Moss** *Cetraria islandica*.
182. **Indian Tobacco** *Lobelia inflata* for the respiratory system.
183. **Ipecacuanha** *Cephaelis ipecacuanha* for treating coughs.
184. **Jamaican Dogwood** *Piscidia erythrina* a sedative herb that relieves pain and spasms.
185. **Jambul** *Syzigium cumini* for the treatment of diabetes.
186. **Japanese Honeysuckle** *Lonicera japonica*.
187. **Japanese Pepper** *Zanthoxylum piperitum* for getting rid of tapeworms.
188. **Japanese Quince** *Chaenomeles speciosa* for the stomach and lower limbs.
189. **Jasmine** *Jasminum grandiflorum* for the relief of anxiety.
190. **Jiao Gu Lan** *Gynostemma pentaphyllum* the perfect tonic herb?.
191. **Jie Geng** *Platycodon grandiflorus* for the lungs.
192. **Job's Tears** *Coix lacryma-jobi* to balance water metabolism.
193. **Jujube** *Ziziphus jujube* a famous Chinese tonic.
194. **Juniper** *Juniperus communis* an effective diuretic.
195. **Katuka** *Picrorrhiza kurroa* for the liver and immune system.
196. **Kava Kava** *Piper methysticum* for relaxation without drowsiness.
197. **Kudzu Vine** *Pueraria montana lobata* a safe treatment for alcoholism.
198. **Lady's Bedstraw** *Galium verum*.

199. **Lady's Mantle** *Alchemilla xanthochlora* for cuts and the female reproductive system..
200. **Lavender** *Lavandula angustifolia* the healing herb.
201. **Lemon Balm** *Melissa officinalis* to boost the spirits.
202. **Lemon Grass** *Cymbopogon citratus* for mild fevers.
203. **Lemon Verbena** *Aloysia triphylla*.
204. **Lian Qiao** *Forsythia suspensa* to treat acute infectious diseases.
205. **Lignum Vitae** *Guaiacum officinale* for treating rheumatic complaints.
206. **Lily of the Valley** *Convallaria majalis* for the heart.
207. **Lime flowers** *Tilia cordata, though several other species are also sometimes used* gently soothing for the nerves, digestion and lungs.
208. **Linseed** *Linum usitatissimum* for the digestive and respiratory systems.
209. **Liquorice** *Glycyrrhiza glabra* for the liver and hormonal system.
210. **Longan** *Euphoria longan* a traditional Chinese blood tonic.
211. **Lovage** *Levisticum officinale* for the digestion.
212. **Lungwort** *Pulmonaria officinalis* for treating chest complaints.
213. **Ma Huang** *Ephedra sinica* for the respiratory system.
214. **Maca** *Lepidium meyenii* an ideal food for convalescents.
215. **Mai Men Dong** *Ophiopogon japonicus* for the digestive and respiratory systems.
216. **Male Fern** *Dryopteris filix-mas* to get rid of tapeworms.
217. **Mao Dong Qing** *Ilex pubescens* for the blood circulation.
218. **Marigold** *Calendula officinalis* for the skin.
219. **Marjoram** *Origanum majorana* for the digestive system.
220. **Marsh Cudweed** *Gnaphalium uliginosum* for getting rid of catarrh.
221. **Marshmallow** *Althaea officinalis* for soothing the mucous membranes.
222. **Maté** *Ilex paraguariensis* energy for the whole body.
223. **Personal Health, Planetary Health** The Value of Minerals in the Diet.
224. **Meadowsweet** *Filipendula ulmaria* for the relief of pain and rheumatism.
225. **Melilot** *Melilotus officinalis* for thinning the blood.
226. **Milk Thistle** *Silybum marianum* to Protect and Stimulate the Liver.
227. **Mistletoe** *Viscum album* for convulsive diseases.
228. **Motherwort** *Leonurus cardiaca* for the heart and nerves.
229. **Mugwort** *Artemisia vulgaris* a digestive tonic.
230. **Muira Puama** *Ptychopetalum olacoides* for the central nervous system.
231. **Mullein** *Verbascum thapsus* for the treatment of respiratory complaints.
232. **Myrrh** *Commiphora molmol* a potent antimicrobial.
233. **Myrtle** *Myrtus communis* an effective antiseptic.
234. **Neem Tree** *Azadirachta indica* a pharmacy in its own right.

235. **Nerve Root** *Cypripedium calceolus pubescens* to strengthen the nervous system.
236. **Nettles** *Urtica dioica* an excellent tonic for the whole body.
237. **Nutmeg and Mace** *Myristica fragrans* for the digestion.
238. **Nux-Vomica** *Strychnos nux-vomica* for the treatment of paralysis.
239. **Oak bark** *Quercus robur and Q. petraea* an effective astringent.
240. **Oats** *Avena sativa* for the nervous system and convalescents.
241. **Olive** *Olea europaea*.
242. **Onion** *Allium cepa* a food and medicine.
243. **Opium Poppy** *Papaver somniferum* for the relief of pain.
244. **Oregano** *Origanum vulgare* a natural antiseptic.
245. **Oregon Grape** *Mahonia aquifolium* for the liver.
246. **Orris Root** *Iris germanica florentina*.
247. **Parsley** *Petroselinum crispum* for the kidneys.
248. **Parsley Piert** *Aphanes arvensis* for removing kidney stones.
249. **Pasque Flower** *Pulsatilla vulgaris* for treating pain in the reproductive system.
250. **Passion Flower** *Passiflora incarnata* a Gentle Sedative.
251. **Pau D'Arco** *Pau D'Arco* for treating a wide range of infections.
252. **Pellitory of the Wall** *Parietaria diffusa* for the kidneys.
253. **Pennyroyal** *Mentha pulegium* for the digestion.
254. **Peppermint** *Mentha x piperita* for the Digestion.
255. **Periwinkle** *Vinca major* to control bleeding.
256. **Peruvian Bark** *Cinchona pubescens* an effective treatment for malaria.
257. **Pfaffia** *Pfaffia paniculata* the Brazilian Ginseng.
258. **Pilewort** *Ranunculus ficaria* for the treatment of haemorrhoids.
259. **Plantain** *Plantago major* an effective astringent.
260. **Pleurisy Root** *Asclepias tuberosa* for the respiratory system.
261. **Pokeroot** *Phytolacca americana* for the immune and lymphatic systems.
262. **Poppy** *Papaver rhoeas* a gentle sedative.
263. **Prickly Ash** *Zanthoxylum americanum* for treating rheumatic conditions.
264. **Prickly Poppy** *Argemone mexicana* a mild pain killer.
265. **Psyllium** *Plantago psyllia* for the safe treatment of constipation.
266. **Pygeum** *Pygeum africanum* for the prostate.
267. **Qing Hao** *Artemisia annua*.
268. **Quassia** *Picrasma excelsa* a bitter tonic for the digestion.
269. **Radish** *Raphanus sativus* for the digestion.
270. **Raspberry** *Rubus idaeus* for an easy labour and birth.

271. **Red Clover** *Trifolium pratense* a cleansing herb for skin complaints.
272. **Rhubarb** *Rheum palmatum* a safe laxative for all age groups.
273. **Roman Chamomile** *Chamaemelum nobile* a safe and gentle treatment for the digestion.
274. **Rooibos** *Aspalathus linearis* a health-promoting drink from South Africa.
275. **Rose Geranium** *Pelargonium graveolens*.
276. **Rosehips** *Rosa canina* health for all the family..
277. **Rosemary** *Rosmarinus officinalis* a gentle restorative and stimulant.
278. **Roseroot** *Rhodiola rosea* for the relief of stress.
279. **Rou Cong Rong** *Cistanche deserticola* for the kidneys.
280. **Rue** *Ruta graveolens*.
281. **Sage** *Salvia officinalis* an effective antiseptic.
282. **San Qi** *Panax pseudoginseng notoginseng* to control all forms of bleeding.
283. **Sandalwood** *Santalum album*.
284. **Sarsaparilla** *Smilax ornata* a cleansing, tonic herb.
285. **Sassafras** *Sassafras albidum* a spring tonic and blood purifier.
286. **Savory** *Satureja hortensis* for the digestion.
287. **Saw Palmetto** *Serenoa repens* to Protect the Prostate.
288. **Schisandra Berries** *Schisandra chinensis* an Effective Ginseng for the Young..
289. **Sea Squill** *Urginea maritima* for the heart and lungs.
290. **Self Heal** *Prunella vulgaris* an ancient wound herb.
291. **Seneca Snakeroot** *Polygala senega* for the treatment of respiratory complaints.
292. **Senna** *Cassia angustifolia* an effective laxative for occasional constipation.
293. **Serpentwood** *Rauvolfia serpentina* for the central nervous system.
294. **Sesame** *Sesamum indicum* a nutritious tonic food.
295. **Seven Barks** *Hydrangea arborescens* for kidney and bladder stones.
296. **Shan Yao** *Dioscorea batatas* a gentle tonic for the liver and kidneys.
297. **Shan Zha** *Crataegus pinnatifida major* for the heart and circulation.
298. **Shan Zhu Yu** *Cornus officinalis* a tonic for the kidneys.
299. **Shatavari** *Asparagus racemosus* for Feminine Fertility.
300. **She Chuang Zi** *Cnidium monnieri* to enhance the libido.
301. **Sheep's Sorrel** *Rumex acetosella*.
302. **Sheng Ma** *Cimicifuga foetida* a Chinese detoxifying herb.
303. **Shepherd's Purse** *Capsella bursa-pastoris* for the control of bleeding..
304. **Shi Hu** *Dendrobium nobile* to restore moisture to the body.
305. **Sichuan Aconite** *Aconitum carmichaelii*.
306. **Skullcap** *Scutellaria lateriflora* a safe and effective nerve tonic.
307. **Skunk Cabbage** *Symplocarpus foetidus* for the treatment of chest complaints.

308. **Slippery Elm** *Ulmus rubra* a soothing and healing herb.
309. **Snake Gourd** *Trichosanthes kirilowii* for the lungs.
310. **Soap Bark** *Quillaja saponaria* an effective anti-dandruff wash.
311. **Soapwort** *Saponaria officinalis* for getting rid of catarrh.
312. **Southernwood** *Artemisia abrotanum* an effective emmenagogue.
313. **Spearmint** *Mentha spicata* for childhood fevers.
314. **Speedwell** *Veronica officinalis*.
315. **Spikenard** *Aralia racemosa* a cleansing herb.
316. **Spirulina** *spirulina* the Green Superfood..
317. **Squaw Vine** *Mitchella repens* for easing childbirth and regulating meenstruation.
318. **St. Johns Wort** *Hypericum perforatum* an Effective Antidepressant.
319. **Star Anise** *Illicium verum* for the digestion.
320. **Stillingia** *Stillingia sylvatica* a cleansing herb.
321. **Stone Root** *Collinsonia canadensis* for the kidneys.
322. **Sundew** *Drosera rotundifolia* for easing coughs and asthma.
323. **Sweet Violet** *Viola odorata* for the respiratory system.
324. **Tangerine** *Citrus reticulata* for the digestion.
325. **Tansy** *Tanacetum vulgare* for expelling parasites.
326. **Tea** *Camellia sinensis* for protecting the heart and teeth.
327. **Tea tree** *Melaleuca alternifolia* a natural and very effective antiseptic.
328. **Thyme** *Thymus vulgaris* an antiseptic and antioxidant..
329. **Tien Ma** *Gastrodia elata* for the treatment of convulsions.
330. **Tian Nan Xing** *Arisaema amurense* for the respiratory system.
331. **Tormentil** *Potentilla erecta* a safe and very effective astringent.
332. **Tu Fu Ling** *Smilax glabra* for removing toxins.
333. **Tu Si Zi** *Cuscuta chinensis* a Chinese tonic for the kidneys.
334. **Turmeric** *Curcuma longa* for the whole body.
335. **Uva Ursi** *Arctostaphylos uva-ursi* for a healthy urinary system.
336. **Valerian** *Valeriana officinalis* the strong sedative.
337. **Varuna** *Crataeva nurvula* for the effective removal of kidney and bladder stones.
338. **Vervain** *Verbena officinalis* to strengthen the nervous system.
339. **Visnaga** *Ammi visnaga* for the safe treatment of asthma and kidney stones.
340. **Wall Germander** *Teucrium chamaedrys* for the treatment of gout.
341. **Walnut** *Juglans regia* for the kidneys and lungs.
342. **Water Plantain** *Alisma plantago-aquatica* an effective diuretic.
343. **Wax Gourd** *Benincasa hispida*.
344. **Wei Ling Xian** *Clematis chinensis* for the treatment of rheumatic complaints.

345. **White Horehound** *Marrubium vulgare* for treating chest complaints.
346. **White Mulberry** *Morus alba* for the respiratory tract.
347. **White Mustard** *Sinapis alba* for the respiration.
348. **Wild Cherry** *Prunus serotina* for dry, irritant coughs.
349. **Wild Garlic** *Allium ursinum* for all round health.
350. **Wild Indigo** *Baptisia tinctoria* an anti-bacterial that boosts the immune system.
351. **Wild Lettuce** *Lactuca virosa* a safe sedative.
352. **Wild Strawberry** *Fragaria vesca* a gentle astringent.
353. **Wild Yam** *Dioscorea villosa* for the relief of muscle pains and inflammation.
354. **Willow** *Salix alba* for the relief of pain and arthritis.
355. **Witch Hazel** *Hamamelis virginiana* for treating cuts, bruises etc.
356. **Wolfberry** *Lycium chinense* a famous Chinese tonic for the kidneys and liver.
357. **Wood Betony** *Stachys officinalis* for treating headaches.
358. **Woodruff** *Galium odoratum* for the health of your veins.
359. **Wormseed** *Chenopodium ambrosioides* an effective treatment for internal parasites.
360. **Wormwood** *Artemisia absinthum* for weak and underactive digestive systems.
361. **Wu Zhu Yu** *Euodia ruticarpa*.
362. **Xie Bai** *Allium macrostemon* for the respiratory system.
363. **Xin Yi** *Magnolia liliiflora* for relieving nasal complaints.
364. **Xuan Shen** *Scrophularia ningpoensis*.
365. **Yan Hu Suo** *Corydalis yanhusuo* for the effective relief of pain.
366. **Yarrow** *Achillea millefolium* an ancient wound herb.
367. **Yerba Santa** *Eriodictyon californicum* for the respiratory system.
368. **Yin Yang Huo** *Epimedium sagittatum* to treat impotence and infertility.
369. **Yu Xing Cao** *Houttuynia cordata* for the treatment of respiratory tract infections.
370. **Yuan Zhi** *Polygala tenuifolia* a famous Chinese tonic herb.
371. **Ze Lan** *Lycopus lucidus hirtus* to treat menstrual disorders.
372. **Zhi Mu** *Anemarrhena asphodeloides* for treating feverish conditions.

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Maca - an ideal food for convalescents

Description and History

Maca (botanical name *Lepidium meyenii*) is a hardy perennial plant cultivated high in the Andean Mountain at altitudes from 11,000-14,500 feet. It has one of the highest frost tolerances among native cultivated species. It has a low-growing, mat-like stem system which at times goes unnoticed in a farmer's field. Its scalloped leaves lie close to the ground and it produces self-fertile small off-white flowers typical to the mustard family which it belongs to. The part used is the tuberous root which is pear shaped, up to 8 cm in diameter and off-white in colour. Unlike many other tuberous plants, Maca is propagated by seed. Although it is a perennial, it is grown as an annual, and 7-9 months from planting are required to produce the harvested roots. The area where Maca is found high in the Andes is an inhospitable region of intense sunlight, violent winds and below freezing weather. With its extreme temperatures and poor rocky soil, the area rates among the world's worst farmland, yet over the centuries, Maca learned to flourish under these conditions. Maca was domesticated about 2000 years ago by the Inca Indians and primitive cultivars of Maca have been found in archaeological sites dating as far back as 1600 B.C.

To the Andean Indians, Maca is a valuable commodity. Because so little else grows in the region, Maca is often traded with communities at lower elevations for other staples like rice, corn, and beans. The dried roots can be stored for up to seven years. Native Peruvians have traditionally utilized Maca since before the time of the Incas for both nutritional and medicinal purposes. Maca is an important staple in the diets of the people indigenous to the region since it has the highest nutritional value of any food crop grown there. It is rich in sugars, protein, starches, and essential minerals, especially iodine and iron. The tuber is consumed fresh or dried. The fresh roots are considered a treat and are baked or roasted in ashes much like sweet potatoes. The dried roots are stored and later boiled in water or milk to make a porridge. In addition, they are often made into a popular sweet, fragrant, fermented drink called maca chicha. In Huancayo, Peru, even Maca jam and pudding are popular. The tuberous roots have a tangy taste and an aroma similar to butterscotch.

Medicinal Properties.

Maca has been used medicinally for centuries in South America to enhance fertility in humans and animals. Soon after the Spanish Conquest the Spanish found that their livestock were reproducing poorly in the highlands. The local Indians recommended feeding the animals Maca and so remarkable were the results that Spanish chroniclers gave in-depth reports. Even Colonial records of some 200 years ago indicate that payments of roughly 9 tons of Maca were demanded from one Andean area alone for this purpose. Its fertility enhancing properties were supported clinically as early as 1961, when researchers discovered it increased the fertility of rats. This energizing plant is also referred to as Peruvian ginseng, although Maca is not in the same family as ginseng.

The nutritional value of dried Maca root is high, resembling cereal grains such as maize, rice and wheat. It has 59% carbohydrates, 10.2% protein, 8.5% fibre and 2.2% lipids. It has a large amount of essential amino acids and higher levels of iron and calcium than potatoes. Maca contains important amounts of fatty acids including linolenic, palmitic and oleic acids. It is rich in sterols and has a high mineral content as well. In addition to its rich supply of essential nutrients, Maca contains alkaloids, tannins and saponins. A chemical analysis conducted in 1981 showed the presence of biologically active aromatic isothiocyanates, especially p-methoxybenzyl isothiocyanate, which have reputed aphrodisiac properties. Initial analysis of Maca indicate that the effects on fertility are a result of the glucosinolates. Alkaloids are also present, but have not yet been quantified.

Maca is growing in world popularity due to its energizing effects, fertility enhancement and aphrodisiac qualities. Other traditional uses include increasing energy, stamina and endurance in athletes, promoting mental clarity, treating male impotence, and helping with menstrual irregularities and female hormonal imbalances including menopause and chronic fatigue syndrome. It is used as an alternative to anabolic steroids by bodybuilders due to its richness in sterols. Today, dried Maca roots are ground to powder and sold in drug stores in capsules as a medicine and food supplement to increase stamina and fertility. In Peruvian herbal medicine, Maca is also used as an immunostimulant, for anemia, tuberculosis, menstrual disorders, menopause symptoms, stomach cancer, sterility and other reproductive and sexual disorders as well as to enhance memory.

The cultivation of Maca is increasing in the highlands of the Andes to meet the growing demand world wide for medicinal uses. In this severely economically depressed region, the market created for Maca will offer new and important sources of income for the Indigenous Peoples of the Andes. A new cultivar of Maca has been identified in the major growing regions of the highlands which will supply much of this new demand and it has been named Lepidium peruvianum Chacon sp.

Usage

We highly recommend maca for anyone recovering from a debilitating illness. It is easily digested and its naturally high mineral and sterol content make it ideal for helping the body to regain weight and vitality. There have, for example, been many reports of it helping people who are recovering from chronic fatigue syndrome.

Due to its sterol content, maca has also attracted the attention of many health-conscious athletes who wish to increase endurance, stamina and body mass in a safe and effective way. The increase is more gradual than that obtained through using banned substances such as anabolic steroids, but it is a natural weight gain that does not carry with it potential harm to the health.

Another effect that has been noted by many people is that when taken regularly maca greatly increases the vitality of the body. This can have quite a marked effect upon the libido, increasing both the quality and the staying power of sexual activity. Listed below are the comments of a few American Medical Practitioners with regard to the plant.

> "As maca has become increasingly popular, its use has spread to medical practices. In the November, 1988 Townsend Letter for Doctors, physicians commented on the therapeutic uses of maca. Hugo Malaspina, M.D., a cardiologist practicing complementary medicine in Lima, Peru, has been using maca in his practice for ten years. He commonly recommends maca to women experiencing premenstrual discomfort or menopausal symptoms. "There are different medicinal plants that work on the ovaries by stimulating them," he says. "With maca though, we should say that it regulates the ovarian function." Dr. Malaspina further notes that "maca regulates the organs of internal secretion, such as the pituitary, the adrenal glands, and the pancreas. I have had perhaps two hundred female patients whose perimenopausal and menopausal symptoms are alleviated by taking maca.
>
> Dr. Malaspina first found out about maca through a group of sexually active older men who were taking the herb with good results. "One of this group started taking maca and found he was able to perform satisfactorily in a sexual relationship with a lady friend. Soon everyone in the group began drinking the powdered maca as a beverage and enjoying the boost that the root was giving their hormonal functions. I have several of these men as patients, and their improvement prompted me to find out more about maca and begin recommending it to my other patients."
>
> Aguila Calderon, M.D., is the former Dean of the Faculty of Human Medicine at the National University of Federico Villarreal in Lima. He says, "Maca has a lot of easily absorbable calcium, plus magnesium and a fair amount of silica. We are finding it very useful in treating the decalcification of bones in children and adults." In his practice, Dr. Calderon uses maca for male impotence, erectile dysfunction, menopausal symptoms, and general fatigue.
>
> Chicago physician Gary F. Gordon, former President of the American College for Advancement in Medicine, is also a maca supporter. "We all hear rumours about various products like maca," he says. "But using this Peruvian root myself, I personally experienced a significant improvement in erectile tissue response. I call it nature's answer to Viagra. What I see in maca is a means of normalizing our steroid hormones like testosterone, progesterone, and estrogen. Therefore it has the facility to forestall the hormonal changes of aging. It acts on men to restore them to a healthy functional status in which they experience a more active libido."

Dosage

Since maca is a food, it is used in much higher doses than most other medicinal herbs and can also be used over a long period of time without harmful effects. A minimum of 10g per day of the dried root is required for you to notice any real benefit, with 25g being the recommended amount and you can increase this considerably if you so desire. We normally mix the powder with a fruit juice and drink it between meals. You can also sprinkle it over food or add it to cooked foods such as soups and stews.

This leaflet is not intended to be used as a substitute for treatment by a qualified practitioner. You would be well advised to inform your practitioner that you are taking this herb and, should you experience any adverse reactions, immediately contact your practitioner for further guidance.

This leaflet was prepared for Plants For A Future by Ariadne Fern BSc, DThD. If you have any specific queries on this leaflet, or would like advice on health matters, please write to Ariadne c/o PFAF. General advice is free but Ariadne also gives personal and postal consultations on how to treat disease through natural means. Costs of these services are available on request.

This is an example of one of 300 factsheets covering different medicinal plants. These are abvailable for free to Friends of PFAF.

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Plants for a Future
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Back to PFAF home page. Main Catalogue

Due to all the work which needs doing on the Eco-Village at the moment, we will not be running the catalogue at the moment. However, we are busy propigating plants to get ready for a new catalogue to be release in the Autumn '98. These pages are just intended as a guide for the type of plant which may appear in the new catalogue.

Species Checklist

A B-C D-E F G-L M-N O-P R S T-W Key

A

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Achillea ageratum		Perennial	0.6	0.6	7	N	M	LMH	No	Yes	DM	Yes	Yes	ANB	No	No		7 - 9	No	No	No
Achillea erba-rotta moschata		Perennial	0.2		6	N	M	LMH	No	Yes	DM	Yes	No	ANB	No	No		6	No	No	Yes
Achillea millefolium		Perennial	0.6	0.6	2	SN	M	LMH	No	Yes	DM	Yes	Yes	ANB	No	Yes		6 - 8	No	Yes	Yes
Achillea ptarmica		Perennial	0.6	0.6	5	N	M	LMH	No	Yes	M	Yes	No	ANB	No	No	Yes	6 - 10	No	No	Yes
Agastache foeniculum		Perennial	0.9	0.4	8	N		LM	No	No	DM	Yes	No	ANB	No	No	Yes	7	No	Yes	Yes
Allium ampeloprasum babbingtonii		Bulb	1.8	0.1	6	N	W	LMH	Yes	No	DM	Yes	No	ANB	No	Yes		7 - 8	No	No	Yes
Allium canadense mobilense		Bulb	0.45	0.2	4	SN		LM	No	No	MWe	No	No	ANB	No	No		5 - 6	No	No	Yes
Allium cepa proliferum		Bulb	1.2		5	N		LM	No	No	M	Yes	No	ANB	No	No			No	No	Yes
Allium cernuum		Bulb	0.45	0.1	6	N	M	LMH	No	No	M	Yes	Yes	ANB	No	No		6 - 7	No	No	Yes
Allium fistulosum		Bulb	0.6	0.2		N		LMH	No	No	M	Yes	No	ANB	No	No		7	No	No	Yes
Allium neapolitanum		Bulb	0.3	0.1	8	N		LM	No	No	DM	Yes	No	ANB	No	No		3 - 5	No	No	Yes
Allium ramosum		Bulb	0.5		7	N		LM	No	No	DM	Yes	No	ANB	No	No		7 - 9	No	No	Yes
Allium schoenoprasum		Bulb	0.3	0.3	5	SN		LMH	Yes	No	M	Yes	No	ANB	No	Yes	Yes	6 - 7	No	Yes	Yes
Allium triquetrum		Bulb	0.35		8	FSN		LM	No	No	M	Yes	No	ANB	No	No		4 - 6	No	No	Yes
Allium tuberosum		Bulb	0.3	0.3	7	N		LMH	No	No	DM	Yes	Yes	ANB	No	Yes		8 - 9	No	No	Yes

Allium ursinum		Bulb	0.3	0.3	5	FSN		LM	No	No	M	No	No	ANB	No	No		5 - 6	No	No	Yes
Aloe vera	E	Perennial	0.8	1	8	N		LM	No	Yes	DM	Yes	Yes	ANB	No	No		5 - 6	No	No	Yes
Aloysia triphylla	D	Shrub	3	3	8	SN		LM	No	No	DM	Yes	No	ANB	No	No		8	No	No	Yes
Althaea cannabina		Perennial	1.8	1.5	4	N		LMH	No	No	DM	No	No	ANB	No	No	Yes	7 - 9	No	No	No
Althaea officinalis		Perennial	1.2	0.75	3	N		LMH	No	No	DM	No	No	ANB	No	No	Yes	7 - 9	No	No	Yes
Amelanchier alnifolia	D	Shrub	4	3	2	SN		LMH	Yes	No	M	No	No	ANB	No	No	Yes	5	No	No	Yes
Anredera tuberosa		Perennial Climber				SN		LMH	No	No	M	Yes	Yes	ANB	No	No			No	No	No
Aralia racemosa		Perennial	1.8	1.2	4	FS		LMH	No	No	M	No	No	ANB	No	No		6	No	No	Yes
Armoracia rusticana		Perennial	0.7	0.75	5	SN		LMH	No	No	M	Yes	No	ANB	No	Yes	Yes	5 - 6	No	No	Yes
Artemisia abrotanum	D	Shrub	1.2	1	4	SN		LMH	No	Yes	DM	Yes	Yes	ANB	No	No		9 - 10	No	No	Yes
Artemisia dracunculoides		Perennial	1	0.5	3	SN		LM	No	No	DM	Yes	Yes	ANB	No	No		9	No	No	Yes
Artemisia dracunculus		Perennial	0.6	0.3	6	SN		LM	No	No	DM	Yes	Yes	NB	No	No			No	No	Yes
Asphodeline lutea		Perennial	1	1	7	SN	M	LMH	No	No	DM	Yes	No	ANB	No	No		6 - 7	No	No	No
Atriplex halimus	E	Shrub	2	3	8	N	M	LM	No	Yes	DM	Yes	Yes	ANB	No	Yes		7	No	No	Yes

B-C

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Baccharis patagonica	E	Shrub	3	3	8	N	M	LMH	No	Yes	M	Yes	No	ANB	No	No	No	5	No	No	No
Bunias orientalis		Perennial	0.9	0.5	7	N		LMH	No	No	M	No	No	ANB	No	No	Yes	5 - 8	No	No	No
Camassia quamash		Bulb	0.3	0.15	3	SN		LMH	Yes	No	M	No	No	ANB	No	No		5 - 6	No	Yes	No
Campanula persicifolia	E	Perennial	1	0.45	3	SN		LM	No	No	M	Yes	No	NB	No	No	Yes	6 - 8	No	No	No
Campanula poscharskyana	E	Perennial	0.25	1	3	SN		LM	No	Yes	M	Yes	No	NB	No	No	Yes	7 - 9	No	No	No
Campanula pyramidalis		Perennial	1.5	0.5	8	SN		LMH	No	No	M	Yes	No	ANB	No	No	Yes	7 - 8	No	No	No
Campanula takesimana		Perennial	0.5	0.45	5	SN		LM	No	No	M	Yes	No	NB	No	No	Yes	6 - 7	No	No	No
Campanula versicolor		Perennial	1.2	0.45	8	N		LM	No	No	DM	Yes	No	NB	No	No	Yes	7 - 9	No	No	No
Centella asiatica	E	Perennial	0.2	1	8	SN		LMH	No	No	MWe	No	No	ANB	No	No	Yes	7 - 8	No	No	Yes
Chaenomeles japonica	D	Shrub	1	2	5	FSN		LMH	Yes	No	M	Yes	No	ANB	No	No		4	No	No	No

Chaenomeles speciosa	D	Shrub	3	5	5	FSN		LMH	Yes	No	M	Yes	No	ANB	No	No		2 - 6	No	Yes	Yes
Chamaemelum nobile	E	Perennial	0.15	0.3	4	SN		LMH	No	Yes	DM	Yes	Yes	ANB	No	Yes	Yes	6 - 7	No	No	Yes
Chenopodium bonus-henricus		Perennial	0.3	0.3	5	N		LMH	No	No	M	No	No	ANB	No	No		5 - 7	No	No	Yes
Chlorogalum pomeridianum		Bulb	2	0.3	8	SN		LMH	No	No	M	Yes	No	ANB	No	No		5 - 6	No	No	Yes
Conopodium majus		Perennial	0.3			SN		LMH	No	No	M	No	No	AN	No	No	Yes	5 - 6	No	No	No

D-E

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Dioscorea batatas		Perennial	3	1.5	5	SN		LMH	No	No	M	Yes	No	ANB	No	No	No	9 - 10	No	No	Yes
Drimys lanceolata	E	Shrub	4.5	2.5	8	S	W	LM	No	No	M	Yes	No	AN	No	No	No	4 - 5	No	No	Yes
Elaeagnus commutata	D	Shrub	3	1.5	2	N	M	LMH	No	Yes	DM	Yes	Yes	ANB	No	Yes		5	Yes	No	Yes
Elaeagnus cordifolia	E	Shrub	4	4		FSN	M	LMH	No	Yes	DM	Yes	Yes	AN	No	No		10 - 11	Yes	No	Yes
Elaeagnus glabra	E	Shrub	6		8	FSN	M	LMH	No	Yes	DM	Yes	Yes	AN	No	No		10 - 11	Yes	No	Yes
Elaeagnus macrophylla	E	Shrub	3	3	7	FSN	M	LMH	No	Yes	DM	Yes	Yes	ANB	No	No		10 - 11	Yes	No	Yes
Elaeagnus parvifolia	D	Shrub	4	3	3	N	M	LMH	No	Yes	DM	Yes	Yes	ANB	No	No		5 - 6	Yes	Yes	Yes
Elaeagnus umbellata	D	Shrub	4.5	4	3	N	M	LMH	No	Yes	DM	Yes	Yes	ANB	No	No		5 - 6	Yes	Yes	Yes
Elaeagnus x ebbingei	E	Shrub	5	5	6	FSN	M	LMH	No	Yes	DM	Yes	Yes	ANB	No	No		10 - 1	Yes	No	Yes
Ephedra distachya	E	Shrub	1	1	6	N		LM	No	No	DM	Yes	Yes	ANB	No	No	No	7	No	No	Yes

F

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Fagopyrum dibotrys		Perennial	1	2		SN		LMH	Yes	Yes	DM	Yes	No	ANB	No	No		9	No	No	Yes
Feijoa sellowiana	E	Shrub	3	3	8	N	M	LMH	No	No	DM	Yes	Yes	ANB	No	No	No	7	No	No	No
Foeniculum vulgare	E	Perennial	1.5	1	5	N	W	LMH	No	No	DM	Yes	Yes	ANB	No	No	Yes	8 - 10	No	Yes	Yes

Fragaria moschata		Perennial	0.45		6	SN		LMH	No	No	M	Yes	No	ANB	No	No		4 - 7	No	No	No
Fragaria viridis		Perennial	0.3		6	SN		LMH	No	No	M	Yes	No	ANB	No	No		4 - 5	No	No	No
Fuchsia magellanica	D	Shrub	3.6	2	6	SN	M	LMH	Yes	No	M	Yes	No	ANB	No	No		7 - 10	No	Yes	Yes
Fuchsia splendens	D	Shrub	2	1	9	FSN		LMH	No	No	M	Yes	No	ANB	No	No		8 - 10	No	No	No

G-L

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Galium odoratum		Perennial	0.15	0.45	5	FS		LMH	No	No	DM	No	No	ANB	Yes	Yes	Yes	5 - 7	No	No	Yes
Galium verum		Perennial	0.6	1	3	SN	M	LMH	No	No	DM	Yes	No	ANB	No	No	Yes	7 - 8	No	Yes	Yes
Gaultheria shallon	E	Shrub	1.2	1	5	FS		LM	No	No	DM	No	Yes	A	Yes	No		5 - 6	No	No	No
Glyceria fluitans		Perennial	0.45		5	N		LMH	No	No	WeWa	No	No	ANB	Yes	Yes		5 - 8	No	No	No
Helleborus niger	E	Perennial	0.3	0.3	3	S		LMH	Yes	No	M	No	No	ANB	No	No		1 - 2	No	No	Yes
Hemerocallis lilioasphodelus		Perennial	0.6	1	4	SN		LMH	Yes	No	DM	No	No	ANB	No	No	Yes	5 - 7	No	No	Yes
Hemerocallis multiflora		Perennial	1	0.5	4	SN		LMH	Yes	No	DM	No	No	ANB	No	No		7 - 9	No	No	Yes
Hibiscus syriacus	D	Shrub	3	2	5	SN		LMH	No	No	M	Yes	No	ANB	No	No		9	No	No	Yes
Humulus lupulus		Perennial Climber	6		5	SN		LMH	No	No	DM	No	Yes	ANB	No	No	No	7 - 8	No	Yes	Yes
Lathyrus tuberosus		Perennial	1.2		6	SN		LMH	No	No	M	No	No	ANB	No	No		6 - 7	Yes	Yes	No
Lavandula angustifolia	E	Shrub	1.2	1	5	N	M	LMH	No	No	DM	Yes	Yes	ANB	No	Yes		7 - 9	No	Yes	Yes
Lavandula latifolia	E	Shrub	0.35		7	N	M	LMH	No	No	DM	Yes	Yes	ANB	No	No			No	Yes	Yes
Lepidium latifolium		Perennial	1.2	1	6	SN	M	LMH	No	No	M	No	No	ANB	No	No		6 - 7	No	No	Yes
Levisticum officinale		Perennial	1.8	1	4	SN		LMH	No	No	M	No	No	ANB	No	No	Yes	7 - 8	No	Yes	Yes

M-N

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Malva moschata		Perennial	0.8	0.6	3	SN	W	LMH	No	No	M	Yes	No	ANB	No	No	Yes	7 - 8	No	No	Yes
Melissa officinalis		Perennial	0.7	0.4	4	SN		LM	No	No	DM	Yes	Yes	ANB	No	No		6 - 10	No	Yes	Yes

Mentha aquatica		Perennial	1	1	6	SN		LMH	Yes	No	MWeWa	No	No	ANB	No	No		7 - 10	No	No	Yes
Mentha pulegium		Perennial	0.4	0.6	7	SN		LMH	Yes	No	M	No	No	ANB	No	No		8 - 10	No	Yes	Yes
Mentha requienii		Perennial	0.02	0.5	6	SN		LMH	Yes	No	M	No	No	ANB	No	No		7 - 8	No	Yes	Yes
Mentha spicata		Perennial	0.6	1	3	SN		LMH	Yes	No	M	No	No	ANB	No	No		8 - 9	No	Yes	Yes
Mentha x gentilis		Perennial	0.45	0.6	6	SN		LMH	Yes	No	M	No	No	ANB	No	No			No	Yes	Yes
Mentha x piperita citrata		Perennial	0.3	1	3	SN		LMH	Yes	No	M	No	No	ANB	No	No		8 - 10	No	Yes	Yes
Mentha x piperita vulgaris		Perennial	0.45	1	3	SN		LMH	Yes	No	M	No	No	ANB	No	No		8 - 10	No	Yes	Yes
Montia sibirica		Annual/Perennial	0.15		3	FSN		LMH	No	Yes	DM	Yes	No	ANB	Yes	No	Yes	4 - 7	No	No	No
Muehlenbeckia complexa	D	Climber	5	1	8	SN	M	LMH	No	No	M	Yes	No	ANB	No	No	No	8 - 9	No	No	No
Myrrhis odorata		Perennial	1	1	5	SN		LMH	No	No	M	No	No	ANB	No	No	Yes	5 - 6	No	Yes	Yes
Nasturtium officinale		Perennial	0.5	1	6	N		LMH	No	No	WeWa	No	No	ANB	No	No	Yes	5 - 10	No	Yes	Yes

O-P

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Origanum vulgare		Perennial	0.6	0.75	5	SN	W	LMH	No	Yes	DM	Yes	No	ANB	No	No		7 - 9	No	Yes	Yes
Origanum vulgare hirtum		Perennial	0.6	0.6	5	SN	W	LMH	No	Yes	DM	Yes	No	ANB	No	No		7 - 9	No	Yes	Yes
Oxalis deppei		Bulb	0.3	0.1	8	N		LM	No	No	M	Yes	No	AN	No	No		6 - 11	No	No	No
Oxalis tetraphylla		Perennial	0.1	0.3	8	N		LM	No	No	DM	Yes	No	ANB	No	No		5 - 9	No	No	No
Oxalis tuberosa		Perennial	0.45	0.3	7	N		LM	No	No	M	Yes	No	ANB	No	No		7 - 8	No	No	No
Peltaria alliacea	E	Perennial	0.3	0.3	6	SN		LM	No	No	M	No	No	ANB	No	No		6	No	No	No
Phragmites australis		Perennial	3.6	3	5	SN	M	LMH	No	No	MWeWa	No	No	ANB	No	No		7 - 9	No	No	Yes
Physalis peruviana		Perennial	1.2		8	SN		LMH	No	Yes	M	Yes	No	ANB	Yes	Yes		7 - 10	No	No	Yes
Phytolacca americana		Perennial	2	1.5	4	SN		LMH	No	No	M	No	No	ANB	No	No		8 - 9	No	No	Yes
Polygonum bistorta		Perennial	0.5	0.5	4	SN		LMH	No	No	MWe	No	No	ANB	Yes	No		6 - 9	No	No	Yes

Polymnia edulis		Perennial	1		8	N		LMH	No	Yes	M	No	No	ANB	No	No			No	No	No
Prunus avium	D	Tree	18	7	3	SN		LMH	No	No	M	Yes	No	ANB	No	No	No	4 - 5	No	Yes	Yes

R

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Reichardia picroides		Perennial	0.45	0.3	8	SN		LMH	No	No	M	Yes	No	ANB	No	No		4 - 8	No	No	No
Rhus copallina	D	Shrub	2	2	5	N	W	LMH	No	Yes	DM	Yes	Yes	ANB	No	No	No	7 - 9	No	No	Yes
Rhus typhina	D	Shrub	6	6	3	N	W	LMH	No	Yes	DM	Yes	Yes	ANB	No	No	No	6 - 8	No	No	Yes
Ribes aureum	D	Shrub	2.4		2	SN	W	LMH	No	No	DM	Yes	No	ANB	No	No		4	No	No	No
Rosa rugosa	D	Shrub	2	2	2	SN	M	LMH	Yes	No	DM	Yes	No	ANB	No	No	Yes	6 - 8	No	No	Yes
Rosmarinus officinalis	E	Shrub	1.5	1.5	6	N	M	LM	No	No	DM	Yes	Yes	ANB	No	Yes		3 - 10	No	Yes	Yes
Rubus nepalensis	E	Shrub	0.2	1	8	SN		LMH	No	No	M	Yes	No	ANB	No	No		6 - 7	No	No	No
Rumex alpinus		Perennial	1.2	0.3	5	SN		LMH	No	No	M	No	No	ANB	No	No		7	No	No	Yes
Rumex scutatus		Perennial	0.6	0.6	6	SN	W	LMH	No	No	M	Yes	Yes	ANB	No	No		6 - 7	No	Yes	Yes

S

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Sagittaria latifolia		Perennial	1.2	0.3	7	N		LMH	No	No	WeWa	No	No	ANB	No	No		7 - 9	No	No	Yes
Sagittaria sagittifolia		Perennial	1	0.5	7	N		LMH	No	No	WeWa	No	No	ANB	No	No		7 - 8	No	No	Yes
Salix 'Bowles hybrid'	D	Tree	5			N	M	LMH	Yes	No	MWe	No	No	AN	No	No	No		No	Yes	Yes
Salix alba	D	Tree	25	10	2	N	M	LMH	Yes	No	MWe	No	No	AN	No	No	No	4 - 5	No	Yes	Yes
Salix alba caerulea	D	Tree	25	10	2	N	M	LMH	Yes	No	MWe	No	No	AN	No	No	No	4 - 5	No	Yes	Yes
Salix daphnoides	D	Tree	10	8	5	N	M	LMH	Yes	No	MWe	No	No	AN	No	No	No	2 - 3	No	No	Yes
Salix fragilis	D	Tree	15	15	5	N	W	LMH	Yes	No	MWe	No	No	AN	No	No	No	4 - 5	No	Yes	Yes
Salix pentandra	D	Tree	10	10	5	N		LMH	Yes	No	MWe	No	No	AN	No	No	No	5	No	No	Yes
Salix purpurea	D	Tree	5	5	5	N		LMH	Yes	No	DMWe	No	No	ANB	No	No	No	3 - 4	No	Yes	Yes
Salix triandra	D	Tree	9		5	N		LMH	Yes	No	MWe	No	No	AN	No	No	No	3 - 5	No	Yes	Yes
Salix viminalis	D	Tree	6		4	N	W	LMH	Yes	No	MWe	No	No	ANB	No	No	No	4 - 5	No	Yes	Yes
Salvia officinalis	E	Shrub	0.6	0.6	5	N		LM	No	No	DM	Yes	Yes	NB	No	Yes		6 - 8	No	No	Yes

Sambucus nigra	D	Shrub	6	6	5	SN	M	LMH	Yes	No	M	No	No	ANB	No	Yes		6 - 7	No	Yes	Yes
Sanguisorba minor	E	Perennial	0.6	0.3	5	N	M	LMH	No	Yes	M	Yes	No	ANB	No	Yes	Yes	5 - 8	No	No	Yes
Saponaria officinalis		Perennial	1	1	4	SN		LMH	No	No	M	Yes	No	ANB	No	No		7 - 9	No	Yes	Yes
Satureia montana	E	Shrub	0.4	0.3	6	N		LM	No	Yes	DM	Yes	Yes	ANB	No	Yes		7 - 10	No	Yes	Yes
Scutellaria lateriflora		Perennial	0.6	0.4	7	N		LMH	No	No	M	No	No	ANB	No	No		6 - 8	No	No	Yes
Secale montana		Perennial	1.2		3	N	W	LMH	No	No	M	Yes	Yes	ANB	No	No		6 - 8	No	No	No
Seseli libanotis		Biennial/ Perennial	0.6		4	N		LMH	No	No	DM	Yes	No	ANB	No	Yes	Yes	7 - 8	No	No	Yes
Stachys affinis		Perennial	0.45		5	SN		LMH	No	No	M	Yes	No	ANB	No	No		7 - 8	No	No	Yes

T-W

Name	Ever-green?	Habit	Height	Width	Hardiness	Shade	Wind	Soil Type	Clay?	Poor Soil?	Moisture	Drained?	Drought?	pH	Acid?	Alkaline?	Self fertile?	Flowers?	Nitrogen?	Wildlife?	Medicinal?
Taxus cuspidata	E	Tree	10	10	6	FSN	W	LMH	No	No	DM	Yes	No	ANB	Yes	Yes	No		No	No	Yes
Thymus herba-barona	E	Shrub	0.05	0.3		N		LM	No	No	DM	Yes	Yes	ANB	No	No		7 - 8	No	No	Yes
Thymus vulgaris	E	Shrub	0.2	0.3	7	N	W	LM	No	Yes	DM	Yes	No	NB	No	No		6 - 8	No	Yes	Yes
Thymus x citriodorus	E	Shrub	0.1	0.3	7	N	W	LM	No	No	DM	Yes	No	NB	No	No		7 - 8	No	Yes	Yes
Tigridia pavonia		Corm	0.6	0.1	8	N		LM	No	No	DM	Yes	No	ANB	No	No		6 - 10	No	No	Yes
Typha laxmannii		Perennial	1.5		4	N		LMH	No	No	WeWa	No	No	ANB	No	No			No	Yes	Yes
Viola odorata	E	Perennial	0.1	0.45	5	SN		LMH	No	No	M	Yes	No	AN	No	No	Yes	2 - 4	No	No	Yes
Withania somnifera	E	Shrub	1	0.5	9	N		LMH	No	No	M	Yes	No	ANB	No	No			No	No	Yes

Key To Information On The Species Checklist

(Please note that the information refers to species and not necessarily to cultivars)

Evergreen?	E denotes the species is evergreen, and D marks trees and shrubs that are deciduous.
Habit	Type of plant. (Annual, Perennial, Tree etc).
Height	How tall the plant is expected to grow in Britain, in metres. Please note this is only a rough guide.
Width	How wide the plant is expected to grow, in metres. Please note this is only a rough guide.
Hardiness	How hardy is it on a scale from 1 - 10. One will survive arctic winters, ten is tropical. Cornwall is about eight, but can grow some plants from zone nine. Most of Britain is zone seven, going down to zone six in the north and four in the mountains.
Shade	How much shade does the plant need? F = full shade (deep woodland, a north wall etc), S = semi-shade (light woodland, a position that is shaded for part of the day etc), N = no shade.
Wind	How wind resistant is the plant? M = tolerates maritime exposure, W = tolerates strong winds but not maritime exposure. A blank entry denotes that we have no information or that the plant is not wind hardy.

Soil Type	Type of soil the plant prefers. L = light (sandy), M = medium (loam), H = heavy (clay). An entry here does not specifically mean that a plant will tolerate the extremes.
Clay?	Can the plant grow in heavy clay soils? Yes/No
Poor Soil?	Can the plant grow in nutritionally poor soils?
Moisture	What sort of moisture levels does the plant require? D = dry, M = moist (this is the average soil type and not a wet soil), WE = wet (or boggy), WA = water (grows in ponds etc).
Drained?	Does the plant require a well-drained soil? Yes/No Many plants cannot tolerate soils if the water does not drain away fairly quickly. A well-drained soil is usually light or medium, but this is not always the case and some light soils are very poorly drained.
Drought?	Can an established plant tolerate drought ? Yes/No
pH	Type of soil the plant prefers. A = acid, N = neutral, B = basic (alkaline). An entry here does not necessarily mean that a plant can tolerate the extremes of acidity or alkalinity. See below
Acid?	Can the plant grow in very acid soils? Yes/No
Alkali?	Can the plant grow in very alkaline soils? Yes/No
Self-fertile?	Can one plant growing on its own produce fertile seed without being pollinated by any other plants? Yes/No. A blank entry denotes that we do not know.
Flowers?	1=January, 2=February etc
Nitrogen?	Does the plant fix nitrogen from the atmosphere? Yes/No
Wildlife?	Is the plant noted for providing food etc for our native wildlife? Yes/No
Medicinal?	Does the plant have known medicinal uses? Yes/No

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Vertaling door J. Victor. jules.victor@village.uunet.be

De droom omtrent een ecologisch dorp wordt werkelijkheid.

"Plants For A Future" is een vereniging met een menslievend doel die opgericht werd door Ken Fern. Men doet onderzoek naar en kweekt duizenden eetbare en nuttige planten die geschikt zijn voor een koel, gematigd klimaat. Er werd ook hard gewerkt om een geschikt terrein te vinden voor een ecologisch dorp. Gelukkig had men succes en kon men een terrein kopen met een oppervlakte van 35 ha, gelegen in noordwest Devon, dichtbij Holsworthy, in een streek met een golvend landschap.

Op het terrein staan thans nog geen gebouwen, maar in het kader van de wetgeving op de ruimtelijke ordening is er een toelating voor 28 'vacantie' chalets en 1,7 ha vijvers. PFAF werkt samen met de permacultuurarchitecten Gale en Snowdon met het oog op het ontwerpen van een plan om een ecologisch dorp tot stand te brengen en ook een centrum dat zal openstaan voor het publiek en dat al de mogelijkheden van de planten en van de permacultuur wil demonstreren.

Er wordt gehoopt dat het dorp verschillende typen van huizen zal omvatten, met inbegrip van ondergrondse, ook in leembouw en zelfbouw naar Walter Segal. Een eerste groep mensen zal nog deze herfst naar het nieuwe dorp verhuizen. Er wordt verwacht dat het uiteindelijk aantal bewoners 50-70 zal bedragen. De sociale structuur zal gebaseerd zijn op de stijl van een dorp, waarin de bewoners over een grote verscheidenheid van vaardigheden beschikken (opleiding zal mogelijk zijn), zodat het dorp in zijn geheel in hoge mate in zijn eigen behoeften zal kunnen voorzien. Ter plaatse zullen cursussen worden gegeven over een ganse reeks onderwerpen, van permacultuur en zelfbouw tot gezond leven in het algemeen.

PFAF heeft de aankoopsom voor de grond bijeengebracht maar is nog steeds druk op zoek naar leningen en giften voor de uitbouw van het dorp. Men zoekt ook vrijwilligers om te helpen bij het enorme werk dat nodig zal zijn om tijdens de volgende jaren het terrein te beplanten en het dorp uit te bouwen. *"In de geschiedenis van PFAF is dit de spannendste fase"* zegt Ken, *"en ik heb het gevoel dat ze een enorme betekenis zal hebben voor de permacultuur in het algemeen."*

Aankondiging

Een oproep met het oog op het bijeenbrengen van fondsen had een behoorlijk succes. Hij bracht een aanzienlijk deel op van het bedrag dat nodig was voor de aankoop van het terrein terwijl ook een kortlopende lening werd aangeboden om het tekort te dekken. Deze lening moet evenwel eerlang worden terugbetaald, zodat meer geldelijke inbreng nodig is. Om het even welk bedrag aan giften is welkom. U kan ook een lening toestaan voor een termijn van vijf jaar met een intrest tot 4%. Verdere inlichtingen kunnen schriftelijk worden aangevraagd. (U kan ook het adres van uw vrienden mededelen!!)

Laatste nieuws

PFAF heeft thans een stuk grond aangekocht in Devon, dichtbij de grens van het graafschap en ongeveer 70 km verwijderd van het huidig terrein, hier in Kernow/Cornwall. Het terrein is hoofdzakelijk landbouwgrond die tijdens de laatste jaren werd gebruikt (of misbruikt) om vlas te kweken, enkel en alleen om de subsidie op te strijken die hiervoor werd toegekend (men beperkte zich ertoe, het vlas af te maaien zonder het te oogsten!!). Er is evenwel ook een bos van middelbare ouderdom, met een oppervlakte van ongeveer 6 ha. De vegetatie in dit bos heeft zich blijkbaar hersteld zonder veel menselijke ingrepen. Er is tenslotte ook nog een paar ha 'culm' grasland (indien iemand ons meer kan vertellen over dit ongewoon type van grasland, doe dat dan a.u.b.)

De eerste boom werd geplant op 12 juli 1997 en daarna was er een groot feest.

Het feit dat er in het kader van de ruimtelijke ordening een toelating is voor een 'vacantiedorp' is de bijzonderste reden waarom het terrein in kwestie werd gekozen. Wij hopen dat geleidelijk de mogelijkheid zal ontstaan om er permanent te wonen.

De vroegere eigenaar hoopte op het terrein een dorp voor vissers tot stand te kunnen brengen. De grond is zeer nat en hij had de toelating om twee grote vijvers aan te leggen en vacantiechalets op te trekken voor mensen die er naar toe zouden komen om in de visrijke vijvers te vissen.

Er zijn plannen om een Visitor and Education Centre (Centrum voor Bezoekers en Voorlichting) uit te bouwen en er wordt gehoopt dat er een klein bedrijf zal kunnen worden opgericht op basis van de verschillende planten die er zullen worden gekweekt. Ook de vijvers zullen worden uitgedolven om overeenkomstig de principes van de permacultuur de grond te behandelen in overeenstemming met zijn aard (zeer nat!) en om het aantal microklimaten te vergroten. De uitgedolven grond zal dan worden gebruikt om het terrein een tuinarchitectonische vorm te geven en om aarden wallen aan te leggen waarin een aantal 'vacantiechalets' gedeeltelijk zullen worden ingebouwd. Andere ecologische bouwtechnieken zullen worden aangewend om een verscheidenheid van types van chalets tot stand te brengen.

Duurzame manier van leven en werken in practijk

Plants For A Future (PFAF) is een organisatie zonder winstoogmerk die een project in het kader van onderwijs en onderzoek omvat (menslievende instelling nr. 1057719) en een arbeiders co&peratieve.

Het project verschaft informatie omtrent meer dan 6.700 eetbare en ook anders nuttige planten die in een gematigd klimaat kunnen worden gekweekt. PFAF kweekt ter plaatse ook zelf meer dan 1.500 soorten van planten en kan veel van die planten leveren, allemaal gekweekt zonder gebruik te maken van scheikundige meststoffen, sproeistoffen of dierlijke producten.

PFAF is tot stand gebracht in 1989 op een terrein van ongeveer 11 ha te Penpol, dichtbij Lostwithiel, en heeft nu een bijkomende plaats gevonden waar het project kan groeien en bloeien en zijn volle mogelijkheden bereiken. Het wil een model worden voor een gevarieerde aanwending van landelijke grond door een duurzame en geïntegreerde ontwikkeling op het gebied van economie en huisvesting - een plaats waar zowel kan worden geleefd als gewerkt in harmonie met de landelijke omgeving.

Hierna volgen details omtrent de elementen die de kern vormen van het project van Plants For A Future.

Het verschaffen van informatie omtrent planten en deskundigheid.

Informatie: de gegevensbank van PFAF omvat meer dan 6.700 soorten van eetbare en ook andere nuttige planten die buiten kunnen worden gekweekt in gematigde klimaten.
Onderzoek: opzoekingswerk in bibliotheken, bezoeken aan tuinen, planten kweken en selectie van planten zijn een deel van een lopend onderzoeksprogramma betreffende de duurzame teelt en aanwending van een grote verscheidenheid van planten.

Kweken en verschaffen van planten

De demonstratietuin: PFAF kweekt reeds veel meer dan 1.500 verschillende soorten van planten op het terrein in Cornwall. 'The Field' is ieder weekend open voor het publiek en veel mensen bezoeken nu het project.
Verspreiding van de planten: er wordt verwacht dat de verkoop van planten de voornaamste bron van inkomsten voor het project zal zijn. De planten zullen aan zo veel mogelijk mensen ter beschikking worden gesteld.

Een ecologische gemeenschap in het eerste eco-gehucht van Engeland.

Om een zinvolle verkenning van een duurzaam landelijk leven mogelijk te maken moet het project direct betrekking hebben op duurzamer vormen van menselijke vestigingen.

De bijzonderste doelstellingen van de gemeenschap zijn de volgende:

- actief steun verlenen aan PFAF, zowel de menslievende instelling als de arbeiders co-peratieve;
- op het ecologisch vlak veganisch zijn en op een organische en duurzame manier in de eigen behoeften voorzien.

Het project wil ook moeilijke kwesties aanpakken, zoals: mogelijkheid voor betaalbare huisvesting op het platteland, landelijke economische ontwikkeling en scheppen van werkgelegenheid. De gemeenschap zal veel werk maken van:

- ecologische renovatie en bouwen met ontwerpen van duurzame infrastructuur;
- duurzame tewerkstelling en economische activiteit;
- ecologisch beheer van grond- en oppervlaktewater, rioolwater en afvalproducten;
- gebruik en opwekking van duurzame energie;
- de ecologische gemeenschap als een actief deel van de ruimere gemeenschap.

Alhoewel er geen strakke richtlijnen zijn, streeft het project ernaar om aanvankelijk ongeveer 20 inwoners te omvatten, met de bedoeling dat het eco-gehucht, naarmate het zich ontwikkelt en tot rijpheid komt, kan aangroeien tot ongeveer 100 inwoners.

Fysische criteria voor de standplaats

- een geschikt microklimaat dat wellicht in Zuid-Devon of Cornwall voorhanden is;
- aanvankelijk 20 tot 40 ha, mogelijk meer;
- relatief gemakkelijke bereikbaarheid voor bezoekers en mogelijkheden tot vervoer van planten over de weg, via het spoor, enz.
- grond: eigen watervoorziening, volwassen bos, relatief laag gelegen, enige beschutting tegen de wind, verschillende soorten van hellingen, hoofdzakelijk op het zuiden gericht, toegang tot water dat aan de getijden onderworpen is;
- gebouwen: huis, 2 of meer paviljoenen en bijgebouwen, met mogelijkheid om uit te breiden, ruimte om cursussen te geven, workshops, groene kermissen, tentoonstellingen, enz.

Elementen van het eco-gehucht

De volgende elementen maken deel uit van de eerste fase:

- aanvankelijk woonruimte voor ten minste 20 mensen;
- ruimte voor tewerkstelling, met inbegrip van een plantenkwekerij en bureau;
- een informatiecentrum, met inbegrip van lokalen voor cursussen en workshops;

- accommodatie voor deelnemers aan cursussen en ruimte om te kamperen;
- een compost- en recyclageproject gericht op de ruimere omgeving.

Bronnen van inkomsten

- Verkoop van planten: verzonden met de post of af te halen op de kwekerij.
- Toerisme: open-deurdagen, verblijf gedurende vooraf bepaalde weekends, enz.
- Vrienden van Plants For A Future: mensen die PFAF willen steunen.
- Diensten voor Informatie en Advies: raadpleging en onderzoek.
- Onderwijs en Training: verschillende cursussen, workshops en activiteiten.
- Composteren voor de ruimere omgeving: PFAF zal voorstellen om een lokaal compostproject op te zetten.
- Ambachtelijke bezigheden op basis van planten: gebruik van plaatselijk gekweekte planten.
- Verkoop van voedingswaren, caf é en verschaffen van maaltijden: producten ter plaatse gekweekt of afkomstig van elders.
- Speciale producten: organische/ethische geneeskundige en kosmetische producten.

De bestaande en voorgestelde mogelijkheden om inkomsten te verwerven maken deel uit van een vijf- tot tienjarenplan om het project te ontwikkelen. Dit is fundamenteel voor de leefbaarheid en de duurzaamheid van een ecologische gemeenschap.

Verwerving van fondsen

Een aantal mogelijkheden worden onderzocht om op korte termijn fondsen te verwerven. Een paar ervan - er zijn er meer - worden hierna vermeld:

- de Triodos Bank (vroeger Mercury Provident) heeft reeds blijk gegeven van veel belangstelling om in de mate van het mogelijke te financieren;
- het Centrum voor Alternatieve Technologie heeft 1 miljoen Pond samengebracht door uitgifte van aandelen, na een oproep tot 'groenen' en anderen;
- benefietconcerten: PFAF heeft contacten met verschillende bands en uitvoerders waarvan is geweten dat zij dit soort van projecten willen steunen.

Voorbeelden van andere geslaagde, 'kleine' projecten

Er is een groeiend aantal kleine projecten waarvan het succes is aangetoond, zowel vanuit een conventioneel als vanuit een alternatief standpunt en veel van deze projecten worden gesteund door de lokale overheid.

Enkele voorbeelden: de Brickhurst Farm in Kent; een project rond permacultuur en huizen met dakbedekking in aarde, dichtbij Newark-on-Trent; de Springfield Community Gardens in Brandford; Tinkers Bubble en Turners' Field in Somerset en het Centrum voor Alternatieve Technologie in Noord-Wales.

PFAF kan op nationaal vlak een belangrijke toevoeging zijn aan de reeks projecten die op een actieve manier realistische mogelijkheden voor een duurzame levenswijze onderzoeken. (Enkele voorbeelden van andere ecologische dorpen zijn te vinden op de Eco Village Information Service)

Toepasselijkheid op nationaal en op wereldvlak.

Het concept van Plants For A Future is zowel nationaal als wereldwijd toepasselijk, in het bijzonder in streken met erge degradatie van het milieu, naast gebrek aan voeding en mislukkingen van de landbouw.

Lokale projecten, verbonden in een nationaal overkoepelend project, zouden een eco-vestiging moeten omvatten met een kwekerij in de vorm van een coöperatief gemeenschappelijk bedrijf, geconcentreerd op bv. de 200 of 300 nuttigste planten; deze zouden veelal eigen moeten zijn aan de streek. De ontwikkeling van een internationaal netwerk van 'Planten voor een Toekomst' is totaal verenigbaar met de internationale en lokale doelstellingen van Agenda 21.

Samenvatting van de doelstellingen van het project

Bijdragen tot de ontwikkeling van het publiek door het bevorderen van ecologisch duurzame, veganisch-organische land- en tuinbouw in al zijn aspecten; met onderzoek verricht door de arbeiderscoöperatieve en promotie en bekendmaking van de resultaten van het onderzoek door de menslievende instelling met een opvoedende taak.

Samenvatting van de objectieven van het project:

1. Verzamelen en verspreiden van informatie omtrent de nuttige eigenschappen van planten ten voordele van het publiek.
2. Verzamelen en kweken van een ruime collectie nuttige planten en ze voor een ruim publiek beschikbaar stellen.
3. Onderzoek verrichten naar en experimenten uitvoeren met verschillende methodes van duurzame, veganisch- organische land- en tuinbouw en verspreiden van de opgedane kennis ten voordele van het publiek.
4. Verbeterde variëteiten ontwikkelen van deze nuttige planten en geschikte technieken vinden om deze planten te gebruiken en te verwerken.
5. Aantonen dat door middel van plantaardige producten op een efficiëntere en duurzamere manier in de menselijke behoeften kan worden voorzien, zonder gebruik te moeten maken van dieren.
6. Een levenswijze bevorderen die geen mensen, dieren of het milieu uitbuit.
7. Optreden als een raadgevende groep ten einde de realisatie van de bovenvermelde doelstellingen te bevorderen. PFAF wil ook een verblijfplaats verschaffen aan een ruime verscheidenheid van schepselen waarvan niet in alle behoeften aan voedsel, zekerheid en bescherming kan worden voldaan door de conventionele landbouw.

Plants For A Future in het zuidwesten

Dit document schets het concept van Plants For A Future. De uitbreiding van het project naar een tweede standplaats is een deel van een ontwikkelingsplan voor een termijn van 5 tot 10 jaar. Dit zal een bedrijfs- en handelsstrategie omvatten, met vooruitzichten omtrent inkomsten en uitgaven en tevens een ontwikkelingsplan voor het eco-gehucht.

Het project van Plants For A Future zoekt nu actief individuele personen en organisaties, alsook lokale overheden en andere partners die willen en kunnen deelnemen aan de ontwikkeling van het project. Hiervoor zal een visie nodig zijn en een verbintenis om in hun streek te werken in de richting van een duurzame ontwikkeling.

Indien u meer informatie wenst of betrokken wenst te worden bij de huidige ontwikkeling en realisatie van het project van Plants For A Future, vraag dan a.u.b. schriftelijk aan PFAF het eco-village pakket. U kan ook contact opnemen met een van de volgende personen:

- Ken, Plants For A Future, The Field, Penpol, Lostwithiel, Cornwall. PL22 0NG. Telefoon: 01208-873554.
- Steve Charter, Environ/Working With Nature, Hales, Heath Cross, Whitestone, Exeter, Devon. EX 2HL. Tel: 01647-61192, Fax: 01647-61729, e-mail: fresh-wwn@mail.eclipse.co.uk

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Andere relaties

- Architecten Gale & Snowden voor het visitors centre (bezoekerscentrum) en ander gebouw op het terrein.
- Eco Village Information Service. Andere ecologische dorpen over de wereld verspreid.

Een paar verdere relaties met ecologische dorpen zijn te vinden op de main links page.

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Plants for a Future
A resource centre for edible and other useful plants

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Pioneer Species - Re-establishing Woodland

We hear lots of reports about the destruction of the tropical rainforests, yet few people seem to realise that huge areas of Britain were deprived of their tree cover many centuries ago. It seems difficult to imagine when you travel in the countryside nowadays, but until humans arrived in Britain 97% of the country used to be covered in forest!

Forest clearance began with the need for fuel coupled with the desire for grazing and arable land as humans turned from hunter/gatherers to farmers. It gradually gathered pace as the human population grew and the need for wood increased, firstly for construction, ship building etc. and later for fuelling the industrial revolution.

With modern machinery it takes just a few minutes to chop down a tree that might have been growing for several hundred years. Remove all the trees in an area and it can become very difficult for the trees to re-establish themselves, especially if the land is exposed such as near the coast or at higher elevations. Yet trees are the natural vegetation for almost all of this country and without them we will lose much of our wildlife as well as causing environmental destruction in the form of soil erosion, flooding etc.

In the winter of 1990 - 1991 we planted out almost 15,000 native trees on a very windswept site in Cornwall. These trees in general have grown away satisfactorily, if rather slowly. By the end of 1996 they tended to average about 1.5 metres in height. However, there were huge differences between the different species with some still less than 1 metre tall and, at the other end of the scale, others were more than 5 metres tall.

Seeing these huge differences set me thinking about the way we were attempting to restore the tree cover on this site. Talking it over with a visiting Australian who designs permaculture sites in Australia and South America, I came to understand a little more about putting permaculture ideas into practice.

In conventional gardening there are certain species of plants just sitting there waiting to invade our freshly turned soil. These plants are either aggressively self-sowing, or they have aggressive root systems, or even worse they have both attributes. We call them weeds, but these are natures pioneers and some of her strongest survivors. Many of these plants are annuals or herbaceous perennials, and perhaps their seeds have been laying dormant in the soil for many years, buried too deep to be able to germinate. Digging the soil will have bought some of these to the surface where the light will stimulate germination. Others of these weeds will have very light seed that is carried by the wind and so can travel quite large distances in their search for suitable conditions to grow in. These plants will soon clothe the bare soil, protecting it from erosion and starting the process of regenerating it to its natural, or climax, vegetation. If you leave almost any land alone for sufficient time in Britain you will end up with a woodland growing there.

My Australian friend was taking advantage of this by deliberately introducing these pioneer species into his designs. However, instead of using these annuals and perennials, he would short-circuit the system by using those trees and shrubs that have the ability to invade land and act as pioneers. For example, if he was taking over a barren site, he would immediately plant it out with fast-growing leguminous trees. In his part of the world, these trees could grow 6 metres or more tall within 3 years of sowing the seed! By planting them fairly densely (at about 5 metre spacing), by the end of the first growing season he would have a mini woodland already 2 metres or more tall. Then, amongst these legumes he would start to plant out those species he really wanted to grow on the site. These plants would immediately start to benefit from the protection and the nitrogen that the legumes were providing.

By the end of the third year the new plantings would be established and growing away nicely. The site would be getting rather crowded and so he would start to cut down some of the fast-growing legumes, using the wood for fuel, construction or whatever and shredding everything that was left to be used as a mulch.

This is a marvellous method of restoring land to tree cover, especially in the more difficult situations where most woodland trees will struggle to survive, and it can also be used on a smaller scale to provide nourishment and protection for herbaceous plants. There are many species suitable for this in Britain, though don't expect the same rates of growth that can be achieved in warmer climates.

When deciding on which species to use as pioneers, it is important to take all the characteristics of your land and the way you intend to use it into account, and also to understand the habits of the different pioneer plants. Looking firstly at the habits of the plants, species such as the alders (*Alnus species*) and sea buckthorns (*Hippophae species*) are very good companion plants that will enrich the soil around them and improve the growth of neighbouring plants. Thus these species are ideal for using in the way described above and can be planted in quite large quantities on the site. However, other species such as the poplars (*Populus species*) and willows (*Salix species*) have very vigorous root systems that will compete strongly with other plants. When using these as pioneers it is better to plant them in a more compact way such as a hedge or shelterbelt - this will soon provide shelter on the land for your other trees without creating competition problems. Other species, such as the sycamore (*Acer pseudoplatanus*) are more neutral in their effect on other species and can be used in small quantities dotted around the site, thus ensuring plenty of diversity. When detailing the species to be used as pioneers, they will be divided into these three sections.

The second important factor to take into account is the land and its intended use. For example, if you have a very poor soil then you are going to want to concentrate on species that will improve the soil condition - these will generally be those plants in the first section below. If you land is on a slope, and erosion is a problem, then you will need to look for those species with vigorous root systems. If you are close to the coast then you will probably need plants that can tolerate maritime exposure. If your land is quite high up then you might need to be looking for those species that will tolerate cold, strong winds. There are many other factors to take into account here, but space does not allow it in this leaflet. In the end it is up to your own judgement of the site - try not to rush this judgement but give yourself time to be with the land and come to understand its nature. If you feel that you do not have enough experience to do this, then try to enlist the help of a more knowledgeable gardener in your area - preferably someone with an understanding of permaculture.

Detailed below are a few of the trees and shrubs that we have found to make good pioneer species. This list is by no means exhaustive, but it does indicate the potential that exists.

The soil enrichers

(Those species that can be used in quantity and interplanted with your other trees.)

Alnus species. The alders are perhaps the best species that can be used as pioneers - they really have everything going for them. They are fast-growing even in severe exposure - we have had some species reach 6 metres in height within 5 years of sowing the seed. They enrich the soil with nitrogen and their heavy leaf-fall in the autumn greatly increases the humus content of the soil. They are short-lived, and their seedlings are unable to establish themselves in shady conditions - thus they will never hang around to make a nuisance of themselves once they have done their job. Any members of the genus can be tried, most of which require a moist to wet soil if they are to really thrive. Those species we especially recommend are:-

A. cordata. The italian alder tolerates drier soils than other members of the genus, it also holds on to its leaves later into the autumn, thus giving extra protection from autumn gales.

A. glutinosa. Our native alder is not as fast growing as some other members of the genus, but it can still reach 4 metres in height within 5 years. Being native, it has the added advantage of being more useful for wildlife. The alder is also a superb source of dye materials, with brown, red, green, pink, yellow and cinnamon hues being obtained.

A. rubra. The red alder grows amazingly quickly, even in extreme exposure. We have plants that have reached 7 metres in height within 5 years.

Hippophae species. This is another genus that is very useful for re-establishing woodland. The plants are, in general, fast-growing though they may take a year or two to get going. They enrich the soil with nitrogen and will succeed even in extreme maritime exposure. In addition their fruit is incredibly nutritious and has been shown to have a wide range of medicinal applications, including in the prevention and treatment of cancer. Many members of this genus sucker very freely and so are not suitable for small areas, though this suckering habit means that the plants are ideal for stabilizing sandy soils or steep slopes. This makes them ideal plants for providing shelter near the coast and they are some of the most wind-resistant species that we grow. For more information see the Plant Portrait about the plant. We would particularly recommend the following two species:-

H. rhamnoides. Our native sea buckthorn grows wild by the coast. The fruit is very sharp, but is exceedingly rich in vitamin C and makes an excellent preserve.

H. salicifolia. The willow-leaved sea buckthorn is one of my most favourite plants. It is not hardy in the colder areas of the country, but where the climate suits it the plant will grow quickly and provide very good yields of fruit. This fruit is not as sharp as the native sea buckthorn, though it is still a strong lemon flavour. It can also be picked from middle August and will hang on the tree until early winter.

Lupinus arboreus. The tree lupin comes from California and is only hardy in the milder areas of the country. In areas where it is suited, it makes an excellent pioneer species for the smaller garden. It grows about 1.5 metres tall, and will do that in its first year from seed. Very tolerant of maritime exposure, it will quickly create sheltered conditions to allow less tolerant plants to become established, and will also feed them with some of the nitrogen formed on its roots by bacteria. The tree lupin will grow well on very poor sandy soils and its root system will help to bind the soil together, preventing erosion. The plant is quite short-lived - it flowers so freely that it quite literally flowers itself to death. However, it also self-sows freely if the seed is in a sunny position, so it will maintain itself until such time as the other plants are established and shade it out.

The neutral species

(Those which can be interlanted in smaller quantities to add diversity.)

Acer pseudo-platanus. sycamore has gained a bad reputation as an aggressive weed tree that can prevent native trees such as oak from maintaining themselves. However, recent research has shown that, in the longer term of 200 years or more, sycamore is not really such a bad species and, indeed, when we planted our native woodland the Forestry Commission insisted that we put in 10% sycamore to help the native species.

One real drawback with using this species as a pioneer is that it does not know when to go away and will continue to sow itself around long after the woodland has become established. However, it is still a useful species to use in the right situations, such as near the coast and does have a number of other uses including the sap which can be used to make a sweet drink and the leaves which impart a sweet flavour to food if they are wrapped around the food when baking.

The wood is also of reasonable quality and so perhaps the best way of using this species as a pioneer is to grow it for 10 years or so until the other trees are getting going, and then to gradually remove it over the next few years and utilize the wood.

Betula species. The birches are, in general, fast-growing trees that often invade bare land. They will withstand considerable wind exposure, but do not tolerate the more heavily exposed areas, becoming severely wind-pruned in such situations. Like the alders, they have the benefit of not hanging around too long once they have done what is asked of them, and they do not regenerate well in the shady conditions of a woodland. Unfortunately they do not have all the other benefits of the alder, but they can be grown in considerably drier conditions than the alder as well as tolerating areas with periodic inundation. Another disadvantage of the birches is that their thin branches are blown about in the wind and can act as whips if they are within reach of other trees, this can cause quite noticeable damage to these trees.

There are many species in this genus, and any of those that reach tree-size can be tried as pioneer plants, but we would especially recommend the native species, *B. pendula*, the silver birch, and *B. pubescens*, the downy birch. Apart from being superb trees for wildlife, these two very similar species also have a very wide range of uses. These include the sap, which can be taken off in the spring and used to make sweet drinks, beer or vinegar. The bark is very weatherproof and can be used to make drinking vessels, roofing tiles and so forth. A tar-oil is obtained from the white bark in spring and has fungicidal properties and is also used as an insect repellent and a shoe polish. The young branches are very flexible and are used to make whisks, besoms etc. They are also used in thatching and to make wattles. The leaves are a good addition to the compost heap, helping to improve fermentation. This list is far from exhaustive, but does give an indication of the value of these species.

Sambucus nigra. The elder is a wonderfully useful native plant for almost any situation. Whilst it will look rather battered, it will even grow in severe exposure and provide enough shelter to help the woodland trees become established. Unlike many other pioneer species, it will not know when to say goodbye, but will hang around in small numbers, especially along the edges of the woodland. This is a good thing, however, because it does have so many uses both for us and the many other creatures that use it. Just a few of its uses include the fruit which is edible, though few people could enjoy it raw. However, it makes a superb preserve and is widely used for making wine. The flowers can also be used in wine-making or as a flavouring in cooked fruits etc., though I prefer eating them raw. So long as you make sure to remove all the insects that are likely to be lurking in the flowers, they make a very refreshing munch on a summers day.

There are so many non-food uses of this plant that it is hard to know what not to include here. Therefore, because of lack of space I am going to restrict myself to just one. If, like me, you are the sort of person who, when in a group of people are always the first one to be bitten by midges or horseflies then this is the plant for you. Simply rub the leaves over areas of bare skin and the biting beasties will leave you alone for 2 hours or more - then simply top up the dose. You might find that you have a somewhat unique aroma, but you will only get the very occasional bite from a midge that has lost its sense of smell.

Sorbus species. Several members of this genus make excellent pioneer species. They are in general very wind resistant, though not totally happy in strong maritime exposure when the winds often carry salt. They are also quite tolerant of soil types, though do not like drought conditions and will fare badly in dry soils. Those species we particularly recommend are:-

S. aria. Our native whitebeam can reach 12 metres in height and is an excellent pioneer on chalk soils, though it is also quite tolerant of other soil types. It is also very tolerant of maritime exposure. The fruit can be eaten raw or cooked - it makes a nice jam though most people would not want to eat very many raw. However, it you blett it, which involves storing the fruit in a cool dry place until it is almost but not quite going rotten, then the fruit develops a delicious taste, somewhat like a luscious tropical fruit.

S. aucuparia. Another native, the mountain ash grows to 15 metres tall and succeeds at higher elevations than any other British tree and so is an excellent pioneer for upland areas. The fruit is very acid and few people would be able to eat more than one - though it makes an excellent jam. We use this fruit mainly for another purpose - the birds love it and will eat it in preference to apples, with which it ripens at the same time, and so this is a very good plant to grow in or near orchards.

S. decora. The American showy mountain ash grows to about 10 metres and does well on poor soils. Its fruit is slightly better than *S. aucuparia* and we occasionally eat it raw.

The greedy species

(Those which have aggressive tendencies and are best used in more compact areas such as hedges.)

Populus species. Many species of poplar are fast growing and make good pioneers, though most members of the genus will not thrive in very windy sites and all of them are quite aggressively rooting and so do not help to feed the soil or other plants growing in it. They are also rather large trees and many of the species will sucker freely, so they are not suitable for smaller gardens. You need to be careful when planting poplars near buildings, especially in clay soils, because their root systems can dry the soil and cause subsidence. Poplars usually require a rich soil if they are to thrive and will not do well in drier conditions. Those species we recommend include:-

P. alba. The white poplar will succeed in drier and poorer soils than most members of the genus, and is also quite tolerant of maritime exposure, though it dislikes strong cold winds.

P. balsamifera. The balsam poplar scents the air for quite a distance in the spring as its aromatic buds expand. These buds are often used medicinally, their aromatic oils being especially useful in the treatment of chest complaints. In sheltered conditions, try the hybrid 'TT32' which can grow 3 metres or more in a year!

P. tremula. The aspen is a native species which will grow in poorer soils than most poplars and is also quite wind tolerant. It will do very well in cold wet soils and, if you get the sub-species *P. tremula davidiana* it will also succeed in very alkaline conditions. It does sucker freely, however, and so can become a bit of a nuisance.

Rubus fruticosus. Our native blackberry is a species that very often invades cultivated land, and will soon gain a strong hold if left alone for a few years. It usually arrives first as a seed in the droppings of birds or other creatures and then rapidly spreads by forming new roots wherever the tips of the shoots touch the ground. Almost before you know it, there will be dense, impenetrable thickets that spread 2 metres or more in every direction each year. As long as the trees you want to grow there are fairly vigorous, and are allowed to get their heads above the blackberries, then they will normally thrive.

Whilst I would not normally recommend this species if you are trying to create an edible woodland garden, it can be very useful when establishing a native woodland. The dense growth and prickly stems will protect the trees from the predations of deer and rabbits and, eventually, the maturing trees of the woodland will cast lots of shade on the blackberries which, together with root competition, will greatly reduce the vigour of the blackberries and even eliminate them in places.

Most people know that blackberry fruits are edible, amongst the plants other uses you can eat the young shoots in spring and can also make quite a nice tea from the dried leaves. A fibre obtained from the stems has been used to make twine.

Salix species. There are many species of willow that can be used as pioneer plants - apart from the first one listed below we will only mention the native species here. If you do not live in Britain then you would be advised to look at your own native members of this genus in preference to those listed here. Willows are, in general, fast growing trees or shrubs and several species are very tolerant of extreme exposure. They do require a rich soil, though, and will not be very happy unless there is plenty of moisture. Like many other pioneer plants, their seeds are very light and can be carried for considerable distances so they will often find their way to bare sites. They are also quite short-lived, and will not regenerate well once there is shade caused by the developing woodland. Their main drawback is their extensive root system. Whilst this can be an advantage on slopes where the roots will hold the soil together and prevent erosion, there will also be considerable competition with other plants for nutrients.

All the willows mentioned here have similar uses - that is their stems are very pliable and can be used for making baskets etc. Also, the inner bark contains substances from which the pain-killer aspirin is made. Instead of buying in this drug, you can simply make a tea of the bark - but check with a good herbal book, or a herbalist, before doing this to ensure you get the dosage right.

One of the main advantages of using the willows is their cheapness. They are very easy to propagate by cuttings - you simply stick a bit of stem in the soil and it will root and grow away like no-ones business. Thus you only need to buy a few plants and then take cuttings every winter in order to increase your stock. The species we would most recommend include:-

S. 'Bowles hybrid'. This plant is a male cultivar, and so will never be able to regenerate unless you take cuttings. It grows incredibly quickly to its maximum height of 5 metres, and even in the strongest maritime exposure and will be providing good shelter in its third year.

S. alba. The white willow will grow quite rapidly and can eventually reach 20 metres or more in height.

S. aurita. The eared sallow is a very tough creature that is often the first woody plant to invade wetter land and is also useful in reclaiming poor soils. It will only grow up to 3 metres tall, but is exceedingly useful, especially when encouraging natural regeneration of native woodland. Unlike the other willows mentioned here, the stems are of little use for basket making. *S. caprea*, the goat willow growing up to 10 metres tall, and *S. cinerea*, the common sallow growing up to 5 metres tall, are very similar species with the same uses.

S. pentandra. The bay willow will grow up to 10 metres tall.

S. purpurea. The purple willow will reach about 5 metres tall and is a very good basket willow.

S. viminalis. The common osier will reach 6 metres in height and can provide an abundance of basket-making material.

You can also see the Woodland Garden Plants leaflet for ideas of things to plant to once you get your woodland going. Or look at our Database UK, US for more information about any of these plants.

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A resource centre for edible and other useful plants

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Plant portrait - Hippophae salicifolia

This article originally appeared in the August 1996 edition of the Friends of PFAF newsletter.

When we first moved to Cornwall, one of the first plants I put out was a small group of Hippophae salicifolia. They were about 60cm tall and looked rather lost in the middle of this large empty field. A month later, the rabbits had done their worst and each of the plants had lost most of their bark. I thought that this was the death-knell for them, but put some protection around them just in case.

Along came the spring and the plants grew away as though nothing had happened to them. By the end of their first summer they were about 1.5 metres tall and looking wonderful. They have managed to keep up this same rate of growth in subsequent years and the largest is now over 6 metres tall and really looking like a tree. The plants have been impervious to the frequent strong winds we get here and have also been unaffected by droughts or exceedingly wet weather.

They also look quite beautiful. Of a very uptight habit, their deciduous leaves have a somewhat silvery hue and look rather like the leaves of a willow tree. They fruited for the first time this year. Two of the three plants have turned out to be female and the other is a male (what wonderful luck) and one of the females had a particularly heavy crop.

The fruit is rather small, about 3mm in diameter, and is very fiddly to harvest. It is carried right next to the branches and these branches are often armed with large thorns. The fruit itself tastes like a sharp lemon, which is not to everyone's taste raw. Our 16 month old son loved it and ate it in quantity. He was frequently asking us to pick it for him. If you cannot stomach much of it raw, the fruit makes a superb juice or can be cooked to make jams and other preserves. What makes this fruit rather special is that it is quite possibly the most nutritious fruit that can be grown outdoors in Britain. It is very rich in vitamins (especially C) and minerals and also contains essential fatty acids. These fatty acids have been shown to prevent cancer when taken as part of the diet and experiments in Sweden are indicating that they can be used in treating cancer. A superb lotion for treating burns can be made from the fruits and also from the young twigs. This lotion is said to prevent scarring.

The tree is very vigorous and also enriches the soil with nitrogen. It has a very vigorous root system and has been planted on steep slopes to stabilize the soil. It also produces suckers freely so is not a plant to grow in a small space. If you have room for it, however, then it is a very worthwhile plant to grow. It needs a position in a well-drained soil with at least a reasonable amount of sun, but apart from that it is not really fussy.

Suckers from these plants are available from our catalogue.

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Readers Comments:

Plant portrait - Hippophae salicifolia

Rich (webmaster@pfaf.org) Sun Feb 11 14:09:02 2001

Another page with info on this plant can be found at http://www.doityourself.com/garden/fruits/seaberry.htm

This comment has also been added to: Hippophae salicifolia.

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Hippophae salicifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Willow-leaved sea buckthorn	Family:	Elaeagnaceae
Author:	D. Don.	Botanical references:	11, 51, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Alluvial gravel, wet landslips and riversides to 3500 metres[51].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	salicifolia = Salix leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India

Physical Characteristics

A decidious tree growing to 15m at a fast rate. It is hardy to zone 8 and is not frost tender. It is in flower in April, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[2, 46]. A very nutritious food, and possibly the most nutritious fruit that can be grown in temperate climates. It is very rich in vitamins, especially vitamin C, plus minerals and bioflavonoids, and is also a source of essential fatty acids[214]. It comes ripe in late summer, though it can be eaten for about a month before this, and will hang on the tree until mid-winter, by which time the flavour has become much milder, though it has also become very soft and difficult to pick[K]. We and many of our visitors really like this fruit, however the flavour is somewhat like a sharp lemon and a lot people find this too acid for them[K]. It also makes a good salad dressing[K]. The fruits of some species and cultivars (not specified) contain up to 9.2% oil[214]. The fruit is used for making preserves[105, 183]. It is being increasingly used in making fruit juices, especially when mixed with other fruits, because of its reputed health benefits[214]. The fruit becomes less acid after a frost or if cooked[74].

Medicinal Uses

Disclaimer

Cancer; Cardiac; Poultice.

The tender branches and leaves contain bio-active substances which are used to produce an oil that is quite distinct from the oil produced from the fruit. This oil is used as an ointment for treating burns[214].

A high-quality medicinal oil is made from the fruit and used in the treatment of cardiac disorders, it is also said to be particularly effective when applied to the skin to heal burns, eczema and radiation injury, and is taken internally in the treatment of stomach and intestinal diseases[214].

The fruit is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Fuel; Pioneer; Soil stabilization; Wood.

The plant is very fast growing, even in areas exposed to maritime winds, and it makes an excellent pioneer species for providing shelter and helping to establish woodland conditions. The plant is very light-demanding and so will eventually be shaded out by the woodland trees, thus it will never out-stay its welcome[K].

The trees have an extensive and vigorous root system and sucker freely once established. They are thus excellent for stabilising the soil, especially on slopes, and are often planted in the Himalayas to prevent land slips on the mountain slopes and create conditions for the re-establishment of woodlands[K].

The wood is very tough and hard - it can be used for many purposes including wheel hubs and other applications where toughness is essential[K]. It is also used for fuel[146].

Cultivation details

Succeeds in most soils so long as they are not too dry[200]. Grows well by water[1, 11]. A fast-growing and very wind-resistant tree, it is an excellent pioneer species for re-establishing woodlands[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

Members of this genus are attracting considerable interest from breeding institutes for their nutrient-rich fruits that can promote the general health of the body (see edible and medicinal uses below)[214].

The deeply cleft bark favours the growth of epiphytes[146].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a sunny position in a cold frame[78]. Germination is usually quick and good although 3 months cold stratification may improve the germination rate. Alternatively the seed can be sown in a cold frame as soon as it is ripe in the autumn. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a greenhouse for their first winter. Plant out in late spring into their permanent positions. Male seedlings, in spring, have very prominent axillary buds whilst females are clear and smooth at this time[78].

Cuttings of half-ripe wood, June/July in a frame[200]. Difficult[113]. This is the easiest method of vegetative propagation[214].

Cuttings of mature wood in autumn[200]. Difficult[113]. The cuttings should be taken at the end of autumn or very early in the spring before the buds burst. Store them in sand and peat until April, cut into 7 - 9cm lengths and plant them in a plastic tent with bottom heat[214]. Rooting should take place within 2 months and they can be put in their permanent positions in the autumn[214].

Division of suckers in the winter. They can be planted out direct into their permanent positions and usually establish well and quickly[K].

Layering in autumn[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative fruits
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Friends of PFAF
- Plant portrait - Hippophae salicifolia
- PFAF: Fruit - Food of the Gods
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF Plant Catalogue (G-L)
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

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Plant portrait - Hippophae salicifolia

Rich Sun Feb 11 14:09:02 2001

Another page with info on this plant can be found at http://www.doityourself.com/garden/fruits/seaberry.htm

Cross references: *Web-pages: Plant portrait - Hippophae salicifolia*.

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Plants For A Future: Database Search Results

Hippophae salicifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Willow-leaved sea buckthorn	Family:	Elaeagnaceae
Author:	D. Don.	Botanical references:	11, 51, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Alluvial gravel, wet landslips and riversides to 3500 metres[51].		
Plants For A Future Rating (1-5):	5		

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	salicifolia = Salix leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India

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Edible Uses

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Other Uses

Fuel; Pioneer; Soil stabilization; Wood.

The plant is very fast growing, even in areas exposed to maritime winds, and it makes an excellent pioneer species for providing shelter and helping to establish woodland conditions. The plant is very light-demanding and so will eventually be shaded out by the woodland trees, thus it will never out-stay its welcome[K].

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The wood is very tough and hard - it can be used for many purposes including wheel hubs and other applications where toughness is essential[K]. It is also used for fuel[146].

Cultivation details

Succeeds in most soils so long as they are not too dry[200]. Grows well by water[1, 11]. A fast-growing and very wind-resistant tree, it is an excellent pioneer species for re-establishing woodlands[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

Members of this genus are attracting considerable interest from breeding institutes for their nutrient-rich fruits that can promote the general health of the body (see edible and medicinal uses below)[214].

The deeply cleft bark favours the growth of epiphytes[146].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a sunny position in a cold frame[78]. Germination is usually quick and good although 3 months cold stratification may improve the germination rate. Alternatively the seed can be sown in a cold frame as soon as it is ripe in the autumn. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a greenhouse for their first winter. Plant out in late spring into their permanent positions. Male seedlings, in spring, have very prominent axillary buds whilst females are clear and smooth at this time[78].

Cuttings of half-ripe wood, June/July in a frame[200]. Difficult[113]. This is the easiest method of vegetative propagation[214].

Cuttings of mature wood in autumn[200]. Difficult[113]. The cuttings should be taken at the end of autumn or very early in the spring before the buds burst. Store them in sand and peat until April, cut into 7 - 9cm lengths and plant them in a plastic tent with bottom heat[214]. Rooting should take place within 2 months and they can be put in their permanent positions in the autumn[214].

Division of suckers in the winter. They can be planted out direct into their permanent positions and usually establish well and quickly[K].

Layering in autumn[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative fruits
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Friends of PFAF
- Plant portrait - Hippophae salicifolia
- PFAF: Fruit - Food of the Gods
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF Plant Catalogue (G-L)
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Plant portrait - Hippophae salicifolia

Rich Sun Feb 11 14:09:02 2001

Another page with info on this plant can be found at http://www.doityourself.com/garden/fruits/seaberry.htm

Cross references: *Web-pages: Plant portrait - Hippophae salicifolia*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Hippophae+salicifolia`

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A resource centre for edible and other useful plants

Back to Plants For A Future home page.

Español

Alternative fruits

Britain is a country that can and does grow a wealth of tasty fruits. However, all too often we limit ourselves to just a few well-known kinds, not realizing the vast wealth of other flavours we are missing. This leaflet will look at some of these largely ignored fruits, with the hope of encouraging you to find space in your garden, allotment or whatever where you will be able to grow and experience some of these flavours.

Although we are only going to look at the uncommon fruits that can be grown here, we would also strongly recommend that you grow a range of the more traditional crops. In fact you would be well advised to make sure that have planted at least some of the well known fruits before you even begin to consider some of the unusuals in this leaflet.

So what are the fruits that we will not be looking at? Tree crops such as apples, pears, cherries and plums are discussed in all the many good books on fruit growing, as are the soft fruits such as raspberries, blackberries, red, white and blackcurrants, gooseberries, blueberries and strawberries. There are also several other fruits that are on the edge of their climatic tolerance here, but are none the less dealt with in most good books. These include grapes, figs, peaches and nectarines.

Having eliminated just about all the temperate zone fruits that most people are aware of, what is there left to talk about? A great deal, as I think you will agree after reading this leaflet. All of the fruits we will be looking at here are, in general, of easy cultivation. Unless it says otherwise, they will be hardy in virtually all of Britain, will succeed in most soils of reasonable fertility and will fruit best when grown in a sunny position, though will also do tolerably well in semi-shade. Almost all of them are trees or shrubs and so, with careful planning, it will be possible to grow various other crops with them in order to get better yields from the land and also to conserve and even improve fertility. See our leaflet called Why Perennials for more details on this.

Most of the plants mentioned in this leaflet will not have been selectively bred for heavier yields, or for flavour. None the less I think you will find that on the whole they will yield well, if not excellently, and, although individual tastes differ, I am sure that you will find at least some of the fruits mentioned here to be absolutely delicious. Another benefit of most of the plants mentioned here is that they are in general very hardy creatures and are less susceptible to pests and diseases. One of the problems in the past of selective breeding has been that, as we have selected for flavour and yield, so we have also unwittingly selected for plants that are less resistant to pests and diseases, and are also less tolerant of climatic extremes. Many of the plants mentioned below are much tougher creatures and will survive and fruit bountifully with very little attention from the grower.

The list of plants mentioned below is by no means exhaustive, but it does represent some of our more favourite fruits. I hope you enjoy growing and eating some of them.

Actinidia species.

All members of this genus of climbing plants produce edible fruits, though they do not all do well in Britain. The best known species is *A. deliciosa*, the **Kiwi Fruit**. This is widely sold in British greengrocers, though not many people realize it can be grown here successfully, at least in the warmer parts of the country. If you want fruit that you can pick then you will need to prune the plants to keep them small - if left unpruned they will romp away and can grow to the top of trees 20 metres or more tall! There are two main difficulties with this crop. The first is that, although the dormant plants are quite cold-hardy, the young shoots in spring are very susceptible to frost damage. It is therefore best to grow them on a westerly aspect so that they are protected from the morning sun but still get plenty of warm sunshine. The second problem is that plants are usually either male or female, so you need to grow at least one male plant for every 4 - 5 females in order to get fruit. There are some cultivars that do not need a male for fertilization, though these are said to have inferior fruits. When grown from seed, the vast majority of seedlings are male, so it is best to buy named varieties. *Heywood* is the female form that is most commonly offered, though others can sometimes be found. *Tomuri* is said to be a good pollinator.

Of the other species, probably the best to try in this country is *A. arguta*, the **Tara Vine**. This is even hardier than the Kiwi, its fruit is rather smaller but this is not covered with hairs and so can be eaten without peeling.

Amelanchier species.

This is one of my favourite mid-summer fruits. Although called **Juneberries**, the fruit actually ripens around the middle of July. This fruit is a bit smaller than blackcurrants, is sweet and juicy and has a definite flavour of apples. The main problem with this plant is that it is also a favourite fruit of the birds and so there is a bit of a race as to who gets there first. If you want to eat the fully ripe fruit then you will probably have to use some netting or other protective device. There are many species to choose from, my favourites include:-

- *A. alnifolia*. This is a shrub that rarely grows more than 2 - 3 metres tall in this country and so is relatively easy to protect from the birds. It produces the sweetest and juiciest Juneberries that I have eaten. Once established, this plant will often produce suckers and can in time form thickets.
- *A. alnifolia semiintegrifolia* is a very similar plant to the above, but with smaller fruits that ripen a week or two later.
- *A. laevis* is a somewhat taller species that can reach 9 metres in height.
- *A. lamarckii* grows up to 6 metres tall.
- *A. stolonifera*. This is a relatively low-growing shrub, often no more than 2 metres tall. It can sucker quite freely, though only forms a slowly expanding clump. A very tasty fruit, vying with *A. alnifolia* as my favourite in the genus.

Arbutus unedo

The Strawberry Tree is a delightful evergreen for the garden. The species can grow up to 9 metres tall, though there are cultivars that rarely go above 2 metres. The plant produces beautiful lily-of-the-valley type flowers in late autumn and is particularly eye-catching at this time since it is also ripening the fruit from the previous year's flowering. These fruits do look rather like a strawberry, especially from a distance, but unfortunately do not taste like strawberries. Indeed, many people find them quite bland and the latin name *unedo* means "I eat one [only]" suggesting that they are not a worthwhile food. However, I find them sweet and tasty, though they do have a rather gritty texture. But when you are getting a succulent fruit in November and December you can forgive it a little grittiness. This plant does not do well in the colder parts of the country. It is surprisingly wind-tolerant, however, and grows well near the coast. If you want a dwarf variety, then look out for *Compacta*, *Elfin King* or *Rubra*. (See our Plant Portrait about the plant for more details.)

Berberis species.

All members of this genus have edible fruits, though they tend to be rather acid in flavour and have rather too many seeds. Our native *B. vulgaris* used to be cultivated for its fruit, which ripens in late summer. There was a seedless cultivar, though I do not know if this is still in cultivation (if you know more, then please drop me a line). A deciduous shrub, it grows well in hedgerows, though it is considered a pest in cereal-growing areas because it is an alternate host for a disease of cereals.

My favourite member of the genus is *B. darwinii*. This evergreen shrub can grow to 3 or 4 metres tall and makes an excellent wind-resistant hedge, succeeding even in maritime areas. The fruit ripens in July-August and is adored by the birds. At first it is very acid, but if allowed to fully ripen it loses most of this acidity and has a lovely flavour.

Cornus species.

There are some wonderful fruits in this genus. *C. masi*, the **Cornelian Cherry** is a deciduous shrub that can reach 5 metres or more in height. It produces yellow flowers in midwinter and is particularly attractive at this time. The fruit ripens in late summer and needs to be fully ripe or it is very astringent. There is quite a degree of variability in size and quality of fruit, there used to be special cultivars that were cultivated, but I do not know if these still exist. The very best fruits I have eaten of this species were more than 2cm long and 1.5cm wide, they were lovely and juicy without a hint of astringency. This species can also be grown as a hedge and is quite wind tolerant.

C. kousa, the **Japanese Dogwood**, is a deciduous tree that can grow up to 10 metres tall. It ripens its fruit in late summer, these are the size of very large strawberries and have a succulent flesh with an exquisite flavour. The skin is fairly soft and can be eaten with the fruit, but it does have a decidedly bitter flavour. What I do is to bite a small hole in the skin and then suck out the flesh. It is really like a luscious tropical fruit. The form most often found in gardens is *C. kousa chinensis*, this is said to grow and fruit better than the species, though I have not really noticed much difference.

Crataegus species.

Hawthorns are one of the very best fruiting genera for temperate areas. I will not go into details here because the leaflet Crataegus species - the Hawthorns deals exclusively with these plants. There are many species with delicious fruits, in particular we recommend the following. In general the fruit is about the size of cherries and ripens in late summer:-

- *C. arnoldiana.* A tree to 7 metres tall, the fruit is juicy and sweet.
- *C. baroussana.* A shrub to about 2 metres, the fruit is not quite as nice as the species above. This plant is probably only hardy in southern England.
- *C. douglasii.* Growing up to 9 metres tall, the fruit is similar to C. arnoldiana.
- *C. ellwangeriana.* Up to 6 metres tall, with very similar fruit to C. arnoldiana.
- *C. festiva.* Growing 3 - 4 metres tall, the fruit is one of the best in the genus.
- *C. pensylvanica.* A tall shrub to 9 metres tall, it always seems to produce heavy crops of very tasty fruits.
- *C. schraderiana.* A tree to 6 metres tall, this is one of my favourite fruits. When fully ripe it almost literally melts in the mouth.
- *C. tanacetifolia.* Growing up to 10 metres tall, the fruit is yellow in colour and rather like a very rich apple in flavour.

Diospyros species.

A genus of deciduous trees, the true **Persimmon**, *D. kaki*, is not a reliable fruiter in this country, which is a shame since it is one of the most exquisite fruits it is possible to eat. However, the following species produce similar tasting, if much smaller, fruits:-

- *D. lotus.* The DATE PLUM grows up to 9 metres tall. The fruit does not often ripen on the tree, but if you either leave it on the ground when it falls in October, or harvest it and store it in a cool place such as a garage, it will continue to ripen. Don't eat it until it is squidgy-soft or it will be harsh and astringent.
- *D. virginiana.* The **AMerican Persimmon** can make a massive tree in its native range, though it seldom grows larger than 10 metres in this country. The fruit can be 2cm or more in diameter and is harvested and used in the same way as D. lotus.

Elaeagnus species.

These are dealt with in detail in our leaflet Elaeagnus x ebbingei - a plant for all reasons. If you want to harvest a fresh fruit from your garden in April, then this is the plant for you! The following species are especially recommended:-

- *E. cordifolia.* A shrub growing to about 4 metres tall and wide, it is probably not hardy in the colder areas of the country. This produces the largest and earliest fruits.
- *E. macrophylla.* Grows about 3 metres tall and wide. Not hardy in the colder areas of the country. Selected cultivars have very good-sized fruits.
- *E. x ebbingei.* A very common hedging plant, it can crop prolificly when given suitable conditions.

Fuchsia species.

A genus of deciduous shrubs, though most of them are not very hardy and act more as herbaceous perennials in all but the mildest areas of the country. **Fuchsia** are commonly grown ornamentals, all of them produce edible fruits, though these often have a less than desirable aftertaste. My favourite is *F. splendens* - but this is rather tender and will only succeed outdoors in the mildest areas of the country. It grows best in a shady position and does well even on a north-facing wall. It will succeed in full sun but can look rather burnt in such a position. The fruit is about the size and shape of a baby's finger, it is soft and juicy with a very pleasant slightly acid flavour. If you cannot grow this plant in your area then there are many other hardier forms available. The best thing to do is to try some fruits from plants that you or your friends might already be growing. If you cannot find any you like, try getting hold of the cultivars *Tresco* or *Globosa*.

Gaultheria shallon.

An evergreen shrub to about 1.2 metres tall, it grows well in dappled woodland shade. The **Shallon** requires an acid soil, producing its fruit in the latter half of summer. This is about the size of a blackcurrant, it is pleasantly juicy though does not have a strong flavour. If a strong flavour is what you want, then its diminutive relate, *G. procumbens* might be the plant for you. Another plant for an acid soil and the dappled shade of woodland, it grows only 15cm tall and makes a good ground cover. The fruit ripens over a long period, I have eaten fruits from late summer round to late winter. These fruits are about the size of a large blackcurrant and have a very distinctive flavour that strongly resembles the germolene of hospital waiting rooms! Surprisingly there are a number of people who really like this fruit, I find it acceptable in small doses and it certainly leaves the mouth feeling clean and fresh.

Hippophae salicifolia.

The **Willow-Leaved Sea Buckthorn** is a vigorous large deciduous shrub that suckers freely and so is not suitable for places where space is at a premium. A light-demanding species, it will not fruit well in the shade. A bacteria that lives on the roots fixes atmospheric nitrogen, so this is a plant that helps to fertilize the soil and to feed neighbouring plants. The fruit is only about 5mm in diameter and has a sharp lemon flavour. It cannot be eaten raw in any quantity, but makes an excellent juice, syrup or jam. Recent research has shown that this plant produces the most nutritious fruit yet discovered in temperate zones, regular use can prevent cancer whilst large quantities have been shown to reverse the growth of cancer tumours. The fruit ripens in September and hangs well on the plant - we have picked it as late as early February. (See our Plant Portrait about the plant for more details.)

Morus nigra.

The **Black Mulberry** is fairly well known, but is all too rarely grown for its fruit. A deciduous tree, it can reach 10 metres in height but is usually smaller. The fruit ripens in late summer, it looks rather like a large raspberry, is very juicy and has a refreshing acid flavour.

Myrtus ugni.

You are going to have to live in a very mild area of the country to enjoy this fruit, but it is one of my very favourites. An evergreen shrub, it grows about 2 metres tall and wide and is reasonably wind-resistant. The fruit, which is a bit smaller than a blackcurrant, has a delicious aromatic flavour that has been described as a cross between a wild strawberry and a guava. In fact no words can do justice to this fruit - you have to eat it to believe it. To me it is just ambrosia.

Physalis peruviana.

The **Goldenberry** is another plant for the milder areas of the country. An evergreen shrub in its native tropical environment, the leaves and shoots will be killed by the first serious frosts of autumn. However, the plant can be grown as an annual in much the same way as tomatoes, and in the milder areas of the country the roots will often survive the winter and send out new shoots in late spring. Applying a good mulch in the autumn will help here. The fruit is produced in its own paper bag, just like the Chinese lanterns to which it is related. When the fruit is fully ripe, these bags tun brown and dry. The fruit is golden yellow in colour, it is about 25mm in diameter, though it can vary considerably. It is somewhat tomato-like in flavour and appearance, though the taste is much richer with a hint of tropical luxuriance. The fruit starts to ripen in mid to late summer, late-ripening fruits can be stored in their bags for up to three months.

Rosa rugosa.

The **Ramanas Rose** is a fairly common hedge plant in Britain. A fast-growing and vigorously suckering deciduous shrub, it grows up to 2 metres tall. It is very tolerant of maritime exposure and of poor sandy soils. The fruit ripens from mid to late summer, it is deliciously sweet and has a very rich flavour. A rather fiddly fruit to eat, however, because there is only a fairly thin layer of fruit over a centre comprised of many seeds. It is important not to eat these seeds since they have small hairs on them and these can act as gastric irritants.

Rubus species.

There are many members of this genus that are used for food. You probably already know blackberries, raspberries, loganberries and some of the many hybrid berries such as sunberries. There are a couple of less well-known species that I would like to mention here. *R. nepalensis*, the **Nepalese Raspberry**, is a very low- growing evergreen shrub that makes an excellent ground cover. The plants seldom get taller than 20cm, but instead send out fairly vigorous ground-hugging stems that root at intervals as they scramble across the ground. Although the books say that the plant is only hardy in the milder areas of Britain, it is growing and fruiting at Cambridge Botanic gardens, which gets quite cold winters. The fruit is produced in mid to late summer. It is about two thirds the size of conventional raspberries and has a very nice acid flavour.

Another member of this genus that I particularly like is *R. phoenicolasius*, the **Japanese Wineberry**. A deciduous shrub, it can grow up to 3 metres tall. It has biennial stems in the same way as other raspberries, new stems being produced each year that flower in their second year and then die. The orange fruit is about 10mm in diameter and is produced in late summer. It is very juicy and has a very nice raspberry flavour. One very useful aspect of this fruit is that the plant very conveniently wraps up each developing fruit in the calyx of the flower, only unwrapping it as the fruit ripens. This does mean that the fruit is almost always maggot-free.

Taxus baccata.

The **Yew** is a very slow-growing evergreen tree, it can eventually reach 15 metres in height though there are many smaller cultivars available. A very tolerant plant, growing in acid or alkaline conditions, in sun or shade (fruiting well even in fairly dense shade) and in windy positions. All parts of the plant are very toxic, except the sweet and juicy fruit. This ripens from late summer through the autumn. Most people who are willing to try this fruit find it delicious, though some are put off by its texture which is rather mucilaginous (or snotty to

> put it more bluntly). Be careful not to bite into the seed when eating this fruit - it is best to spit this out though it will do no harm if you swallow it whole. If you should accidentally bite into the seed (and you will immediately know by the bitter flavour in your mouth), then you should straight away spit it out to avoid any possibility of poisoning. If this worries you, then I should say that my 2 year old son adores this fruit and eats it in quantity. I always make sure that he spits out the seed before I give him another fruit and he has never yet bitten into any seeds.

The foregoing are some of the more exciting fruits we are growing on our trial grounds. I do hope this leaflet encourages you to try growing at least some of them.

For more details on the nutritional properties of fruits see our leaflet Fruit - Food of the Gods

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Readers Comments:

Alternative fruits

John (NakedmanJG@yahoo.com) Mon Jun 25 17:31:40 2001

I have long been an avid gardener, focusing on the use of native plants rather than ornamental varieties. I am also an experienced outdoorsman with a wide range of survival skills, including the use of edible plants and insects. You mentioned the fruit of Taxus baccata as being edible, but every written resource I have come across treats all parts of this plant as extremely poisonous. I currently collect 47 indigenous edible fungi and plants and would not mind adding yew berries to my repertoire. But first, of course, I need to do further research on the subject. Can you point me in the right direction? My e-mail address is NakedmanJG@yahoo.com. Thank-you, John.

This comment has also been added to: Taxus baccata.

Add a Follow up to this comment

Alternative fruits

Rich (webmaster@pfaf.org) Thu Jun 28 17:34:43 2001

Apparently its only the seeds of the plants which are poisionious the fleshy parts of the fruit are fine. Our database entry says

All parts of the plant, except the flesh of the fruit, are highly poisonous, having a paralyzing affect on the heart.

When eating the fruit you should spit out the large seed found in the fruit's centre. Should you swallow the whole seed it will just pass straight through you without harm. If it is bitten into, however, you will notice a very bitter flavour and the seed should immediately be spat out or it could cause some problems.

This comment has also been added to: Taxus baccata.

Add a Follow up to this comment

Alternative fruits

Ivan Viehoff (iviehoff@hotmail.com) Fri Feb 15 14:03:33 2002

Some further unusual fruits, which may be a bit marginal here.

The feijoa (alias pineapple guava) (Acca Sellowiana) is a shrub increasingly available in UK nurseries. I think it is sold more for its exotic flowers. It is not fully hardy here, so needs a bit of care to survive the winter. I do not know if you can get the fruit to ripen, though I want to have a go. They are grown commercially in Wairarapa in New Zealand, which is a good wine-growing area, ie, rather warmer than here. The fruit is green and round, about the size of a plum. The texture is soft and gritty, with a hint of lemon grass toiletries which not everyone likes. Though originally from Argentina, I never found the fruit in markets there. The only other place I have seen the fruit on sale is in Israel.

North American pawpaw (Asimina Triloba)is a small tree, available from few suppliers here. You need to cross-pollinate two different cultivars, and that may reduce the number of UK suppliers to one. It won't fruit in New Zealand, because the local insects aren't up to it. US sources suggest that it takes about 8 years to get a crop. It has to be planted out in its first year, and the tree needs shade for the first year, a common trick is to put an open-top container around it. It is also inclined to have a strange dormancy for a few months in the spring when young. However once established, they are said to require little attention. It is a relation of the cherimoya (custard apple) and the fruit (up to 300g in perfect conditions) sounds delicious. It grows fine around Chicago, where the winters are very cold, but the summers are hot. Since it is a late ripener, I wonder if we would get ripe fruit here.

Asian pears (Pyrus Pyrifolia) are a treat for me from the shops. It is hard to buy a tree here, though I think they should grow. I ordered one from Keepers Nursery, but they had to give me my money back when the grafts failed. But I've found one now. I have planted it next to a common pear, which I am told will cross-pollinate it. It fruits over a long period, so hopefully any reasonable pollinator will be sufficient. I saw a splendidly vigorous tree growing in a garden in Motueka, in the north of NZ South Island. It was heavily laden in only its third year, and already looked like a mature tree. This tree had three varieties grafted on, a clever trick they seem I have heard about but never seen in this country. Of course, they are grown commercially for export around there, so the gardener had no difficulty finding the material.

And a mystery. One autumn I was in Valdivia, a coastal town near the Chilean Lake District. I was given some small fruits off a vine growing wild. They were had a lot of seeds, but the flesh was very sweet and soft, tasting of custard. I am pretty sure it was Lapageria Rosea, or copihue, the Chilean national flower. It makes me wonder if anyone has ever tried to select a variety for the fruit quality. I am interested in growing it for its flowers alone, though I haven't found one yet. Valdivia's climate is slightly warmer than anywhere here, though it can snow in the winter, and well to the south of Chile's southernmost vineyards. It is the same area where you find the chilean cranberry (Ugni Molinae alias Myrtus Ugni, locally known as murta), another fruit I am looking forward to growing.

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Alternative fruits

Leda Meredith (ledameredith@juno.com) Tue Nov 5 15:48:15 2002

I can vouch for the fact that the fleshy part of Yew (Taxus) fruit is edible. As far as I know, all other parts of the plants, including the large single seeds are poisonous. Not a major food source, I'd say, but the large seeds are easy to spit out and the fleshy part is mildly sweet and juicy--a good trail nibble.

This comment has also been added to: Taxus baccata.

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Regresar a la Plantas para un Futuro página principal: Español English

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English

Frutas aternativas

Inglaterra es un país que puede cultivar y cultiva en abundancia frutas sabrosas. Sin embargo, demasiado a menudo nos limitamos a nosotros mismos a cultivar solo algunas pocas de las frutas que nos son familiares, no nos damos cuenta la abundante variedad de otros sabores que nos estamos perdiendo. Este folleto tratará de algunas de estas frutas tan ignoradas, con la esperanza de animarlo a encontrar espacio en su jardín, en un terreno o donde quiera que usted pueda cultivarlas y experimentar algunos de estos sabores.

Aunque solo trataremos sobre las frutas no comunes que pueden cultivarse aquí, también recomendamos mucho que cultive algunas de más tradicionales. De hecho, debo advertirle que se asegure de haber plantado algunas de las frutas bien conocidas antes de que empiece a considerar algunas de las que tratamos en este folleto.

¿Entonces cuáles son las frutas de las que no trata este folleto? Árboles frutales tales como el manzano, el peral, el cerezo y el ciruelo que se tratan ampliamente en todos los libros importantes sobre el cultivo de frutales, así como las frutas suaves como la frambuesa, la zarzamora, las grosellas roja, blanca y negra, uva crespa o espín, la baya azul y la fresa. Hay también varias otras frutas que están en el límite de la tolerancia climática en nuestra región, pero no son ignoradas en la mayoría de los buenos libros. Estas son; la uva, el higo, el durazno y la nectarina.

Habiendo eliminado todas las frutas de clima templado que la mayoría de la gente conoce, ¿De cuales vamos a hablar?. Unas buenas cartas, como creo que estarán de acuerdo conmigo después de leer este folleto. Todas las frutas que trataremos aquí son, en general, de fácil cultivo. A menos que se diga otra cosa, son resistentes virtualmente en toda Inglaterra, progresarán en la mayoría de los suelos razonablemente fértiles y fructificarán mejor cuando se cultiven en un lugar asoleado, aunque también tolerarán bien la media sombra. Casi todas ellos son árboles o arbustos y así, con planeación cuidadosa, será posible cultivarlos juntos con otros frutales para lograr mejores cosechas de la tierra y también para conservar e incluso mejorar la fertilidad del suelo. Para más detalles sobre esto vea nuestro folleto llamado Why Perennials (¿Porqué perennes?).

La mayoría de las plantas tratadas aquí no han sido cultivadas o alimentadas selectivamente para aumentar su productividad o su sabor. No obstante yo pienso que usted encontrará que dan buenas cosechas, si no excelentes, y, aunque el gusto individual varía mucho, estoy seguro que encontrará que al menos algunas de las frutas mencionadas aquí son absolutamente deliciosas. Otra ventaja de la mayoría de las plantas que mencionamos es que, en general, son muy resistentes y menos susceptibles a las plagas y enfermedades. Uno de los problemas en la historia del cultivo selectivo a sido el de que, así como hemos seleccionado por sabor y productividad, sin saberlo hemos seleccionado también las plantas que son menos resistentes a las plagas y las enfermedades, y que son también menos tolerantes a extremos climáticos. Muchas de las plantas mencionadas adelante son criaturas muy tenaces y sobrevivirán y fructificarán generosamente con muy poca atención del hortelano.

La lista de plantas que se mencionan a continuación de ningún modo es exhaustiva, pero representan algunas de nuestras frutas favoritas. Espero que usted disfrute cultivando y comiendo algunas de ellas.

Especies Actinidia.

Todos los miembros de éste género de plantas altas producen frutos comestibles, aunque no todos se dan bien en Inglaterra. La especie mejor conocida *A. deliciosa*, el **Kiwi**. Es muy común encontrarla en las fruterías Inglesas, aunque muy poca gente se da cuenta de que puede ser cultivada aquí con éxito, al menos en las partes menos frías del país. Si usted quiere fruta que pueda recolectar necesitará podar las plantas para mantenerlas pequeñas - ¡si no las poda crecerán con libertad y pueden llegar a alcanzar 20 metros o más de altura! Hay dos dificultades principales con este cultivo. La primera, que aunque la planta durmiente es muy resistente al frío, los brotes jóvenes de primavera son muy susceptibles a las heladas y se dañan fácilmente. Es preferible cultivarlos de modo que estén protegidos del sol de la mañana pero que aún así tengan el calor pleno de la luz del sol. El segundo problema es que las plantas generalmente son hembra o macho, de modo que necesita cultivar cuando menos una planta macho por cada 4 ó 5 plantas hembra para que obtenga buenos frutos. Hay algunas variedades que no necesitan un macho para fertilizarse pero se dice que estas tienen frutos de calidad inferior. Cuando se siembra por semilla, la gran mayoría de la semilla produce plantas masculinas, de modo que es preferible comprar variedades nominadas. *Heywood* es la forma hembra que se ofrece con más frecuencia, aunque se pueden encontrar otras. Se dice que la variedad *Tomuri* produce una buena polinización.

De las otras especies, probablemente la mejor para probar en nuestro país es *A.arguta*, la **Viña Tara**. Esta es aún más resistente que el Kiwi, sus frutos son más pequeños pero no están cubiertos de pelos por lo que se pueden comer sin pelar.

Especies Amelanchier.

Esta es una de mis frutas favoritas de mediados de verano. También se llaman **Juneberries (Bayas de Junio)**, La fruta madura alrededor de mediados de julio. El fruto es un poco menor que la grosella negra, es dulce y jugoso y tiene un sabor definido a manzana. El problema con esta planta es que también es la favorita de los pájaros por lo que se establece una competencia para ver quien la obtiene primero. Si usted quiere saborearla perfectamente madura probablemente necesite usar alguna red u otro medio de protección. Hay muchas especies para escoger, mi favorita es:-

- *A. alnifolia*. Es un arbusto que raramente crece más de 2 a 3 metros de altura en este país por lo que es relativamente fácil protegerlo de los pájaros. Produce el fruto más jugoso y dulce que yo haya probado. Una vez establecida, esta planta produce a menudo vástagos y puede formar arboleda.

- *A. alnifolia semiintegrifolia* es una planta muy parecida a la anterior pero con frutos más pequeños que maduran una o dos semanas después.
- *A. laevis* es quizá la especie más alta que puede alcanzar 9 metros de altura.
- *A. lamarckii* crece más de 6 metros de altura.
- *A. stolonifera*. Este es un arbusto de crecimiento relativamente lento, a menudo no crece a más de 2 metros de altura. Puede formar vástagos con abundancia aunque solo forma arboledas ralas muy lentamente. Una fruta muy sabrosa, siendo junto con *A. alnifolia* mi favorita en el género.

Arbutus unedo

madroño, érvedo (Strawberry Tree) Es una vistosa planta siempre verde (vivaz) para el jardín. La especie puede crecer hasta 9 metros de altura, aunque hay variedades que raramente sobrepasan los 2 metros. La planta produce hermosas flores parecidas a las del lirio del valle a finales del otoño y son particularmente llamativas en esta temporada, ya que al mismo tiempo, están madurando sus frutos de la floración del año anterior. Estos frutos se ven casi como fresas, especialmente desde lejos, pero desgraciadamente no saben como las fresas. De hecho, mucha gente los encuentra demasiado suaves y el nombre en latín *unedo* significa "Me como uno [únicamente]" sugiriendo que no son un alimento que merezca atención. Sin embargo, yo los encuentro dulces y sabrosos, aunque tienen una textura áspera. Pero cuando usted esta disfrutando una fruta suculenta en noviembre o diciembre puede olvidarse de esa pequeña aspereza. Esta planta no se da bien en las partes más frías del país. Es sorpresivamente tolerante al viento, sin embargo, y crece bien cerca de las costas. Si quiere una variedad enana, busque las variedades *Compacta*, *Elfin King* ó *Rubra*. (Vea nuestro Plant Portrait (Retrato de una Planta) acerca de esta planta para más detalles).

Especies Berberis.

Todos los miembros de este género tienen frutos comestibles, aunque tienden a ser algo ácidas de sabor y tienen demasiadas semillas. Nuestra planta nativa *B. vulgaris* es cultivada por sus frutos, que maduran a finales del verano. Había una variedad sin semillas, aunque no se si aún se cultive (si usted sabe algo de esto, por favor mándeme una línea). Es un arbusto de hoja caduca, crece bien en setos, aunque se considera una plaga en áreas de cultivo de cereales ya que es un huésped alterno de algunas enfermedades de los cereales.

Mi favorita en este género es *B. darwinii*. Es un arbusto siempre verde que puede crecer hasta 3 ó 4 metros de altura y forma un excelente cerco de protección contra el viento, teniendo éxito aun en áreas marinas. El fruto madura entre julio y agosto y es adorado por los pájaros. Al principio es muy ácido pero si se le permite madurar completamente pierde mucha de su acidez y adquiere un amable sabor.

Especies Cornus .

Hay algunas frutas maravillosas en este género. *C. masi*, la **Cereza Cornelian** es un arbusto de hoja caduca que puede alcanzar 5 o más metros de altura. Produce flores amarillas a mediados de invierno y es especialmente atractivo en este tiempo. El fruto madura al final del verano pero necesita estar completamente maduro o resulta muy astringente. Hay muchas variaciones en tamaño y calidad del fruto, se cultivaban algunas variedades especiales, pero no se si aún existan. Los mejores frutos que comí de esta especie tenían más de 2 cm de largo y 1.5 cm de ancho, eran deliciosas y jugosas sin ningún tipo de astringencia. Esta especie también se puede cultivar como seto o protección y es tolerante al viento. *C. kousa*, el **Dogwood Japonés**, es un árbol de hoja caduca que puede crecer hasta más de 10 metros de altura. Sus frutos maduran a finales del verano, son del tamaño de fresas muy grandes y tienen una carne suculenta y un sabor exquisito. La cáscara es muy suave y puede comerse también, pero tiene un sabor amargo. Lo que yo hago es hacer un orificio en la cáscara y chupar la pulpa. Es realmente como una azucarada fruta tropical. La variedad que se encuentra más frecuentemente en los jardines es *C. kousa chinensis*, dicen que crece y fructifica mejor que otras especies, aunque yo en realidad no he visto mucha diferencia.

Especies Crataegus.

El **Espino blanco** es uno de los géneros que mejor fructifica en áreas templadas. No voy a entrar en detalles aquí ya que en el folleto Crataegus species - the Hawthorns (Especie Crataegus - Espino blanco) se trata exclusivamente esta planta. Hay muchas especies con frutos deliciosos, en particular recomendamos los siguientes. En general el fruto tiene un tamaño parecido al de la cereza y madura al final del verano:-

- *C. arnoldiana.* Un árbol de 7 metros de altura, su fruto es jugoso y dulce.
- *C. baroussana.* Un arbusto de alrededor de 2 metros, el fruto no es tan agradable como en las especies anteriores. Esta planta probablemente solo sea rústica y el sur de Inglaterra.
- *C. douglasii.* Crece hasta más de 9 metros de altura, el fruto es similar a C. arnoldiana.
- *C. ellwangeriana.* Más de 6 metros de altura, con un fruto muy similar al de C. arnoldiana.
- *C. festiva.* Crece de 3 a 4 metros de altura, el fruto es uno de los mejores de éste género.
- *C. pensylvanica.* Un arbusto grande de 9 metros de altura, parece que siempre produce abundantes cosechas de frutos muy sabrosos.
- *C. schraderiana.* Un árbol de 6 metros de altura, es una de mis frutas favoritas. Cuando está completamente madura literalmente se derrite en mi boca
- *C. tanacetifolia.* Crece hasta más de 10 metros de altura, su fruto es de color amarillo y su sabor es el de una manzana muy sabrosa.

Especies Diospyros.

Un género de árboles de hoja caduca, el verdadero Dióspiro (**Persimmon)**, *D. kaki*, no es un árbol que fructifique con confianza en este país, lo cual es una pena ya que es una de las más exquisitas frutas que se pueden comer. Sin embargo, las siguientes especies producen frutos con sabor similar aunque de menor tamaño:-

- *D. lotus.* El Ciruelo dátil (DATE PLUM) crece hasta más de 9 metros de altura. El fruto frecuentemente cae del árbol antes de madurar, pero si lo deja en la tierra cuando cae en octubre, o lo recoge y lo guarda en un sitio fresco tal como una cochera, continuará su maduración. No lo coma hasta que esté suave como un molusco o estará agrio y astringente.

  - *D. virginiana*. El Dióspero Americano (**American Persimmon)** puede ser un árbol masivo en su lugar nativo, aunque rara vez alcanza más de 10 metros de altura en nuestro país. El fruto puede tener más de 2 cm de diámetro y se colecta y usa en la misma forma que el D. lotus.

Especies Elaeagnus.

Estas son tratadas en detalle en nuestro folleto Elaeagnus x ebbingei - a plant for all reasons (Elaeagnus x ebbingei - una planta para todas las razones). Si usted desea cosechar una fruta fresca de su jardín en abril, ¡ésta es la planta para usted! Las siguientes especies son recomendadas en especial:-

  - *E. cordifolia*. Un arbusto que crece hasta cerca de 4 metros de altura y de ancho, probablemente no resista las zonas más frías de nuestro país. Produce muy temprano y los frutos más grandes.
  - *E. macrophylla*. Crece cerca de 3 metros de altura y de ancho. No es resistente en las áreas más frías del país. Las variedades selectas tienen frutos de muy buen tamaño
  - *E. x ebbingei*. Una planta de seto muy común, puede tener cosechas muy abundantes cuando tiene las condiciones adecuadas.

Especies Fuchsia.

Un género de arbustos de hoja caduca, aunque la mayoría de ellas no son muy rústicas y actúan más como herbáceas perennes en las áreas medias del país. **Fuchsia** es cultivada comúnmente como ornamental, todas ellas producen frutos comestibles, aunque los frutos a menudo dejan un mal sabor de boca. Mi favorita es *F. splendens* - pero es algo delicada y solo tendrá éxito en el exterior en las áreas medias del país. Crece mejor en una posición sombreada y lo hace bien junto a una pared con vista al norte. Se desarrollará bien a pleno sol pero puede verse un poco marchita en ese lugar. El fruto tiene el tamaño y la forma del dedo de un niño, es suave y jugoso con una ligera acidez placentera. Si no puede cultivar esta planta en su región puede conseguir otras variedades más rústicas. Lo mejor que puede hacer es probar algunas frutas de plantas que usted o sus amigos tengan ya en crecimiento. Si no puede encontrar ninguna que le guste, trate las variedades *Tresco* ó *Globosa*.

Gaultheria shallon.

Un arbusto siempre verde de alrededor de 1.2 metros de altura, crece bien en la sombra abigarrada de las arboledas. Requiere suelo ácido y produce sus frutos durante la segunda mitad del verano. Este es del tamaño de una grosella negra, es placenteramente jugoso aunque no tiene un sabor fuerte. Si lo que usted desea es sabor fuerte, entonces su pariente diminuto, *G. procumbens* debe ser la planta para usted. Es otra planta para suelo ácido y la sombra abigarrada del bosque, crece solo a 15 cm de altura y es una buena cubierta para el suelo. El fruto madura por un largo período de tiempo, he comido frutos del último verano durante el final del invierno. Estos frutos tienen el tamaño de una grosella negra grande y tienen un sabor distintivo que recuerda mucho el olor del desinfectante de ¡Una sala de espera de hospital! Sorprendentemente hay un buen número de personas a las que les gusta realmente esta fruta, yo la encuentro aceptable en pequeñas dosis y ciertamente deja una sensación en la boca de frescura y limpieza.

Hippophae salicifolia.

El Ramno de mar de hoja de sauce **(Willow-Leaved Sea Buckthorn)** es un arbusto grande y vigoroso que produce vástagos libremente y por eso no es adecuado en lugares en que el terreno escasea. Es una especie ligeramente exigente, no fructificará bien en la sombra. Una bacteria que vive en sus raíces fija el nitrógeno de la atmósfera, por lo cual la planta ayuda a fertilizar el suelo y a alimentar a las plantas vecinas. El fruto tiene solo 5 milímetros de diámetro y tiene un agudo sabor a limón. No puede comerse crudo en ninguna cantidad, pero se obtiene de él un jugo excelente, miel ó jalea. Investigaciones recientes han mostrado que esta planta produce el fruto más nutritivo de las zonas templadas, su uso regular puede prevenir el cáncer mientras que en grandes cantidades ha mostrado que es capaz de revertir el crecimiento de tumores cancerosos. El fruto esta maduro en septiembre y se cuelga bien de la planta - lo hemos cortado de ella tan tarde como a principios de febrero. (Vea nuestro folleto Plant Portrait (Retrato de una planta) para más detalles de esta planta).

Morus nigra.

La Mora Negra (**Black Mulberry)** es ampliamente conocida, pero es muy raro que se cultive por su fruto. Es un árbol de hoja caduca, puede alcanzar 10 metros de altura, aunque generalmente es más chico. El fruto madura a finales del verano, se parece a una gran frambuesa, es muy jugoso y tiene un refrescante sabor ácido.

Myrtus ugni.

Tendrá que vivir en un área muy moderada del país para disfrutar esta fruta, pero es una de mis favoritas. Es un arbusto vivaz, crece hasta 2 metros de alto y ancho y es razonablemente resistente a los vientos. El fruto, ligeramente más pequeño que una grosella negra, tiene un sabor aromático delicioso que ha sido descrito como una mezcla entre la fresa silvestre y la guayaba. De hecho ninguna palabra hará justicia a esta fruta - tendrá que comerla para creerlo, para mí es justamente ambrosía.

Physalis peruviana.

La Baya dorada (**Goldenberry)** es otra planta de las áreas moderadas del país. Es un arbusto vivaz en su ambiente tropical nativo, las hojas y retoños serán destruidas por las primeras heladas del otoño. Sin embargo, la planta puede crecer como una planta anual en forma muy parecida al tomate, y en las áreas moderadas del país las raíces sobrevivirán el invierno y crearán nuevos retoños al final de la primavera. Ayudará a esto la aplicación de una buena cubierta en el otoño. El fruto se produce en su propia bolsa de papel, como las linternas Chinas con las cuales se relaciona. Cuando el fruto está completamente maduro, estas bolsas se tornan café y se secan. El fruto es amarillo dorado y de alrededor de 25 milímetros de diámetro, aunque puede variar considerablemente. En cierta forma se parece al tomate en sabor y apariencia, aunque su sabor es mucho más rico, con tintes de lujuria tropical. Los frutos empiezan a madurar entre mediados y finales del verano, los que maduran tardíamente pueden almacenarse en sus propias bolsas por cerca de tres meses.

Rosa rugosa.

La Rosa (**Ramanas Rose)** es una planta de seto común en Inglaterra. Es un arbusto de hoja caduca de crecimiento rápido y vigoroso y que crea muchos vástagos, que alcanza hasta 2 metros de altura. Es muy tolerante a la exposición marítima y al suelo arenoso pobre. El fruto madura de mediados al final del verano, es deliciosamente dulce y tiene un sabor muy rico. Es sin embargo, un fruto difícil de comer ya que tiene solo una delgada capa de pulpa alrededor de un centro con muchas semillas. Es importante comer solo la pulpa pues el fruto tiene unos pelillos sobre las semillas muy irritantes para el estómago.

Especies Rubus.

Hay muchos miembros de este género que se usan como alimento. Probablemente ya conoce la zarzamora, la frambuesa, loganberries y algunas de las muchas zarzas híbridas tales como sunberries. Hay un par de especies menos conocidas que quisiera mencionar aquí. *R. nepalensis*, la Frambuesa de Nepal (**Nepalese Raspberry)**, es un arbusto vivaz de crecimiento muy lento que sirve como un excelente cultivo de cubierta. La planta rara vez alcanza más de 20 cm de altura, pero manda muchos tallos rastreros que echan raíces a intervalos a medida que crece el tallo. Aunque los libros dicen que la planta es resistente solo en las partes moderadas del país, está creciendo y fructificando en los Jardines Botánicos de Cambridge, que tiene inviernos bastante severos. El fruto se produce de mediados a finales del verano. Tiene 2/3 del tamaño de las frambuesas tradicionales y un agradable sabor ácido.

Otro miembro de este género que me gusta especialmente es *R. phoenicolasius*, el **Japanese Wineberry**. Un arbusto de hoja caduca que puede crecer hasta 3 metros de altura. Produce tallos cada dos años en la misma forma que otros frambuesos, los nuevos tallos que se producen cada año, florecen en su segundo año y luego mueren. El fruto color naranja tiene alrededor de 10 milímetros de diámetro y se produce a finales del verano. Es muy jugoso y tiene un sabor muy agradable a frambuesa. Un aspecto muy útil de ese fruto es que la planta lo envuelve convenientemente en el cáliz de la flor, y solo lo descubre cuando madura. Esto significa que esta casi libre de gusanos.

Taxus baccata.

El Tejo (**Yew)** Es un árbol vivaz de crecimiento lento, eventualmente puede alcanzar los 15 metros de altura aunque pueden conseguirse variedades más pequeñas. Es una planta muy tolerante, se desarrolla en condiciones alcalinas y ácidas, en el sol o la sombra (fructifica bien incluso en sombra densa) y en lugares airosos. Todas las partes de la planta son muy tóxicas, exceptuando el fruto dulce y jugoso. Éste madura desde finales del verano a través del otoño. La mayoría de la gente que ha probado este fruto lo encuentra delicioso, aunque algunos lo rechazan por su textura que es algo mucilaginosa (o mucoso para decirlo llanamente). Se debe ser cuidadoso de no morder la semilla al comer este fruto - es mejor escupirla aunque si se traga sin morder no hace daño. Si accidentalmente muerde y rompe la semilla (lo que notará de inmediato por el fuerte sabor amargo en su boca), debe de escupirla de inmediato para evitar cualquier envenenamiento. Si esto le preocupa, le diré que mi hijo de 2 años adora esta fruta y la come en abundancia. Me aseguro de que escupa la semilla antes de darle otra y hasta ahora nunca ha mordido ninguna semilla.

Las anteriores son algunas de las frutas más excitantes que hemos cultivado en nuestro campo de pruebas. Espero que este folleto lo anime a probar al menos el cultivo de una de ellas.

Para más detalles sobre las propiedades nutritivas de las frutas vea nuestro folleto Fruit - Food of the Gods (La fruta - comida de los Dioses)

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el

nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

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Crataegus Species - The Hawthorns.

Crataegus baroussana.

The genus Crataegus, which includes our two native hawthorns, comprises some 100 - 200 species of deciduous trees and shrubs depending upon which botanists you want to believe. Crataegus is part of the rose family, which contains many of our cultivated temperate fruits such as apples, pears, plums, cherries, peaches and apricots. The fruits of our native hawthorns are also edible but, as most people who have tried them will testify, there are much nicer fruits around. Many other species in this large genus, however, have much more interesting fruits - some of these are absolutely delicious and easily rival the best of our cultivated crops. Quite why this genus has never received much attention from the fruit grower or breeder is quite beyond me since it has excellent potential as a fruit crop and must be one of the easiest of plants to grow, tolerating most sites and conditions. It is also a very diverse genus, growing in many areas of the world and ranging in size from small shrubs to large trees.

Cultivation.

Let's begin by looking at the plants' cultivation requirements. Whilst in general they prefer a well-drained but moisture-retentive loamy soil, they will succeed in most other situations including heavy clays and very chalky soils. Once established they are quite drought tolerant, though they will also tolerate quite wet soils and I have seen some species succeeding where the water stands in winter. Many species are also very wind tolerant, some of them succeeding in maritime exposure, and they can be included as part of a shelter-belt planting. They are also tolerant of atmospheric pollution and so grow well in towns, cities, by main roads and industrial estates. For the highest fruit production, it is best to grow the plants in as sunny a position as possible, though they will also succeed in semi-shade. A position on the sunny edge of a woodland is probably ideal for them.

Plants are seldom overly troubled by pests or diseases and once planted can usually be left to look after themselves so long as they have a good mulch to keep down weed competition whilst they are small. They are, however, susceptible to fireblight, a disease that affects many of the trees and shrubs in the family Rosaceae. There is no effective treatment for this disease and, should you be unfortunate enough for any of your plants to contract it, then the only thing to do is to grub up and burn the infected plant in order to prevent the disease from spreading. The disease is not very common, fortunately, but many growers do recommend that you keep your cultivated apples away from Crataegus and other members of the family such as Cotoneasters and Pyracanthas as a precaution.

Propagation

Propagation is not without its difficulties. The genus as a whole is rather promiscuous and plants tend to spread their pollen around without respect for other species. Hybridisation is rife when plants of more than one species are grown together and so, if you want to produce the true species from seed, then you either have to obtain your seed from a wild stand of the plants or cover the flowers with an insect-excluding device and hand pollinate. If you are not too worried about breeding true to type, of course, then this natural tendency to hybridize does offer plenty of opportunity to try and produce new superior fruiting cultivars.

Once you have obtained your seed, you then have to germinate it. As with many other trees and shrubs, hawthorn seeds have inbuilt mechanisms to delay germination. This ensures that the seed does not germinate as soon as it is ripe in the autumn, and then have to face all the rigours of winter with very little opportunity to establish itself beforehand. Where possible, sow the seed in pots as soon as it is ripe in the autumn and place the pots in a cold frame or perhaps even outdoors by the side of a north-facing wall. What is important is that the seed is exposed to the rigours of winter so that it will be ready to germinate in the spring. It is also very important to protect the seed from the attentions of mice or any other creature that might decide to make a meal of it. Seed can be very slow and erratic to germinate, you might find a few will germinate in the following spring though most will wait for another winter to pass before coming into growth. A few more will hang about for yet another year before germinating. One way that can reduce your waiting time is to harvest the seed 'green' (just before it is fully ripe, when the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. It takes some experience to know the right stage but, if timed well, most of the seed will germinate in the spring.

If you cannot obtain fresh seed, then stored seed should be sown as soon as you can obtain it and left in a safe place in a cold frame or outdoors in order to be weathered. Be patient, it will take at least 18 months before any will germinate. You might be able to reduce this time somewhat if you soak the seed overnight in warm water, then place it in a plastic bag with a small amount of moist sand or peat substitute and seal the bag to keep the moisture in. Store the bag in a dark place for 3 months at 15 c and then for another 3 months at 4 c before potting up the seed. Check the bag occasionally, remove any seeds if they have germinated and pot them up straight away. Much of the seed may still take 18 months to germinate.

Other ways of trying to reduce the germination time include scarifying the seed before sowing it. You do this by filing away some of the outer woody shell of the seed, being very careful not to damage the seed itself. On a small scale this can be done by individually filing away the coat of each seed with something like a nail file. On a commercial scale, sulphuric acid is used to eat the coat away - timing is very critical here and the seed must be thoroughly washed afterwards to remove the acid. Fermenting the seed for a few days in the fruit pulp may also speed up the germination process - a batch of seed that was given this attention in America before being airmailed to me had already started to germinate when it arrived a week later!

If you have a superior fruiting form then you need to propagate it vegetatively in order to ensure that you produce plants that are identical to the parent. Unfortunately, hawthorns are extremely difficult if not impossible from cuttings and so grafting is the only satisfactory method of increase. Seedling hawthorns can be used as the rootstock - either of our two native species can be used or, alternatively, you can graft onto a seedling of the same species as your graftwood. There is quite a bit of scope for developing dwarfing rootstocks in much the same way as rootstocks have been bred for apples, though I do not know of anyone who is working in this field.

Grafting is best carried out in late winter to early spring, once the sap is rising in the trees but before they come into leaf. I use the whip and tongue method, which works fine for me, but other simpler methods can also be used. So long as you follow a few basic rules, grafting is quite a simple operation and even the complete novice can have good results. I am not going to go into any more detail here, but see the book The Grafters Handbook written by R. J. Garner and published in 1988 by Cassell (ISBN 0 304 32172 9) if you want more information on the subject.

The Fruit.

That is enough of talking about how to grow the plants. Lets get onto the best part of the article - the fruit. This can vary widely from species to species, though the basic structure is always the same. Externally, it is somewhat like a small apple, the thin skin covering a fleshy pulp. The colour of the ripe fruit ranges from yellow, through green to red and on to dark purple. The woody seeds are not apple like, up to five of them are formed at the centre of the fruit and they often stick together in a clump, acting effectively like a cherry stone. Fruit size varies from species to species, with the largest about 1 inches in diameter. The texture is also very variable, some species are hard, dry and powdery, others are mealy, some are crisp and juicy whilst at least one is soft and juicy rather like a cherry. The flavour can range from bitter, through boring and on to absolutely delicious. Most of the species ripen their fruit in early to mid autumn.

I like to eat the fruit raw and, with the better species, you can eat a large quantity of the fruit and still want more. It is also possible to dry them for later use, or to cook them for use in preserves etc.

As mentioned earlier, different species range in size from small shrubs about 7ft tall to fairly large trees 30ft or more in height. Most species develop thorns on their branches and in some species these are 2 inches or more long. I have not found these thorns to cause any real problem with harvesting the fruits, though some species do form a mass of thin branches that makes it difficult to get your hands into them. Fortunately, most of the fruit is carried on the outside of the plant.

Flowering is in the early to late spring, usually just before the leaves open. The plants look particularly beautiful at this time, as they do when laden down with fruit in the autumn.

Pruning is not really a priority with hawthorns, though a bit of formative pruning to young trees can be helpful and cutting out diseased or badly placed branches on older trees can also be of benefit. The plants flower and form their fruit on short new sideshoots that are formed in the spring, mainly on young wood that grew the previous year. Hawthorns are exceedingly tolerant of any pruning and are capable of regenerating even if cut right back into old wood. Our native species are often used as hedging plants, but there is nothing to stop you trying out some of the species in the list below as hedging. Don't forget, though, that regular trimming will greatly reduce any fruit crops since it will remove the young wood.

Other uses.

Apart from their delicious flavour, hawthorn fruits have been shown to have a tonic effect on the heart. Fruits of our native species are often used in the treatment of weak heart conditions, especially if this is accompanied by high blood pressure. Most, if not all other species will have a similar action on the body. Thus, as well as adding a delicious new fruit to your diet, if you eat hawthorn fruits you will also be strengthening your heart.

The young leaves of our native hawthorn can be eaten raw. They are not strongly flavoured, but make a pleasant addition to salads. Although I have not come across any records of the hawthorn species mentioned in this leaflet having edible leaves, I have eaten them and, consumed in moderation, they are wholesome. However, if you try any leaves that have a noticeable bitter almond flavour then these should not be eaten since they are mildly toxic.

The wood of all hawthorn species is very hard and strong. If you ever find yourself in the position of having to grub out a tree then the wood is ideal for tool handles and other small items.

The Species

I am now going to list a few of my favourite species from this genus. This is by no means an exhaustive list, I am sure that there are many delicious species that I havent even tried as yet. Should you ever come across a promising looking species that is in fruit then it is always worthwhile giving it a taste - but make sure that you have the owners permission.

Crataegus arnoldiana grows up to 20ft tall, though I have yet to see specimens more than 15ft tall. This is one of my favourite fruits, it is almost an inch in diameter and has a sweet flavour with a soft juicy but mealy flesh.

Crataegus azarolus. The azarole grows about 20ft tall and is sometimes cultivated in the Mediterranean for its fruit. This is about an inch in diameter and is said to have a pleasant acid taste though this is one of the species that I have yet to try. In warm temperate areas the fruit develops more fruit sugars and has a fragrant sugary pulp with a slightly acid flavour. In cooler zones, however, the fruit does not develop so well and is best cooked or used in preserves.

Crataegus baroussana. I do not know much about this species since it is not mentioned in any of the literature I have read so far. Nevertheless, I have seen the plant growing in a few places and have eaten the fruits. These are up to inch in diameter and are pleasantly sweet. The plants that I have seen were less than 5ft tall but were fruiting heavily and looked as though they are not going to get much taller. This species, therefore, seems to have excellent potential for small gardens or other sites where space is limited. The plant is native to Mexico so it might not be hardy in the colder areas of the country. All the plants I have seen have been in S. England and all looked very healthy.

Crataegus durobrivensis. This species is not known in a truly wild situation and is possibly a hybrid, so don't expect it to come true from seed. It grows about 15ft tall and the fruit, which is about 3/4 inch in diameter ,is sweet and fairly juicy when fully ripe with a hint of apple in its flavour.

Crataegus ellwangeriana. This species is probably another hybrid. It grows about 20ft tall and the fruit, which is juicy and acid, makes very pleasant eating. The fruit is about 3/4 inch in diameter.

Crataegus illinoensis. The fruit of this species is very similar in taste and size to C. arnoldiana, mentioned earlier. I'm not sure how tall the tree will grow, possibly 20ft.

Crataegus missouriensis. This tree grows about 20ft tall. The fruit is about the size of a large cherry with a sweet, soft and fairly juicy flesh.

Crataegus schraderiana. This tree, which grows about 20ft tall, has one of the most delicious fruits I have ever eaten from a plant of the temperate zone. It is about 1/2 - 3/4 inch in diameter, is juicy with an extremely pleasant flavour, and almost literally melts in the mouth. I would far rather eat this fruit than a strawberry.

Crataegus submollis. This species grows about 25ft tall. The fruit is sub-acid, dry and mealy according to the books, but our experience has been that the fruit, which can be almost an inch in diameter, is sweet and somewhat juicy with a nice flavour.

Crataegus succulenta. Growing about 20 ft tall this species has some of the largest fruits in the genus with specimens up to 1 3/4 inches in diameter. This fruit has a sweet, juicy and pulpy flesh that is excellent raw or for making jellies.

Crataegus tanacetifolia. This is a larger tree that can reach 30ft tall. The fruit is quite different from those species mentioned above, it is juicy and much firmer with a distinct apple-like flavour. The fruit is up to 1 inch in diameter.

Conclusion.

This genus, as a whole, is very easily grown and contains many species with delicious fruits, though virtually none of them has ever been bred for their fruit. Because they hybridize freely, there is an excellent potential to produce superior fruiting cultivars and, with the wide diversity in size of the plants ranging from small shrubs to quite large trees, there should be species suitable for small gardens as well as large sites.

Suppliers.

A number of nurseries offer Crataegus species, though few offer many of the species mentioned in this article. The best supplier I have come across to date has been:-

Thornhayes Nursery, St. Andrew's Wood, Dulford, Cullompton, Devon. EX15 2DF. Telephone 01884 266746.

This nursery has an excellent range of Crataegus species and also many other fruiting trees, including over 100 varieties of traditional westcountry apples.

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Readers Comments:

Crataegus Species - The Hawthorns.

Dr. Helio Flores (helio@servidor.unam.mx) Fri Jan 19 04:17:18 2001

Here in Mexico, we use the crataegus pubescens as a good fruit and remedy for various ailments. Do you know this variety?

This comment has also been added to: Crataegus pubescens.

Add a Follow up to this comment

Crataegus Species - The Hawthorns.

erik Thu Jun 21 00:22:10 2001

Crataegus opaca and C. aestivalis (& hybrids), "Mayhaws," are locally important in the S.E. USA for jellymaking, where many consider them the best fruit for that purpose. I find the flavor very similar to good crabapples --good since most apples die w/in months in the Deep South. Like quince, no one eats them raw. Cedar-quince rust is the only disease problem I've seen.

Details of Growing Condition: NW FL--acid, very poor soil. High heat and humidity; only about 400 "chilling hours," but punctuated by brief, irregular frosts as low as 15 Fahrenheit..

This comment has also been added to: Crataegus opaca , Crataegus aestivalis , Malus domestica.

Add a Follow up to this comment

Crataegus Species - The Hawthorns.

() Fri Aug 17 09:05:43 2001

Hello, My name is Hannah and I'm am a highschool student and I was wondering if you could send me some more info about the Hawthorn tree. Such as>>>

1. The different parts of the plant and their names. 2.How the plant has changed grafting,cross pollination. 3.And the lastly uses for the plant eg.dyes,food,medicines. Your help would be greatly appreciated. thankyou, Hannah. email=bubblegirl_02@hotmail.com

Add a Follow up to this comment

Crataegus Species - The Hawthorns.

vlad smith (vx56145@hotmail.com) Sat Oct 13 05:08:13 2001

I have noticed large shrubs growing in my area that were planted years ago by the original farmers. A local nursery suggested they were hawthorns but no-one seems to know what type of hawthorn these are. They have white flowers in spring and lose their leaves in winter. They seem more like shrubs than trees so I don't think they can be Washington Hawthorns. Can anyone suggest what type of hawthorn they could be. Or alternatively could anyone please recommend a hawthorn to plant as a hedge in a windy rural area with clay soil. Drought tolerant if possible.

Details of Growing Condition: we are located to the north west of Melbourne, Victoria, Australia in a rural area that originally had been cleared for cropping land with clay soil and lots of strong winds. No town water, only tanks so the plants must be very tough. This is why we wante.

This comment has also been added to the genera: crataegus.

Add a Follow up to this comment

Crataegus Species - The Hawthorns.

Mehmet Uludogan (mehmetuludogan@hotmail.com) Fri Nov 29 21:20:00 2002

hello we have two types of crataegea in Turkey the endemic plant C.Dikmensis , and C.tanacetifolia both of them are very delicious fruits . last year I saw another type of Cratagea plant in Ýstanbul the flowers of the plants were magnifecent , but their fruits were inedible ..I will be very pleased to have seeds of different kinds of edible type of this plant , I can send the seeds of the Turkish type of the plant thank you for your cooperation greetings from Ýstanbul Turkey

Details of Growing Condition: Ýstanbul, Turkey.

This comment has also been added to: Crataegus opaca , Crataegus aestivalis , Malus domestica , Crataegeus Dikmensis , Crataegeus tanacetifolia.

This comment has also been added to the genera: Crataegeus.

Add a Follow up to this comment

Crataegus Species - The Hawthorns.

Ray Scheel (ray_scheel@hotmail.com) Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

This comment has also been added to: Crataegus marshallii.

This comment has also been added to the genera: Crataegus.

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Crataegus pubescens

Common name:	Manzanilla	Family:	Rosaceae
Author:	Loud.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. mexicana[G] C. stipulosa[G] Mespilus pubescens[G] Mespilus stipulosa[G]
Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Mexico(Kickapoo)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m. It is hardy to zone 7 and is not frost tender. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[177, 200]. A mealy texture, it is often used in preserves[183]. For stewing, they are first boiled with wood ashes to remove the skin, then boiled in hot syrup with red colouring for a short time and hung on nails stuck into poles, much like candied apples[183]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

Hybridizes freely with other members of this genus[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN

3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Crataegus Species - The Hawthorns.

Dr. Helio Flores Fri Jan 19 04:17:18 2001

Here in Mexico, we use the crataegus pubescens as a good fruit and remedy for various ailments. Do you know this variety?

Cross references: *Web-pages: Crataegus Species - The Hawthorns.*.

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera:* *Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants:* *Crataegus marshallii*. *Genera:* *Crataegus*. *Web-pages:* *Crataegus Species - The Hawthorns.*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Crataegus+pubescens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Crataegus+pubescens`

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Plants For A Future: Database Search Results

Crataegus pubescens

Common name:	Manzanilla	Family:	Rosaceae
Author:	Loud.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. mexicana[G] C. stipulosa[G] Mespilus pubescens[G] Mespilus stipulosa[G]
Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Mexico(Kickapoo)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m. It is hardy to zone 7 and is not frost tender. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[177, 200]. A mealy texture, it is often used in preserves[183]. For stewing, they are first boiled with wood ashes to remove the skin, then boiled in hot syrup with red colouring for a short time and hung on nails stuck into poles, much like candied apples[183]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

Hybridizes freely with other members of this genus[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Crataegus Species - The Hawthorns.

Dr. Helio Flores Fri Jan 19 04:17:18 2001

Here in Mexico, we use the crataegus pubescens as a good fruit and remedy for various ailments. Do you know this variety?

Cross references: *Web-pages: Crataegus Species - The Hawthorns.*.

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera: Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants:* *Crataegus marshallii*. *Genera:* *Crataegus*. *Web-pages:* *Crataegus Species - The Hawthorns.*.

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Plants For A Future: Database Search Results

Crataegus pubescens

Common name:	Manzanilla	Family:	Rosaceae
Author:	Loud.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Flowers: Fresh

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Plants For A Future: Database Search

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Search for Latin Name: Crataegus

New Search: Crataegus Search

Latin Name	Common Name	Family	Synonyms	Rating
Amelanchier lamarckii	Apple serviceberry	Rosaceae	A. canadensis. non (L.)Medik. A. botryapium. A. grandiflora. Franco. non Rehd. Crataegus racemosa. Pyrus botryapium.; Crataegus racemosa	5
Amelanchier ovalis	Snowy mespilus	Rosaceae	A. rotundifolia. (Lam.)Dum-Cours. A. vulgaris. Crataegus rotundifolia. Mespilus amelanchier.; Crataegus rotundifolia; Crataegus aboriginum; Crataegus brunetiana; Crataegus brunetiana var. fernaldii; Crataegus caliciglabrata; Crataegus chrysocarpa; Crataegus chrysocarpa var. aboriginum; Crataegus chrysocarpa var. chrysocarpa; Crataegus chrysocarpa var. longiacuminata; Crataegus chrysocarpa var. phoenicea; Crataegus chrysocarpa var. rotundifolia; Crataegus coccinata; Crataegus coccinea; Crataegus columbiana var. chrysocarpa; Crataegus doddsi; Crataegus faxonii;	2

			Crataegus faxonii var. durifrucata; Crataegus faxonii var. praecoqua; Crataegus faxonii var. praetermissa; Crataegus illuminata; Crataegus jackii; Crataegus laurentiana var. brunetiana; Crataegus laurentiana var. dissimilifolia; Crataegus mercerensis; Crataegus praecoqua; Crataegus praecox; Crataegus putnamiana; Crataegus sicca; Crataegus sicca var. glabrifolia; Crataegus subrotundifolia	
Amelanchier spicata		Rosaceae	A, ovalis. non Med. Crataegus spicata.; Crataegus spicata; Crataegus rotundifolia	3
Aronia arbutifolia	Red chokeberry	Rosaceae	Pyrus arbutifolia.; Crataegus pyrifolia	2
Aronia melanocarpa	Black chokeberry	Rosaceae	Crataegus aronia; Crataegus prunifolia	3
Crataegus species		Rosaceae		3
Crataegus acclivis		Rosaceae		4
Crataegus aestivalis	Eastern mayhaw	Rosaceae	C. luculenta; C. maloides; Mespilus aestivalis	3
Crataegus altaica	Altai mountain thorn	Rosaceae	C. purpurea altaica.; Crataegus purpurea altaica; C. korolkowii; C. purpurea var. altaica; C. wattiana	3
Crataegus anomala		Rosaceae		3
Crataegus apiifolia	Parsley-leaved hawthorn	Rosaceae	C. marshallii. Egglest.; Crataegus marshallii	2

Crataegus aprica		Rosaceae	C. cullasagensis; C. flava; C. floridana; C. leonensis; C. lepida; C. meridiana; C. michauxii; C. ravenelii; C. recurvata; C. senta; C. visenda	3
Crataegus armena		Rosaceae		2
Crataegus arnoldiana		Rosaceae	C. x anomala	5
Crataegus atrosanguinea		Rosaceae		3
Crataegus azarolus	Azarole	Rosaceae	C. aronia.; Crataegus aronia; Aronia arbutifolia var. nigra; Aronia melanocarpa; Aronia nigra; Hahnia arbutifolia var. nigra; Mespilus arbutifolia var. melanocarpa; Photinia melanocarpa; Pyrus arbutifolia var. nigra; Pyrus melanocarpa; Pyrus nigra; Sorbus melanocarpa	4
Crataegus baroussana		Rosaceae		4
Crataegus caesa		Rosaceae	C. aulica; C. coccinea; C. ellwangeriana; C. habereri; C. letchworthiana; C. pedicellata; C. pedicellata var. assurgens; C. pedicellata var. caesa; C. pedicellata var. ellwangeriana; C. pedicellata var. robesoniana; C. pedicellata var. sertata	4

Crataegus calpodendron	Pear hawthorn	Rosaceae	C. tomentosa. DuRoi.; Crataegus tomentosa; C. acanthacolonensis; C. calpodendron var. gigantea; C. calpodendron var. globosa; C. calpodendron var. hispida; C. calpodendron var. hispidula; C. calpodendron var. microcarpa; C. calpodendron var. mollicula; C. calpodendron var. obesa; C. chapmanii; C. downingii; C. fontanesiana; C. globosa; C. hispidula; C. sp.; Mespilus calpodendron	3
Crataegus canadensis		Rosaceae		2
Crataegus canbyi		Rosaceae	C. acutifolia; C. acutifolia var. insignis; C. algens; C. barrettiana; C. bushii; C. cherokeensis; C. cocksii; C. crus-galli; C. crus-galli var. barrettiana; C. crus-galli var. bellica; C. crus-galli var. capillata; C. crus-galli var. exigua; C. crus-galli var. leptophylla; C. crus-galli var. macra; C. crus-galli var. oblongata; C. crus-galli var. pachyphylla; C. crus-galli var. pyracanthifolia; C. danielsii; C. denaria; C. fecunda; C. fontanesiana; C. fontanesiana auct. non; C. hannibalensis; C. mohrii; C. operta; C. palliata; C. palmeri; C. permixta; C. pyracanthoides; C. regalis; C. regalis var. paradoxa; C. sabineana; C. salicifolia; C. schizophylla; C. signata; C. subpilosa; C. tantula; C.	2

			tenax; C. triumphalis; C. uniqua; C. vallicola	
Crataegus champlainensis		Rosaceae	C. submollis	4
Crataegus chlorosarca		Rosaceae	C. mandshurica	3
Crataegus chrysocarpa	Fireberry hawthorn	Rosaceae	C. aboriginum; C. brunetiana; C. brunetiana var. fernaldii; C. caliciglabrata; C. chrysocarpa var. aboriginum; C. chrysocarpa var. longiacuminata; C. chrysocarpa var. phoenicea; C. chrysocarpa var. rotundifolia; C. coccinata; C. coccinea; C. columbiana var. chrysocarpa; C. doddsi; C. faxonii; C. faxonii var. durifrucata; C. faxonii var. praecoqua; C. faxonii var. praetermissa; C. illuminata; C. jackii; C. laurentiana var. brunetiana; C. laurentiana var. dissimilifolia; C. mercerensis; C. praecoqua; C. praecox; C. putnamiana; C. rotundifolia; C. sicca; C. sicca var. glabrifolia; C. subrotundifolia	3
Crataegus coccinoides	Kansas hawthorn	Rosaceae	C. coccinioides	3
Crataegus columbiana	Columbian hawthorn	Rosaceae	C. chrysocarpa var. piperi; C. columbiana var. piperi; C. douglasii var. douglasii; C. piperi; C. williamsii	3

Crataegus crus-galli	Cockspur thorn	Rosaceae	C. acutifolia; C. acutifolia var. insignis; C. algens; C. barrettiana; C. bushii; C. canbyi; C. cherokeensis; C. cocksii; C. crus-galli var. barrettiana; C. crus-galli var. bellica; C. crus-galli var. capillata; C. crus-galli var. exigua; C. crus-galli var. leptophylla; C. crus-galli var. macra; C. crus-galli var. oblongata; C. crus-galli var. pachyphylla; C. crus-galli var. pyracanthifolia; C. crus-gallii; C. danielsii; C. denaria; C. fecunda; C. fontanesiana; C. fontanesiana auct. non; C. hannibalensis; C. mohrii; C. operta; C. palliata; C. palmeri; C. permixta; C. pyracanthoides; C. regalis; C. regalis var. paradoxa; C. sabineana; C. salicifolia; C. schizophylla; C. signata; C. subpilosa; C. tantula; C. tenax; C. triumphalis; C. uniqua; C. vallicola	2
Crataegus cuneata	Sanzashi	Rosaceae	C. kulingensis	3
Crataegus dilatata		Rosaceae	C. coccinoides dilatata.; Crataegus coccinioides dilatata; C. coccinioides var. locuples; C. conspecta; C. locuples	3
Crataegus dispessa		Rosaceae	C. pyriformis. Britt.; Crataegus pyriformis	3
Crataegus douglasii	Black hawthorn	Rosaceae	C. rivularis. Nutt.; C. punctata var. brevispina	4

Crataegus durobrivensis		Rosaceae	C. kellermanii; C. neobaxteri; C. saundersiana; C. suborbiculata; C. suborbiculata var. saundersiana	4
Crataegus ellwangeriana		Rosaceae	C. pedicellata ellwangeriana.; Crataegus pedicellata ellwangeriana; C. aulica; C. caesa; C. coccinea; C. habereri; C. letchworthiana; C. pedicellata; C. pedicellata var. assurgens; C. pedicellata var. caesa; C. pedicellata var. ellwangeriana; C. pedicellata var. robesoniana; C. pedicellata var. sertata	5
Crataegus elongata		Rosaceae		4
Crataegus festiva		Rosaceae		5
Crataegus flabellata		Rosaceae	C. densiflora; C. flabellata var. densiflora; C. flabellata var. grayana; C. grayana; Mespilus flabellata	3
Crataegus flava	Summer haw	Rosaceae	C. aprica; C. cullasagensis; C. floridana; C. leonensis; C. lepida; C. meridiana; C. michauxii; C. ravenelii; C. recurvata; C. senta; C. visenda	3

Crataegus gemosa		Rosaceae	C. neofluvialis. Ashe. C. michiganensis. Ashe. C. pisifera. Sarg.; Crataegus pisifera; Crataegus neofluvialis; Crataegus michiganensis; C. ambrosia; C. ardula; C. bicknellii; C. celsa; C. chrysocarpa var. bicknellii; C. columbiana var. occidentalis; C. divida; C. ferta; C. florifera; C. florifera var. celsa; C. florifera var. mortonis; C. florifera var. shirleyensis; C. florifera var. virilis; C. gemmosa; C. incerta; C. integriloba; C. laxiflora; C. leucantha; C. macracantha; C. macracantha var. colorado; C. macracantha var. divida; C. macracantha var. integriloba; C. macracantha var. occidentalis; C. macracantha var. pertomentosa; C. mortonis; C. pertomentosa; C. saeva; C. shirleyensis; C. silvestris; C. succulenta; C. succulenta var. gemmosa; C. succulenta var. laxiflora; C. succulenta var. macracantha; C. succulenta var. michiganensis; C. succulenta var. neofluvialis; C. succulenta var. occidentalis; C. succulenta var. pertomentosa; C. succulenta var. pisifera; C. succulenta var. rutila; C. sylvestris; C. venulosa; C. virilis	3

Crataegus heterophylla		Rosaceae		2
Crataegus holmesiana		Rosaceae	C. holmesiana var. amicta; C. holmesiana var. villipes; C. villipes	4
Crataegus hupehensis		Rosaceae		3
Crataegus illinoiensis		Rosaceae		4
Crataegus intricata		Rosaceae	C. coccinea. pro parte; Crataegus coccinea; C. aboriginum; C. aulica; C. biltmoreana; C. biltmoreana var. stonei; C. boyntonii; C. brunetiana; C. brunetiana var. fernaldii; C. caesa; C. caliciglabrata; C. chrysocarpa; C. chrysocarpa var. aboriginum; C. chrysocarpa var. longiacuminata; C. chrysocarpa var. phoenicea; C. chrysocarpa var. rotundifolia; C. coccinata; C. coccinea auct. non; C. columbiana var. chrysocarpa; C. doddsi; C. ellwangeriana; C. faxonii; C. faxonii var. durifrucata; C. faxonii var. praecoqua; C. faxonii var. praetermissa; C. foetida; C. fortunata; C. habereri; C. horseyi; C. illuminata; C. intricata var. boyntonii; C. intricata var. neobushii; C. intricata var. rubella; C. intricata var. straminea; C. jackii; C. laurentiana var. brunetiana; C. laurentiana var. dissimilifolia; C. letchworthiana; C. mercerensis; C. neobushii; C. ouachitensis; C.	3

			ouachitensis var. minor; C. padifolia; C. padifolia var. incarnata; C. pagensis; C. pallens; C. pedicellata; C. pedicellata var. assurgens; C. pedicellata var. caesa; C. pedicellata var. ellwangeriana; C. pedicellata var. robesoniana; C. pedicellata var. sertata; C. praecoqua; C. praecox; C. putnamiana; C. rotundifolia; C. rubella; C. sicca; C. sicca var. glabrifolia; C. stonei; C. straminea; C. subrotundifolia	
Crataegus jackii		Rosaceae	C. aboriginum; C. brunetiana; C. brunetiana var. fernaldii; C. caliciglabrata; C. chrysocarpa; C. chrysocarpa var. aboriginum; C. chrysocarpa var. longiacuminata; C. chrysocarpa var. phoenicea; C. chrysocarpa var. rotundifolia; C. coccinata; C. coccinea; C. columbiana var. chrysocarpa; C. doddsi; C. faxonii; C. faxonii var. durifrucata; C. faxonii var. praecoqua; C. faxonii var. praetermissa; C. illuminata; C. laurentiana var. brunetiana; C. laurentiana var. dissimilifolia; C. mercerensis; C. praecoqua; C. praecox; C. putnamiana; C. rotundifolia; C. sicca; C. sicca var. glabrifolia; C. subrotundifolia	2

Crataegus jonesiae		Rosaceae	C. harryi; C. jonesae; C. jonesiae var. brownietta; C. jonesiae var. harryi; C. laurentiana	2
Crataegus laciniata		Rosaceae	C. odoratissima. C. orientalis. Pall.; Crataegus orientalis; Crataegus odoratissima	4
Crataegus laevigata	Midland hawthorn	Rosaceae	C. oxyacantha. C. oxyacanthoides.; Crataegus oxyacanthoides; Crataegus oxyacantha; C. curvisepala; C. oxyacantha auct. non; C. oxyacantha var. paulii; C. rhipidophylla; Mespilus laevigata	3
Crataegus lobulata	Red haw	Rosaceae	C. pringlei; C. pringlei var. exclusa; C. pringlei var. lobulata	2
Crataegus macrosperma	Big-fruit hawthorn	Rosaceae	C. chadsfordiana; C. fluviatilis; C. fretalis; C. macrosperma var. acutiloba; C. macrosperma var. eganii; C. macrosperma var. matura; C. macrosperma var. pastora; C. macrosperma var. pentandra; C. macrosperma var. roanensis; C. prona; C. randiana; C. roanensis; C. roanensis var. fluviatilis; C. roanensis var. heidelbergensis	3
Crataegus maximowiczii		Rosaceae		2
Crataegus meyeri		Rosaceae		3
Crataegus missouriensis		Rosaceae	C. vailiae. Britt.; Crataegus vailiae; C. brittonii	5

Crataegus mollis	Red haw	Rosaceae	C. coccinea mollis.; Crataegus coccinea mollis; C. albicans; C. arkansana; C. brachyphylla; C. cibaria; C. coccinea var. mollis; C. dumetosa; C. gravida; C. induta; C. invisa; C. lacera; C. limaria; C. mollis f. dumetosa; C. mollis var. dumetosa; C. mollis var. gigantea; C. mollis var. incisifolia; C. mollis var. sera; C. noelensis; C. pedicellata var. albicans; C. placens	4
Crataegus monogyna	Hawthorn	Rosaceae	C. oxyacantha var. praecox	3
Crataegus nigra	Hungarian hawthorn	Rosaceae		2
Crataegus opaca	Western mayhaw	Rosaceae	C. aestivalis. Torr.&Gray. pro parte.; C. nudiflora	3
Crataegus parvifolia		Rosaceae		2
Crataegus pedicellata	Scarlet haw	Rosaceae	C. coccinea. pro parte; Crataegus coccinea; C. aboriginum; C. aulica; C. biltmoreana; C. biltmoreana var. stonei; C. boyntonii; C. brunetiana; C. brunetiana var. fernaldii; C. caesa; C. caliciglabrata; C. chrysocarpa; C. chrysocarpa var. aboriginum; C. chrysocarpa var. longiacuminata; C. chrysocarpa var. phoenicea; C. chrysocarpa var. rotundifolia; C. coccinata; C. coccinea auct. non; C. columbiana var. chrysocarpa; C. doddsi; C. ellwangeriana; C. faxonii; C. faxonii var. durifrucata; C. faxonii var. praecoqua;	5

			C. faxonii var. praetermissa; C. foetida; C. fortunata; C. habereri; C. horseyi; C. illuminata; C. intricata; C. intricata var. boyntonii; C. intricata var. neobushii; C. intricata var. rubella; C. intricata var. straminea; C. jackii; C. laurentiana var. brunetiana; C. laurentiana var. dissimilifolia; C. letchworthiana; C. mercerensis; C. neobushii; C. ouachitensis; C. ouachitensis var. minor; C. padifolia; C. padifolia var. incarnata; C. pagensis; C. pallens; C. pedicellata var. assurgens; C. pedicellata var. caesa; C. pedicellata var. ellwangeriana; C. pedicellata var. robesoniana; C. pedicellata var. sertata; C. praecoqua; C. praecox; C. putnamiana; C. rotundifolia; C. rubella; C. sicca; C. sicca var. glabrifolia; C. stonei; C. straminea; C. subrotundifolia	
Crataegus pedicellata gloriosa	Scarlet haw	Rosaceae	C. coccinea.	3
Crataegus pensylvanica		Rosaceae	C. pennsylvanica; C. tatnalliana	5
Crataegus pentagyna		Rosaceae	C. melanocarpa; C. pinnatifida	3
Crataegus phaenopyrum	Washington thorn	Rosaceae	C. cordata.; Crataegus cordata; C. populifolia; C. youngii; Mespilus phaenopyrum	2

Crataegus pinnatifida	Chinese haw	Rosaceae	C. pentagyna; C. pinnatifuda	3
Crataegus pinnatifida major		Rosaceae	C. korolkowii. non Henry.; Crataegus korolkowii; C. altaica; C. bretschneideri; C. pinnatifida var. major; C. purpurea var. altaica; C. wattiana	4
Crataegus pontica		Rosaceae		4
Crataegus pringlei		Rosaceae	C. lobulata; C. pringlei var. exclusa; C. pringlei var. lobulata	2
Crataegus pruinosa	Frosted hawthorn	Rosaceae	C. aspera; C. congesta; C. crawfordiana; C. deltoides; C. formosa; C. gattingeri; C. gattingeri var. rigida; C. gaudens; C. georgiana; C. lecta; C. leiophylla; C. littoralis; C. mackenziei; C. mackenziei var. aspera; C. mackenziei var. bracteata; C. parvula; C. platycarpa; C. porteri; C. porteri var. caerulescens; C. pruinosa var. congesta; C. pruinosa var. conjuncta; C. pruinosa var. grandiflora; C. pruinosa var. latisepala; C. pruinosa var. leiophylla; C. pruinosa var. pachypoda; C. pruinosa var. parvula; C. pruinosa var. porteri; C. pruinosa var. rugosa; C. pruinosa var. virella; C. rugosa; C. vicinalis; C. virella; Mespilus pruinosa	3
Crataegus pubescens	Manzanilla	Rosaceae	C. mexicana; C. stipulosa; Mespilus pubescens; Mespilus stipulosa	3

Crataegus pubescens stipulacea	Manzanilla	Rosaceae	C. mexicana. C. stipulacea. Loud.; Crataegus stipulacea; Crataegus mexicana; C. pubescens; C. pubescens f. stipulacea; C. stipulosa; Mespilus pubescens; Mespilus stipulosa	3
Crataegus punctata	Dotted hawthorn	Rosaceae	C. collina; C. collina var. secta; C. collina var. sordida; C. collina var. succincta; C. fastosa; C. punctata var. aurea; C. punctata var. canescens; C. punctata var. microphylla; C. verruculosa	3
Crataegus reverchonii		Rosaceae	C. discolor; C. reverchonii var. discolor; C. reverchonii var. stevensiana; C. stevensiana	2
Crataegus rivularis	River hawthorn	Rosaceae	C. douglasii var. rivularis	2
Crataegus rotundifolia		Rosaceae	Amelanchier ovalis; Amelanchier rotundifolia; Amelanchier vulgaris; C. aboriginum; C. brunetiana; C. brunetiana var. fernaldii; C. caliciglabrata; C. chrysocarpa; C. chrysocarpa var. aboriginum; C. chrysocarpa var. chrysocarpa; C. chrysocarpa var. longiacuminata; C. chrysocarpa var. phoenicea; C. chrysocarpa var. rotundifolia; C. coccinata; C. coccinea; C. columbiana var. chrysocarpa; C. doddsi; C. faxonii; C. faxonii var. durifrucata; C. faxonii var. praecoqua; C. faxonii var. praetermissa; C. illuminata;	3

			C. jackii; C. laurentiana var. brunetiana; C. laurentiana var. dissimilifolia; C. mercerensis; C. praecoqua; C. praecox; C. putnamiana; C. sicca; C. sicca var. glabrifolia; C. subrotundifolia; Mespilus amelanchier	
Crataegus sanguinea		Rosaceae		2
Crataegus schraderiana		Rosaceae	C. orientalis sanguinea. C. tournefortii.; Crataegus tournefortii; Crataegus orientalis sanguinea; C. orientalis var. sanguinea; C. x tournefortii	5
Crataegus songorica		Rosaceae	C. songarica	3
Crataegus stipulosa		Rosaceae	C. mexicana; C. pubescens; Mespilus pubescens; Mespilus stipulosa	2
Crataegus submollis	Quebec hawthorn	Rosaceae	C. champlainensis	4
Crataegus subvillosa		Rosaceae		2
Crataegus succulenta		Rosaceae	C. coloradensis. A.Nels.; Crataegus coloradensis; C. ambrosia; C. ardula; C. bicknellii; C. celsa; C. chrysocarpa var. bicknellii; C. columbiana var. occidentalis; C. divida; C. ferta; C. florifera; C. florifera var. celsa; C. florifera var. mortonis; C. florifera var. shirleyensis; C. florifera var. virilis; C. gemmosa; C. incerta; C. integriloba; C. laxiflora; C. leucantha; C. macracantha; C. macracantha var. colorado; C. macracantha var. divida; C. macracantha	4

			var. integriloba; C. macracantha var. occidentalis; C. macracantha var. pertomentosa; C. mortonis; C. neofluvialis; C. pertomentosa; C. pisifera; C. saeva; C. shirleyensis; C. silvestris; C. succulenta var. gemmosa; C. succulenta var. laxiflora; C. succulenta var. macracantha; C. succulenta var. michiganensis; C. succulenta var. neofluvialis; C. succulenta var. occidentalis; C. succulenta var. pertomentosa; C. succulenta var. pisifera; C. succulenta var. rutila; C. sylvestris; C. venulosa; C. virilis	
Crataegus szovitskii		Rosaceae		3
Crataegus tanacetifolia	Tansy-leaved thorn	Rosaceae	Mespilus tanacetifolia.; Mespilus tanacetifolia	5
Crataegus uniflora		Rosaceae	C. bisulcata; C. choriophylla; C. gregalis; C. raleighensis	2
Crataegus x grignonensis		Rosaceae		3
Eriobotrya japonica	Loquat	Rosaceae	Mespilus japonica. Photinia japonica.; Crataegus bibas	3
Malus florentina		Rosaceae	Crataegus florentina. Pyrus crataegifolia. Malosorbus florentina.; Crataegus florentina	2
Malus floribunda	Japanese crab	Rosaceae	Pyrus floribunda. P. pulcherrima.; Crataegus prunifolia	3

Malus trilobata		Rosaceae	Crataegus trilobata. Eriolobus trilobatus. Pyrus trilobata.; Crataegus trilobata	2
Osteomeles obtusifolia		Rosaceae	Crataegus obtusifolia	1
Photinia arbutifolia	Christmas berry	Rosaceae	Photinia. arbutifolia. Lindl. P. salicifolia. Crataegus arbutifolia.; Crataegus arbutifolia	2
Photinia glabra	Japanese photinia	Rosaceae	Crataegus glabra. Sorbus glabra.; Crataegus glabra; Crataegus serratifolia	1
Photinia serratifolia		Rosaceae	P. serrulata. Lindl. Crataegus serratifolia.; Crataegus serratifolia; Crataegus glabra	1
Photinia villosa		Rosaceae	P. variabilis. Pourthiaea villosa. (Thunb.)Decne.; Crataegus villosa	1
Pyracantha coccinea	Firethorn	Rosaceae	Cotoneaster pyracantha. Crataegus pyracantha. Mespilus pyracantha.; Crataegus pyracantha	1
Pyracantha crenulata	Nepalese white thorn	Rosaceae	Crataegus crenulata. Mespilus crenulata.; Crataegus crenulata	2
Rhaphiolepis indica	Indian hawthorn	Rosaceae	Crataegus indica.; Crataegus indica	1
Sorbus alnifolia	Korean mountain ash	Rosaceae	Micromeles alnifolia.; Crataegus alnifolia	1
Sorbus aria	Whitebeam	Rosaceae	Aria nivea. Crataegus aria. Pyrus aria.; Crataegus aria	3

Sorbus hybrida	Swedish servicetree	Rosaceae	S. fennica. S. meinichii. S. pinnatifida. Crataegus fennica. Pyrus fennica. P. firma. P. pinnatifida.; Crataegus fennica	1
Sorbus intermedia	Swedish whitebeam	Rosaceae	S. scandia. S. suecica. Crataegus aria scandia. C. aria suecica. Pyrus intermedia.; Crataegus aria suecica; Crataegus aria scandia; Crataegus hybrida	2

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Amelanchier lamarckii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Apple serviceberry	Family:	Rosaceae
Author:	Schroeder.	Botanical references:	11, 200
Synonyms:	Crataegus racemosa (Lam. non Lindl.), Amelanchier grandiflora (Franco. non Rehder.), Amelanchier canadensis (Auct pro parte non (L.)Medik.), Amelanchier botryapium (DC.)		
Known Hazards:	None known		
Range:	N. America. Naturalized in Britain.		
Habitat:	Possibly no longer found in its original wild habitat, it is naturalized in S. England on sandy heaths and damp acid woods[11, 184].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canadensis var. subintegra[B,P] A. lucida[B,P] A. sanguinea var. grandiflora[B] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amerikaans Krentenboompje [D], Canadian Service-berry [B], Canadian Serviceberry [P], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Ballerina'**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[11]. Sweet and succulent with a flavour of apples[177], they can also be dried for later use[183]. This is one of the nicest fruits in the genus, they can be eaten and enjoyed in quantity[K]. The fruit is rich in iron and copper[226]. It is up to 10mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Hardy to about -25°c[184]. This species does not produce suckers[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K]. This species is worthy of special attention because of the quality of its fruit. It was formerly cultivated for these fruits and there are some named varieties[183]. The fruit is freely produced in Britain[184].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. laevis, see [11] for the latest (1991) classification. Some botanists consider this species to be a natural hybrid A. canadensis x A. laevis.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Princess Diana'

> The fruit is up to 10mm in diameter[183]. A small, gracefully spreading tree[183].

'Ballerina'

> A very tasty fruit, about the size of a blackcurrant[183, K]. A large shrub or small tree, it can reach 4.5 metres in height[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

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Item: *Amelanchier lamarckii* (Apple serviceberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier sanguinea var. grandiflora* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2

Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* Amelanchier canadensis. *Genera:* Amelanchier.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier laevis, a. lamarckii & birds

Klaus Dichtel (klausssss@web.de) Thu Feb 26 11:04:13 2004

In 2003 we experienced, that a. lamarckii was harvested by birds, but a. laevis not. Greetings from Klaus

Details of Growing Condition: Germany, Lower Sachsony, 650mm rainfall, sandy soil, windy site.

Cross references: *Plants:* *Amelanchier laevis*. *Genera:* *amelanchier sp.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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WEB search engine by Rich Morris - Home Page- Contact Info

Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+lamarckii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+lamarckii`

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Plants For A Future: Database Search Results

Amelanchier lamarckii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Apple serviceberry	Family:	Rosaceae
Author:	Schroeder.	Botanical references:	11, 200
Synonyms:	Crataegus racemosa (Lam. non Lindl.), Amelanchier grandiflora (Franco. non Rehder.), Amelanchier canadensis (Auct pro parte non (L.)Medik.), Amelanchier botryapium (DC.)		
Known Hazards:	None known		
Range:	N. America. Naturalized in Britain.		
Habitat:	Possibly no longer found in its original wild habitat, it is naturalized in S. England on sandy heaths and damp acid woods[11, 184].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canadensis var. subintegra[B,P] A. lucida[B,P] A. sanguinea var. grandiflora[B] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amerikaans Krentenboompje [D], Canadian Service-berry [B], Canadian Serviceberry [P], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5

for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Ballerina'**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[11]. Sweet and succulent with a flavour of apples[177], they can also be dried for later use[183]. This is one of the nicest fruits in the genus, they can be eaten and enjoyed in quantity[K]. The fruit is rich in iron and copper[226]. It is up to 10mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Hardy to about -25°c[184]. This species does not produce suckers[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K]. This species is worthy of special attention because of the quality of its fruit. It was formerly cultivated for these fruits and there are some named varieties[183]. The fruit is freely produced in Britain[184].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. laevis, see [11] for the latest (1991) classification. Some botanists consider this species to be a natural hybrid A. canadensis x A. laevis.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Princess Diana'

The fruit is up to 10mm in diameter[183]. A small, gracefully spreading tree[183].

'Ballerina'

A very tasty fruit, about the size of a blackcurrant[183, K]. A large shrub or small tree, it can reach 4.5 metres in height[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Amelanchier lamarckii* (Apple serviceberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier sanguinea var. grandiflora* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario.

1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

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Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

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Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier laevis, a. lamarckii & birds

Klaus Dichtel (klaussss@web.de) Thu Feb 26 11:04:13 2004

In 2003 we experienced, that a. lamarckii was harvested by birds, but a. laevis not. Greetings from Klaus

Details of Growing Condition: Germany, Lower Sachsony, 650mm rainfall, sandy soil, windy site.

Cross references: *Plants:* *Amelanchier laevis*. *Genera:* *amelanchier sp.*.

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Plants for a Future
A resource centre for edible and other useful plants

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Español

Edible Shrubs

There are a great many ornamental shrubs and small trees with edible fruits, leaves etc that can often be seen growing in ornamental gardens. Below is a list of just a few suggestions for you to consider growing. The main difficulty in writing this leaflet was not so much what plants to include, but what plants could be left out in order to reduce the list to a reasonable length. Other leaflets are available giving details of plants that can be grown in the ornamental, water and bog gardens, but if you have any plants in your garden that have not been included on any lists and that you think might be edible or have other useful qualities, then you could always write to us (SAE please) giving details of the plant including the botanical name (if you know it), the common name and a brief description (ie tree/shrub/herbaceous perennial etc, evergreen/deciduous, height etc, etc). Any information we have will be gladly passed on to you.

Amelanchier species: Juneberries produce blackcurrant-size juicy fruits in July (which is why we call them juneberries!). If you can get there before the birds you will find that the fruits have a pleasant apple- like taste. The main problem is that birds like the fruits so much they will often eat them under-ripe and will not leave many for you to try. The plants are exceedingly beautiful when they flower in early to mid spring. All members of this genus produce edible fruits, though some are not very desireable, and plants range in size from small shrubs to tall trees. Our favourite is *A. alnifolia*, it grows about 2 metres tall and produces suckers. The fruit, which is very juicy and relatively large, can be protected from the birds relatively easily because of the small size of the plants. Others that we also like include *A. canadensis*, a suckering tree growing about 6 metres tall that has become naturalized in Britain and *A. lamarckii* which is about 6 metres tall - this species does not sucker. There is also a cultivar *A. 'Ballerina'* that is often found in garden centres, this plant has larger than average fruits with a pleasant sweet taste.

Arbutus unedo - Strawberry Tree: An evergreen tree that can grow up to 30 feet tall, but there are smaller growing varieties. One that has been particularly recommended is 'Croome', which is said to fruit more freely and has an attractive red tinge to the flowers. The tree succeeds on most soils and produces edible fruits in late autumn. It is particularly beautiful at this time because it is also in flower. Whilst not highly flavoured, the fruits have a nice, subtle taste. (See our leaflet on Arbutus unedo for more information about this plant).

Arundinaria species and Phylostachys species - Bamboos: Evergreen grasses that make very attractive specimen plants in lawns and can also be used as screens. Many species have edible shoots in spring and their canes make good plant supports.

Berberis species - *Barberries:* This genus includes some extremely ornamental evergreen and deciduous shrubs and they tend to tolerate most soils and locations. None of them have poisonous fruits though many of them are unpalatable. *B. vulgaris* was once quite commonly grown in the fruit garden but has fallen out of favour in recent times. This plant is also the alternate host of the black stem rust of wheat, so it has virtually been eradicated from our hedgerows and woodlands by farmers. Other species to consider include *B. aggregata*, *B. angulosa*, *B. aristata*, *B. asiatica*, *B. buxifolia*, *B. darwinii* and *B. lycium*. The fruits are acid but can be eaten raw (best after a frost) or used to make conserves, jams etc. They can also be dried and used as a substitute for raisins. Some species can be used to make very ornamental informal hedges (*B. darwinii* is especially good).

Chaenomeles species - *Quinces:* Not the true quince, which is Cydonia oblonga, but the fruits of these deciduous shrubs are so similar that you would hardly notice the difference. They vary in size from about 2 feet to 15 feet and, for best fruit production, should be grown in a sunny position, though they are not really fussy. Harsh and astringent raw, the cooked fruit becomes very aromatic and can be added to other cooked fruit (especially apples) or used to make jams, jellies etc.

Comptonia peregrina asplenifolia - *Sweet Fern:* Not a fern, but a beautiful deciduous shrub about four feet tall with fern-like leaves. It requires a lime-free soil and, in its natural habitat, grows on poor, dry, sandy soils, so it won't need much feeding. The fruits may be eaten raw, the dried leaves make a refreshing tea, and the fresh leaves are used as a lining in fruit baskets to help preserve the fruits.

Cornus mas - *Cornelian Cherry:* A deciduous shrub, up to 20 feet tall, but can be kept smaller in cultivation. Formerly cultivated for its fruit, it is now often found in the ornamental garden where it is valued for its early spring flowers. It prefers a chalky soil but tolerates most soils and fruits best when in a sunny position. The fruit can be eaten raw, an edible oil can be extracted from the seeds, and the wood, which is very tough, is much valued for making tools, cogs etc. Crataegus species. This genus includes our native hawthorns (see our leaflet on hedge plants for details of these). All members of the genus have edible fruits but, whilst the fruit of a hawthorn is edible, it is far from being appetizing. However there are several members of the genus that have absolutely delicious fruits and I would highly recommend them as a fruit crop. The trees are very easy to grow, they tolerate most soils and situations including drought and occasional waterlogging. They are very ornamental when flowering in the spring and also when in fruit. Most species fruit abundantly in Britain. Our two special favourites are *C. arnoldiana* and *C. schraderiana*. Their fruits are about the size of a large cherry and usually have a group of five seeds in the centre. These seeds stick together and so the effect is of eating a fruit with one large seed. The soft juicy flesh is very well flavoured, and can be eaten in quantity. I would certainly prefer a bowl of these to a bowl of strawberries. Other members of this genus that also have very nice fruits include *C. azarolus* (the azerole is sometimes cultivated in the Mediterranean but I have not yet tried it), *C. douglasii*, *C. durobrivensis*, *C. ellwangeriana*, *C. opaca* and *C. tanacetifolia*. This last species has a much firmer flesh and is decidedly apple-like in its flavour.

Elaeagnus species: Many of the species in this genus have quite pleasant tasting fruit and they are often cultivated, particularly in the Orient, for their fruit which is used to make drinks and sherbet. This is another group of shrubs that are not too fussy about soil conditions though they tend to fruit better when grown in a sunny position in light soil that is not too rich, and many of them can be grown as an informal hedge. Species to consider include *E. angustifolia*, *E. commutata*, *E. x. ebbingei*, *E. glabra*, *E. macrophylla*, *E. multiflora* and *E. pungens*, which is said to be the best of the genus.

Diospyros lotus and D. virginiana: These two trees produce some of the most delicious fruits we have ever eaten from plants growing in Britain. They are related to the persimmon or sharon fruit that is sometimes seen in greengrocers and are very similar in shape but smaller, ranging in size from a large cherry to a small crab apple. Only eat the fruit when it is absolutely ripe and squidgy soft, otherwise it will be astringent and have a rather unpleasant effect on your mouth. Fully ripe they taste like a rich apricot jelly. Plants do require a good summer in order to ripen the fruit properly so they grow better in the southeast. The fruit is also nicer after a frost, allow the fruit to fall naturally from the tree and leave it on the ground (if the birds etc don't start eating it) until there is a frost or two. Then harvest the fruit and store it in a cool place until it is really soft, in fact almost at the point of going rotten. *D. lotus* is sometimes called the date plum and can grow to about 9 metres tall, *D. virginiana* is the American persimmon and can be much taller, it has also been the best cropper in my experience and is possibly the best flavoured. Named forms of this plant are available in America.

Gaultheria species - Wintergreen: Evergreen shrubs requiring a lime-free soil and some shade. They vary in height from a few inches to five feet, all of them having edible fruits. Two species quite commonly grown in Britain are *G. procumbens*, about six inches tall, and *G. shallon* which grows up to four feet. The fruit is highly aromatic with a flavour that is somehow reminiscent of a hospital waiting room! Some people love them, others are a bit less sure. The leaves can be used to make a refreshing tea, and an oil distilled from these plants (oil of wintergreen) is often used as a liniment in the treatment of muscular aches and pains.

Laurus nobilis - Bay Tree: An evergreen shrub or small tree, the leaves of which are used as a food flavouring. Only reliably hardy in the mild parts of Britain, this tree is very amenable to pot culture so can be kept in a sheltered position over winter and moved into the garden during the warmer months. It tolerates clipping so is often grown as an ornamental plant.

Mahonia aquifolium - Oregon Grape: An evergreen shrub growing about four feet tall, this really is one of the most tolerant of plants, succeeding in most situations, even dense shade, and surviving almost total neglect. Fruit production will be greatly improved, though, if you give it just a little bit of attention. The fruit is acid and can be eaten raw (best after a frost) or used in jams, preserves etc. All other members of this genus have edible fruits.

Morus nigra - Mulberry: A slow growing, very long lived, deciduous tree eventually reaching 30 feet in height. It makes a fine specimen tree in the lawn, and does better in the southern half of the country, preferring a light soil in a moist, well sheltered, sunny position. The fruit, looking somewhat like a large blackberry, ripens intermittently over a period of about four weeks towards the end of summer and, when fully ripe, is delicious but best eaten immediately because it is easily squashed. The mulberry tree is said to make a very good companion for a grape vine. The vine is allowed to grow into the tree, giving two fruit crops for the space of one.

Poncirus trifoliata: A deciduous shrub growing up to six feet tall, this is the only fruit-bearing shrub of the orange family that is genuinely hardy in Britain. The fruit, unfortunately, is inedible raw, though it can be used in conserves etc. This shrub is very sparsely leaved, much of the photosynthesis taking place in the young stems, but it has very large thorns which make it both attractive and a very effective barrier when grown as a hedge. It fruits best in a sunny position. A hybrid between this plant and the orange, called a 'Citrange', is hardy in south west England where it bears somewhat nicer fruits.

Prunus dulcis - Almond: A small deciduous tree that can be grown as a specimen tree in a lawn. It flowers very early in spring when it looks quite beautiful - unfortunately it doesn't often bear its edible nuts in this country. If two trees were grown to ensure cross-pollination and some protection given to the flowers during frosty weather, perhaps also resorting to hand pollination, then yields would probably be improved.

Prunus cerasifera - Cherry Plum: A deciduous shrub or small tree which can grow up to 30 feet so is really only suitable for larger gardens. It can be grown as a hedge with the bonus of providing a fruit which, as its name suggests, looks something like a cross between a cherry and a plum. It sometimes fruits abundantly but is often a disappointment. It does best in a sunny position in a well drained soil.

Rhus typhina - Stag's Horn Sumach: A deciduous shrub which can grow up to 20 feet tall, it is a striking sight in winter when its bare branches carry purple spikes of fruit at their tips. These spikes, when soaked for a short while in cold water, yield a very refreshing drink, used in America as a lemonade substitute. Other members of this genus with fruits that can be used similarly include *R. aromatica* and *R. glabra*. Some members of this genus are poisonous - they are easily distinguished by their fruits: the poisonous fruits are smooth whilst non-poisonous fruits hairy. These shrubs are dioecious (see note under *Taxus baccata*).

Ribes species - Currants and Gooseberries: Deciduous shrubs ranging in size from prostrate to 10 feet or more. As well as including our cultivated currants and gooseberries, this genus also has several ornamental species. They tend to be fairly tolerant of soil conditions but many of them require sunny positions in order to fruit satisfactorily. All members of this genus have edible fruits though many are not very desirable. Those worth trying include *R. americanum*, *R. aureum*, *R. bracteosum*, *R. cereum*, *R. montigenum*, *R. niveum* and *R. rotundifolium*.

Rosa species - Roses: These deciduous shrubs are widely grown in gardens. Their fruits are a good source of vitamin C, but often there is only a very thin layer of flesh and just below this there is a layer of irritating hairs which should not be eaten. Some species, however, have a much thicker layer of flesh and, indeed, some of them were formerly cultivated for their fruits. It is best to wait until the fruit is just going soft before picking it (usually after a frost) and then it is quite palatable raw - indeed, it can be sweet and delicious. The fruits can also be used to make conserves, jams etc and a vitamin C rich drink, the flower petals are eaten in some countries, an essential oil much used in perfumery can be extracted from the flowers, and the dried leaves are a tea substitute. Species worth trying include *R. acicularis*, *R. canina* (our native dog rose), *R. rubiginosa* and *R. rugosa* (both of which make very good flowering hedges), and *R. villosa* which is said to have the biggest fruit in this genus and which used to be cultivated as a fruit bush.

Rubus species: This genus of deciduous and evergreen shrubs, including our own raspberries and blackberries, includes several ornamental species with edible fruits. They prefer a moderately good loamy soil and species worth trying include *R. amabilis*, *R. biflorus*, *R. laciniatus*, *R. odoratus* (prefers semi-shade), *R. parviflorus*, *R. phoenicolasius* (the fruit of which develops within the calyx and is not, as far as we know, ever attacked by maggots), *R. spectabilis* and *R. tricolor* (a good ground cover plant for shady positions).

Taxus baccata - Yew: A native evergreen tree that can grow up to 50 feet tall, though there are many varieties available that are much smaller. This tree, though slow growing, is remarkably tolerant of clipping and makes a superb hedge, succeeding on most soils and tolerating light shade. All parts of this plant, except the fleshy coating around the seed, are highly poisonous, but this fleshy coating is completely toxin free and very tasty. Should you accidently swallow the seed whilst eating the flesh there is no cause for concern because it will pass quite safely through you without being digested and, indeed, will germinate all the better for its experience. Don't chew the seed though as this would release the toxins. The yew tree is dioecious (male and female flowers are on different trees) so you will need at least one male and one female plant growing near each other to ensure fruiting.

Yucca filamentosa: An evergreen shrub growing about two and a half feet tall, this hardy plant brings a sub-tropical appearance to the garden. It requires a sunny position and well drained soil. In its native habitat, the flowers of this plant can only be pollinated by a specially adapted species of insect, so to produce fruits in this country the flowers must be hand pollinated. Apart from this it is a very easy plant to grow and the fruit is said to be a date substitute - it can be eaten raw or dried for winter use. Other uses for this plant include a fibre made from the leaves used to make ropes etc, and a soap obtained by boiling the roots. The flowers, also, are said to be edible. Other members of this genus with similar uses include *Y. baccata* (only hardy in south west England, but the nicest fruit), *Y. glauca* and *Y. whipplei*.

Zanthoxylum piperitum - Japanese Pepper Tree: A deciduous shrub growing to about 15 feet, preferring a loamy soil but not really fussy as to soil or location. The ground-up seeds are used as a pepper substitute whilst the bark and leaves are used as a spice.

You can also look at the Checklist of Trees and Shrubs Hardy in Britain for more ideas about possible shrubs. Or you can see our Database UK, US for more information about any of these plants.

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Readers Comments:

Edible Shrubs

(un)leash (Courtjesterhelterskelter@hotmail.com) Thu May 17 05:35:05 2001

Is ARUNDO DONAX edible at any stage along the way?

The reason being that here in California it is an exotic strangling out native plants in waterways, and the main response has been horrible herbicides.

It seems to me that if it is indeed edible it could be HARVESTED and thus sustainably used, so that it won't spread.

Does anyone know about the edible or medicinal qualities of ARUNDO DONAX?

If so, please email (un)leash at COURTJESTERHELTERSKELTER@HOTMAIL.COM.

Thank you.

This comment has also been added to: Arundo donax.

Add a Follow up to this comment

Edible Shrubs

Michael Richardson (miker@nag.co.uk) Thu Feb 7 11:05:32 2002

You say that "whilst the fruit of a hawthorn is edible, it is far from being appetizing" - however, it was traditionally used to make a jelly, supposedly similar to crabapple jelly - although I must admit to never having tried it. Has anyone else done so?

It is obviously very palatable to birds, judging by the numbers of seedlings which germinate under other bush species in my garden!

This comment has also been added to: Hawthorn.

Add a Follow up to this comment

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Regresar a la Plantas para un Futuro página principal: Español English

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English

Arbustos comestibles

Hay muchos arbustos ornamentales y árboles pequeños con frutos, hojas,etc., comestibles, que se ven frecuentemente creciendo en jardines ornamentales. Abajo hay una lista con algunas sugerencias por si usted considera cultivarlos. La principal dificultad al escribir este artículo no fue tanto que plantas incluir, sino cuales dejar afuera para que la lista no fuera demasiado larga. Existen otros folletos que dan detalles de las plantas que pueden cultivarse en jardines ornamentales, acuáticos o de ciénaga, pero si usted tiene alguna planta en su jardín que no está incluida en ninguna de las listas y piensa que puede ser comestible o tener otros usos útiles, entonces siempre podrá escribirnos (SAE por favor) dando detalles de la planta incluyendo el nombre botánico (si lo sabe), el nombre común y una descripción (si es árbol/arbusto/herbácea perenne, etc., siempre verde/hoja caduca, altura, etc., etc.). Cualquier información que nosotros tengamos será enviada a usted con gusto.

Amelanchier species: La baya de junio (Juneberries) produce frutos jugosos parecidos a la grosella negra en julio (¡Por eso la llamamos baya de junio!). Si usted la puede obtener antes que los pájaros encontrará que estos frutos tienen un placentero sabor parecido al de la manzana. El principal problema es que a los pájaros les gustan mucho y a menudo se los comen antes de que estén completamente maduros y no dejan mucho que probar. Las plantas son muy hermosas cuando florean a principios o mediados de la primavera. Todos los miembros de este género producen frutos comestibles, aunque algunos no son muy apetecibles, y las plantas varían en tamaño desde pequeños arbustos hasta árboles altos. Nuestra favorita es *A. alnifolia,* crece alrededor de 2 metros de alto y produce golosinas. La fruta que es muy jugosa y relativamente grande, puede protegerse de los pájaros con relativa facilidad gracias al pequeño tamaño de las plantas. Otros que también nos gusta incluir son *A. canadensis*, un árbol de golosinas que crece alrededor de 6 metros de alto y se ha naturalizado en Inglaterra y *A. lamarckii* que alcanza cerca de 6 metros de alto -esta especie no es golosina. Hay también otro cultivo, *A. 'Ballerina'* que a menudo se encuentra en centros de jardinería, esta planta tiene frutos más grandes que el promedio y con un placentero sabor dulce.

Arbutus unedo - madroño, érvedo (Strawberry tree) Un árbol siempre verde que puede crecer arriba de los 9 metros de altura, pero hay variedades más pequeñas. Una que ha sido recomendada particularmente es la 'Croome', de la que se dice que fructifica más abundantemente y tiene un atractivo tinte rojo en las flores. El árbol crece exitosamente en la mayoría de los suelos y produce frutos comestibles a finales del otoño. Es particularmente hermoso en este tiempo porque también esta en floración. Aunque no de sabor intenso, los frutos tienen un agradable y sutil sabor. (Vea nuestro folleto Arbutus unedo para mayor información acerca de esta planta).

Arundinaria species y Phylostachys species - Bambus: Plantas siempre verdes que son especímenes muy vistosos en prados y pueden usarse también como pantallas. Muchas especies tienen retoños comestibles en primavera y sus cañas son un buen soporte para otras plantas.

Berberis species - Berberis: Este género incluye algunos arbustos de hoja caduca y siempre verdes extremadamente ornamentales y tienden a tolerar la mayoría de los suelos y locaciones. Ninguno de ellos tiene frutos venenosos aunque muchos de ellos son incomibles. *B. vulgaris* fue cultivado comúnmente en los jardines de frutas pero esta práctica ha sido abandonada recientemente. Esta planta es también un hospedaje alternativo del polvo negro del tallo del trigo, de tal modo que está siendo erradicada de los setos y áreas arboladas por los granjeros. Otras especies a considerar incluyen *B. aggregata*, *B. angulosa*, *B. aristata*, *B. asiatica*, *B. buxifolia*, *B. darwinii* y *B. lycium*. Los frutos son ácidos pero pueden comerse crudos (están mejores después de una helada) o usarse para hacer conservas, jaleas, etc. Pueden también secarse y usarse como sustituto de la uva pasa. Algunas especies pueden usarse para hacer setos muy ornamentales. (*B. darwinii* es especialmente buena).

Chaenomeles species - Membrillos: No el verdadero membrillo, el cual es Cydonia oblonga, pero los frutos de estos arbustos de hoja caduca son tan similares que difícilmente notará la diferencia. Varían en tamaño desde los 60 cm. hasta los 4.5 mt. y, para que tengan una mejor producción de fruta, deben crecer en una posición asoleada, aunque no son demasiado exigentes. Aunque el fruto crudo es de sabor aspero y es astringente, La fruta asada o cocida es muy aromática y puede combinarse con otras frutas cocidas (especialmente manzanas) o usada para hacer mermeladas, jaleas, etc.

Comptonia peregrina asplenifolia - Helecho dulce: No es un helecho, pero es un hermoso arbusto de hoja caduca de 1.2 mt. De altura con hojas parecidas a las de los helechos. Requiere un suelo libre de cal, en su hábitat natural crece en suelos pobres, secos y arenosos, de modo que no necesita mucha alimentación. Los frutos pueden comerse crudos, las hojas secas hacen un te refrescante y las hojas frescas se usan como forro en las canastas de frutas para ayudar a preservarlas.

Cornus mas - Cereza cornerina: Un arbusto de hoja caduca de más de 5 mts. de altura, pero puede mantenerse pequeño por cultivo. Normalmente cultivado por sus frutos, ahora se encuentra frecuentemente en jardines de ornato donde es muy apreciado por sus flores a principios de la primavera. Prefiere terreno de greda pero tolera la mayoría de los suelos y sus frutos son mejores si está en un lugar asoleado. La fruta puede comerse cruda, de sus semillas puede extraerse un aceite comestible y su madera, que es muy tenáz, es muy valiosa para hacer herramientas, dientes para ruedas, etc. Las especies Crataegus. Este género incluye nuestro espino blanco nativo (vea nuestro folleto acerca de plantas para seto para más detalles de este). Todos los miembros de este género tienen frutos comestibles pero, aunque el fruto del espino blanco es comestible, dista mucho de que sea apetecible. Sin embargo hay varios miembros del género que tienen frutos absolutamente deliciosos y los recomendamos ampliamente como un cultivo frutal. Los árboles son muy fáciles de cultivar, toleran la mayoría de los suelos y localizaciones incluyendo terrenos secos y ocasionalmente cenagosos. Son muy decorativos cuando florean en la primavera y también cuando fructifican. La mayoría de las especies dan abundante fruto en Inglaterra. Nuestros dos favoritos especiales *C. arnoldiana* y *C. schraderiana*. Sus frutos son del tamaño de una cereza grande y generalmente tienen un grupo de 5 semillas en el centro. Estas semillas están muy apiñadas de modo que parece que se esta comiendo un fruto con una semilla grande. La pulpa suave y jugosa tiene muy buen sabor y puede comerse en abundancia. Yo ciertamente prefiero un frutero de este fruto que uno de fresas. Otros miembros de este género que también tienen frutos muy agradables *C. azarolus* (es algunas veces cultivada en el Mediterráneo pero nosotros no hemos probado con ella aun), *C. douglasii*, *C. durobrivensis*, *C. ellwangeriana*, *C. opaca* y *C. tanacetifolia*. Estas últimas especies tienen carne mucho más firme y decididamente su sabor es como el de la manzana.

Elaeagnus species: Muchas de las especies de este género tienen frutas de sabor muy agradable y a menudo son cultivadas, especialmente en el Oriente, por sus frutas que se usan para hacer refrescos y sorbetes. Es otro grupo de arbustos que no son muy exigentes acerca de las condiciones del suelo aunque tienden a fructificar mejor en suelo ligero no muy enriquecido y en lugar asoleado, y muchos de ellos pueden crecer como setos informales. Las especies a considerar incluyen a *E. angustifolia*, *E. commutata*, *E. x. ebbingei*, *E. glabra*, *E. macrophylla*, *E. multiflora* y *E. pungens*, que se dice que es la mejor del género.

Diospyros lotus y D. virginiana: Estos dos árboles producen algunas de las más deliciosas frutas que jamás hemos comido de las plantas que crecen en Inglaterra. Están relacionadas con el dióspiro o fruto de sharon que algunas veces se ven en los departamentos de verduras y frutas, y son muy similares en su forma pero menores, variando en tamaño desde el de una cereza grande hasta una pequeña manzana silvestre. Solo coma esta fruta cuando esté bien madura suave, de otro modo será astringente y dejara un sabor desagradable en su boca. Completamente madura sabe como a jalea de albaricoque. Las plantas requieren un buen verano para madurar apropiadamente sus frutos de modo que crecen mejor en el sudeste. El fruto es también más agradable después de las heladas, deje el fruto que caiga naturalmente del árbol y déjelo sobre el terreno (si los pájaros no se lo comen) hasta que haya una helada o dos. Entonces recójalo y almacénelo en un lugar fresco hasta que esté realmente suave, de hecho hasta el momento en que esté a punto de empezar a podrirse. *D. lotus* es algunas veces llamado el ciruelo dátil y puede crecer hasta 9 metros de altura. *D. virginiana* es el dióspero americano y puede ser mucho más alto, es el de mejor cosecha y de acuerdo a mi experiencia el de mejor sabor. En América se consiguen algunas variedades nominadas de esta planta.

Gaultheria species - Gualteria: arbusto siempre verde que requiere un suelo libre de cal y algo de sombra. Varía de tamaño desde algunos decímetros hasta metro y medio, todos ellos tienen frutos comestibles. Dos especies que se cultivan comunmente en Inglaterra son *G. procumbens*, de alrededor de 15 centímetros de altura y *G. shallon* que crece arriba de 1.2 metros. El fruto es muy aromático con un sabor que de algún modo nos recuerda ¡la sala de espera de un hospital!. Algunas personas lo aman, otros no están muy seguras de ello. Las hojas pueden usarse para hacer un te refrescante, y el aceite destilado de estas plantas (aceite de Gualteria) es a menudo usado como linimento en el tratamiento de dolores y padecimientos musculares.

Laurus nobilis - Laurel: Un arbusto siempre verde o árbol pequeño cuyas hojas se usan para dar sabor a la comida. Solo resiste en las partes medias de Inglaterra, este árbol es muy adaptable para crecer en maceta de modo que puede protegerse en invierno al interior y sacarlo al jardín durante los meses templados. Tolera la poda de modo que frecuentemente se cultiva como planta ornamental.

Mahonia aquifolium - Uva de Oregón: Un arbusto siempre verde de crece hasta 1.2 metros de altura, esta es realmente una de las plantas más tolerantes, progresando en la mayoría de las situaciones, incluyendo sombra densa, y sobreviviendo incluso a la negligencia total. Sin embargo, la producción de frutos se incrementará enormemente si se le da un poquito de atención. El fruto es ácido y puede comerse crudo (está mejor después de una helada) o usarse en conservas, jaleas, mermeladas, etc. Todos los otros miembros del género tienen frutos comestibles.

Morus nigra - Mora: Un árbol de hoja caduca que alcanza los 5 metros de altura, de crecimiento lento y larga vida. Es una especie de árbol fino en el prado, y prospera mejor en la mitad sur del país. Prefiere suelo ligero en una posición asoleada, bien protegida y húmeda. El fruto, que parece una zarzamora grande, madura intermitentemente al final del verano durante un periodo de cerca de 4 semanas. Es delicioso cuando está totalmente maduro pero debe comerse de inmediato pues se destruye fácilmente al manipularlo. Se dice que este árbol es un muy buen compañero para las viñas. Si se permite al viñedo crecer entre los morales, dará dos cosechas de frutas en el espacio de una.

Poncirus trifoliata: Un arbusto de hoja caduca que crece hasta metro y medio de altura, este es el único arbusto frutal de la familia de la naranja que es genuinamente resistente en Inglaterra. El fruto, desafortunadamente, es incomible crudo, aunque puede ser usado en conservas. Este arbusto desarrolla sus hojas esparcidas, mucha de la fotosíntesis se desarrolla en los brotes jóvenes, pero tiene grandes espinas que lo hacen atractivo y efectivo como barrera cuando crece en un seto. Fructifica mejor en una posición asoleada. Un hibrido entre esta planta y la naranja, llamada 'Citrange', es resistente en el sur oeste de Inglaterra donde proporciona a veces frutos agradables.

Prunus dulcis - Almendro: Un pequeño árbol de hoja caduca que puede cultivarse como árbol ejemplar en el prado. Florea muy temprano en la primavera y se ve muy hermoso - desafortunadamente no siempre nos da sus nueces comestibles en este país. Si se cultivan por parejas para asegurar la polinización cruzada y se les da protección a las flores durante el tiempo de heladas, y quizá recurriendo a la polinización manual, podría mejorarse su producción.

Prunus cerasifera - Cerezo ciruelo: Un arbusto de hoja caduca o pequeño árbol que puede crecer hasta los 10 metros de altura por lo que solo puede tenerse en jardines grandes. Puede cultivarse como seto o rompe vientos para protección con el premio de proveer un fruto que, como su nombre lo dice, es una cruza entre la cereza y la ciruela. Algunas veces fructifica abundantemente pero a menudo nos desilusiona. Progresa mejor en una posición asoleada en suelo bien drenado.

Rhus typhina -Zumaque de cuerno de ciervo: Arbusto de hoja caduca que puede crecer hasta 6 metros de altura, es un espectáculo impactante en invierno cuando sus ramas desnudas tienen espigas púrpuras de frutos en sus puntas. Cuando se remojan en agua fría por un tiempo, estas espigas producen una bebida refrescante que en América se usa como sustituto de la limonada. Otros miembros de este género con frutos que pueden usarse en la misma forma son *R. aromatica* y *R. glabra*. Algunos miembros de este género son venenosos - pueden distinguirse fácilmente por sus frutos: los frutos venenosos son lisos mientras que los que no son venenosos tienen vello. Estos arbustos son dióicos (ver nota en *Taxus baceta*).

Ribes species - Grosellas y uva espín: Arbustos de hoja caduca variando en tamaño desde el de una hierba hasta 3 o más metros. Además de nuestras grosellas y uva espín cultivadas, este género tiene también algunas especies ornamentales. Tienden a ser ampliamente tolerantes de las condiciones del suelo pero muchas de ellas requieren de posiciones asoleadas para fructificar satisfactoriamente. Todos los miembros de este género tienen frutos comestibles aunque muchos no son muy apetecibles. Aquellas con méritos para intentar probar son *R. americanum*, *R. aureum*, *R. bracteosum*, *R. cereum*, *R. montigenum*, *R. niveum* y *R. rotundifolium*.

Rosa species - Rosas: Estos arbustos de hoja caduca son un cultivo muy común en los jardines. Sus frutos son una buena fuente de vitamina C, pero solo tienen una delgada capa de pulpa comestible y justo bajo ella hay una capa de pelillos irritantes que no deben ser comidos. Algunas especies, sin embargo, tienen una capa carnosa más gruesa y, por eso, fueron cultivados especificamente por sus frutos. Es mejor esperar a que el fruto haya suavizado antes de cortarlo (generalmente después de una helada) y entonces resulta muy apetitoso crudo - de hecho, puede ser dulce y delicioso. Las frutas pueden usarse para hacer conservas, jaleas, etc. y una bebida rica en vitamina C, los petalos de las flores se comen en algunos paises y de las flores se extrae un aceite escencial que se usa en perfumería, las flores secas hacen un sustituto del té. Las mejores especies para probar son *R. acicularis*, *R. canina* (nuestra rosa de perro nativa), *R. rubiginosa* y *R. rugosa* (ambas hacen muy buenos setos floreados), y *R. villosa* que dicen que es la que tiene los más grandes frutos en este género y se cultiva como arbusto frutal.

Rubus species: Este género de arbustos tanto de hoja caduca como siempre verdes, donde están nuestros propios frambuesos y zarzamoras, incluye también a varias especies ornamentales con frutos comestibles. Prefieren un buen suelo moderadamente margoso y las mejores especies a probar son *R. amabilis, R. biflorus, R. laciniatus, R. odoratus* (prefiere media sombra), *R. parviflorus*, *R. phoenicolasius* (de la cual el fruto se desarrolla dentro del caliz y no es, al menos hasta donde yo sé, atacado por orugas), *R. spectabilis* y *R. tricolor* (una buena planta de cubierta para posiciones sombreadas).

Taxus baccata - Tejo: Un árbol nativo siempre verde que puede crecer más de 15 metros de alto, aunque se pueden conseguir muchas variedades que son de mucho menor tamaño. Este árbol, aunque de lento crecimiento, es notablemente tolerante a la poda y es excelente como seto, progresando en la mayoría de los suelos y tolerando sombra ligera. Todas las partes de esta planta, exceptuando la cubierta carnosa alrededor de la semilla, son muy venenosas, pero la cubierta carnosa de la semilla está completamente libre de toxínas y es de buen sabor. Si usted accidentalmente se traga la semilla mientras paladea la pulpa no hay problema ya que ésta pasa por el tracto digestivo sin ser digerida y, de hecho, germinará mejor después de esta experiencia. No mastique las semillas ya que esto si liberará sus toxínas. El árbol del Tejo es dióico (las flores macho y hembra están en diferentes árboles) de modo que se necesitan que haya una planta hembra y un macho cerca una de otra para asegurar la fructificación.

Yucca filamentosa: Un arbusto siempre verde que crece hasta 80 cm. de altura, esta resistente planta le da a su jardín una apariencia sub tropical. Requiere una posición asoleada y un suelo bien drenado. En su hábitat natural, las flores de esta planta solo pueden ser polinizadas por una especie de insecto especialmente adaptado, de modo que para producir frutos en este país las flores deben de ser polinizadas en forma manual. Aparte de esto, la planta es de fácil cultivo y se dice que su fruto es un sustituto del dátil - puede comerse crudo o seco para uso en invierno. Otros usos de esta planta incluyen la utilización de una fibra obtenida de sus hojas que se usa para hacer telas, etc. y un jabón que se obtiene al cocer sus raíces. Se dice que también la flor es comestible. Otros miembros de este género con usos similares son: *Y. baccata* (solo resiste en el sur oeste de Inglaterra, pero dá el mejor fruto), *Y. glauca* e *Y. whipplei*.

Zanthoxylum piperitum - *Arbol Japonés de la pimienta:* Un arbusto de hoja caduca que crece alrededor de 5 metros, prefiere un suelo margoso pero no es demasiado exigente ni con el suelo ni con la localización. Las semillas se usan como sustituto de la pimienta mientras que la corteza y las hojas se usan como especia.

Usted puede buscar también en la Lista de árboles y arbustos resistentes en Inglaterra para más ideas acerca de los posibles arbustos a probar. O puede ver nuestra base de datos UK, US para mayor información acerca de cualquiera de estas plantas.

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Regresar a la Plantas para un Futuro página principal: Español English

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Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

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Plant Portrait - Arbutus unedo, The Strawberry Tree

This article originally appeared in the January 1997 issue of the Friends of PFAF newsletter.

The strawberry tree is a beautiful small evergreen tree or shrub that can occasionally reach 9 metres tall and 8 metres wide, though it is usually rather smaller. There are several named forms and some of these are no more than 2 - 3 metres tall.

A very easily grown and trouble-free plant, it does best in a nutrient-rich well-drained moisture-retentive soil in sun or semi-shade. It also grows well in heavy clay soils and in dry soils. Most species in this genus require a lime-free soil but this species is fairly lime tolerant. Especially when young, it prefers a fairly sheltered position and dislikes cold drying winds. It is, however, surprisingly tolerant of strong winds if they are not from the cold northerly and easterly quarters and can succeed in fairly exposed positions near the coast. This is a very good tree to grow in towns because it tolerates industrial pollution.

The plant is hardy in most parts of Britain and has withstood temperatures down to at least -16°c without injury when grown in suitable conditions, though young plants would usually be killed at temperatures as low as this. Because they resent root disturbance, it is best to plant them out into their final positions as soon as possible. It is probably, therefore, a good idea to give them some protection from the cold for their first winter or two outdoors if the weather is very cold.

The strawberry tree produces masses of beautiful white flowers in November and December. Since the fruit takes 12 months to ripen, the tree carries both mature fruit and flowers at the same time and is then incredibly beautiful. This is a superb plant to grow as a specimen in a lawn, and it also grows very well on the sunny edges of a woodland garden.

We have received a number of queries about this tree, usually asking if the fruit is edible. The answer is yes, though this does need to be qualified. The fruit varies considerably in size, though it averages about 15 - 20mm in diameter. It is a lovely red colour and, from a distance, does look a little like strawberries - hence the common name of the plant. The resemblance to strawberries, however, does not apply to the taste. The books say that it is sweet but insipid, and the Latin name 'unedo' means 'I eat one (only)' and suggests that the fruit is not very palatable. Whilst it does have a somewhat gritty skin, when fully ripe the fruit itself has the texture of a lush tropical fruit and has a delicate pleasant flavour. For those people with sensitive taste buds, this is a fruit that can be enjoyed when eaten in moderate quantities. Most of us at Plants For A Future who have tried the fruit raw like it, and a few of us actually like it enough to eat in quantity. Some people, however, fully agree with the person who gave the plant its Latin name and will not touch it. The fruit can also be cooked and is used to make delicious and nourishing jams and preserves.

Ripening over a period of several weeks in late autumn and early winter, the fruit is well-mannered enough to fall from the tree when it is fully ripe. It is a good idea to make sure that the fruit has a soft surface to fall on so that it is not damaged by the fall. Short grass is very good for this. If you do not want to wait for the fruit to fall, it can be picked when it is deep red in colour and very soft to the touch. It needs to be eaten within 24 hours or it will start to decay. You can also pick the fruit when it is fully coloured but still very firm, and will then store for a few days.

The plant is widely available from many nurseries and garden centres. It is also fairly easy to propagate. The best way is from seed - this is best sown on the surface of a compost in a greenhouse as soon as it is ripe. If you are unable to obtain the ripe seed, then stored seed should be soaked for 5 - 6 days in warm water before being sown in late winter. Do not allow the compost to become dry. The seed usually germinates well in the middle to late spring. The seedlings are rather small and slow-growing, they are also prone to damp off and so must be kept well-ventilated, preferably in a lightly shaded position. Transplant then into individual pots as soon as they are large enough to handle and grow them on in light shade in a greenhouse for at least their first winter. Plant them out into their permanent positions when they are 20 - 30cm tall, the best time for this is in late spring or early summer after the last expected frosts.

It is also possible to propagate from cuttings, and this is the only way of propagating the named varieties. You use mature wood about 15 - 20cm long of the current season's growth, preferably with a heel. Take them in November or December and plant them in a frame, preferably with bottom heat. They are a bit slow to root and you often get a poor percentage take. To improve this, try soaking some chopped willow twigs in cold water for 24 hours and then watering the cuttings with this water. The willow bark contains root-promoting hormones and will encourage root formation in the cuttings.

If there are some branches low enough, it is possible to produce new plants by layering. You make a small incision with a knife into the base of the young wood on the branch and then peg this into the ground. It can take up to 2 years, but this branch will usually produce roots and can be separated from the parent plant when it is growing away successfully.

There are a number of named varieties that have been developed for their ornamental value and these are usually much smaller than the species and therefore of special value where space is at a premium. 'Compacta' is a dwarf shrub growing perhaps 2 metres tall eventually. It seems that there is more than one form of this cultivar. The form that is currently available fruits very freely, even when less than 1 metre tall, though older forms were said to fruit very poorly. 'Croomei' is a form with red-tinged flowers that grows perhaps 4 metres tall and wide. It is said to be a very reliable fruiting form, though I do not know if it is still available from nurseries. 'Elfin King' produces very good sized fruits up to 25mm in diameter which have a sweet flavour. This is a slow-growing compact plant, often no more than 1 metre tall. It comes into bearing early, sets fruit freely and is ideal for container growing. 'Rubra' is a slow growing form with lovely red-tinged flowers. It can eventually reach 4 metres or more tall and wide. I have seen it when only one metre tall absolutely laden down with fruits and flowers.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Readers Comments:

Arbutus unedo, The Strawberry Tree

mark (kid@jinw.freeserve.co.uk) Thu Apr 12 19:46:40 2001

Where is the largest known specimin growing in the U.K. if so where and how big

Many thanks Mark .

This comment has also been added to: Arbutus unedo.

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

() Sat Jul 28 05:48:05 2001

It would be great to add more scientic details of the plants such as the shape of leaves, flowers etc to make this site more complete

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Billy (exultation@hotmail.com) Tue Aug 28 12:38:23 2001

What is the life expectancy of this tree??

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Júlio Reis (julio_reis@hotmail.com) Tue Apr 2 14:55:45 2002

In Portugal, they make an alcoholic beverage called "medronheira" from the fruit of this tree, which would translate as "strawberry tree firewater". It's very alcoholic but very aromatic, can be used in cakes, or it can be sipped in (preferably) small quantities, like port. The fruit itself is delicious, at least to my palate. There are flower, leaf and fruit pictures here.

Details of Growing Condition: Widespread in Portugal, very hardy, not grown ornamentally that I know of. Occurs naturally in "maquis" habitat (mediterranean thick shrub forest), associated with oak, misletoe and other trees/shrubs 3-4 metres tall, or isolated..

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Ian Bruce (idbruce@shaw.ca) Tue May 28 21:33:40 2002

Does this plant have any invasive species characteristics for growing in the Northwest??

This comment has also been added to: Arbutus unedo.

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Shari (shari516@oakmeade.com) Mon Jun 3 22:31:35 2002

Hi. :) I wanted to comment on something in the essay at the top of this page. It mentions that the strawberry tree's fruit is edible and although usually bland, some people like to eat it, and it also makes good perserves and jams. Yes, the fruit IS edible. In fact, I've tried the fruits myself, and I've found that some trees/bushes seem to have more flavourful fruit than others. However, I have read on several websites related to plants and trees that this fruit should NOT be eaten in large or even medium quantities, because it can cause stomach/intestinal upset, vomiting and even seizures in some people. I don't know how often this is the case, but it doesn't exactly sound like something I'd want to spread on my bread! :(Anyone else have further information about whether the fruits are indeed mildly toxic?

This comment has also been added to: Arbutus unedo.

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

? (little_cherry10@hotmail.com) Mon Jun 24 15:57:19 2002

A lovely tree which produces a sweet fruit

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Keith Juden (keith@madridandbeyond.com) Wed Sep 11 11:55:41 2002

Known in Spain as "modroño". The emblem of Madrid is this tree, with a bear stretching to eat the fruit, so it's at least edible by some species!

This comment has also been added to: Arbutus unedo.

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

() Sat Oct 5 04:20:06 2002

Thanks for the post. My golden retriever ate a bunch of the fruit and leaves and vomited a couple of times and is feeling quite poorly now. I thik she will be ok. I was a bit concerned for a while.

This comment has also been added to: Arbutus unedo.

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Sean () Mon Oct 7 16:03:20 2002

I've just returned from Corsica where I have eaten some extremely nice Arbous jam made from this plant and also bought a bottle of Arbous liqueur which was one of the nicest I have ever tasted.

This comment has also been added to: Arbutus unedo.

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Joel Kaplan (spin_champ@yahoo.com) Tue Nov 5 01:14:27 2002

I live in the San Francisco Bay Area and planted several of these plants as a screen about 25 years ago. They are now quite large (about 25 feet tall) and very prolific with fruit. Although the fruit is quit attractive, when it drops on the ground it can be quite messy. Does anyone know of a treatment (systemic or spray) that can be used to reduce the amount of fruit?

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Ana Margarida Martins () Tue Dec 10 16:46:54 2002

Hello!!! About the toxicity of this fruit: in Portugal we do make jam and liqueur (aguardente de Medronho) with it. I have personally eaten many of these fruits and I can tell you they're very sweet and tasty. But in Portugal the cultural say about Arbous is that you shouldn't eat too many, or you risk beeing drunk. That's probably because the fruit ripens very quickly and ferments. That's why you feel sick and dizzy... because you're slightly drunk... But nothing serious... Enjoy the fruits everybody!!!

This comment has also been added to: Arbutus unedo , Common name in Portuguese: Medronheiro.

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

Clem Snide (root@127.0.0.1) Tue Feb 11 10:16:38 2003

I can't understand the frequent references in books to the unpalatibility of this fruit. One reference said it was inedible in Ireland. You never see it mentoned in books on edible fruit. I find it quite delicious, with a tropical flavour, like a cross between guava and nectarine. Mind you, I usually eat it from the inside out, purely in order to avoid any dirt on the outside. The only problem with the skin is its mealy texture rather than its taste, though this isn't really unpleasant anyway. I can only think that in cold climates it doesn't get enough sun to make good fruit (I am in Australia), or perhaps it's the soil. Or maybe some people pick it when unripe. Given its hardiness, it could be that people don't treat it as carefully as it deserves. According to Frances Bodkin, it is narcotic in large quantities, but I have had no problems eating a few at a time.

Details of Growing Condition: Sydney, Australia, open sunny place..

This comment has also been added to: Arbutus unedo.

Add a Follow up to this comment

Arbutus unedo, The Strawberry Tree

jan johnston (jan.johnston@attbi.com) Tue Jun 10 00:50:45 2003

I planted a number of arbutus unedo 6 years ago. The area is well drained. Some are in sun and some are in mostly shade. Some of the soil is clay but most of it is slightly acid and fairly good. The temperature here (Seattle) never falls below 25 degrees and it is never hot in the summer. The plants have died one by one. The inner leaves turn yellow, then more of the leaves turn yellow, and then they all go brown. There are a few small black rimmed holes on the yellow leaves. I have tried a multi-purpose insect spray but it doesn't seem to do much good. Does anyone have an idea why they have died?

Add a Follow up to this comment

Add A Comment

All Comments on web pages and plants.

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Arbutus unedo

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Strawberry tree	Family:	Ericaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe and S.W. Ireland.		
Habitat:	Woodland, scrub and rocky hillsides, often on limestone and sandstone[17, 45].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Djina [E], Killarney Strawberry Tree [H], Koca Yemis [E], Madrono [E], Strawberry Tree [H,P], Strawberry-tree [L],
Epithets:	From a Dictionary of Botanical Epithets
	unedo = L. name;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Sicily; Spain; Turkey

Physical Characteristics

An evergreen tree growing to 9m by 8m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to December, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Croomei'**: Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **'Elfin King'**: Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **'Rubra'**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked. Sweet but insipid[2, 3, 5]. The Latin name 'unedo' means 'I eat one (only)' and suggests that the fruit is not very palatable[K], though another report says that the fruit is so delicious that a person only needs to eat one[245]. It does have a somewhat gritty skin, but the fruit itself has the texture of a lush tropical fruit and has a delicate pleasant flavour. For those people with sensitive taste buds, this is a fruit that can be enjoyed when eaten in moderate quantities[K]. The fruit contains about 20% sugars and can be used to make delicious and nourishing jams and preserves[7]. It is ripe in November/December and is about 15mm in diameter. When fully ripe it falls from the tree and so it is advisable to grow the plant in short grass in order to cushion the fall of the fruit[K].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Diuretic.

The strawberry tree is little used in herbalism, though it does deserve modern investigation[268]. All parts of the plant contain ethyl gallate, a substance that possesses strong antibiotic activity against the Mycobacterium bacteria[268].

The leaves, bark and root are astringent and diuretic[7, 46, 268]. They are also a renal antiseptic[7] and so are of use in the treatment of affections of the urinary system such as cystitis and urethritis[254]. Their astringent action makes them of use in the treatment of diarrhoea and dysentery and, like many other astringent plants, a gargle can be made for treating sore and irritated throats[254]. The leaves are gathered in the summer and dried for later use[7].

The flowers are weakly diaphoretic[268].

Other Uses

Tannin; Wood.

Tannin is obtained from the leaves, bark and fruit[46, 61]. The bark contains 45% tannin[46].

Wood - used for turning, Greek flutes etc[89, 148]. It makes a good charcoal[4, 89, 148].

Cultivation details

Requires a nutrient-rich well-drained moisture-retentive soil in sun or semi-shade and shelter from cold drying winds, especially when young[11, 200]. Grows well in heavy clay soils and in dry soils. Most species in this genus require a lime-free soil but this species is fairly lime tolerant[11, 200]. Succeeds in fairly exposed maritime positions[166, 200]. A tree in a very exposed position at Rosewarne in N. Cornwall was looking rather tattered in April 1987 but it was 4.5 metres tall and carrying a very good crop of immature fruit[K]. Tolerates industrial pollution[200].

Plants have withstood temperatures down to -16°c without injury at Kew[11]. They grow very well in S.W. England, fruiting well in Cornwall[49, 59].

Plants resent root disturbance and are best placed in their final positions whilst young[11, 134]. Give them some protection in their first winter.

The strawberry tree flowers in November and December, the fruit takes 12 months to ripen and so the tree carries both mature fruit and flowers at the same time and is incredibly beautiful at this time[K]. The flowers have a soft honey scent[245].

There are a number of named varieties[183] developed for their ornamental value. 'Elfin King', 'Croomei' and 'Rubra' are all small forms that fruit well when small[182]. The variety 'Rubra' was 1.2 metres tall at Kew in late 1990 and was laden down with fruits and flowers[K]. 'Elfin King' only reaches a height of 1 metre, comes into bearing when young and fruits well[183]. It is ideal for container culture[183]. 'Croomei' is said to be a more reliable fruiting form[49].

Propagation

Seed - best surface sown in a cold frame as soon as it is ripe. Stored seed should be soaked for 5 - 6 days in warm water and then surface sown in a shady position in a greenhouse[78]. Do not allow the compost to become dry. 6 weeks cold stratification helps[134]. The seed usually germinates well in 2 - 3 months at 20°c[134]. Seedlings are prone to damp off[184], they are best transplanted to individual pots as soon as they are large enough to handle and should be kept well ventilated. Grow them on in a greenhouse for their first winter and then plant out in late spring after the last expected frosts[K].

Basal cuttings in late winter[200].

Cuttings of mature wood of the current season's growth, November/December in a frame. Poor percentage[78].

Layering of young wood - can take 2 years[1, 200].

Scent

Flowers: Fresh

The flowers have a soft honey scent.

Cultivars

'Rubra'

Smaller than the species type, this form grows to about 2 - 3 metres in height, fruiting abundantly even when only 60cm tall[K].

'Elfin King'

The fruits are up to 25mm in diameter and have a sweet flavour[183, K]. A slow-growing compact plant, often no more than 1 metre tall[183]. It comes into bearing early, sets fruit freely and is ideal for container growing[183].

'Croomei'

A dwarf-growing cultivar, it is said to be a reliable fruiting form[49].

'Compacta'

A dwarf cultivar, it is said not to flower very freely[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative fruits
- Edible Shrubs
- The Urban Garden
- PFAF - Arbutus unedo, The Strawberry Tree
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Trees and Shrubs for Shelterbelts: A
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[45] **Polunin. O.** *Flowers of Greece and the Balkans.* Oxford University Press 1980 ISBN 0-19-217626-9
A good pocket flora, it also lists quite a few plant uses.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948

A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments

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mark Thu Apr 12 19:46:40 2001

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Arbutus unedo, The Strawberry Tree

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Arbutus unedo, The Strawberry Tree

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Cross references: *Web-pages: PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo

John McMillan Thu Jan 2 17:22:15 2003

On a recent trip to Paris, I found this fruit served stewed (or canned?) as a sweet in a chinese restaurant. They were fine. Also about 20mm across, whereas the only tree I've seen here in the north of england produced fruit more like 8mm across. Could be a different cultivar or more likely the different climate. And that's bound to affect the palatability of the fruit too.

Arbutus unedo, The Strawberry Tree

Clem Snide Tue Feb 11 10:16:38 2003

I can't understand the frequent references in books to the unpalatibility of this fruit. One reference said it was inedible in Ireland. You never see it mentoned in books on edible fruit. I find it quite delicious, with a tropical flavour, like a cross between guava and nectarine. Mind you, I usually eat it from the inside out, purely in order to avoid any dirt on the outside. The only problem with the skin is its mealy texture rather than its taste, though this isn't really unpleasant anyway. I can only think that in cold climates it doesn't get enough sun to make good fruit (I am in Australia), or perhaps it's the soil. Or maybe some people pick it when unripe. Given its hardiness, it could be that people don't treat it as carefully as it deserves. According to Frances Bodkin, it is narcotic in large quantities, but I have had no problems eating a few at a time.

Details of Growing Condition: Sydney, Australia, open sunny place..

Cross references: *Web-pages: PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo

Dr. Shannon Thu Mar 13 07:11:04 2003

Does anyone know of using this plant for arthritis or rheumatism?

Arbutus unedo, The Strawberry Tree

Ilene Holmes (imholmes@mindspring.com) Fri Jun 13 13:05:58 2003

I need to know how it turned out for the dog that ate some of the fruit and leaves and got sick. I am planning to put in 2 arbutus unedo and i have an AKC champion dog. He sometimes collects sticks and fruits to chew on. I would not want to plant the tree if it is going to make my dog sick.

Can anybody tell me about toxicity of the plant for animals and children?

imholmes@mindspring.com Ilene Holmes

Cross references: *Web-pages: PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo, The Strawberry Tree

Jane Doe (janedoe27@msn.com) Fri Jun 13 22:41:57 2003

I live in the hills of Berkeley, CA. I have been told not to eat the fruit of this very beautiful large and loaded with fruit Strawberry tree in the back yard also because it was believed to be poisonous. I saw a bird carry a fruit to a roof top the other day and eat it so I decided to do some research. I ate one today and have to agree that it tastes like a a guava and nectarine. I found it tasty and plan to eat more. I would love to get the recipe for jam & maybe even the liquer.

Details of Growing Condition: Near San Francisco. Open sunny place along the mountain with plenty of vegetation. .

Cross references: *Web-pages: PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo

Pedro Moreira () Mon Jun 30 13:48:37 2003

I don't believe the fruits are toxic... Here in Portugal it grows in many places, and the fruit is quite edible, though usually is used to make "Aguardente de Medronho" (a type of firewater, very strong and aromatic) and also jams.

What happens is that the fruits begin to decay and ferment, and the sugar in the fruit is turned into alcohol.... you can actually get quite drunk from eating the fruits, especially if you eat the ones that have already fallen....

I don't have any recipes, though... the firewater is probably distilled from ripened fruits (or actually over-ripe fruits)... and you could probably make a nice liquer by putting the pulp of some fruits in a bottle of "normal" firewater and leave them there for some months.... That is a common way to make liquers in Portugal, at least, since normal firewater (from wine grapes) is commonly available. And the jam, I supose would follow common recipes for jam's... like cooking the pulp with sugar (and maybe adding some lemon as an anti-oxidant, or something....)

I'll try to look into that....

BTW: Portuguese common name: "Medronheiro", the fruit is called "Medronho" (sounds like spanish Medroño)

Arbutus unedo

K. GOKSU (kivancgoksu@superonline.com) Tue Sep 23 08:51:11 2003

I live in Turkey and we have some strawberry trees in our garden, but we don't know any jam recipe about the fruit of this tree. I appreciate if anybody can send me interesting jam recipes or web sites include these recipes.

PC: If the jam is delicious, I promise to send a jar of jam to owner of the recipe.

Arbutus unedo

() Wed Dec 17 15:01:38 2003

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URL for Site:	http://
Details:	

Enter your details here:

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Plants For A Future: Database Search Results

Arbutus unedo

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Strawberry tree	Family:	Ericaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe and S.W. Ireland.		
Habitat:	Woodland, scrub and rocky hillsides, often on limestone and sandstone[17, 45].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Djina [E], Killarney Strawberry Tree [H], Koca Yemis [E], Madrono [E], Strawberry Tree [H,P], Strawberry-tree [L],
Epithets:	From a Dictionary of Botanical Epithets
	unedo = L. name;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Sicily; Spain; Turkey

Physical Characteristics

An evergreen tree growing to 9m by 8m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to December, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Croomei'**: Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **'Elfin King'**: Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **'Rubra'**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked. Sweet but insipid[2, 3, 5]. The Latin name 'unedo' means 'I eat one (only)' and suggests that the fruit is not very palatable[K], though another report says that the fruit is so delicious that a person only needs to eat one[245]. It does have a somewhat gritty skin, but the fruit itself has the texture of a lush tropical fruit and has a delicate pleasant flavour. For those people with sensitive taste buds, this is a fruit that can be enjoyed when eaten in moderate quantities[K]. The fruit contains about 20% sugars and can be used to make delicious and nourishing jams and preserves[7]. It is ripe in November/December and is about 15mm in diameter. When fully ripe it falls from the tree and so it is advisable to grow the plant in short grass in order to cushion the fall of the fruit[K].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Diuretic.

The strawberry tree is little used in herbalism, though it does deserve modern investigation[268]. All parts of the plant contain ethyl gallate, a substance that possesses strong antibiotic activity against the Mycobacterium bacteria[268].

The leaves, bark and root are astringent and diuretic[7, 46, 268]. They are also a renal antiseptic[7] and so are of use in the treatment of affections of the urinary system such as cystitis and urethritis[254]. Their astringent action makes them of use in the treatment of diarrhoea and dysentery and, like many other astringent plants, a gargle can be made for treating sore and irritated throats[254]. The leaves are gathered in the summer and dried for later use[7].

The flowers are weakly diaphoretic[268].

Other Uses

Tannin; Wood.

Tannin is obtained from the leaves, bark and fruit[46, 61]. The bark contains 45% tannin[46].

Wood - used for turning, Greek flutes etc[89, 148]. It makes a good charcoal[4, 89, 148].

Cultivation details

Requires a nutrient-rich well-drained moisture-retentive soil in sun or semi-shade and shelter from cold drying winds, especially when young[11, 200]. Grows well in heavy clay soils and in dry soils. Most species in this genus require a lime-free soil but this species is fairly lime tolerant[11, 200]. Succeeds in fairly exposed maritime positions[166, 200]. A tree in a very exposed position at Rosewarne in N. Cornwall was looking rather tattered in April 1987 but it was 4.5 metres tall and carrying a very good crop of immature fruit[K]. Tolerates industrial pollution[200].

Plants have withstood temperatures down to -16°c without injury at Kew[11]. They grow very well in S.W. England, fruiting well in Cornwall[49, 59].

Plants resent root disturbance and are best placed in their final positions whilst young[11, 134]. Give them some protection in their first winter.

The strawberry tree flowers in November and December, the fruit takes 12 months to ripen and so the tree carries both mature fruit and flowers at the same time and is incredibly beautiful at this time[K]. The flowers have a soft honey scent[245].

There are a number of named varieties[183] developed for their ornamental value. 'Elfin King', 'Croomei' and 'Rubra' are all small forms that fruit well when small[182]. The variety 'Rubra' was 1.2 metres tall at Kew in late 1990 and was laden down with fruits and flowers[K]. 'Elfin King' only reaches a height of 1 metre, comes into bearing when young and fruits well[183]. It is ideal for container culture[183]. 'Croomei' is said to be a more reliable fruiting form[49].

Propagation

Seed - best surface sown in a cold frame as soon as it is ripe. Stored seed should be soaked for 5 - 6 days in warm water and then surface sown in a shady position in a greenhouse[78]. Do not allow the compost to become dry. 6 weeks cold stratification helps[134]. The seed usually germinates well in 2 - 3 months at 20°c[134]. Seedlings are prone to damp off[184], they are best transplanted to individual pots as soon as they are large enough to handle and should be kept well ventilated. Grow them on in a greenhouse for their first winter and then plant out in late spring after the last expected frosts[K].

Basal cuttings in late winter[200].

Cuttings of mature wood of the current season's growth, November/December in a frame. Poor percentage[78].

Layering of young wood - can take 2 years[1, 200].

Scent

Flowers: Fresh

The flowers have a soft honey scent.

Cultivars

'Rubra'

Smaller than the species type, this form grows to about 2 - 3 metres in height, fruiting abundantly even when only 60cm tall[K].

'Elfin King'

The fruits are up to 25mm in diameter and have a sweet flavour[183, K]. A slow-growing compact plant, often no more than 1 metre tall[183]. It comes into bearing early, sets fruit freely and is ideal for container growing[183].

'Croomei'

A dwarf-growing cultivar, it is said to be a reliable fruiting form[49].

'Compacta'

A dwarf cultivar, it is said not to flower very freely[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative fruits
- Edible Shrubs
- The Urban Garden
- PFAF - Arbutus unedo, The Strawberry Tree
- PFAF: Edible Trees and Shrubs Hardy in Britain

- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Trees and Shrubs for Shelterbelts: A
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[45] **Polunin. O.** *Flowers of Greece and the Balkans.* Oxford University Press 1980 ISBN 0-19-217626-9
A good pocket flora, it also lists quite a few plant uses.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990

A good book on plants that you didn't know could be grown outdoors in Britain.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

Arbutus unedo, The Strawberry Tree

mark Thu Apr 12 19:46:40 2001

Where is the largest known specimin growing in the U.K. if so where and how big

Many thanks Mark .

Cross references: *Web-pages: PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo, The Strawberry Tree

Ian Bruce Tue May 28 21:33:40 2002

Does this plant have any invasive species characteristics for growing in the Northwest??

Cross references: *Web-pages:* *PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo, The Strawberry Tree

Shari Mon Jun 3 22:31:35 2002

Hi. :) I wanted to comment on something in the essay at the top of this page. It mentions that the strawberry tree's fruit is edible and although usually bland, some people like to eat it, and it also makes good perserves and jams. Yes, the fruit IS edible. In fact, I've tried the fruits myself, and I've found that some trees/bushes seem to have more flavourful fruit than others. However, I have read on several websites related to plants and trees that this fruit should NOT be eaten in large or even medium quantities, because it can cause stomach/intestinal upset, vomiting and even seizures in some people. I don't know how often this is the case, but it doesn't exactly sound like something I'd want to spread on my bread! :(Anyone else have further information about whether the fruits are indeed mildly toxic?

Cross references: *Web-pages:* *PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo, The Strawberry Tree

Keith Juden Wed Sep 11 11:55:41 2002

Known in Spain as "modroño". The emblem of Madrid is this tree, with a bear stretching to eat the fruit, so it's at least edible by some species!

Cross references: *Web-pages:* *PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo, The Strawberry Tree

Sat Oct 5 04:20:06 2002

Thanks for the post. My golden retriever ate a bunch of the fruit and leaves and vomited a couple of times and is feeling quite poorly now. I thik she will be ok. I was a bit concerned for a while.

Cross references: *Web-pages:* *PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo, The Strawberry Tree

Sean Mon Oct 7 16:03:20 2002

I've just returned from Corsica where I have eaten some extremely nice Arbous jam made from this plant and also bought a bottle of Arbous liqueur which was one of the nicest I have ever tasted.

Cross references: *Web-pages:* *PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo

John McMillan Thu Jan 2 17:22:15 2003

On a recent trip to Paris, I found this fruit served stewed (or canned?) as a sweet in a chinese restaurant. They were fine. Also about 20mm across, whereas the only tree I've seen here in the north of england produced fruit more like 8mm across. Could be a different cultivar or more likely the different climate. And that's bound to affect the palatability of the fruit too.

Arbutus unedo, The Strawberry Tree

Clem Snide Tue Feb 11 10:16:38 2003

I can't understand the frequent references in books to the unpalatibility of this fruit. One reference said it was inedible in Ireland. You never see it mentoned in books on edible fruit. I find it quite delicious, with a tropical flavour, like a cross between guava and nectarine. Mind you, I usually eat it from the inside out, purely in order to avoid any dirt on the outside. The only problem with the skin is its mealy texture rather than its taste, though this isn't really unpleasant anyway. I can only think that in cold climates it doesn't get enough sun to make good fruit (I am in Australia), or perhaps it's the soil. Or maybe some people pick it when unripe. Given its hardiness, it could be that people don't treat it as carefully as it deserves. According to Frances Bodkin, it is narcotic in large quantities, but I have had no problems eating a few at a time.

Details of Growing Condition: Sydney, Australia, open sunny place..

Cross references: *Web-pages:* *PFAF - Arbutus unedo, The Strawberry Tree*.

Arbutus unedo

Dr. Shannon Thu Mar 13 07:11:04 2003

Does anyone know of using this plant for arthritis or rheumatism?

Arbutus unedo, The Strawberry Tree

Ilene Holmes (imholmes@mindspring.com) Fri Jun 13 13:05:58 2003

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Arbutus unedo

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PC: If the jam is delicious, I promise to send a jar of jam to owner of the recipe.

Arbutus unedo

() Wed Dec 17 15:01:38 2003

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants for a Future
A resource centre for edible and other useful plants

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Español

The Urban Garden

An urban garden can range in size from a window box to an area of several hundred square yards and, no matter what the size, permaculture techniques can be utilized in growing plants for food and other purposes. This article is going to look at some of the possibilities of growing food crops in urban gardens and will mention a few alternative plants for you to try, but that does not mean that you should not grow many of the more conventional crops that can fit very well into the concept of permaculture. Indeed, we would recommend that anyone setting up a permaculture system in their garden or allotment starts off with a backbone of plants they are already familiar with, introducing alternative plants a few at a time to see how they like them.

The first thing to do when planning a garden is to go out and look at it, to see what are the possibilities. Don't just look at it once, come back to it several times in the year to see what is already growing there and whether it can be fitted into your design. There will be problem places, a wet area at the bottom of the garden, a shady wall that is in a rain shadow and the soil is always dry - make a note of all the positive and negative aspects of the garden and then start to think about how you can work around them. Sometimes it is fairly easy to improve a difficult situation, you could put in drainage for example to dry out the wet area, but very often you will find that it is better and much easier to work with the problem and to find plants that actually like growing in these places.

The essence of a good design is being able to group a number of different species into one harmonious system. If space allows you should always grow at least one tree. There are a number of conventional fruit trees on dwarfing rootstocks that are small enough to be grown in town gardens, some can even be grown in pots in a back yard. If you are happy to buy in apples etc and would rather grow a fruit that cannot be obtained from a shop then try growing Mulberries (Morus nigra). This fruit, which looks like a large dark loganberry, is ripe in late summer and is exquisitly flavoured but is too soft for it to be a commercial crop, the fruit would not last the journey to market. There are also a number of ornamental trees that can be grown as food crops. For example, the Juneberries (Amelanchier spp.) are beautiful in the spring when they are covered in white blossom. Their fruit, which is about the size of a blackcurrant, ripens in early July and, if you can get there before the birds, it is sweet and juicy with an apple like flavour. Try growing the cultivar 'Ballerina', it has larger and sweeter fruits than usual. Our native Yew tree (Taxus baccata) has a delicious sweet fruit in late summer and autumn. Some caution is necessary though since all other parts of the plant, including the seed, are highly poisonous. It will grow in almost any soil and situation and although it will eventually make a large tree, it is slow growing and will take many years to outgrow its welcome. The Strawberry tree (Arbutus unedo) ripens its fruit in November and December. It also flowers at this time of the year, the fruit taking 12 months to ripen, and it is then an object of singular beauty. Not highly flavoured, the fruit is superficially similar to a strawberry in size shape and texture. Some people like it whilst others are not so keen. There are a number of small growing cultivars that fruit well whilst still young, one we would particularly recommend is 'Rubra', we've seen one that was only 4 ft tall literally covered in fruit and blossom, an incredible sight.

Many shrubs can be grown under and around fruit trees. Conventional crops to try include Raspberries, Blackcurrants, Blackberries and Gooseberries. Some others you could try include Elaeagnus ebbingei, a superb permaculture plant that produces a ripe fruit in April and May, long before any conventional crops are ready. It succeeds in quite a lot of shade, in poor soils and drought conditions, is extremely wind resistant and also produces nitrogen nodules on its roots thereby feeding the soil and increasing the yields of plants growing nearby. It has never been bred as a fruit crop but the yield can be very good, though more work needs to be carried out in order to determine the conditions and cultivars that produce the highest crops. Putting a plant or more of E. pungens nearby for cross-pollination might be helpful. The flavour of the fruit is very acceptable when it is fully ripe, whilst the seed is also edible and reminds some people of peanuts. Many Barberries (Berberis spp) and Mahonias (Mahonia spp.)grow very well in the shade of trees, their fruit is rather acid and not to everyone's taste when raw, though they can also be cooked. An interesting novelty to try is Decaisnea fargesii, this produces a bright blue fruit in late summer that looks somewhat like a broad bean pod or a sausage. Not highly flavoured but it is great fun to see the look on a person's face when given it to eat. Gaultheria shallon is a shrub for acid soils producing a huge crop of small tasty fruits in the summer.

The above shrubs will also grow in sunnier positions. Atriplex halimus is an evergreen shrub that demands a sunny position and a well-drained soil. It has edible leaves with a salty flavour which can be eaten raw or cooked and is liked by most people we've given it to. If you are living in a mild part of the country then try growing Myrtus ugni in a reasonably sunny sheltered position. This evergreen shrub produces a delicious fruit from late summer to the autumn with a flavour reminiscent of strawberries and guava. The Dwarf Quinces (Chaenomeles spp.) are often grown in gardens, their fruit is ripe in late autumn and will store throughout the winter. Too harsh to eat raw, it cooks well and can be used as a jelly or as a flavouring with other fruits, especially apples.

Many bulbs and perennial plants can be grown between the shrubs and along the sunnier edges of this planting system. Most lilies love growing with their roots in the shade and their tops growing into the sunlight. They all have edible bulbs, though some are bitter. Amongst the nicest and easiest to grow are L. amabile, L. bulbiferum, L. candidum and L. superbum. The Dog's Tooth Violets (Erythronium spp) are superb woodland plants. They flower in spring and have disappeared by early summer. The bulbs usually increase fairly freely and can be divided in their dormant season, any spare bulbs being eaten. Quamash (Camassia quamash) can be grown in a sunnier part of the garden. It flowers in the summer and does especially well in short grass in an orchard. The bulbs can be eaten at almost any time of the year, though are probably best in the autumn, and when roasted have a taste similar to sweet potatoes. There are various species of wild onions (Allium spp.) that can be grown . Try the wild garlic (A. ursinum) in the shadier areas, it will provide mild garlic flavoured leaves from February in a mild winter until May. In sunnier areas try the everlasting onion (A. cepa 'Perutile'), this stays green all winter and the leaves can be added to salads.

Peltaria alliacea is an evergreen perennial that spreads quite freely and makes a good weed suppressing mulch in light shade or full sun. The leaves have a flavour that is a cross between garlic and mustard, not to everyone's taste but quite nice as a flavouring in salads. It is at its best in the winter, and can turn bitter in summer, especially if it is in a sunny position. Smilacena stellata grows very well in the deeper shade of trees. Its young growth in spring can be eaten in much the same way as asparagus but its nicest part is the fruit that is produced in late summer. This has a bitter sweet flavour, too strong to be eaten in large quantities but excellent in moderation. The Day Lilies (Hemerocallis spp.) are lovely trouble free and easy to grow plants. They are often cultivated for their edible flowers in the Orient, they can be eaten raw or cooked and are often used as a thickener in soups. All parts of the plants can be eaten, the young shoots are used like asparagus, the older leaves as spinach and the roots on a number of species are large enough to eat, they have a nutty flavour. The form most commonly cultivated for its flowers is H. fulva 'Kwanso' but any species or variety is worth trying. The Hog Peanut (Amphicarpaea bracteata) is a perennial that likes partial shade. It produces an edible seed in much the same way as peanuts, though it tastes more like a bean than a peanut. Not very high yielding though. Apios americana and Lathyrus tuberosus are two species with absolutely delicious roots. Grow them in the sunnier parts of the garden, harvest them in the autumn and bake them. Once again, yields are not that high but both species have the potential through selective breeding to become commercial crops. Perennial Buckwheat (Fagopyrum dibotrys) is a vigorous relative of the annual buckwheat. The leaves are available from late spring to the autumn and can be eaten raw or cooked, we prefer them cooked. The seed is also edible but has not yet been produced on our plants.

Looking at other parts of the garden, there are often walls that can be utilized in providing micro-climates for growing plants that could not be grown so successfully in the open garden. For example, a wall with a mainly southerly aspect will be much warmer by day and will also be warmer at night. It is possible to grow Kiwi fruits (Actinidia deliciosa)on such a wall, though these require quite a bit of space because you normally require a male plant to fertilize the females. However, the female can be very productive of fruit and this will ripen in late autumn and can be stored throughout the winter.

The soil at the base of walls is often quite dry, partly because it may be in a rain shadow and partly because the wall can act as a wick to draw moisture out of the soil. By applying a liberal mulch of organic material it is possible to alleviate this situation, alternatively it is possible to choose plants that actually prefer these dry conditions. An example of this is the Tiger Iris (Tigridia pavonia) from Mexico. Not all that hardy in Britain, it does very well at the foot of a dry south facing wall and in such a situation it can be safely left outside all winter in most of Britain. The bulb is quite small, but is delicious baked and the flower is just incredibly beautiful, it only lives for one day but plants produce a succession of blooms from July to October. Campanula versicolor is a perennial that is not reliably hardy in some parts of Britain, but does well at the foot of a sunny wall. It has mild flavoured edible leaves and these are available throughout the winter, making an ideal salad at this time of the year. If the wall is in a shady position try growing Gooseberries and a Morello cherry with Montia sibirica, a short-lived perennial that usually self-sows freely, planted underneath them. It produces mild flavoured edible leaves throughout the year and these are at their best in winter.

Most of the bulbs and perennials mentioned above can also be grown very successfully in a window box, so even if you do not have a garden it is still possible to grow some food on permaculture lines. A very good bulb for a window box would be the Iron Cross plant (Oxalis deppei). It produces an abundance of lemon-flavoured leaves from June to October, delicious raw though they should not be eaten in large quantities because, like rhubarb, they contain oxalic acid. The flowers are even nicer tasting and are a very decorative addition to the salad bowl.

There are so many potentially useful plants that can be grown in urban gardens that the main problem with writing this leaflet has been deciding which plants to leave out. All the plants listed above are fairly easy to grow but if you would like fuller details about how to grow and use any of them, or would like details on other plants you could try in a permaculture town garden then please write to us at the address below. Please give a fairly detailed account of your request, it is extremely difficult to respond to a letter that simply asks for something vague such as 'a list of plants I can grow in my garden'. A donation to cover costs would be appreciated.

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Plants for a Future
A resource centre for edible and other useful plants

Regresar a la Plantas para un Futuro página principal: Español English

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English

El jardín urbano

Un jardín urbano puede variar en tamaño desde una jardinera de ventana hasta un área de varios cientos de metros cuadrados y, no importa cual sea el tamaño, se pueden utilizar las técnicas de permacultivo para el cuidado de las plantas ya sea que se deseen para obtener alimentos o alguna otra cosa. Este artículo analizará algunas posibilidades de cultivar alimentos en un jardín urbano y mencionará algunas plantas alternativas con las cuales usted puede experimentar, pero eso no significa que no pueda usted cultivar muchas de las especies tradicionales que pueden adaptarse muy bien dentro del concepto de la permacultura. De hecho, recomendamos que cualquiera que quiera establecer un sistema de permacultura en su jardín o lote, empiece con un grupo de plantas con las que este familiarizado, introduciendo plantas alternativas poco a poco para poder ver como se ambientan y desarrollan en el lugar.

Lo primero que hay que hacer cuando se planea un jardín es ir al lugar y observarlo para ver cuales son las posibilidades. No solo lo observe una vez, obsérvelo varias veces durante el año para ver que plantas están creciendo ahí y como pueden estas ajustarse dentro de su diseño. Habrá lugares con problemas, un área húmeda en la parte baja del lugar, una pared sombreada protegida de la lluvia y consecuentemente un área siempre seca - tome nota de todos los aspectos positivos y negativos del lugar y piense como puede trabajar en él. A veces resulta fácil resolver situaciones difíciles, puede drenar un área para secarla, pero a menudo encontrará que es mejor y más fácil adaptarse al problema y buscar plantas adecuadas, a las que les guste ese tipo de ambiente

La esencia de un buen diseño es la capacidad de agrupar cierto número de especies diferentes dentro de un esquema armonioso. Si el espacio se lo permite siempre debe de tener al menos un árbol. Hay árboles frutales convencionales con los proveedores de plantas enanas o limitadas en su crecimiento que se ajustan al cultivo en jardines urbanos, algunos pueden incluso cultivarse en macetas o en el patio trasero de su casa. Si usted piensa cultivar manzanas porque le gustan mucho, que fácilmente puede conseguir en el supermercado, a lo mejor prefiere comprarlas y usar su terreno para cultivar algo que no pueda conseguir fácilmente. Trate de cultivar moras (Morus nigra). Esta fruta, que es una baya grande y oscura, madura a finales de junio y tiene un sabor exquisito pero es muy suave y delicada para manejarse por lo que no es comercial, la fruta no resiste su traslado a al mercado. Hay también árboles ornamentales que pueden cultivarse con fines alimenticios. Por ejemplo, la baya de junio (Amelanchier spp.) es hermosa en la primavera cuando se cubre de flores blancas. Su fruto, de tamaño parecido al de la grosella negra, madura a principios de junio y, si se las gana a los pájaros, disfrutará de su sabor parecido al de una manzana dulce y jugosa. Trate de cultivar 'Ballerina', tiene frutos más grandes y dulces que los usuales. Nuestro árbol nativo, el Tejo (Taxus baccata) tiene un fruto dulce y delicioso a finales del verano y durante el otoño. Sin embargo, tenga cuidado con este árbol ya que todas las demás partes de la planta, incluyendo las semillas, son muy venenosas. Crecerá casi en cualquier suelo y lugar y eventualmente será un árbol grande, crece lentamente y toma muchos años para completar su crecimiento. Madroño (Arbutus unedo) madura sus frutos en noviembre y diciembre. También florece en esta temporada del año, la fruta toma 12 meses para madurar, y muestra entonces una singular belleza. Sin un sabor tan fuerte, el fruto es superficialmente similar a la fresa en tamaño, forma y textura. A algunas gentes les gusta mientras que otras no se entusiasman mucho. Hay algunas plantas pequeñas que fructifican bien mientras son aún jóvenes, una que recomendamos particularmente es la 'Rubra', Hemos visto una de solo un metro de altura cubierta literalmente de flores y frutos, un espectáculo increíble.

Muchos arbustos pueden cultivarse bajo y alrededor de los árboles frutales. Los cultivos convencionales que puede considerar incluyen a: la frambuesa, la grosella negra, la zarzamora y la uva espín. Otros que puede usted probar incluyen a Elaeagnus ebbingei, una planta de permacultura superior que produce fruto maduro en abril y mayo, mucho antes que las demás cosechas convencionales estén listas. Tiene éxito en terrenos sombreados, suelos pobres y secos, es extremadamente resistente al viento y produce nódulos de nitrógeno en sus raíces que alimentan al suelo e incrementan la productividad de las plantas que crecen a su alrededor. Nunca ha sido cultivada para aprovechar sus frutos pero su productividad puede ser muy buena, aunque se requiere más trabajo e investigación para determinar las condiciones y atenciones que producen más cosecha. Poner plantas de E. pungens cerca una de otra puede ayudar a la polinización cruzada. El sabor del fruto es muy aceptable cuando está completamente maduro, la semilla es también comestible y a alguna gente le recuerda al cacahuate. Muchos Berberís (Berberis spp) y Mahonias (Mahonia spp.) crecen muy bien a la sombra de los árboles, su fruto es ácido y no a todos les gusta crudo, pero pueden también cocinarse. Una novedad interesante para probar es la Decaisnea fargesii, produce un fruto azul brillante a finales de verano y parece algo así como vaina de frijol o salchicha. No tiene mucho sabor pero es muy divertido ver la cara que pone una persona cuando usted se lo ofrece para comer. Gaultheria shallon es un arbusto para suelos ácidos que produce cosechas copiosas de pequeñas y sabrosas frutas en el verano.

Los arbustos anteriores también crecen bien en lugares asoleados. Atriplex halimus es un arbusto siempre verde que demanda una posición asoleada y un suelo bien drenado. Tiene hojas comestibles de sabor salado que pueden comerse crudas y cocidas a la mayoría de la gente que se las hemos ofrecido les han gustado. Si usted vive en la parte media del país pruebe a cultivar Myrtus ugni en un lugar razonablemente asoleado y protegido. Este arbusto siempre verde produce un fruto delicioso durante finales del verano y el otoño con un sabor que recuerda el de la fresa y la guayaba. Los membrillos enanos (Chaenomeles spp.) a menudo se cultivan en jardines, su fruto madura a fines de otoño y se puede almacenar durante el invierno. Demasiado áspero para comerlo crudo, se cocina bien y puede usarse como mermelada o jalea o como saborizante con otras frutas, especialmente manzanas.

Se pueden cultivar muchas especies de bulbos y plantas perennes entre los arbustos y el las orillas asoleadas de este sistema de plantación. A la mayoría de los lirios les gusta crecer con sus raíces en la sombra y sus tallos altos a la luz del sol. Todos tienen bulbos comestibles, aunque algunos son amargos. De estos los más bonitos y fáciles de cultivar son L. amabile, L. bulbiferum, L. candidum y L. superbum. Las violetas de diente de perro (Erythronium spp) son plantas de terreno boscoso superiores. Florecen en primavera y desaparecen a principios de verano. Los bulbos generalmente se desarrollan con mucha libertad y pueden dividirse durante la estación de hibernación, cualquier bulbo separado puede comerse. Quamash (Camassia quamash) puede cultivarse en una parte asoleada del jardín. Florece en el verano y se desarrolla especialmente bien en pasto corto en hortaliza. Los bulbos pueden comerse casi en cualquier época del año, aunque están probablemente mejor en el otoño, y si se asan tienen un sabor similar al de la papa dulce. Hay varias especies de cebollas silvestres que pueden cultivarse (Allium spp.). Pruebe a cultivar el ajo silvestre (A. ursinum) en los lugares más sombreados, proveerá hojas con sabor de ajo suave desde febrero, en medio del invierno, hasta mayo. En áreas asoleadas pruebe la cebolla siempre verde (A. cepa 'Perutile'), permanece verde todo el invierno y sus hojas pueden agregarse a las ensaladas.

Peltaria alliacea es una perenne siempre verde que se propaga libremente y produce una cubierta protectora que suprime las malas hierbas tanto en sombra ligera como a pleno sol. Las hojas tienen un sabor mezclado de ajo y mostaza, no para cualquier gusto pero muy agradable como saborizante en las ensaladas. Están en su mejor punto en invierno, y pueden tornarse amargas en verano, especialmente si están en un lugar asoleado. La Smilacena stellata crece muy bien en la sombra profunda de los árboles. Sus retoños jóvenes de la primavera pueden comerse en la misma forma que los espárragos pero su mejor parte es el fruto que se produce a finales de verano. Este tiene un sabor ligeramente amargo, muy fuerte para comerse en grandes cantidades pero excelente en forma moderada. Los lirios de un día (Hemerocallis spp.), son plantas libres de problemas y muy fáciles de cultivar. En el Oriente se cultivan frecuentemente por sus hojas comestibles, pueden comerse crudas o cocinarse y a menudo se usan para espesar sopas. Todas las partes de la planta pueden comerse, los tallos jóvenes pueden usarse como espárragos, las hojas viejas como espinacas y las raíces, en muchas especies, son suficientemente grandes para comerlas, tienen sabor a nuez. La variedad más comúnmente cultivada por sus flores es la H. fulva 'Kwanso' pero cualquier especie o variedad puede probarse. El cacahuete de cerdo (Amphicarpaea bracteata) es una perenne a la que le gusta la sombra parcial. Produce semillas comestibles en la misma forma que el cacahuete, aunque sabe más a frijol que a cacahuete. Aunque no muy productiva. Apios americana y Lathyrus tuberosus son dos especies con raíces absolutamente deliciosas. Crecen en las partes más asoleadas del jardín, coséchelas en el otoño y hornéelas. Una vez más, su productividad no es muy alta pero ambas especies son potencialmente comercializables si se cultivan y atienden selectivamente. El trigo sarraceno perenne (Fagopyrum dibotrys) es un vigoroso pariente del trigo sarraceno anual. Las hojas están disponibles desde finales de primavera hasta el otoño y pueden comerse crudas o cocinarse, nosotros preferimos cocinarlas. La semilla también es comestible pero aún no la producen nuestras plantas.

Mirando hacia otras partes del jardín, hay a menudo paredes que pueden ser utilizadas para proveer micro-climas para cultivar plantas que no pueden desarrollarse con éxito en el jardín abierto. Por ejemplo, una pared que de al sur será mucho más caliente durante el día y tibia durante la noche. Es posible cultivar la fruta del Kiwi (Actinidia deliciosa) sobre tal pared, pensando que esta requiere muy poco espacio porque solo se requiere una planta macho para fertilizar a las hembras. Sin embargo, la planta hembra puede ser muy productiva en frutos que madurarán a finales de otoño y puede ser almacenada durante el invierno.

La tierra en la base de las paredes suele ser muy seca, en parte porque la pared puede protegerla de la lluvia y además porque absorbe la humedad de la tierra. Aplicando una cantidad generosa de cubierta orgánica en estos sitios es posible aliviar la situación, por otra parte, es posible seleccionar plantas que prefieran estas condiciones secas. Un ejemplo de esto es la Tigre Irisada (Tigridia pavonia) de México. No tan resistente en Inglaterra, se desarrolla muy bien al pie de un muro seco con vista hacia el sur y en esa situación está protegida y puede dejársele al exterior durante el invierno Británico. El bulbo es muy pequeño, pero es delicioso horneado y la flor es increíblemente hermosa, solo dura un día pero la planta produce una sucesión de flores desde julio hasta octubre. La Campanula versicolor es una planta perenne que no es suficientemente resistente en algunas partes de Inglaterra, pero se desarrolla bien al pie de un muro asoleado. Tiene hojas comestibles de sabor regular y están disponibles a lo largo del invierno, haciendo una ensalada ideal para esta temporada del año. Si el muro está en una posición sombreada pruebe el cultivo de uva espín (Gooseberries) y un cerezo Morello con Montia sibirica, una perenne de vida corta que generalmente se propaga con libertad, plantada bajo de ellas. Produce hojas comestibles de sabor medio durante todo el año estando mejores en el invierno.

La mayoría de los bulbos y perennes mencionadas anteriormente pueden crecer con éxito hasta en una jardinera en la ventana, de modo que aun cuando no tenga usted jardín es posible que cultive algún alimento según las líneas de la permacultura. Un bulbo muy bueno para cultivar en jardinera es la planta de la Cruz de Hierro (Oxalis deppei). Esta produce en abundancia hojas con sabor a limón desde junio hasta octubre, son deliciosas crudas aunque debe tener cuidado de no comer demasiadas porque, como el ruibarbo, contienen ácido oxálico. Las flores tienen aun mejor sabor y son un agregado muy decorativo para las ensaladas.

Hay muchas plantas potencialmente útiles que pueden cultivarse en jardines urbanos al grado que el mayor problema para escribir este folleto fue decidir cuales plantas dejar fuera de él. Todas las plantas descritas son fáciles de cultivar pero si desea más información y detalles del cultivo y uso de alguna de ellas, o desea saber de otras plantas para probar en su jardín, entonces por favor escribanos a la dirección que se muestra más adelante. Por favor díganos en forma detallada lo que desea saber, es muy difícil contestar a una carta que simplemente pregunta por algo vago tal como 'una lista de plantas que pueda cultivar en mi jardín'. Escribanos en Inglés pues no sabemos Español. Un donativo que cubra el costo será apreciado.

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Regresar a la Plantas para un Futuro página principal: Español English

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versión HTML preparada por Rich Morris pfaf@scs.leeds.ac.uk - Home Page
Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

Plants For A Future: Database Search Results

Arbutus unedo

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Strawberry tree	Family:	Ericaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe and S.W. Ireland.		
Habitat:	Woodland, scrub and rocky hillsides, often on limestone and sandstone[17, 45].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Djina [E], Killarney Strawberry Tree [H], Koca Yemis [E], Madrono [E], Strawberry Tree [H,P], Strawberry-tree [L],
Epithets:	From a Dictionary of Botanical Epithets
	unedo = L. name;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Sicily; Spain; Turkey

Physical Characteristics

An evergreen tree growing to 9m by 8m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to December, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Croomei'**: Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **'Elfin King'**: Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **'Rubra'**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked. Sweet but insipid[2, 3, 5]. The Latin name 'unedo' means 'I eat one (only)' and suggests that the fruit is not very palatable[K], though another report says that the fruit is so delicious that a person only needs to eat one[245]. It does have a somewhat gritty skin, but the fruit itself has the texture of a lush tropical fruit and has a delicate pleasant flavour. For those people with sensitive taste buds, this is a fruit that can be enjoyed when eaten in moderate quantities[K]. The fruit contains about 20% sugars and can be used to make delicious and nourishing jams and preserves[7]. It is ripe in November/December and is about 15mm in diameter. When fully ripe it falls from the tree and so it is advisable to grow the plant in short grass in order to cushion the fall of the fruit[K].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Diuretic.

The strawberry tree is little used in herbalism, though it does deserve modern investigation[268]. All parts of the plant contain ethyl gallate, a substance that possesses strong antibiotic activity against the Mycobacterium bacteria[268].

The leaves, bark and root are astringent and diuretic[7, 46, 268]. They are also a renal antiseptic[7] and so are of use in the treatment of affections of the urinary system such as cystitis and urethritis[254]. Their astringent action makes them of use in the treatment of diarrhoea and dysentery and, like many other astringent plants, a gargle can be made for treating sore and irritated throats[254]. The leaves are gathered in the summer and dried for later use[7].

The flowers are weakly diaphoretic[268].

Other Uses

Tannin; Wood.

Tannin is obtained from the leaves, bark and fruit[46, 61]. The bark contains 45% tannin[46].

Wood - used for turning, Greek flutes etc[89, 148]. It makes a good charcoal[4, 89, 148].

Cultivation details

Requires a nutrient-rich well-drained moisture-retentive soil in sun or semi-shade and shelter from cold drying winds, especially when young[11, 200]. Grows well in heavy clay soils and in dry soils. Most species in this genus require a lime-free soil but this species is fairly lime tolerant[11, 200]. Succeeds in fairly exposed maritime positions[166, 200]. A tree in a very exposed position at Rosewarne in N. Cornwall was looking rather tattered in April 1987 but it was 4.5 metres tall and carrying a very good crop of immature fruit[K]. Tolerates industrial pollution[200].

Plants have withstood temperatures down to -16°c without injury at Kew[11]. They grow very well in S.W. England, fruiting well in Cornwall[49, 59].

Plants resent root disturbance and are best placed in their final positions whilst young[11, 134]. Give them some protection in their first winter.

The strawberry tree flowers in November and December, the fruit takes 12 months to ripen and so the tree carries both mature fruit and flowers at the same time and is incredibly beautiful at this time[K]. The flowers have a soft honey scent[245].

There are a number of named varieties[183] developed for their ornamental value. 'Elfin King', 'Croomei' and 'Rubra' are all small forms that fruit well when small[182]. The variety 'Rubra' was 1.2 metres tall at Kew in late 1990 and was laden down with fruits and flowers[K]. 'Elfin King' only reaches a height of 1 metre, comes into bearing when young and fruits well[183]. It is ideal for container culture[183]. 'Croomei' is said to be a more reliable fruiting form[49].

Propagation

Seed - best surface sown in a cold frame as soon as it is ripe. Stored seed should be soaked for 5 - 6 days in warm water and then surface sown in a shady position in a greenhouse[78]. Do not allow the compost to become dry. 6 weeks cold stratification helps[134]. The seed usually germinates well in 2 - 3 months at 20°c[134]. Seedlings are prone to damp off[184], they are best transplanted to individual pots as soon as they are large enough to handle and should be kept well ventilated. Grow them on in a greenhouse for their first winter and then plant out in late spring after the last expected frosts[K].

Basal cuttings in late winter[200].

Cuttings of mature wood of the current season's growth, November/December in a frame. Poor percentage[78].

Layering of young wood - can take 2 years[1, 200].

Scent

Flowers: Fresh

The flowers have a soft honey scent.

Cultivars

'Rubra'

Smaller than the species type, this form grows to about 2 - 3 metres in height, fruiting abundantly even when only 60cm tall[K].

'Elfin King'

The fruits are up to 25mm in diameter and have a sweet flavour[183, K]. A slow-growing compact plant, often no more than 1 metre tall[183]. It comes into bearing early, sets fruit freely and is ideal for container growing[183].

'Croomei'

A dwarf-growing cultivar, it is said to be a reliable fruiting form[49].

'Compacta'

A dwarf cultivar, it is said not to flower very freely[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Edible Trees and Shrubs Hardy in Britain: A - B

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E.T.	Acacia longifolia	Wattle	Seed	Very mild areas only, sunny position, light soil
D.T.	Acer glabrum	Rock Maple	Young shoots, inner bark	Sunny position, moist well drained soil
D.T.	Acer saccharum	Sugar Maple	Sap - a sugar substitute	Sunny position, deep moist soil
	Other species that yield maple syrup include: A. argutum, A. carpinifolium, A. distylum, A. grandidentatum, A. interius, A. macrophyllum, A. mono, A. nigrum, A. negundo, A. palmatum, A. platanoides, A. rubrum, A. pseudo-platanus, A. saccharinum and A. tataricum			
D.T.	Acer tataricum		Seed, sap	Sunny position, moist well-drained soil
D.T.	Acer truncatum		Seed	Sunny position, moist well-drained soil
D.CL.	Actinidia arguta		Fruit - very rich in Vitamin C, sap	Very hardy. Good loamy soil. Dioecious
D.CL.	Actinidia chinensis	Chinese Gooseberry, Kiwi Fruit	Fruit - stores up to 4 months	Good loamy soil. Dislikes lime. Sunny position. Dioecious

	Other species with edible fruit include A. callosa, A. giraldii, A. kolomikta, A. melanandra, A. polygama, A. purpurea and A. rubricaulis. Most are best in southern England though A. arguta comes from Siberia and would be very worthwhile trying further north			
D.T.	Aesculus flava	Sweet Buckeye	Seed - as sweet as a chestnut	Good deep soil. Best in south east England
	Other species include Ae. californica, Ae. hippocastanum, Ae. parviflora and Ae. indica. However, they all contain saponins and need to be leached before being eaten so are best avoided. Even Ae. flava should be viewed with some suspicion			
D.CL.	Akebia quinata, Akebia trifoliata)	Akebia	Fruit - not freely produced in Britain	Partial shade. Probably self-sterile so more than one plant should be grown
D.T.	Albizzia julibrisin		Leaves	Mild areas only
D.T.	Alnus rubra	Red Alder	Sap, buds, inner bark	Succeeds in heavy damp soils
D.SH.	Amelanchier canadensis	Juneberry	Fruit - sweet	Most soils, sunny position
	The fruits of all members of this genus are edible, though sometimes dry and tasteless. The following are said to have desirable fruits. A. alnifolia, A. humilis, A. laevis, A. lamarckii, A. stolonifera			
D.CL.	Ampelopsis brevipedunculata		Leaves and young stems	Sunny position
D.SH.	Aralia chinensis	Angelica Tree	Young shoots	Shady position, good deep loam
D.T.	Aralia spinosa	Hercule's Club	Young leaves	Good deep loam
E.T.	Araularia araucana	Monkey Puzzle	Seed	Deep soil. Very wind resistant. Dioecious
E.T.	Arbutus unedo	Strawberry Tree	Fruit	Most soils. Wind resistant
	Other species with edible fruits include A. andrachne, A. menziesii			
E.SH.	Arctostaphyllos uva-ursi	Bearberry	Fruit - carbohydrate source	Lime-free soils
	Other species with edible fruits include A. columbiana, A. glauca, A. manzanita, A. nevadensis, A. patula and A. tomentosa			

D.SH.	Arctous alpinus		Fruit	Lime-free soil. Cool, damp position
E.SH.	Aristotelia chilensis	Macqui	Fruit - tastes like Bilberries	South and south-west Britain only
D.T.	Aristotelia serrata		Fruit	Moist, mild areas only
D.SH.	Aronia arbutifolia	Red Currant	Fruit	Most soils
E.SH.	Artemesia tridentata	Sage Brush	Leaves, seed	Sunny positon. Well-drained, lime-free, not rich soil
D.SH.	Asimina triloba		Fruit	Sunny position, rich loamy soil
E.SH.	Atriplex halimus	Sea Orch	Leaves, seed	Sunny position, light soil, even pure sand. Wind resistant
	Other species include A. canescens and A. confertifolia			
E.SH.	Azara microphylla		Fruit	Warm, sheltered position. Most soil
E. & D.SH.	Berberis spp	Barberries	Fruit	Most soils
	Species mentioned for their fruit include B. aggregata, B. angulosa, B. aristata, B. asiatica, B. buxifolia, B. canadensis, B. darwinii, B. empetrifolium, B. lycium, B sibirica and B. vulgaris			
D.CL.	Berchemia lineata		Fruit	Good moist loam
D.CL.	Berchemia racemosa		Leaves, cooked	Good moist loam
D.T.	Betula pendula	Silver Birch	Leaves, inner bark, sap	Well-drained soil. Tolerates bad soils
	Other Betula spp include B. alleghaniensis, B. lenta, B. nigra, B. papyrifera, B. pubescens and B. utilis			
D.SH.	Broussonettia kazinoki		Fruit, flowers, leaves	Most soils
D.T.	Brousonetia papyrifera	Paper Mulberry	Fruit, leaves	Most soils

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Readers Comments:

Aesculus flava

Mike Creel (creelm@scdnr.state.sc.us) Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

This comment has also been added to: Aesculus flava.

This comment has also been added to the genera: Aesculus.

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Edible Trees and Shrubs Hardy in Britain: C

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.SH.	Callicarpa americana		Fruit	Sunny position. Milder areas only
D.SH.	Callicarpa mollis		Fruit	Sunny position. Milder areas only
E.SH.	Calligonum aphyllum		Root, young shoots	Sunny position. Dryish sandy loam
D.SH.	Calycanthus floridus	Carolina Allspice	Bark,a Cinnamon substitute	Sunny position. Deep moist light loamy soil
D.SH.	Calycanthus occidentalis	Californian Allspice	Bark,a Cinnamon and Allspice substitute	Sunny position. Most soils
E.SH.	Camellia oliefera	Camellia	Oil from seed	Lime free soil. Best in milder areas
	Other species yielding oil include C. japonica, C. sasanqua			
D.SH.	Caragana arborescens	Siberian Pea Shrub	Seed, pods	Full sun. Light sandy, not rich soil
D.SH.	Caragana pygmaea		Root	Full sun. Light sandy, not rich soil
D.SH.	Caragana sinica		Flowers	Full sun. Light sandy, not rich soil
D.T.	Carpinus caroliniana	American Hornbeam	Seed	Most soils
D.T.	Carya glabra	Pignut Hickory	Seed, sap	Deep loamy soil. Seed can be sweet or astringent

D.T.	Carya laciniosa	Shellbark Hickory	Seed, sap	Deep loamy soil. Sunny position
D.T.	Carya ovata	Shagbark Hickory	Seed, sap	Deep loamy soil. Sunny position
	Other species include C. buckleyi, C. carolinae-septentrivnalis, C. cathayensis, C. illinoensis, C. megacarpa, C. myristicaeformis, C. ovalis, C.pallida and C. tomentosa			
D.T.	Castanea sativa	Sweet Chestnut	Seed	Sunny position. Most soils but dislikes lime
	Other species include C. alnifolia, C. crenata, C. dentata, C. henryi, C. mollissima, C. pumila, C. ozarkensis and C. seguinii			
E.T.	Castanopsis cuspidata		Seed	Best in mild areas
E.T.	Castanopsis delavayi		Seed	Good deep loam
D.T.	Catalpa ovata		Flowers, young pods	Sunny, sheltered position
E.SH.	Ceanothus cuneatus	Buck Bush	Seed	Sunny position. Light soil low in lime
	Other species include C. fendleri and C. integerrimus			
D.CL.	Celastrus flagellaris		Young leaves	Deep loamy soil
D.CL.	Celastrus orbiculatus	Young leaves	Dioecious	
D.CL.	Celastrus scandens	Climbing Bittersweet	Bark and young shoots	Deep loamy soil. Dislikes lime. Dioecious
D.T.	Celtis occidentalis	Sugarberry	Fruit, seed	Most soils
	Other species include C. australis, C. bungeana, C. caucasia, C. jessoensis, C. Koraiensis, C. laevigata, C. reticulata, C. tournefortii, C. sinensis			
E.SH.	Cephalotaxus fortunei	Chinese Plum Yew	Fruit	Most soils. Tolerates heavy shade. Dioecious
E.SH.	Cephalotaxus harringtonia	Japanese Plum Yew	Fruit, seed	Most soils. Tolerates heavy shade. Dioecious
E.T.	Ceratonia siliqua	Carob	Seed, seed pod	Very mild areas only. Well-drained soil
D.T.	Cercis canadensis	Redbud	Flowers	Very sunny position. Deep sandy loam
D.T.	Cercis siliquastrum	Judas Tree	Flowers, seed pods	Very sunny position. Does best on poorish light soil

D.SH.	Chaenomeles cathayensis	Chinese Quince	Fruit	Sunny position. Most soils if well-drained
	Other species include C. japonica, C. speciosa			
E.SH.	Chamaerops humilis	Dwarf Fan Palm	Young shoots	Sunny position. Well-drained soil. Mild areas only
D.SH.	Chionanthus virginicus	Fringe Tree	Fruit	Sunny position
E.T.	Chrysolepsis chrysantha		Seed - sweet tasting	Lime-free soil. Sheltered, semi-shady position. Fruits well in Edinburgh
D.SH.	Clethra barbinervis		Leaves	Peaty, well-drained, lime-free soil. Mild areas
D.SH.	Comptonia peregrina asplenifolia	Sweet Fern	Young fruits	Peaty, lime-free soil
E.SH.	Coprosma species		Fruit	Mild areas only. All the species have edible fruits
E.T.	Cordyline australis	Cabbage Tree	Root, shoots	Mild areas. Very wind resistant
E.T.	Cordyline indivisa		Fruit	Mild areas. Very wind resistant
E.SH.	Corema conradii	Poverty Grass	Fruit	Lime-free soil
D.SH.	Coriaria sinica		Fruit	Seed is poisonous. Best in milder areas
	Other species include C. sarmentosa and C. terminalis			
D.T.	Cornus kousa chinense		Fruit, young leaves	Most soils
D.T.	Cornus mas	Cornelian Cherry	Fruit	Most soils. Sunny position
D.SH.	Cornus sanguinea	Dogwood	Oil from seed	Most soils
	Other species with edible fruits include C. amomum, C. capitata, C. controversa, C. macrophylla, C. occidentalis, C. officinalis and C. stolonifera			
D.SH.	Corylus avellana	Hazel Nut	Seed, oil from seed	Most soils and positions
D.SH.	Corylus maxima	Filberts	Seed	Most soils and positions

	Other species include C. americana, C. chinensis, C. colurna, C. cornuta, C. heterophylla, C. jacquemontii, C. pontica, C. sieboldiana mandschurica and C. tibetica			
E.T.	Corynocarpus laevigata	New Zealand Laurel	Fruit, seed	Mild areas only. Seed must be leeched to remove toxins
D.SH.	Cotoneaster racemiflorus		Manna	Most soils
D.T.	Crataegus azarolus	Azarole	Fruit	Sunny position. Most soils
D.T.	Crataegus douglasii		Fruit	Sunny position. Most soils
D.T.	Crataegus monogyna	Hawthorn	Leaves, fruit	Most soils
	All species of Crataegus have edible fruits though they are often not very desirable. Some of the nicer ones include C. aprica, C. atrosangvinea, C. hupehensis, C. laciniata, C. pensylvanica, C. schraderana, C. succulenta, C. tanacetifolia and C. tomentosa			
D.T.	Cudrania tricuspidata	Silk-Worm Thorn	Fruit	Very hardy. Most soils. Dioecious
E.SH.	Cyathodes colensoi		Fruit	Peaty soil
E.SH.	Cyathodes fraseri		Fruit	Mild areas only
D.T.	Cydonia oblonga	Quince	Fruit	Sunny positon. Most soils

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Edible Trees and Shrubs Hardy in Britain: D - E

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E.T.	Dacrycarpus dacrydioides	White Pine	Fruit	Very mild areas only
E.T.	Dacrydium cupressinum	Rimu	Fruit	Very mild areas only
D.SH.	Decaisnea fargesii		Fruit	Rich moist loamy soil
D.SH.	Deutzia scabra		Young leaves	Moist soils
D.T.	Diospyros kaki	Persimmon	Fruit	All these species are dioecious but female trees can produce seedless fruits without being pollinated. D. daki is best grown on a south-facing wall
D.T.	Diospyros lotus	Date Plum	Fruit	
D.T.	Diospyros virginiana	American Persimmon	Fruit	
E.SH.	Drimys lanceolata	Mountain Pepper	Fruit is a pepper substitute	Best in mild areas
E.SH.	Drimys winteri	Winter's Bark	Bark is a condiment	Best in mild areas. Moist soil
D.T.	Ehretia dicksonii		Fruit	Succeeds on chalk
	Other species include E. acuminata and E. elliptica			
D.SH.	Elaeagnus multiflora		Fruit	Sunny position. Light soil. Very drought and wind resistant
	Other species include E. angustifolia, E. commutata, E. glabra, E. macrophylla, E. montana, E. pungens and E. umbellata			
D.SH.	Eleutherococcus sieboldianus		Leaves	Sheltered position, warm loamy soil

	Other species include E. divaricatus, E. japonicus, E. senticosus, E. sessiliflorus and E. trifoliatus			
E.SH.	Empetrum nigrum	Crowberry	Fruit	Peaty soil. Dioecious
	Other species include E. hermaphroditum, E. rubrum			
E.SH.	Ephedra distachya	Sea Grape	Fruit	Sunny position. Well-drained soil.
E.SH.	Ephedra gerardiana		Fruit	
E.SH.	Ephedra nevadensis		Seed	
E.SH.	Epigaea asiatica		Fruit	Lime-free humus rich soil. Shade
E.SH.	Epigaea repens		Fruit	Lime-free humus rich soil. Shade
E.T.	Eriobotrya japonica	Loquat	Fruit - not often borne	Well drained soil
D.T.	Euodia daniellii		Oil from fruit	Most soils
D.T.	Euodia fraxinifolia		Fruit, oil from seed	Most soils. Hardy(?)

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Edible Trees and Shrubs Hardy in Britain: F - G

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.T.	Fagus sylvatica	Beech	Leaves, seed, oil from seed	Most soils except heavy wet soils
	Other species include F. crenata, F. grandifolia, F. japonica, F. longipetiolata, F. lucida and F. orientalis			
E.T.	Feijoa sellowiana	Feijoa	Fruit, flowers	Most soils. Sunny position. Mild areas
D.T.	Ficus carica	Fig	Fruit	Well-drained soil with lime
D.T.	Firmiana simplex		Seed	Sandy loam. Mild areas only
D.SH.	Forestiera neo-mexicana		Fruit - an olive substitute	Most soils. Very sunny position
D.SH.	Forsythia suspensa		Young leaves	Most soils
D.T.	Fraxinus ornus	Manna Ash	Sap	Moist soil
	Other species include F. floribunda and F. rotundifolia			
D.SH.	Fuchsia spp	Fuchsia	Fruit	Well-drained humus-rich soil
	All species of fuchsia have edible fruits though often of poor quality. Two species reasonably hardy in Britain are F. excorticata and F. magallenica. It is always worthwhile sampling the fruits of the many hardy garden hybrids			
E.SH.	Gaultheria procumbens	Checkerberry	Fruit, leaves	Lime-free soil, some shade
E.SH.	Gaultheria shallon	Shallon	Fruit	Lime-free soil, some shade

	Other species include G. adenothrix, G. antipoda, G. fragrantissima, G. hispida, G. hispidula, G. humifusa, G. miqueliana, G. ovatifolia and G. trichophylla			
D.SH.	Gaylussacia baccata	Black Huckleberry	Fruit	Well-drained, humus-rich, lime-free soil
	Other species include G. brachycera, G. dumosa, G. frondosa and G. ursina			
E.T.	Gevuina avellana	Chilean Hazel	Seed	Mild areas only. Woodland conditions
E.T.	Ginkgo biloba	Maidenhair Tree	Seed	Well-drained soil. Sheltered position
D.T.	Gleditschia triacanthos	Honey Locust	Seed pod - not often produced	Sunny position, good loamy soil
D.SH.	Grewia optiva		Fruit	Not very hardy
D.T.	Gymnocladus dioica	Kentucky Coffee Tree	Seed pods - not often borne	Rich, deep soil

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Edible Trees and Shrubs Hardy in Britain: H - K

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E.SH.	Halimione portulacoides	Sea Purslane	Leaves	
D.SH.	Hamamelis virginiana	Witch Hazel	Seed	Most soils if moist
D.SH.	Helwingia japonica		Leaves, young shoots, flowers	Most soils. Dioecious
D.SH.	Hibiscus syriacus		Leaves, flowers, oil from seed	Most soils except badly drained ones. Sunny position
D.SH.	Hippophae rhamnoides	Sea Buckthorn	Fruit	Most soils, sunny position. Dioecious
D.T.	Hippophae salicifolia		Fruit	Most soils, sunny position. Dioecious
E.CL.	Holboellia coriacea		Fruit	Most soils. Prefers a shady wall or growing into a tree
	Other species include H. grandiflora and H. latifolia			
D.SH.	Holodiscus discolor		Fruit	Thin woodland. Most soils
D.SH.	Holodiscus dumosus		Fruit	Most soils
D.T.	Hovenia dulcis	Japanese Raisin Tree	Fruit	Sandy loam
D.SH.	Hydrangea macrophylla		Leaves - sweet	Well drained, but not dry, loamy soil
	Other species include H. hirta and H. serrata			
E.SH.	Hyssopus officinalis	Hyssop	Leaves	Sunny position. Light dry soil containing lime

D.T.	Idesia polycarpa		Fruit	Most soils. Dioecious
E.SH.	Illicium anisatum	Star Anise	Fruit - a flavouring	Light moist peaty loam.
E.SH.	Illicium floridanum	Aniseed Tree	Used as a flavouring	Sheltered position. Mild areas
D.SH.	Indigofera decora		Seed	Sunny position. Most well-drained soils. Mild areas
E.T.	Jubaea chilensis	Sugar Palm	Sap, seed, oil from seed	Very mild areas only
D.T.	Juglans ailantifolia	Japanese Walnut	Seed	Deep loamy soil. The hardiest walnut
D.T.	Juglans cinerea	Butternut	Seed, sap, oil from seed	Deep loamy soil. Very cold resistant
D.T.	Juglans regia	Walnut	Seed, sap, oil from seed	Most soils if deep and well drained
	Other species include J. cathayensis, J. hindsii, J. mandschurica, J. microcarpa and J. nigra			
E.SH.	Juniperus communis	Juniper	Fruit - a flavouring	Most soils. Likes lime
E.T.	Juniperus deppeana	Aligator Juniper	Fruit - sweet	Very sunny, hot and dry position. Likes lime
E.T.	Juniperus drupacea	Syrian Juniper	Fruit - sweet	Well-drained soils. Likes lime
	Other species include J. californica, J. conferta, J. monosperma, J. occidentalis, J. osteosperma, J. recurva, J. rigida, J. scopulorum, J. tetragona and J. virginiana			
D.SH.	Kerria japonica		Young leaves	Most soils
D.T.	Koelreuteria paniculata		Leaves, berries	Most soils. Sunny position

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Edible Trees and Shrubs Hardy in Britain: L - O

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
E.CL.	Lapageria rosea	Chilean Bellflower	Fruit	Mild areas. Shady position. Lime-free soil
E.CL.	Lardizabala biternata		Fruit	Mild areas. Well-drained sandy loam. Dioecious
E.T.	Laurelia serrata	Peruvian Nutmeg	Seed - a spice	Mild areas only. Sheltered position. Dioecious
E.T.	Laurus nobilis	Bay Tree	Leaves - a flavouring	Most soils. Sun or light shade. Dioecious
E.SH.	Lavandula angustifolia	Lavander	Leaves - very aromatic	Sunny position. Most soils if well-drained
D.SH.	Lespedeza bicolor		Seed, young stems and leaves	Light soil. Sunny position
D.SH.	Lespedeza cyrtobotrya		Young shoots	Light soil. Sunny position
D.SH.	Lindera benzoin	Spice Bush	Bark - allspice substitute	Lime-free soil. Dioecious
D.T.	Liriodendron tulipifera	Tulip Tree	Bark - a flavouring	Rich, deep soil. Sheltered position
E.T.	Lithocarpus densiflorus		Seed - oily	Hardy at Kew
E.T.	Lithocarpus edulis		Seed	Mild areas
D.SH.	Lonicera coerulea edulis		Fruit	Sunny position

	Other species include L. angustifolia, L. chrysantha, L. gracilipes, L. involucrata and L. villosa			
D.SH.	Lycium barbarum	Box Thorn	Fruit, young shoots	Shoots should be used with caution. Sunny position. Well-drained soild. Very wind resistant
D.SH.	Lycium pallidum		Fruit	Sunny position. Well-drained soil
D.SH.	Maackia amurensis		Young leaves	Sunny position. Most soils
E.SH.	Mahonia aquifolia	Oregon Grape	Fruit	Most soils and situations. Tolerates heavy shade
	Other species include M. haematocarpa, M. nepaulensis, M. nervosa, M. nevinii, M. pinnata, M. repens and M. trifoliolata			
D.T.	Malus domestica	Apple	Fruit	Sunny position
	All species of Malus have edible fruits though they are often not very palatable. Some of the most palatable include M. floribunda, M. fusca, M. praecox, M. prunifolia rinki, M. sieversii and M. trilobata			
E.SH.	Margyricarpus pinnatus	Pearl Berry	Fruit	Sunny position. Well-drained, not rich soil
D.T.	Melia azedarach	Bead Tree	Leaves	Mild areas only
D.T.	Melicytus ramiflorus		Fruit	Mild areas only. Dioecious
D.SH.	Menziesia ferruginea		Fruit	Sun or light shade. Well-drained lime-free soil
D.T.	Mespilus germanica	Medlar	Fruit, bletted	Most soils. Sunny position
D.CL.	Metaplexis japonica		Root, young leaves, fruit	Most soils. Mild areas
D.SH.	Micromeria juliana		Leaves - a savoury flavouring	Well-drained soils
E.SH.	Mitchella repens	Partridge Berry	Fruit	Lime-free soil. Shady position
D.T.	Morus alba	White Mulberry	Fruit, young leaves	Sunny position. Warm, well-drained soil

D.T.	Morus nigra	Black Mulberry	Fruit	Sunny position. Warm, well-drained soil
	Other species include M. australis, M. mongolica, M. rubra and M. serrata			
D.CL.	Muehlenbeckia adpressa		Fruit	Very mild areas only
D.SH.	Myrica gale	Sweet Gale	Leaves and berries - a flavouring	Most soils, preferably lime-free. Dioecious
E.SH.	Myrica rubra		Fruit	Mild areas. Lime-free soil
	Other species used as a flavouring include M. cerifera and M. pensylvanica			
E.SH.	Myrsine africana		Fruit	
E.SH.	Myrtus communis	Myrtle	Fruit - a flavouring	Mild areas. Most soils
E.SH.	Myrtus luma		Fruit - sweet	Mild areas. Most soils
	Other species include M. nummularia and M. ugni			
E.SH.	Nandina domestica	Sacred Bamboo	Fruit, young leaves	Best in mild areas. Rich soil. Sunny position
D.SH.	Nemopanthus mucronata		Fruit	Cold damp soil
D.T.	Nyssa sylvatica	Tupelo	Fruit	Dislikes lime
D.SH.	Oemleria cerasiformis	Oso Berry	Fruit	Most soils. Dioecious
E.T.	Olea europaea	Olive	Fruit, oil from fruit	Sunny position. Mild areas only
D.SH.	Oplopanax horridus		Young shoots	Cool moist soil. Dense shade
E.SH.	Osteomeles schwerinae		Fruit	Mild areas
D.T.	Oxydendron arboreum	Sorrel Tree	Leaves	Well drained lime-free soil. Likes shade

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Readers Comments:

Edible Trees and Shrubs Hardy in Britain: L-O

kp (katherine.punch@hhc.co.uk) Mon Oct 15 16:22:51 2001

Does anyone know where you can buy an immature olive tree in the London area?

Add a Follow up to this comment

Edible Trees and Shrubs Hardy in Britain: L-O

Jackie Esson (michael.esson@virgin.net) Thu Nov 7 12:15:46 2002

I'd like some advice on germinating medlar seeds collected about a month ago from ripened fruit.

Details of Growing Condition: coastal Aberdeenshire.

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Edible Trees and Shrubs Hardy in Britain: P

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.CL.	Parthenocissus quinquefolia		Fruit, stalks	Self-supports on walls
D.CL.	Parthenocissus tricuspidata		Sap	Self-supports on walls
D.CL.	Passiflora mollissima		Fruit - not freely borne	Best in mild areas
	Other species include P. edulis and P. incarnata			
D.SH.	Peraphyllum ramosissimum		Fruit - rarely borne	Very sunny position
E.SH.	Pernettya leucocarpa		Fruit	Lime-free well-drained soil. Dioecious
E.SH.	Pernettya pumila		Fruit	Lime-free well-drained soil. Dioecious
E.T.	Photinia arbutifolia	Californian Maybush	Fruit	Mild areas
E.T.	Picea sitchensis	Sitka Spruce	Young shoots	Wet soils. Tolerates exposed positions
E.T.	Pinus albicaulis	Whitebark Pine	Seed	Open, well-drained soil. Best in cold areas
E.T.	Pinus koraiensis	Korean Pine	Seed	Best in west and north Britain. Open, well-drained soil
E.T.	Pinus pinea	Stone Pine	Seed	Succeeds on chalk

	Other species include P. armandii, P. bungeana, P. cembra, P. cembroides, P. coulteri, P. culminicola, P. densiflora, P. edulis, P. flexilis, P. gerardiana, P. jeffreyi, P. lambertiana (sap also is edible), P. monophylla, P. monticolor, P. ponderosa, P. pumila, P. quadrifolia, P. remota, P. sibirica and P. torreyana			
E.T.	Pinus sabiniana	Digger Pine	Seed	Sunny position. Most soils
D.T.	Pistacia chinensis		Seed, young shoots and leaves	Most soils. Sunny position
E.SH.	Pistacia lentiscus	Mastic	Oil from seed	Mild areas. Sunny position. Most soils
D.T.	Pistacia terebinthus		Fruit, oil from seed	Most soils. Sunny position
E.SH.	Pittosporum phillyraeoides		Seed - bitter	Most soils
E.SH.	Podocarpus nivalis		Fruit	Mild areas. Dioecious
D.T.	Podocarpus totara	Totara	Fruit	Best in mild areas. Dioecious
D.T.	Poncirus trifoliata		Fruit, young leaves	Most soils. Sunny position
D.T.	Populus wislizenii		Catkins	Dislikes shallow or dry soils
D.T.	Populus sieboldii		Young leaves and shoots	
	Other species with edible leaves include P. simonii and P. sargentii			
D.T.	Populus fremontii		Inner bark, catkins	Dislikes shallow or dry soils
	The following also have edible inner bark: P. angustifolia, P. alba, P. deltoides, P. grandidentata, P. sargentii, P. tremula and P. tremuloides			
D.SH.	Prinsepia utilis		Fruit, oil from seed	Sunny position. Light, not too fertile soil
	Other species with edible fruits include P. sinensis and P. uniflora			
E.T.	Prumnopitys andina	Plum-Fruited Yew	Fruit, seed	Most soils. Dioecious
E.T.	Prumnopitys spicata	Matai	Fruit	Mild areas. Dioecious

D.T.	Prunus armeniaca	Apricot	Fruit, oil from seed	Warm sunny position. Some lime in the soil
D.T.	Prunus avium	Bird Cherry	Fruit, gum from trunk	Sunny position. Well-drained soil. Parent of Sweet Cherries
D.T.	Prunus cerasifera	Cherry Plum	Fruit	Sunny position. Well-drained soil with some lime
D.T.	Prunus cerasus	Sour Cherry	Fruit, gum from trunk, oil from seed	Most soils. Sunny position. Parent of many cherries
D.T.	Prunus domestica	Plum	Fruit, gum from trunk, oil from seed	Sunny position. Well-drained soil with some lime
D.T.	Prunus dulcis	Almond	Seed, gum from trunk, oil from seed	Sunny sheltered position. Well-drained soil with some lime
D.T.	Prunus insititia	Damson/Bullace	Fruit	Most soils. Sunny position
D.T.	Prunus persica	Peach/Nectarine	Fruit, gum from trunk, oil from seed	Sunny sheltered position. Well-drained soil
	All species of Prunus contain quantities of prussic acid, especially in the leaves and seeds. This is easily detected by a bitter almond-like flavour. If this flavour is not noticed or is only very mild then the fruit or seed of any species is edible though not always very palatable. Other species worth trying include P. americana, P. canescens, P. dasycarpa, P. divaricata, P. grayana, P. humilis, P. laurocerasus, P. maritima, P. mira, P. mume, P orthosepala, P. padus, P. pseudocerasus, P. pumila, P. salicifolia, P. serotina, P. simonii, P. spinosa, P. subcordata, P. tomentosa, P. virginiana and P. watsonii			
D.T.	Pseudocydonia sinensis		Fruit	Sunny position. Most soils
E.T.	Pseudotsuga menziesii	Douglas Fir	Young shoot tips	Moist soils. Dislikes lime
D.SH.	Ptelea baldwinii		Seed	Most soils if well-drained
D.T.	Pterocarya fraxinifolia	Wing Nut	Seed	Sunny position. Rich soil, preferably moist

D.T.	Punica granatum	Pomegranate	Fruit - not usually borne	Well-drained soil
E.SH.	Pyracantha angustifolia		Fruit	Full sun, well-drained soil. Tolerates chalk
E.SH.	Pyracantha coccinea	Pyracanth	Fruit	Full sun, well-drained soil. Tolerates chalk
D.SH.	Pyrularia pubera	Oil Nut	Fruit, oil from fruit	Parasitic on roots of trees and shrubs
D.T.	Pyrus communis	Pear	Fruit	Sunny position. Well-drained soils

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Edible Trees and Shrubs Hardy in Britain: Q - R

<table>
<tr><th>Type</th><th>BOTANICAL NAME</th><th>COMMON NAME</th><th>EDIBLE PARTS</th><th>NOTES</th></tr>
<tr><td>E.T.</td><td>Quercus ilex</td><td>Holm Oak</td><td>Seed</td><td>Most soils. Very wind resistant</td></tr>
<tr><td>D.T.</td><td>Quercus prinus</td><td>Chestnut Oak</td><td>Seed</td><td>Good deep loam</td></tr>
<tr><td></td><td colspan="4">The seed of all species is a good source of carbohydrates although in many species the seed is also rich in tannin which is bitter and indigestible. Unfortunately, some of most palatable species do not fruit well in Britain though the following could be worth trying: Q. alba, Q. douglasii, Q. emoryi, Q. gambelii, Q. muhlenbergii and Q. virginiana</td></tr>
<tr><td>D.T.</td><td>Rhamnus caroliniana</td><td>Indian Cherry</td><td>Fruit</td><td>Most soils. Might not be very hardy</td></tr>
<tr><td>D.T.</td><td>Rhamnus purshiana</td><td>Cascara Sagrada</td><td>Fruit</td><td>Most soils</td></tr>
<tr><td>E.SH.</td><td>Rhaphiolepis indica</td><td>Indian Hawthorn</td><td>Fruit</td><td>Mild areas only. Sunny position, fertile soil</td></tr>
<tr><td>E.SH.</td><td>Rhaphiolepis umbellata</td><td></td><td>Seed</td><td>Sunny position, fertile soil</td></tr>
<tr><td>D.SH.</td><td>Rhus glabra</td><td>Smooth Sumach</td><td>Fruit</td><td>Sunny position. Most soils</td></tr>
<tr><td></td><td colspan="4">The fruit of the above species is often steeped in warm water for 10 minutes to make a very refreshing drink. Other species with edible fruits that can also be used in this way include R. aromatica, R. copallina, R. integrifolia, R. punjabensis, R. trilobata and R. typhina</td></tr>
<tr><td>D.SH.</td><td>Ribes divaricatum</td><td>Worcesterberry</td><td>Fruit</td><td>Most soils</td></tr>
<tr><td>D.SH.</td><td>Ribes nigrum</td><td>Blackcurrant</td><td>Fruit</td><td>Most soils if rich in humus</td></tr>
<tr><td>D.SH.</td><td>Ribes rubrum</td><td>Redcurrant</td><td>Fruit</td><td>Most soils</td></tr>
</table>

D.SH.	Ribes uva-crispa	Gooseberry	Fruit	Most soils. Dislikes clay
	The fruit of all species of Ribes is edible but not always very palatable. Some other species worth trying include R. aciculare, R. altissimum, R. americanum, R. aureum, R. bracteosum, R. cynosbati, R. hirtellum, R. longeracemosum, R. meyeri, R. montigenum, R. odoratum, R. oxyacanthoides, R. palczewskii, R. pauciflorum, R. procumbens, R. rotundifolium, R. sachalinense, R. sanguineum and R. valdivianum			
D.T.	Robinia pseudoacacia	Locust	Flowers. Seed - must be cooked	Most soils
D.SH.	Rosa rugosa	Ramanas Rose	Fruit, seed, flowers	Most soils
D.SH.	Rosa villosa	Apple Rose	Fruit, seed	Most soils. Sunny position
	The fruit of all species of Rosa is more or less edible, though the flesh is often very thin and there is a layer of seed hairs just below the flesh that can cause irritation if eaten. The following species are also worth trying: R. acicularis, R. californica, R. canina, R. centifolia, R. macrophylla, R. majalis, R. nutkana and R. sericea			
E.SH.	Rosmarinus officinalis	Rosemary	Leaves	Sunny position. Light, dry soil
D.CL.	Rubus discolor	Himalayan Giant Blackberry	Fruit	Most soils
D.CL.	Rubus fruticosus	Blackberry	Fruit, root	Most soils
D.SH.	Rubus idaeus	Raspberry	Fruit	Dislikes very heavy soils
D.SH.	Rubus laciniatus	Parsley-Leaved Blackberry	Fruit	Most soils
D.SH.	Rubus loganobaccus	Loganberry	Fruit	Well-drained soil
D.SH.	Rubus phoenicolasius	Japanese Wineberry	Fruit	Most soils
	A very large genus, the fruit of all species is more or less edible. Some of the most noteworthy include R. allegheniensis, R. amabilis, R. biflorus, R. caesius, R. corchorifolius, R. flagelliflorus, R. ichangensis, R. innominatus, R. kuntzeanus, R. lasiostylus, R. leucodermis, R. occidentalis, R. palmatus, R. parviflorus, R. setchuensis and R. tricolor			

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Edible Trees and Shrubs Hardy in Britain: S - T

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.T.	Salix daphnoides		Inner bark, young flowering shoots	Most soils. Dioecious
D.T.	Salix alba	White Willow	Leaves, inner bark	Rich soil. Dioecious
	Salix alba is only used for food in times of scarcity. The following species have also been used: S. babylonica, S. bakko, S. chaenomeloides, S. gracilistyla, S. japonica and S. nipponica			
D.SH.	Sambucus nigra	Elder	Flowers, fruit	Most soils and positions
	Other species include S. caerulea, S. callicarpa, S. canadensis, S. melanocarpa, S. pubens and S. racemosa			
D.SH.	Sarcobatus vermiculata	Greasewood	Seed, twigs	Most soils
D.T.	Sassafras albidum	Sassafras	Leaves, bark and fruit - a condiment	Deep fertile soil, sheltered position. Dioecious
E.SH.	Satureia montana	Winter Savoury	Leaves, a flavouring	Well-drained poor stony soil
D.CL.	Schisandra chinensis		Fruit, young leaves	Rich soil
	Other species with edible fruits include S. grandiflora, S. henryi and S. repanda			
D.SH.	Shepherdia argentea	Buffalo Berry	Fruit	Well-drained moist soil
D.SH.	Shepherdia canadensis		Fruit - rarely borne	Most well-drained soils
D.CL.	Sinofranchetia chinensis		Fruit	Most soils
D.CL.	Sinomenium acutum		Root, leaves	Most soils

E.CL.	Smilax aspera	Sarsaparilla	Root - used in soft drinks. Shoots	Very mild areas only. Any soil. Dioecious
D.CL.	Smilax bona-nox		Root, young shoots	Any soil. Dioecious
D.CL.	Smilax china	China Root	Root, young shoots, fruit	Any soil. Dioecious
	Other species with similar uses include S. hispida, S. laurifolia, S. pseudo-china and S. rotundifolia			
E.SH.	Solanum aviculare	Kangaroo Apple	Fruit	Very mild areas. Any soil
D.T.	Sorbus aria	Whitebeam	Fruit - bletted	Sunny position. Most soils
D.T.	Sorbus aucuparia	Rowan	Fruit	The variety Edulis is best. Most soils in cool position. Very wind resistant
D.T.	Sorbus domestica	Service Tree	Fruit - bletted	Sunny position. Well-drained soil
	Other species worth trying include S. americana, S. commixta, S. devoniensis, S. gracilis, S. hybrida, S. intermedia, S. lanata, S. mougeotii, S. sambucifolia and S. torminalis			
E.CL.	Stauntonia hexaphylla		Fruit	Mild areas only. Dioecious
D.SH.	Tamarix gallica	Manna Plant	Manna from stem	Sunny position. Deep loamy soil. Very wind resistant
E.T.	Taxus baccata	Yew	Fruit - sweet	Most soils. Shade tolerant. Leaves and seeds poisonous
	Other species also with poisonous leaves and seeds but edible fruits include T. brevifolia, T, canadensis and T. cuspidata			
E.SH.	Thymus vulgaris	Common Thyme	Leaves	Dry sunny position
	Other species include T. capitata, T. drucei and T. serpyllum			
D.T.	Tilia x europaea	Common Lime	Leaves, sap.Flowers a chocolate substitute	Sunny position. Most soils. Wind resistant
	Other species include T. americana, T. cordata, T. japonica, T. platyphyllos and T. mongolica			
D.T.	Toona sinensis	Chinese Cedar	Leaves and young shoots	Thrives on chalk
E.T.	Torreya nucifera	Kaya	Seed, oil from seed	Most soils. Prefers heavy shade

	Other species include T. californica, T. fargesii, T. grandis, T. jackii and T. yunnanensis			
E.T.	Trachycarpus fortunei	Chusan Palm	Young flower buds	Rich soil. Sheltered position
E.SH.	Triphasia aurantiola	Lime Berry	Fruit	Very mild areas only. Good loamy soil
E.T.	Tsuga heterophylla		Inner bark	Dislikes chalk. Prefers areas of heavy rainfall
	Inner bark is usually only eaten in times of shortage. Other species include T. canadensis and T. mertensiana			

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Readers Comments:

Tamarix aphylla

Elizabeth Powell (Libby_Powell@nps.gov) Tue Oct 26 20:04:46 1999

Dear Plants for a Future-

While researching the internet for information on Athel- Tamarix aphylla- I found your website and information on cultivation of athel. I wondered if you were aware that athel is a weed in many parts of the world and that suggesting that people grow it could be considered reasonably irresponsible. It is one of the major weeds of Western Australia and we are beginning to find it along rivers and lakes where we don't want it in Western U.S.- it spreads rapidly and is very expensive to get rid of. It was orignally planted as a shade tree- and populations remained stable for a long period of time, but now it starting to spread to remote areas. I am a botanist for Lake Mead National Recreation Area, in Nevada USA and we are just now recognizing what a monster we have unleased on our park. Sincerely, Elizabeth Powell

This comment has also been added to: Tamarix aphylla.

This comment has been added to the web pages: Checklist of plants suitable for hedging and windbreaks: T-W, Trees and Shrubs for Shelterbelts: Q-U.

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Edible Trees and Shrubs Hardy in Britain: U - Z

Type	BOTANICAL NAME	COMMON NAME	EDIBLE PARTS	NOTES
D.T.	Ulmus glabra	Wych Elm	Leaves, immature fruits	Most soils
	Dutch Elm Disease has destroyed most Elm trees in Britain. However the trees often survive as suckers and a few forms are more resistant to the disease. Other species mentioned as edible include U. japonica, U. parvifolia, U. procera and U. pumila			
E.T.	Umbellularia californica	California Laurel	Seed, leaves - a condiment	Dislikes chalk. Prefers a moist soil
D.SH.	Vaccinium corymbosum	Blueberry	Fruit	Acid soils only
E.SH.	Vaccinium macrocarpon	Cranberry	Fruit	Moist or semi-boggy acid peaty soil
D.SH.	Vaccinium myrtillus	Bilberry	Fruit	Moist acid peaty soil. Best in an exposed position
E.SH.	Vaccinium oxycoccus	Small Cranberry	Fruit	Moist or semi-boggy acid peaty soil. Sunny position
D.SH.	Vaccinium praestans	Fruit	Moist acid soil. Best in Scotland and northern Britain	
	Vaccinium is a large genus, all the species bearing more or less edible fruits. Some of the nicer ones include V. angustifolium, V. ashei, V. atrococcum, V. caespitosum, V. canadense, V. deliciosum, V. floribundum, V. hirsutum, V. oldhamii, V ovatum, V. padifolium, V. parvifolium, V. scoparium and V. vacillans			
D.SH.	Viburnum edule		Fruit	Dislikes poor soils

D.SH.	Viburnum lantanoides	Hobbleberry	Fruit	Woodlands. Rich soil
D.T.	Viburnum prunifolium	Stagberry	Fruit	Dislikes poor dry soils
	Other species include V. cassinoides, V. cotinifolium, V. dilatatum, V. erosum, V. farreri, V. grandiflorum, V. lentago, V nudum, V. opulus. V oulus americanum and V. sieboldii			
D.SH.	Vitex agnus-castus	Chaste Tree	Fruit - pepper substitute	Mild areas. Warm position
D.CL.	Vitis vinifera	Grape	Leaves, tendrils, sap, fruit, oil from seed	Sunny, warm position
	Many other species are also edible though fruiting is problematic in Britain. They include V. aestivalis, V. cordifolia, V. davidii, V. riparia, V. rotundifolia and V. rupestris			
E.T.	Weinmannia racemosa		Fruit	Mild areas only. Light rich soil
D.T.	Xanthoceras sorbifolium		Leaves, flowers, fruit	Warm sunny position
E.SH.	Yucca filamentosa	Spoonleaf Yucca	Fruit	Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH.	Yucca glauca	Soapweed	Fruit, flower stalks, flowers	Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH.	Yucca gloriosa		Root	Sunny position. Well-drained soil. Dislikes peaty or chalky soils
E.SH.	Yucca baccata	Spanish Bayonet	Fruit, seed, flowers and stalks	Mild areas. Sunny position. Well-drained soil
	Other species include Y. angustissima, Y. harrimaniae and Y. whipplei			
D.SH.	Zanthoxylum piperitum	Pepper Tree	Young leaves, seed and bark - a spice	
	Other species include Z. alatum, Z. americanum, Z. planispinum, Z. schinifolium and Z. simulans			
D.T.	Ziziphus zizyphus	Jujube	Fruit	Mild areas only. Most soils

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Readers Comments on this page:

Add A Comment

All Comments on web pages and plants.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Edible Trees and Shrubs Hardy in Britain: U-Z*

Subject:

Edible Trees and Shrubs Hardy in Britain: U-Z

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

tree10.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Tamarix aphylla

Common name:	Athel tamarisk	Family:	Tamaricaceae
Author:	(L.) Karst.	Botanical references:	200
Synonyms:	Tamarix orientalis (Forssk.), Tamarix articulata (Vahl.)		
Known Hazards:	None known		
Range:	W. Asia to N.E. Africa.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Thuja aphylla[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	aphylla = leafless;
Systematics:	From a UDSA Plants Database
	Order: Violales . Tamarix family
Other Range Info:	From the Ethnobotany Database
	Algeria; Arabia; Egypt
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Nevada, Washington, Northen Territory (Aust).

Physical Characteristics

A decidious tree growing to 10m at a medium rate. It is hardy to zone 8. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy, Secondary.

Edible Uses

Drink; Manna.

A sweet manna-like substance that forms on the twigs is used to adulterate cane sugar[177, 183]. It can also be eaten with porridge etc or mixed with water to make a refreshing drink[183].

Medicinal Uses

Disclaimer

Astringent; Bitter.

The galls are astringent[240].

The bark is astringent and bitter[240].

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Hedge; Tannin.

Very tolerant of maritime exposure, it makes a good shelter hedge in coastal gardens[229].

Galls produced on the twigs and flowers (probably as a result of insect activity[K]) contain up to 55% tannin[223].

The wood has been used for fuel[257].

Cultivation details

An easily grown plant, succeeding in most soils and tolerant of saline conditions[11]. Grows well in heavy clay soils as well as in sands and even shingle[182]. Usually found near the coast, it succeeds inland if given a fairly good deep loam and a sunny position[11, 200]. Tolerant of maritime winds and dry soils when grown near the coast[11], plants require a moister soil and shelter from cold drying winds when they are grown inland in non-saline soils because they use the soil salts that are found in saline soils to help them reduce transpiration[200].

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This species flowers on the current year's growth[200]. Any pruning is best carried out in spring, hedges are also best trimmed at this time[188]. Plants are tolerant of severe pruning, sprouting freely from old wood[K].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow spring in a cold frame and only just cover the seed. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy[200].

Cuttings of mature wood of the current seasons growth, 15 - 25cm long, planted outdoors in late autumn in a nursery bed or straight into their permanent position. High percentage[11, 200].

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Web References

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Readers Comments

Tamarix aphylla

Elizabeth Powell Tue Oct 26 20:04:46 1999

Dear Plants for a Future-

While researching the internet for information on Athel- Tamarix aphylla- I found your website and information on cultivation of athel. I wondered if you were aware that athel is a weed in many parts of the world and that suggesting that people grow it could be considered reasonably irresponsible. It is one of the major weeds of Western Australia and we are beginning to find it along rivers and lakes where we don't want it in Western U.S.- it spreads rapidly and is very expensive to get rid of. It was orignally planted as a shade tree- and populations remained stable for a long period of time, but now it starting to spread to remote areas. I am a botanist for Lake Mead National Recreation Area, in Nevada USA and we are just now recognizing what a monster we have unleased on our park. Sincerely, Elizabeth Powell

Cross references: *Web-pages:*

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Tamarix+aphylla`
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Plants for a Future
A resource centre for edible and other useful plants

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Checklist of plants suitable for hedging and windbreaks: T - W

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Tamarix gallica	Tamarisk	D	T	M	5	M	Most soils.Edible manna.Medicinal.Also T.africana,T.parviflora and T.ramosissima
Taxus baccata	Yew	E	M-T	S-M	6	W	Most soils,sun or shade.Edible fruit-sweet.BEWARE:-ALL OTHER PARTS OF PLANT ARE POISONOUS.Insecticide,incense,medicinal. Other species can also be used.
Thamnocalamus spathaceus		E	T	M	6		Moist well drained loam.Edible young shoots.Plant supports.
Thuja occidentalis	White cedar	E	T	S-M	2		Moist soil.Best in west of Britain.Tea,insect repellent,medicinal.
Thuja orientalis		E	M-T	S-M	6		Prefers a dry well drained soil.Often does not do well.Edible seed.Dye,medicinal.
Thuja plicata	Red cedar	E	M-T	M-F	6	W	Most soils except light, sandy. Edible inner bark. Fibre, basketry.
Tsuga heterophylla	Hemlock	E	T	M-F	6		Best in high rainfall areas in a deep well drained soil. Edible inner bark. Tea, tannin, resin, medicinal. Other species to use include:-T.canadensis, T.caroliniana, T.chinensis and T.mertensiana
Ugni molinae	Ugni	E	M	S-M	8	W	Most well drained soils.Edible fruit.Tea.
Ulex europaeus	Gorse	E	M	F	6	M	Prefers a poor dry soil,sunny position.Soil stabilization,tea,dye,kindling.
Ulex parviflorus		E	M	M-F	7	M	As above.
Viburnum x.juddii		D	M	M	5		Dislikes poor dry soils.
Viburnum opulus	Guelder rose	D	M-T	M-F	3	W	Prefers moist soils.Edible fruit-best cooked.Red dye,medicinal.Ssp.americanum is said to have superior fruit.
Viburnum prunifolium	Black haw	D	M-T	M	3		Tolerates poor dry soils.Edible fruit.
Viburnum tinus	Laurustinus	E	M	F	7	W	Most soils.
Vitex negundo		D	M-T	M	8		Light soil,sunny position.Seed a condiment.Tea,insect repellent,basketry,medicinal.

Weigela florida	Weigela	D	M	M	5		Rich soil,sun or part shade.

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Readers Comments:

Tamarix aphylla

Elizabeth Powell (Libby_Powell@nps.gov) Tue Oct 26 20:04:46 1999

Dear Plants for a Future-

While researching the internet for information on Athel- Tamarix aphylla- I found your website and information on cultivation of athel. I wondered if you were aware that athel is a weed in many parts of the world and that suggesting that people grow it could be considered reasonably irresponsible. It is one of the major weeds of Western Australia and we are beginning to find it along rivers and lakes where we don't want it in Western U.S.- it spreads rapidly and is very expensive to get rid of. It was orignally planted as a shade tree- and populations remained stable for a long period of time, but now it starting to spread to remote areas. I am a botanist for Lake Mead National Recreation Area, in Nevada USA and we are just now recognizing what a monster we have unleased on our park. Sincerely, Elizabeth Powell

This comment has also been added to: Tamarix aphylla.

This comment has been added to the web pages: Trees and Shrubs for Shelterbelts: Q-U, Edible Trees and Shrubs Hardy in Britain: S-T.

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Checklist of plants suitable for hedging and windbreaks.

This page list around 200 plants which can be used for hedges and windbreaks, a related page list plants suitable for shelterbelts (In general shelterbelts are wider consisting of three or more rows of trees and shrubs). We have divided this up into sub-pages for easier browsing. You might also like to look at the Hedges and their Use page which discusses some of the most interesting plants. All these files uses tables. If you can't use tables or want to import the informion into a database then you may find the Plain Text file of use.

- A
- B
- C
- D-F
- G-I
- L-O
- P
- Q-R
- S
- T-W

The old version of this page where all the plants are listed in one very long page is also avaliable, this might be useful for searching.

KEY

D = Deciduous E = Evergreen

Height:- S = Small (to 4ft for hedges, 20ft for trees.) M = Medium (TO 6ft for hedges, 50ft for trees.) T = Tall (over 6ft for hedges, over 50ft for trees.)

Rate of Growth:- S = Slow M = Medium F = Fast

Wind Resistance:- W = tolerates Windy sites M = tolerates Maritime exposure

Hardiness zones 1(hardiest) to 10:- most of Britain is in zone 7 or 8 with some upland and northern areas being colder whilst western and southern coastal areas are milder.

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Readers Comments:

Checklist of plants suitable for hedging and windbreaks.

() Thu Dec 28 18:23:07 2000

You could add soil requirements. Moist vs. dry. Clay vs. Sandy

Add a Follow up to this comment

Checklist of plants suitable for hedging and windbreaks.

Rich (webmaster@pfaf.org) Wed Jan 17 18:28:10 2001

You could add soil requirements. Moist vs. dry. Clay vs. Sandy.

(You can find such info in the PFAF database: http://www.comp.leeds.ac.uk/pfaf/D_search.html Rich)

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Checklist of Trees and Shrubs for Shelterbelts

This page list around 200 plants which can be used for shelterbelts, a related page list plants suitable for Hedgeing and Windbreaks.

Shelterbelts generally take up more space (typically plant in three rows) and are much taller than hedges. You start by planting smaller trees and shrubs on the windward side of the shelter, then planting larger species in the center and perhaps smaller ones on the sheltered side. Shelterbelts are much more wind tolerent than a single line of hedgeing.

We have divided this up into sub-pages for easier browsing. You might also like to look at the Hedges and their Use page which discusses some of the most interesting plants. All these files uses tables. If you can't use tables or want to import the informion into a database then you may find the Plain Text file of use.

- A
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Deutsch

Hedges and their uses

We moved to Cornwall at the end of 1989, onto a 36 acre open and windswept field with no internal hedges. Although this is one of the mildest areas in Britain, capable of growing a very wide range of plants, the effect of strong winds (we have had gusts of almost 90mph) can drastically reduce growth and greatly affects the numbers of plants that we can grow successfully. One of our major tasks, therefore, has been to plant lots of hedges and windbreaks in order to give us more shelter and because of our interest in the various uses of plants, we have mainly used plants that can provide us with more than just shelter. It is hoped that this leaflet will give you a few ideas on planting useful hedges.

Of course, it isn't only wind shelter that hedges can give us. They can be planted to provide privacy or screen out unwanted views, some thorny species are ideal for keeping out unwanted guests, properly sited hedges can provide us with suitable micro-climates for growing a wider range of plants, they can provide wildlife habitats (especially when native species are used) and they can protect the soil from erosion.

A wide variety of plants can be grown as hedges, providing us with small hedges suitable for even the tiniest gardens, rampant growing trees and shrubs for larger areas and all shades between. There are evergreen or deciduous species to choose from, species that are best left untrimmed or others that are very amenable to cutting and, within reason, can be cut back to whatever size is required.

The following is just a brief selection of some good hedging plants with a few of their other uses:-

Acer campestre: The Field Maple is a native deciduous tree that responds well to trimming and is fairly undemanding of soil or site. Its leaves make an excellent packing material in which to store fruit or root crops.

Alnus glutinosa: The Alder is another native tree which can be trimmed into a hedge. It is fast growing, especially in moist or wet soils, is very wind resistant and produces nitrogen nodules at its roots. This tree is a very good source of dyes - yellow, green, pink and red being produced from the bark, young shoots and catkins. An ink can also be made from the bark.

Atriplex halimus: The Sea Orach is an evergreen shrub that has become naturalised by the coast in Britain. Very wind resistant, succeeding even in very exposed maritime areas where it will make a hedge 6-8 foot tall and require very little trimming. The leaves and shoot tips make an excellent spinach. Also well worth trying is the N. American A. canescens, a very similar shrub with perhaps even nicer tasting leaves.

Berberis species: The Barberries. This genus of evergreen and deciduous shrubs contains many species suitable for hedging, most of them being very undemanding of soil or situation. They produce edible, though acid, fruits and a good yellow dye from the roots. Favourites with us are the evergreen B. darwinii and B. x.stenophylla plus the deciduous B. vulgaris (but this last species should not be grown in cereal producing areas since it harbours black stem rust.) They grow 6-10 feet tall and look best if left untrimmed.

Cornus sanguinea: The Dogwood is a native deciduous shrub. It grows to about 10 feet high and whilst it can be trimmed, is probably best left to its own devices in an informal hedge. A good quality oil suitable for lighting is obtained from the fruit and seed. Young branches can be used in basketry and a grey-blue dye is obtained from the fruit. The related Cornus Mas (Cornelian Cherry) can also be grown as a hedge and yields a tasty fruit (when fully ripe).

Corylus avellana: our native Hazel nut. This deciduous shrub makes a fine hedge but has to be left untrimmed if its edible seeds are to be produced and will then prove to be too big for many gardens. It is also a source of oil, a wood polish, and the wood is excellent for hurdles, wattle fencing and basketry. The named cultivars with their larger seeds can also be grown as hedges.

Crataegus species: The Hawthorns. Deciduous trees and shrubs, many of which are suitable for hedging including our two native species C. laevigata and C. monogyna. They are easily grown in most soils and are very amenable to trimming. Although far from the tastiest of the genus, our native species do produce edible fruits and their young leaves are a pleasant addition to the salad bowl.

Elaeagnus species: A genus of deciduous and evergreen shrubs, many of them making excellent hedging plants that can be left untrimmed or trimmed regularly. They succeed in the windiest of sites and generally prefer well-drained soils that are not too rich. At least some of the species produce nitrogen nodules on their roots. We feel that this genus has tremendous potential for fruit production, some of the evergreen species producing their fruits in April and May when they are especially welcome. Some of the most hopeful include E. angustifolia, E. multiflora and E. umbellata (all deciduous) plus E. x. ebbingei, E. glabra and E. pungens (evergreen).

Hibiscus syriacus: Is a very ornamental deciduous shrub for sunny positions in well-drained soils. It grows up to 10 foot tall and can be trimmed but then you lose the flowers. These flowers, and also the leaves, are edible. An oil can be extracted from the seed, a hair shampoo from the leaves and a blue dye from the flowers.

Ligustrum vulgare: Is our native Privet. A semi-evergreen shrub, it is very amenable to trimming and will grow almost anywhere, though its greedy surface roots will impoverish the soil. A poisonous plant, it yields green, black and yellow dyes as well as an ink. Young twigs can be used in basketry. A number of other species in this genus are grown for hedging including L. ovalifolium and L. lucidum.

Phormium tenax: New Zealand Flax is an evergreen plant growing to about 9 feet tall and is naturalised by the coast in western England. It is tolerant of most soil conditions including boggy moorland and withstands maritime conditions though its leaves can get quite noisy in windy weather. A very high quality fibre is obtained from the leaves. The plant also yields a number of dyes and a paper glue.

Pseudosasa japonica (syn. Arundinaria japonica): a vigorous bamboo that makes an excellent screen even in exposed conditions, though it can be a bit invasive. The young shoots are edible when cooked and the stems make good plant supports. Other bamboos worth trying as hedges (but not in exposed conditions) include Pleioblastus (syn. Arundinaria) hindsii, P. simonii, Sasa palmata, Semiarundinaria (syn. Arundinaria) fastuosa, S. murielae and S. nitida.

Rosa species: Many roses can be grown as hedges and all of them, in theory at least, produce edible fruits rich in Vitamin C. One of easiest to grow, succeeding in almost any soil or situation and virtually insect and disease proof (except the fruits, unfortunately), is R. rugosa which also has the tastiest rose fruits which we've tried to date. It will grow to 8 feet but can be kept smaller by pruning.

Sambucus nigra: The Elderberry is a native deciduous shrub capable of growing almost anywhere and very valuable in the informal wildlife hedge. The flowers are delicious raw whilst the fruit is probably best cooked. The leaves are a good insect repellant when rubbed on the skin though they do give you a rather unusual colour.

You can also see the checklists on Hedges and Windbreaks and Shelterbelts for more ideas about plants you could use. Or you could look at our Database UK, US for more information about any of these plants.

Two other links you may find interesting: Hedges' News A very nice newsletter about hedges. In English and French. PFRA Shelterbelt Centre A Canadian project to encourages shelter-belts. English and French.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with

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Readers Comments:

UK Gov site on wildlife

Rich (pfaf@scs.leeds.ac.uk.) Sun Mar 12 14:35:27 2000

The DETR Wildlife and Countyside site has a number of intresting and useful resources. Including A Guide to Wildlife Law which covers Protected Plants and Prohibited Plants.

They also have info on tree presevation orders and a guide to hedges. With info on the infamous

Leylandii and a natty little chart.

This comment has also been added to: Cupressocyparis leylandii.

Add a Follow up to this comment

Atriplex canescens

Carol Sat Apr 28 00:50:18 2001

Atriplex canescens is also highly rated in a Colorado study of plants that attract beneficial (to humans) insects. In particular, it attracts lacewings, ladybugs, and hoverflies.

And it tastes good, too? Since this plant is native to the drier parts of western North America, however, and since several web sites mention that different specimens can vary sufficiently to come close to being different species, I am hesitant to try it. Does anyone know where to buy seeds or plants of an explicitly good-tasting variety? And will this plant grow well in the eastern U.S.? (I am in south-central Indiana, with almost 40 inches of rain in an average year, and winter temperatures that occasinally get into the -20's F.

This comment has also been added to: Atriplex canescens.

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English

Hecken und ihre Nutzung

Ende 1989 zogen wir nach Cornwall, auf sieben Hektar offenes und windiges Feld ohne innere Hecken. Obwohl dies eines der mildesten Gebiete in England ist, imstande ein umfangreiches Sortiment von Pflanzen wachsen zu lassen, kann die Einwirkung starker Winde (wir hatten Böen mit fast 135 km/h) das Wachstum drastich reduzieren und sehr die Zahl der Pflanzen beeinflussen, die wir erfolgreich ziehen können. Eine unserer hauptsächlichen Aufgaben war daher, viele Hecken und Knicks zu pflanzen, die uns mehr Schutz geben und da wir an den vielfältigen Verwendungsmöglichkeiten von Pflanzen interessiert sind, haben wir hauptsächlich solche Pflanzen verwendet, die uns mit mehr als nur Schutz versogen können. Wir hoffen, daß dieses Infoblatt Euch einige Ideen über das Pflanzen nützlicher Hecken bringt.

Natürlich ist es nicht nur Windschutz, was uns Hecken geben können. Sie können gepflanzt werden um einen privaten Raum zu schaffen oder einen Scutz vor nicht erwünschten Blicken, einige dornige Arten sind ideal dazu geeignet unbeliebte Gäste fernzuhalten, richtig plazierte Hecken können uns mit passenden Mikro-Klimazonen versogen, um ein umfangreicheres Sortiment von Pflanzen zu ziehen, sie können uns mit Biotopen versogen (besonders wenn einheimische Arten verwendet werden) und sie können den Boden vor Erosion schützen.

Eine große Vielfalt von Pflanzen kann als Hecke gezogen werden, mit kleinen Hecken, die auch für die winzigsten Gärten geeignet sind, wuchernden Bäumen und Büschen für größere Areale und allen Abstufungen dazwischen. Es stehen immergrüne und laubwerfende Arten zur Auswahl, Arten die am besten ungeschnitten aussehen oder andere, die das Schneiden gut vertragen und, mit Vernunft natürlich, auf jede gewünschte Größe zurückgeschnitten werden können.

Die folgende Zusammenstellung ist nur eine kurze Auswahl von einigen guten Heckenpflanzen mit ein paar ihrer zusätzlichen Verwendungsmöglichkeiten:

Acer campestre - Der **Feldahorn** ist ein einheimischer laubwerfender Baum, der das Schneiden gut verträgt und recht anspruchslos bezüglich Boden und Standort ist. Seine Blätter lassen sich ausgezeichnet als Verpackungsmaterial verwenden, um Früchte oder Wurzelgemüse zu lagern.

Alnus glutinosa - Die **Erle** ist ein anderer einheimischer Baum, der als Hecke gezogen werden kann. Sie wächst schnell, besonders in feuchten oder nassen Böden, ist sehr windbeständig und produziert Stickstoffknöllchen an ihren Wurzeln. Dieser Baum ist ein sehr guter Lieferant für

Farbstoffe - gelb, grün, rosa un rot, hergestellt aus Rinde, jungen Sprossen und Kätzchen. Auch eine Tinte kann aus der Rinde gemacht werden.

Atriplex halimus - Die **Salzmelde** ist ein immergrüner Strauch, der an der Küste Großbritanniens eingebürgert wurde. Sehr windbeständig, überdauert auch an sehr dem Seeklima ausgesetzen Gebieten, wo sie eine Hecke von 2-2,50m hohe Hecke bildet und wenig Schnitt braucht. Die Blätter und Sproßspitzen geben einen vozüglichen Spinat ab. Genauso zu empfehlen ist auch die nordamerikanische ***A. canescens***, ein sehr ähnlich aussehender Strauch mit vielleicht noch besser schmeckenden Blättern.

Berberis species - Die **Berberitzen**. Diese Gattung immergrüner laubwerfender Sträucher hat viele Arten, die sich in Hecken ziehen lassen, viele davon sehr anspruchslos hinsichtlich Boden und Standort. Sie liefern eßbare, obwohl saure Früchte und einen guten gelben Farbstoff aus den Wurzeln. Unsere Favoriten sind die immergrüne ***B. darwinii*** und ***B. x. stenophylla*** sowie die laubwerfende ***B. vulgaris*** (jedoch darf die letzte Art nicht in getreideproduzierenden Gebieten angepflanzt werden, da sie den Getreiderost überträgt.) Sie werden 2-3m hoch und sehen am besten ungeschnitten aus.

Cornus sanguinea - Der **Hartiegel** ist ein einheimischer laubwerfender Strauch. Er wird über 3m hoch und obwhl er geschnitten werden kann ist es das Beste, ihn nach eigenem Belieben zu einer formlosen Hecke wachsen zu lassen. Ein Lampenöl guter Qualität wird aus den Früchten und Samen gewonnen. Junge Zweige können zum Korbflechten verwendet werden und ein graublauer Farbstoff wird aus den Früchten erhalten. Die verwandte ***Cornus mas*** (**Kornelkirsche**) kann ebenfalls als Hecke gezogen werden und trägt geschmackvolle Früchte (wenn ausgereift).

Corylus avellana - Ist unsere einheimische **Haselnuß**. Dieser laubwerfende Strauch gibt eine schöne Hecke ab, muß aber ungeschnitten bleiben, wenn die eßbaren Nüsse gebildet werden sollen und dann wird sie sich für viele Gärten als zu groß erweisen. Sie ist ebenfalls eine Quelle von öl, einer Holzpolitur und das Holz ist vorzüglich für Hürden, Viehzäune und Korbflechterei geignet. Die namentragenden Züchtungen mit ihren größeren Nüssen können ebenfalls als Hecke gezogen werden.

Crataegus species - Der **Weißdorn**. Laubwerfende Bäume und Sträucher, viele von ihnen sind zum Heckenziehen geeignet, einschließlich unsere beiden einheimischen Arten ***C. laevigata*** und ***C. monogyna***. Sie lassen sich ganz leicht in den meisten Böden ziehen und vertragen das Schneiden sehr gut. Obwohl von den Geschmackvollsten der Gattung weit entfernt, tragen unsere einheimischen Arten eßbare Früchte und ihre jungen Blätter sind eine erfreuliche Bereicherung in der Salatschüssel. ***Eleagnus species*** - Die **ölweide**. Eine Gattung laubwerfender und immergrüner Sträucher, viele von ihnen geben ausgezeichnete Heckenpflanzen ab, die ungeschnitten gelassen oder regelmäßig geschnitten werden können. Sie wachsen an den windigsten Stellen und im allgemeinen bevorzugen sie gut entwässerte Böden, die nicht allzu nährstoffreich sind. Mindestens einige der Arten bilden Stickstoffknöllchen an ihren Wurzeln. Wir finden, daß diese Gattung ein enormes Potential zur Fruchtproduktion besitzt, einige der immergrünen Arten tragen im April und Mai ihre Früchte, wenn sie besonders willkommen sind. Unter den Hoffnungsvollsten sind ***E. angustifolia, E. multiflora*** und ***E. umbellata*** (alle laubwerfend) und ***E. x ebbingei, E. glabra***, und ***E. pungens*** (immergrün).

Hibiscus syriacus - Der **Eibisch** ist ein laubwerfender Zierstrauch für sonnige Standorte und gut entwässerte Böden. Er wird über 3m hoch und kann geschnitten werden, wodurch er aber die Blüten verliert. Diese Blüten und auch die Blätter sind eßbar. Aus den Samen kann ein öl extrahiert werden, ein Haarshampoo aus den Blättern und ein blauer Farbstoff aus den Blüten.

Ligustrum vulgare **-** Ist unser einheimischer **Liguster**. Ein halb-immergrüner Strauch, dem Schneiden sehr zugänglich und wächst fast überall, obwohl seine gierigen Oberflächenwurzeln den Boden verarmen lassen. Eine giftige Pflanze, sie liefert grüne, schwarze und gelbe Farbstoffe und auch eine Tinte. Junge Zweige können zum Korbflechten verwendet werden. Eine Anzahl anderer Arten dieser Gattung wird als Hecke gezogen einschließlich ***L. ovalifolium*** und ***L. lucidum***.

Phormium tenax - **Neuseelandflachs** ist eine immergrüne Pflanze, die bis zu 3m hoch wird und sich an den Küsten Westenglands eingebürgert hat. Er verträgt die meisten Bodenarten einschließlich sumpfiges Moorland und hält maritimen Bedingungen stand, wenn auch seine Blätter bei windigem Wetter ganz schön laut werden können. Eine Faser hoher Qualität kann aus den Blättern gewonnen werden. Die Pflanze liefert auch eine Anzahl von Farbstoffen und ein Papierleim.

Pseudosasa japonica (syn. ***Arundinaria japonica*** **-** Ist ein energischer **Bambus**, der einen vorzüglichen Schutz auch an extremen Standorten bietet, obwohl er ein bißchen überhand nehmen kann. Die jungen Schoßlinge sind eßbar, wenn gekocht, und die Stangen geben gute Pflanzenstützen ab. Andere Bambusarten, die es wert sind, als Heckenpflanzen ausprobiert zu werden (aber nicht in ungeschützter Lage) sind u.a. ***Pleioblastus*** (syn. ***Arundinaria***) ***hindsii, P.simonii, Sasa palmata, Semiarundiaria*** (syn. ***Arundinaria***) ***fastuosa, S. murielae*** und ***S. nitida***.

Rosa species - Viele **Rosen** können als Hecken gezogen werden und alle von ihnen, theoretisch wenigsten, tragen eßbare, Vitamin C-reiche Früchte. Eine die am einfachsten zu ziehen ist, in fast allen Böden und Standorten wächst und so gut wie allen Insekten und Krankheiten widersteht (unglücklicherweise mit Ausnahme der Früchte), ist ***R. rugosa***, die auch die wohlschmeckendsten Hagebutten hat, die wir ausfindig machen konnten. Sie wird bis über 2,50m hoch, kann aber durch Zurückschneiden kleiner gehalten werden.

Sambucus nigra - Die **Holunderbeere** ist eine einheimischer laubwerfender Strauch, der fast überall wachsen kann und sehr wertvoll in der formlosen Wildhecke ist. Die Blüten sind köstlich roh, während die Früchte wahrscheinlich am besten gekocht werden. Die Blätter sind ein gutes Insektenvertreibungsmittel, wenn sie auf der Haut zerrieben werden, obwohl sie uns dadurch eine ganz ungewohnte Farbe geben.

In einem Infoblatt wie diesem ist nicht genug Platz für viele detallierte Angaben über die Pflanzen. Wenn erforderlich, können wir mehr Informationen zu allen der genannten Arten liefern, genauso die Pflanzen selbst, wenn Ihr keine andere Quelle findet. Alle Informationen werden auf Spendenbasis geliefert, was wenigstens die Kosten decken muß(10p pro Blatt plus Versandkosten). Wir können auch eine Checkliste liefern mit fast 300 Arten, die für Hecken geeignet sind, zusammen mit kurzen Kultivierungsanforderungen und zusätzlichen Nutzungsmöglichkeiten (empfohlene Spende ?1).

Plants For A Future ist ein nicht gewinnorientiertes Resourcenzentrum, das Informationen über Nutzpflanzen bereitstellt und wenn möglich auch die Pflanzen selbst liefern kann. Alle Pflanzen werden ohne Anwendung von künstlichem Dünger, Sprays oder tierischen Produkten gezogen (vegan- organisch).

Wir sind immer dankbar für Spenden, Investitionen und Erbschaften aller Art (egal ob groß oder klein).

BesucherInnen sind immer willkommen, um uner Projekt anzuschauen. Wir haben das ganze Jahr hindurch Sonntags geöffnet. Besuche an anderen Tagen können nur nach Vereinbarung gemacht werden, da eine ganze Menge unserer Zeit beanspruchen kann, normalerweise bitten wir diese BesucherInnen entweder einige Zeit bei uns zum Arbeiten zu verbringen oder eine Spende für das Projekt zu geben.

Für weitere Informationen wendet Euch bitte [englisch oder esperanto]

krayg@esperanto.org
oder
Plants For A Future, The Field, Penpol, Lostwithiel, Cornwall/ Kernow, PL22 0NG, England. Tel +44 1208 873554 oder 872963

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Cupressocyparis leylandii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Leyland cypress	Family:	Cupressaceae
Author:	(Jacks. & Dallimore.) Dallimore.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	A bi-generic hybrid of garden origin. Cupressus macrocarpa x Chamaecyparis nootkatensis.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family

Physical Characteristics

An evergreen tree growing to 40m by 5m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge; Shelterbelt.

Plants can be grown as a windbreak hedge succeeding in very exposed positions and reasonably tolerant of maritime exposure[11, 75]. They can suffer wind burn after prolonged storms but usually recover quickly[75]. Very fast growing, it can be trimmed so long as it is not cut back into old wood[11, 200]. Only young plants should be used for shelterbelts in exposed positions and these must not be pot-bound or they will never become really wind firm[11]. This species has been much used for hedging in urban gardens but it is singularly unsuitable for this purpose[200]. Although it very quickly provides a screen, it is much too vigorous for most gardens and will need constant attention to keep it within bounds[200].

Cultivation details

An easily grown plant, it prefers a moist fertile soil but also succeeds in sandy soils[188] and tolerates calcareous conditions[245]. Very wind resistant, it tolerates salt-laden winds and maritime exposure[11].

A very fast growing tree, capable of reaching 20 metres within 20 years[185]. A number of different clones are available[185, 200].

The Leyland cypress has been widely planted for hedging in recent years, though it is singularly unsuited for this purpose in all but the largest of sites[200]. The plant has gained the reputation of being very bad for wildlife since it offers native species very little in the way of food. However, it is favoured by many birds for roosting, high cover and especially for nesting because it offers such good cover. Our 12 hectare site was totally devoid of trees when we took it over in 1989, five years later we had our first birds nesting in trees on the land - in 4 metre tall Leyland cypresses![K]. Large specimens of this tree help to attract songbirds to the garden[200].

The bruised foliage has a sweet resinous scent[245].

Trees are notably susceptible to honey fungus[200].

Propagation

Cuttings of half-ripe wood, 7cm with a heel, July/August in sandy soil in a humid frame[11]. Strikes readily.

Cuttings from side growths in March[11].

Scent

Leaves: Crushed

> The bruised foliage has a sweet resinous scent.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Trees and Shrubs for Shelterbelts: B-C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Rich Sun Mar 12 14:35:27 2000

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They also have info on tree presevation orders and a guide to hedges. With info on the infamous *Leylandii* and a natty little chart.

Cross references: *Web-pages: Hedges and their uses*.

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If you know of another site which has good information about this plant fill in the following the details here.

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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cupressocyparis+leylandii`

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Plants For A Future: Database Search Results

Cupressocyparis leylandii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Leyland cypress	Family:	Cupressaceae
Author:	(Jacks. & Dallimore.) Dallimore.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	A bi-generic hybrid of garden origin. Cupressus macrocarpa x Chamaecyparis nootkatensis.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family

Physical Characteristics

An evergreen tree growing to 40m by 5m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge; Shelterbelt.

Plants can be grown as a windbreak hedge succeeding in very exposed positions and reasonably tolerant of maritime exposure[11, 75]. They can suffer wind burn after prolonged storms but usually recover quickly[75]. Very fast growing, it can be trimmed so long as it is not cut back into old wood[11, 200]. Only young plants should be used for shelterbelts in exposed positions and these must not be pot-bound or they will never become really wind firm[11]. This species has been much used for hedging in urban gardens but it is singularly unsuitable for this purpose[200]. Although it very quickly provides a screen, it is much too vigorous for most gardens and will need constant attention to keep it within bounds[200].

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The Leyland cypress has been widely planted for hedging in recent years, though it is singularly unsuited for this purpose in all but the largest of sites[200]. The plant has gained the reputation of being very bad for wildlife since it offers native species very little in the way of food. However, it is favoured by many birds for roosting, high cover and especially for nesting because it offers such good cover. Our 12 hectare site was totally devoid of trees when we took it over in 1989, five years later we had our first birds nesting in trees on the land - in 4 metre tall Leyland cypresses![K]. Large specimens of this tree help to attract songbirds to the garden[200].

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Propagation

Cuttings of half-ripe wood, 7cm with a heel, July/August in sandy soil in a humid frame[11]. Strikes readily.

Cuttings from side growths in March[11].

Scent

Leaves: Crushed

The bruised foliage has a sweet resinous scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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PFAF Web Pages

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- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Cross references: *Web-pages:* *Hedges and their uses*.

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Checklist of Trees and Shrubs for Shelterbelts: B - C

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Buddleia davidii	Butterfly bush	D	S	M-F	5	W	Most soils,sunny position.Dyes.
Bumelia lanuginosa	Chittamwood	D	M	S-M	6	M	Well drained soil,warm sunny position.Edible fruit.Gum-used for chewing.
Castanea sativa	Sweet chestnut	D	T	S-M	5	M	Most soils,but dislikes lime.Edible seed.Hair shampoo,tannin,medicinal.
Cedrus deodara	Deodar	E	T	M	5	W	Most well drained soils,sunny position.Medicinal.
Celtis occidentalis	Sugarberry	D	T	S	2	W	Most soils,drought resistant.Edible fruit and seed.Dye.
Chamaecyparis lawsoniana	Lawson`s cypress	E	T	F	6	W	See hedge list.
Clematis flammula		D	S-M	M	6	W	Dislikes heavy clay or sandy soils.Lime tolerant.Edible young shoots-cooked? Probably toxic.
Cordyline australis	Cabbage palm	E	S-M	S	8	M	Well drained soils.Edible roots,shoots and pith-cooked.Fructose from stem and roots.Fibre.
Cornus capitata	Bentham`s cornel	D	M	M	8	M	Most soils.Edible fruit.
Correa alba	Botany bay tea tree	E	S	S	9	M	Peaty soil,sunny position.Tea.

Crataegus spp.	Hawthorns	D	M	M-F	5	W	Most soils.Edible fruit and young leaves.Most species can be used other than C.apiifolia and C.spathulata.
Cryptomeria japonica	Japanese cedar	E	T	M	6	W	Most soils,doing best in W.Britain.Incense.
Cupressocyparis leylandii	Leyland cypress	E	T	F	7	M	See hedge list.
Cupressus macrocarpa	Monterey cypress	E	T	F	8	M	See hedge list.

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Checklist of Trees and Shrubs for Shelterbelts: A

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Abies procera	Noble fir	E	T	M	5	W	Prefers a good moist soil but tolerates poor mountain peats.Dislikes atmospheric pollution.
Acacia longifolia	Sallow wattle	E	M	M	8	W	Most soils,sunny position.Tolerates some lime Edible seed and pods-cooked.Soil stabilizer.
Acer negundo	Box elder	D	M-T	M	2	W	Moist well drained soil,sunny position.Edible sap.
Acer platanoides	Norway maple	D	M-T	M	3	W	Moist well drained soil.Edible sap.Dye.
Acer pseudo-platanus	Sycamore	D	T	M-F	5	M	Most soils.Can be wind-shaped.Edible sap.Medicinal.
Acer saccharinum	Silver maple	D	M-T	M-F	3	W	Moist well drained soil.Edible sap and inner bark.Dye,ink.

Alnus cordata	Italian alder	D	T	F	6	M	Succeeds in drier soils than most alders.Lime tolerant.
Alnus glutinosa	Alder	D	M-T	F	3	M	See hedge list.
Alnus rubra	Red alder	D	T	F	6	M	Most soils.Very quick to establish. Edible buds, sap and catkins. Red dye.
Amelanchier alnifolia	Service berry	D	S	M	2	W	Moist well drained soil,sunny position.Lime tolerant.Edible fruit.Tea.Soil stabilisation.
Amelanchier canadensis	Juneberry	D	M	M	4	W	See hedge list.
Araucaria araucana	Monkey puzzle	E	T	S	8	M	Deep moist soil.Best in moister areas of Britain.Dislikes air pollution.Edible seed.Medicinal.
Arbutus unedo	Strawberry tree	E	S-M	M	7	M	Moist soils,lime tolerant.Sunny position.Resents root disturbance.Edible fruit.Tannin.
Arctostaphyllos manzanita	Manzanita	E	S	S	8	M	Sunny well drained lime free soil.Edible fruit.Brown dye.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Trees and Shrubs for Shelterbelts: A*

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Trees and Shrubs for Shelterbelts: A

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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

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shelter1.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Checklist of Trees and Shrubs for Shelterbelts: E - M

Botanical name	**Common name**	**Deciduous/ Evergreen**	**Height**	**Growth rate**	**Hardiness**	**Wind**	**Notes**
Eucalyptus coccifera	Snow gum	E	M	M	8	W	Deep well drained soil,sunny position.Dyes.
Eucalyptus johnstonii	Yellow gum	E	T	M-F	8	M	Deep well drained soil,sunny position.
Eucalyptus niphophylla	Snow gum	E	S-M	S	7	M	Deep well drained soil,sunny position.Essential oil.
Eucalyptus pauciflora	Ghost gum	E	M-T	M	7	M	Deep well drained soil,sunny position.
Fraxinus excelsior	Ash	D	T	F	4	M	Prefers deep soils,succeeding on chalk.Can be wind shaped.Edible seed.Dye,medicinal,string.
Fraxinus pensylvanica	Red ash	D	M-T	M-F	4	W	Most soils.Tolerates urban pollution.Edible inner bark.Medicinal.
Ilex opaca	American holly	E	M	S-M	5	W	Most soils if not waterlogged.Dislikes root disturbance.Tea.
Juniperus communis	Juniper	E	M	S-M	6	M	Most soils.Edible fruit-a flavouring.Incense,fumigant,insect repellent,varnish,tea,medicinal.
Larix decidua	Larch	D	T	F	4	M	Well drained soils,dislikes chalk or peat.Edible inner bark.Resin,tannin,medicinal.
Maclura pommifera	Osage orange	D	M	M	5	W	See hedge list.

Morus alba	White mulberry	D	M	M	4	W	Good soil,sunny position.Var."Tartarica"is used.Edible fruit and young leaves.Dye,fibre.

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Checklist of Trees and Shrubs for Shelterbelts: P

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Picea abies	Norway spruce	E	T	F	4	W	Damp well drained soil.Dislikes lime.Sunny position.Pitch,essential oil,varnish,medicinal.
Picea glauca	White spruce	E	T	M	2	W	Damp well drained soil,tolerating poor peats.Var."denstat"is used.Edible young leaves. Tea.
Picea mariana	Black spruce	E	M	S	2	W	Prefers deep moist soils.Short-lived.Edible catkins,inner bark and gum from bark. Tea, dye.
Picea pungens	Blue spruce	E	T	M	3	W	Tolerates poor peaty soils.Prefers a cold dry high mountain site.Edible cones.Tea.
Picea sitchensis	Sitka spruce	E	T	F	7	M	Thrives in acid soils.Requires cool wet summers.Sunny position.Edible shoots and cones.Tea.
Pinus balfouriana	Foxtail pine	E	T	S	5	W	Sunny well drained soil.

Pinus contorta	Shore pine	E	S-M	M-F	7	M	Sunny position.Tolerates water-logged soils.Edible sap and inner bark.Pitch medicinal.
Pinus flexilis	Limber pine	E	T	M	3	W	Sunny well drained soil.Edible seed and inner bark.
Pinus halepensis	Aleppo pine	E	M-T	M	8	W	Sunny well drained soil,tolerating chalk.Tannin,resin.
Pinus mugo	Mountain pine	E	S	M	3	M	Sunny position.Tolerates poor soils.Stabilizes sandy soils.Medicinal.
Pinus muricata	Bishop pine	E	T	F	8	M	Sunny well drained soil,doing well on barren acid sandy soils.
Pinus nigra	Black pine	E	T	F	5	M	Succeeds on chalk.Sunny well drained soil.Resin,turpentine.
Pinus peuce	Balkan pine	E	T	M	5	W	Sunny well drained soil.
Pinus pinaster	Maritime pine	E	T	F	8	M	Sunny well drained soil.Soil stabilizer.Resin.
Pinus ponderosa	Ponderosa pine	E	T	M-F	4	W	Sunny well drained soil.Edible seed,inner bark.Dye,strewing herb,insulation.
Pinus radiata	Monterey pine	E	T	F	8	M	Sunny well drained soil.
Pinus sylvestris	Scots pine	E	T	M	2	M	Sunny well drained soil.Edible inner bark.Resin,essential oil,dye,candles from roots.

Pinus thunbergii	Japanese pine	E	T	F	6	W	Sunny well drained soil.Edible inner bark.Soil stabilizer.Medicinal.
Platanus occidentalis	Western plane	D	T	F	5	W	Sunny position.Tolerates drought,air pollution and compacted soils.Disease-prone. Edible sap.
Populus alba	White poplar	D	T	M-F	3	M	Deep fertile well drained soil.Edible leaves,inner bark.dye,medicinal.
Populus x.canadensis	Canadian poplar	D	T	F	4	W	Deep fertile well drained soil.
Populus x.canescens	Grey poplar	D	T	F	4	M	Deep fertile well drained soil.
Populus deltoides	Cottonwood	D	T	F	2	W	Deep fertile well drained soil.Edible inner bark and young buds.Soil stabilization.
Populus nigra	Black poplar	D	T	F	2	W	Deep fertile well drained soil.Cork substitute,medicinal.
Populus tremula	Aspen	D	T	F	2	M	Moist including heavy cold and damp soils.Edible inner bark.Medicinal.
Prunus cerasifera	Cherry plum	D	M	M	4	W	See hedge list.
Prunus insititia	Damson	D	S-M	M	5	W	See hedge list.
Prunus maritima	Beach plum	D	S	M	3	M	Well drained soil,preferring chalk.Sunny position.Edible fruit.Soil stabilization.
Prunus spinosa	Sloe	D	S	M	4	M	See hedge list.

Pseudotsuga menziesii	Douglas fir	E	T	M-F	7	W	Best in a good moist soil,dislikes chalk.Cork substitute, insecticide, tannin, tea, dye, resin.
Pyracantha angustifolia	Firethorn	E	S	M	7	W	Well drained soil,sun or semi-shade.Succeeds on chalk.

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Checklist of Trees and Shrubs for Shelterbelts: Q - U

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Quercus ilex	Holm oak	E	T	S-M	7	M	See hedge list.
Quercus suber	Cork oak	E	T	S-M	8	M	Prefers a deep fertile soil.Cork.
Rhus typhina	Stags horn sumach	D	M	M-F	3	W	Most soils including poor ones.Edible fruit,lemonade-like drink.Dye,tannin.Soil stabilization. R.copallina and R.glabra can also be used.
Salix acutifolia		D	M	F	5	M	Most soils if moist.Sunny position.Sand stabilizer,basketry.
Salix alba	White willow	D	T	F	2	M	See hedge list.
Salix "Bowles hybrid"	Bowle`s willow	D	T	F	4	M	See hedge list.
Salix brachycarpa		D	S	M	4	M	Most soils if moist.Sunny position.
Salix caprea	Goat willow	D	M	F	5	M	See hedge list.
Salix daphnoides	Violet willow	D	M	F	5	M	Most soils if moist.Sunny position.Edible inner bark and catkins.Sand stabilizer,basketry.
Salix hookeriana		D	S	M	6	M	Most soils if moist.Sunny position.Sand stabilizer,string from bark.

Sorbus aria	Whitebeam	D	M	M	5	M	Most soils.Sunny position.Edible fruit-bletted.Medicinal.
Sorbus aucuparia	Rowan	D	M-T	M	2	W	Prefers a cool moist position.Edible fruit,oil from seed.Tea,dye,medicinal.
Sorbus intermedia		D	M	M	5	M	See hedge list.
Tamarix africana	Tamarisk	D	M	M	8	M	Most soils,preferring a good deep loam when inland.
Tamarix gallica	Manna plant	D	S	M	5	M	See hedge list.
Tamarix parviflora	Tamarisk	D	S-M	M	5	M	Most soils,preferring a good deep loam when inland.
Tamarix ramosissima	Tamarisk	D	S-M	M	2	M	Most soils,preferring a good deep loam when inland.Edible manna.
Thuja plicata	Western red cedar	E	T	M-F	6	W	See hedge list.
Tilia americana	American lime	D	T	M	3	W	Prefers a fertile neutral to alkaline soil.
Ulmus spp.	Elms	D	M-T	M-F	5	M	U.glabra,U.parvifolia,U.procera and U.pumila are good wind-resistant trees but are susceptible to Dutch elm disease.

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Readers Comments:

Tamarix aphylla

Elizabeth Powell (Libby_Powell@nps.gov) Tue Oct 26 20:04:46 1999

Dear Plants for a Future-

While researching the internet for information on Athel- Tamarix aphylla- I found your website and information on cultivation of athel. I wondered if you were aware that athel is a weed in many parts of the world and that suggesting that people grow it could be considered reasonably irresponsible. It is one of the major weeds of Western Australia and we are beginning to find it along rivers and lakes where we don't want it in Western U.S.- it spreads rapidly and is very expensive to get rid of. It was orignally planted as a shade tree- and populations remained stable for a long period of time, but now it starting to spread to remote areas. I am a botanist for Lake Mead National Recreation Area, in Nevada USA and we are just now recognizing what a monster we have unleased on our park. Sincerely, Elizabeth Powell

This comment has also been added to: Tamarix aphylla.

This comment has been added to the web pages: Checklist of plants suitable for hedging and windbreaks: T-W, *Edible Trees and Shrubs Hardy in Britain: S-T*.

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Checklist of plants suitable for hedging and windbreaks: S

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Salix alba	White willow	D	T	F	2	M	Prefers a stiff moist soil.Edible leaves. Basketry, medicinal.
Salix "Bowles hybrid"	Bowles willow	D	T	F	4	M	Prefers a stiff moist soil.Basketry.
Salix caprea	Goat willow	D	T	F	5	M	Most soils if moist.Basketry,leather substitute.
Salix lanata	Wooly willow	D	S-M	M	2	M	Most soils.
Salix purpurea	Purple osier	D	T	F	5	W	Most soils.Basketry,medicinal.
Sambucus nigra	Elder	D	M-T	F	5	M	Most soils.Edible fruit-cooked-and flowers.Insect repellent,tea,medicinal.
Santolina neopolitanum		E	S	M	7		Sunny position,poor soil.
Santolina rosmarinifolius	Holy flax	E	S	M	7		As above.
Sasa palmata	Bamboo	E	M	M	7		Moist well drained loam.Plant supports.
Semiarundinaria fastuosa	Bamboo	E	T	M	7		Moist well drained loam,sheltered position.Edible young shoots.Plant supports.
Senecio spp.		E	M-T	S-M	8	M	Most soils.Species incl:-S.greyi,S.laxifolius,S.monroi,S.reinoldii,S."Sunshine".
Shepherdia argentea	Buffalo berry	D	M-T	M	2	W	Most soils,drought resistant.Edible fruit.Red dye.
Sinarundinaria nitida	Bamboo	E	T	M	5		Moist well drained loam,best in semi shade.Plant supports.
Smilax aspera	Sarsaparilla	E	M-T	M	9		Most soils.Edible young shoots.Root used in soft drinks.Dye,medicinal.
Sorbus intermedia		D	M-T	M	5	M	Most well drained soils,preferably moist.Sunny position.Edible fruit.
Spartium junceum	Spanish broom	D	M-T	F	8	M	Most soils,preferably lime free.Basketry,fibre,dye,essential oil,medicinal.
Spiraea spp.		D	M	M	4-5		Most moist soils,sunny position.Species include:-S.x.arguta,S.japonica and S.thunbergii.
Symphoricarpus albus laevigatus		D	M-T	M-F	3	W	Most soils and situations.Invasive.Edible fruit?Besom.Other species can also be used.
Syringa vulgaris	Lilac	D	M-T	M-F	5		Most soils,warm sunny position.Essential oil,dye,medicinal.

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Checklist of plants suitable for hedging and windbreaks: Q - R

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Quercus ilex	Holm oak	E	T	S-M	7	M	Most soils except cold poorly drained.Edible seed,oil.Slug repellent,tannin.
Quercus petraea	Oak	D	T	S-M	4	M	Most soils.Edible seed-coffee substitute.Slug repellent,tannin.
Quercus robor	Oak	D	T	S-M	6	M	As above.
Rhamnus alaternus		E	M	M	7		Well drained
Rhamnus catharticus	Buckthorn	D	M-T	M	3		Most soils preferably calcareous.Primary host of Oat crown rust.Dyes,medicinal.
Rhamnus dahuricus		D	M-T	M	5		Most soils.Tea,dye.
Rhamnus frangula	Alder buckthorn	D	M-T	M	6		Moist fairly fertile soil,sun or part shade.Dyes,medicinal.
Rhaphiolepis umbellata		E	M-T	M	8		Most well drained soils,sheltered position.Edible seed,a famine food.Brown dye.
Rhododendron spp.	Rhododendron	E	M-T	M	5-7		Lime free peaty well drained soil.Species incl:-R.lutescens,R.luteum,R.ponticum.
Ribes sanguineum	Flowering currant	D	M-T	M	6	M	Most soils.Edible fruit-can store 2 months but that does not make it any nicer!
Rosa acicularis		D	M	M	2		Most soils.Edible fruit,young shoots.Tea
Rosa glauca	Red leaved rose	D	M	M-F	2	W	Most soils
Rosa macrophylla		D	M-T	M-F	7		Most soils.Edible fruit.
Rosa multiflora		D	M-T	M-F	5	W	Most soils.Edible fruit,young shoots.

Rosa nutcana	Nootka rose	D	M	M	4		Most soils.Edible fruit.petals,young shoots.Tea.
Rosa rubiginosa	Eglantine	D	M-T	M-F	4		Most soils.Edible fruit,petals,young shoots.Tea,medicinal.
Rosa rugosa	Ramanas rose	D	M	M-F	2	M	Most soils.Edible fruit,petals.Tea,medicinal.
Rosa virginiana	Virginian rose	D	M	M	3	W	Most soils.Edible fruit,young shoots.Stabilizing sand dunes.

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Checklist of plants suitable for hedging and windbreaks: P

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Paliurus spina-christi	Christ`s thorn	D	M-T	M	8		Most well drained soils,full sun.
Perovskia atriplicifolia		D	S-M		6	M	Well drained soils including chalk.Sunny position.
Philadelphus coronarius	Mock orange	D	M	M	5		Most soils incl chalk.Sunny.Also:-P.delavayi,P.pubescens,P.purpurascens & P.x.virginalis.
Phillyrea latifolia		E	M-T	S	7	M	Most soils.Edible fruit?Medicinal.
Phormium tenax	New Zealand Flax	E	M-T	M	8	M	Most soils,preferably moist.Edible gum, nectar. Fibre, basketry, glue, dyes, tannin, coffee sub.
Photinia davidiana		E	M-T	F	8		Fertile well drained soil in a sheltered sunny position.
Photinia x.fraseri		E	T	M	8		As above.Succeeds on chalk.
Pittosporum crassifolium	Karo	E	M-T	M	9	M	Most soils.Dark blue dye,saponins.Soil stabilization.
Pittosporum ralphii		E	M-T	M	9	M	Most soils.
Pittosporum tenuifolium	Kohuhu	E	M-T	M	9	M	Most soils.Edible gum.Foliage in flower arranging.
Pittosporum tobira	Tobira	E	S	M	9		Well drained soil,sun or semi-shade.
Pittosporum undulatum	Cheesewood	E	M-T	M	9	M	Most soils.
Pleioblastus hindsii	Bamboo	E	M-T	M	7		Most soils,not dry.Prefers shade.Edible young shoots.Plant supports.
Pleioblastus simonii	Medake	E	M-T	M-F	6	M	As above.
Poncirus trifoliata	Bitter orange	E	M-T	M	5		Most soils,sunny position.Edible fruit-a conserve.Medicinal.
Potentilla fruticosa	Cinquefoil	D	S	M	5		Most soils,preferably light,well drained.Tea,tinder,soil stabilization.
Prinsepia utilis		D	M-T	M	5		Light soil,sunny position.Edible fruit,oil.Medicinal.
Prumnopitys andina	Plum-fruited yew	E	M-T	S-M	8		Most soils,sheltered position.Edible fruit-tastes like a grape.Edible seed.

Prunus caroliniana	Laurel cherry	E	M	M	7		Well drained soil in sun or shade.Edible fruit.
Prunus cerasifera	Cherry plum	D	T	M-F	4	W	Well drained,preferably with chalk.Sunny.Edible fruit.
Prunus cerasus	Sour cherry	D	T	M-F	3		Most well drained soils,preferably acid.Edible fruit,oil,gum.Tea.
Prunus x.cistena		D	M	M	3		Well drained soils including chalk,sunny position.
Prunus incisa	Fuji cherry	D	M-T	M	6		Well drained soils including chalk,sunny position.
Prunus insititia	Damson	D	T	M	5	W	Most soils incl chalky,sunny position.Edible fruit.Medicinal.
Prunus laurocerasus	Cherry laurel	E	T	M	7	W	Most soils,dislikes shallow chalk.Shade tolerant.Edible fruit if fully ripe.Almond flavouring.
Prunus lusitanica	Portuguese laurel	E	T	M	7		Most soils,sun or shade.Susceptible to silver leaf disease.
Prunus spinosa	Sloe	D	M-T	M	4	M	Most well drained soils.Edible fruit-very acid.Ink,tea,dye medicinal.
Pseudosasa japonica	Bamboo	E	T	M	6	M	Most soils.Edible young shoots.Plant supports,medicinal.
Pyracantha spp.	Firethorn	E	M-T	M	6-8	W	Most soils.Susceptible to fireblight.Species include:- P.coccinea,P.rogersiana,P."Wateri"

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Checklist of plants suitable for hedging and windbreaks: L - O

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Laurus nobilis	Bay tree	E	M	S	8		Well drained fertile soil in full sun. Flavouring.
Lavandula angustifolia	Lavender	E	S	M	5	M	Light dry warm soil, sunny position. Flavouring. Insect repellent, essential oil, medicinal.
Lavandula latifolia	Lavender	E	S	M	7	M	As above.
Leptospermum laevigatum		E	M-T	M	9	M	Most soils. Sand binder.
Leptospermum scoparium	Tea tree	E	M-T	M	8	W	Most soils. Tea, green dye, insect repellent.
Ligustrum delavayanum		E	M-T	M	7		Most soils, sun or shade.
Ligustrum lucidum	Chinese privet	E	M-T	M	7		Most soils, tolerates shade and drought. Medicinal.
Ligustrum ovalifolium	Privet	E	M-T	M	5	M	Most soils, sun or shade.
Ligustrum vulgare	Privet	D	M	M	4	M	Most soils, tolerates drought and shade. Basketry, ink dyes, medicinal.
Lonicera nitida		E	S-M	M-F	7		Most soils.
Lonicera xylosteum		D	M-T	M	3		Most soils.
Luma apiculata	Temu	E	M-T	S-M	8	W	Most well drained soils.Edible fruit.
Lycium barbarum	Boxthorn	E	M	S-M	6	M	Sunny position,well drained soil.Edible fruit and shoots.Medicinal.

Lycium chinense	Boxthorn	E	M	S-M	6	M	As above.
Maclura pommifera	Osage orange	D	M-T	M	5	W	Most soils,sunny position.Food preservative,insect repellent,tannin,yellow dye.
Mahonia aquifolia	Oregon grape	E	S-M	M	5		Most soils,sun or heavy shade.Edible fruit,dyes,medicinal.
Mahonia trifoliolata		E	M	S-M	7		Most soils preferably hot and dry.Edible fruit.Dyes,ink,tannin.
Metasequoia glyptostroboides		D	T	M-F	6		Most soils but slow in dry sandy soils or shallow chalk.Soil stabilization.
Miscanthus sacchariflorus		Grass	M-T	M-F	8	M	Most soils,not dry.Dies down in winter.
Muehlenbeckia complexa	Maidenhair vine	D	M-T	M	8	M	Well drained soil in sun or semi-shade.Dioecious.Edible fruit.
Myrtus communis	Myrtle	E	M-T	S-M	8	W	Most well drained soils.Flavouring.Essential oil,medicinal.
Olearia spp.	Daisy bush	E	M-T	M	8	M	Most soils. Many species incl;-O.aviceniifolia, O.x.haastii, O.illicifolia, O.macrodonta, O.solandri, O.traversii and O.virgata.
Orixa japonica		D	M	M	6	W	Any soil,sun or shade.Edible young leaves-spicy.
Osmanthus x.burkwoodii		E	M-T	S	6		Most soils esp chalk.Other species include:-O.decorus,O.delavayi and

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Checklist of plants suitable for hedging and windbreaks: G - I

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Garrya elliptica		E	M-T	M	8	M	Most well drained soils, not rich. Resents root disturbance. Grey to black dye, medicinal.
Gaultheria mucronata		E	S	M	6		Light peaty acid soil, sunny position. Edible fruit?
Genista hispanica	Spanish gorse	D	S	M	6		Sunny position in dry not rich soils. Resents root disturbance.
Griselinia littoralis		E	M-T	M	7	M	Light rich soil, chalk tolerant. Edible fruit with a bitter flavour.

Hakea sericea		E	M	M	9	W	Moist well drained soil. Gum-similar to gum tragacanth.
Hebe brachysiphon		E	S-M	M	7		Sunny, well drained.
Hebe dieffenbachii		E	S-M	M	9		Sunny, well drained.
Hebe x.franciscana		E	S-M	M	7	M	Light well drained soil on poor side, chalk tolerant.
Hebe speciosa		E	S-M	M	7	M	As above.
Helichrysum italicum	Curry plant	E	S	M	8	W	Well drained soil, sunny position. Leaves a flavouring.
Hibiscus syriacus	Mallow	D	M	M	5		Most well drained soils, sunny position. Edible leaves, flowers, oil.Tea, fibre, hair shampoo.
Hippophae rhamnoides	Sea buckthorn	D	M-T	M	3	M	Most soils,sunny position. Fixes nitrogen. Edible fruit, very acid. Dyes, medicinal.
Hydrangea macrophylla	Hydrangea	D	M	M	5		Well drained moist soil.
Hydrangea serrata	Hydrangea	D	M	M	6		Well drained moist soil. Edible leaves, sweet in ssp. amagiana and thunbergii.

Hymenanthera dentata		E	M-T	M	9		Well drained. Purple dye.
Hypericum forrestii		D	S-M	M	5		Most soils.
Hypericum patulum		E	S	M	6		Most soils.
Hyssopus officinalis	Hyssop	E	S	M	3		Prefers light dry calcareous soil and a sunny position. Flavouring. Tea, medicinal.
Ilex x.altaclarensis	Holly	E	M-T	S	6	M	Most soils.
Ilex aquifolium	Holly	E	M-T	S	6	M	Most soils, not dry. Full sun to heavy shade. Medicinal.

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Checklist of plants suitable for hedging and windbreaks: D - F

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Drimys lanceolata	Mountain pepper	E	M-T	S-M	8		Semi shade. Dioecious. Fruit is a pepper substitute. Medicinal.
Elaeagnus angustifolius	Oleaster	D	M-T	M-F	2	W	Prefers well drained soils. Resists drought and honey fungus. Fixes nitrogen. Edible fruit. Gum.
Elaeagnus commutata	Silverberry	D	M	M	2	M	Light soil, sunny position. Resists drought and honey fungus. Fixes nitrogen. Edible fruit. Fibre.
Elaeagnus x.ebbingei		E	M-T	M-F	6	M	Best in not too rich a soil, tolerates shade. Fixes nitrogen. Edible fruit, produced in April/May.
Elaeagnus glabra		E	M-T	M	8	M	Most soils, fixes nitrogen. Very shade tolerant, will eventually climb into trees. Edible fruit.
Elaeagnus macrophylla		E	M-T	M	8	M	As E.glabra.

Elaeagnus multiflora	Goumi	D	M-T	M	6	M	As E.angustifolius. Tolerates air pollution.
Elaeagnus pungens		E	M-T	M	7	M	As E.glabra.
Elaeagnus x.reflexa		E	M-T	M	7	M	As E.glabra.
Elaeagnus umbellata		D	M-T	M	3	M	As E.angustifolius. Edible fruit and seed.
E.u. parviflora		D	M-T	M	3	M	As above but said to have a superior fruit.
Eleutherococcus sieboldiana		D	M-T	M	4		Well drained humus rich soil, sunny position. Tolerates urban pollution. Edible leaves. Tea.
Erica x.darleyensis	Heather	E	S	M	6		Prefers a light peaty soil but tolerates chalk.
Erica x.veitchii	Heather	E	S-M	M	8		Light peaty soil.
Escallonia spp.	Escallonia	E	M-T	F	7-9	M	Sunny, most soils.
	Many forms incl:- E."Alice", E."Apple blossom", E."C.F.Ball", E.compacta coccinea, E."Crimson spire", E."Donard gem", E."Donard seedling", E."Edinensis", E.x.exoniensis, E."Glasnevin hybrid", E."Ingrami", E."Iveyi", E.laevis, E."Langleyense", E."Pink pearl", E."Pride of donard", E.pulverulenta, E."Red hedger", E.rosea, E.rubra macrantha, E."St.Keverne", E."Slieve donard", E."William Watson".						
Eucryphia lucida	Leatherwood	E	M-T	M	8		Most soils preferably lime-free.Dislikes cold winds.Sun or semi-shade.Medicinal.
Eucryphia x.nymensensis		E	M-T	M	7		Most soils preferably lime-free. Dislikes cold winds. Full sun only if soil is moist.
Euonymous alatus	Spindle	D	M	M	3		Most soils if well drained. Medicinal, tea. Edible leaves and fruit???I have my doubts on this report.

Euonymous fortunei		E	S	M	5		Most soils sun or shade.
Euonymous japonicus	Japanese Spindle	E	M-T	M-F	7	M	Well drained soil, sun or shade. Hosts sugar beet fly. Rubber from root and stems.
Fagus sylvatica	Beech	D	M-T	S-M	5	W	Most soils except heavy and wet. Edible young leaves, seed and oil. Medicinal.
Forsythia x.intermedia		D	M-T	M	5		Well drained preferably rich soil.
Fuchsia magellanica	Fuchsia	D	M-T	M	6	M	Most soils. Often cut back to base in cold winters. Var."Ricartonii"is hardier. Dye, medicinal.

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Checklist of plants suitable for hedging and windbreaks: C

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Ceasalpinia decapetala		D	M	S	8		Sheltered sunny position in well drained soil. Tannin, medicinal.
Callistemon citrinus	Bottlebrush	E	M	M	9		Sheltered position. Tea. Tan & cinnamon dyes. C.sieberi & C.viridiflorus can also be used.
Calluna vulgaris	Ling	E	S	S	4		Dry acid soil, sunny position. Basketry, thatching, brooms, yellow dye, tea, medicinal, fuel.
Caragana arborescens	Siberian pea shrub	D	M-T	M	2		Sunny position, well drained soil. Edible seed and young pods cooked. Erosion control, dye.
Caragana brevispina		D	M	M	6		Sunny position, well drained soil. Edible seed, cooked. Erosion control.
Carpinus betulus	Hornbeam	D	M-T	M	5		Most soils. Yellow dye, medicinal.

Ceanothus thyrsiflorus	Blueblossom	E	M-T	F	8	M	Sunny position. Slow to establish. Soap from flowers, green dye.
Cedrus libani atlantica	Atlas cedar	E	T	M	5		Most soils. Medicinal.
Celastrus orbiculatus	Bittersweet	D	T	M	4		Deep rich loamy soil. Edible young leaves-cooked. Medicinal.
Chaenomeles speciosa	Japanese quince	D	M	M	5		Most soils, sun or semi shade. Edible fruit. Medicinal.
Chamaecyparis lawsoniana	Lawsons Cypress	E	T	F	6	W	Most soils. Resin
Choisya ternata	Mexican orange	D	M-T	M	7		Light soils.
Colletia armata		D	M-T	S	8	M	Sandy well drained soil, sun or light shade.
Cornus mas	Cornelian cherry	D	T	M	5		Most soils sunny position. Edible fruit. Oil, dye.
Cornus sanguinea	Dogwood	D	M-T	M	5		Most soils. Oil, basketry, grey-blue dye. The fruit is said to be edible but you are welcome to it!
Corokia x.virgata		E	M-T	M	8		Most soils, well drained.
Corylus avellana	Hazel nut	D	M-T	M	4		Most soils. Edible seed, oil. Basketry, wood polish, hurdles. Named varieties can also be used.
Corylus maxima	Filbert	D	M-T	M	4		As above.

Cotoneaster spp.	Cotoneaster	E	M-T	M	5-7		Most soils. Several species can be used inc;- C."Cornubia", C.divaricatus, C.franchetii, C.frigidus, C.glaucophyllus, C.lacteus, C.simonsii & C.wardii.
Crataegus monogyna	Hawthorn	D	M-T	M-F	5	M	Most soils. Edible fruit, young shoots. Tea, coffee, medicinal. Also C.laevigata, C.mollis, C.sanguinea, & C.submollis.
Cupressocyparis leylandii	Leyland cypress	E	T	F	7	M	Most soils.
Cupressus macrocarpa	Monterey cypress	E	T	F	8	M	Most soils but not shallow.Var."Lutea" is hardier.

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Checklist of plants suitable for hedging and windbreaks: B

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Baccharis halimifolia	Bush groundsel	D	M-T	M	5	M	Any soil.
Baccharis patagonica		E	M	S-M	8	M	Any soil
Bambusa multiplex	Bamboo	E	M-T	M	9		Rich moist soil, sheltered position. Edible shoots. Fibre for paper.
Berberis amurensis	Barberry	D	M	M	6		Most soils
Berberis darwinii	Barberry	E	M	S-M	7	M	Most soils. Edible fruit. Yellow dye, medicinal.
Berberis gagnepainii	Barberry	E	M	S-M	5		Most soils.
Berberis soulieana	Barberry	E	M	M	6		Most soils.
Berberis x stenophylla	Barberry	E	M	S-M	5	M	Most soils. Edible fruit.

Berberis thunbergii	Barberry	D	M	M	4		Most soils. Edible fruit and leaves, not at all nice. Yellow dye, medicinal.
Berberis verruculosa	Barberry	E	M	S-M	5		Most soils.
Berberis vulgaris	Common barberry	D	M	M	3		Most soils. Alternate host of black stem rust of cereals. Edible fruit, tea.
Bupleurum fruticosum		E	M	M	7	M	Well drained soil.
Bursaria spinosa	Christmas bush	E	M	S	8		Well drained moisture retentive soil. Used in suntan lotions to protect from U.V.light.
Buxus sempervirens	Box	E	S-T	S	5		Most soils, sun or semi shade. Resists honey fungus. Medicinal.

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Checklist of plants suitable for hedging and windbreaks: B

vic weatherill Wed Apr 25 20:56:05 2001

Could include height of growth per year.

Add a Follow up to this comment

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Checklist of plants suitable for hedging and windbreaks: A

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Acer campestre	Field Maple	D	M-T	M	4		Most soils. Leaves preserve fruit. Medicinal.
Ailanthus altissima	Tree of heaven	D	T	F	6		Tolerates most soils and conditions including pollution. Insect repellant, medicinal, soil stabilization, yellow dye. Leaves are said to be edible but slightly toxic.
Alnus glutinosa	Alder	D	M-T	F	3	M	Prefers a moist soil. Ink ,dyes, tannin, medicinal.
Amelanchier canadensis	Juneberry	D	M-T	M-F	4	W	Moist well drained lime free soil, sunny position. Edible fruit.

Arundo donax	Giant reed	Grass	M-T	F	6		Moist soil esp by water. Edible rhizome. Basketry, plant supports, erosion control, medicinal.
Atriplex canescens	Salt bush	E	M-T	M	7	M	Well drained soil in full sun. Resists fire. Edible leaves-salty. Edible seed.
Atriplex halimus	Salt bush	E	M	M	8	M	As above.
Aucuba japonica	Spotted laurel	E	M	M	7	M	Most soils sun or shade. Tolerates smoke. Leaves are said to be a famine food.

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Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

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Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

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Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: S*

Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Pages in the PFAF site you would like this comment to be added to:

hedge9.html

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Date: Sun May 16 01:26:30 2004

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: Q-R*

Subject:

Checklist of plants suitable for hedging and windbr

Group:

Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

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Pages in the PFAF site you would like this comment to be added to:

hedge8.html

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: P*

Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

hedge7.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: L-O*

Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

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hedge6.html

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: G-I*

Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

hedge5.html

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: D-F*

Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

hedge4.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: C*

Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

hedge3.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 01:26:37 2004

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: B*

Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

hedge2.html

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Add a comment on: *Tamarix aphylla*

Subject:

Tamarix aphylla

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Tamarix aphylla

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

hedge10.html shelter5.html tree9.html

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Trees and Shrubs for Shelterbelts: Q-U

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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shelter5.html

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks: T-W*

Subject:

Checklist of plants suitable for hedging and windbr

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hedge10.html

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Add a comment on: *Trees and Shrubs for Shelterbelts: P*

Subject:

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Comment:

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shelter4.html

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Subject:

Trees and Shrubs for Shelterbelts: E-M

Group:
Comments on Web-Pages

Comment:

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shelter3.html

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Subject:

Trees and Shrubs for Shelterbelts: B-C

Group:
Comments on Web-Pages

Comment:

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

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Pages in the PFAF site you would like this comment to be added to:

shelter2.html

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Plants for a Future

A resource centre for edible and other useful plants

Back to Plants For A Future home page.

Checklist of plants suitable for hedging and windbreaks.

This is the old version of the list, you can find a version split into A-Z catogries Here.

TREES AND SHRUBS FOR SHELTERBELTS
KEY

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Acer campestre	Field Maple	D	M-T	M	4		Most soils. Leaves preserve fruit. Medicinal.
Ailanthus altissima	Tree of heaven	D	T	F	6		Tolerates most soils and conditions including pollution. Insect repellant, medicinal, soil stabilization, yellow dye. Leaves are said to be edible but slightly toxic.
Alnus glutinosa	Alder	D	M-T	F	3	M	Prefers a moist soil. Ink , dyes, tannin, medicinal.
Amelanchier canadensis	Juneberry	D	M-T	M-F	4	W	Moist well drained lime free soil, sunny position. Edible fruit.

Arundo donax	Giant reed	Grass	M-T	F	6		Moist soil esp by water. Edible rhizome. Basketry, plant supports, erosion control, medicinal.
Atriplex canescens	Salt bush	E	M-T	M	7	M	Well drained soil in full sun. Resists fire. Edible leaves-salty. Edible seed.
Atriplex halimus	Salt bush	E	M	M	8	M	As above.
Aucuba japonica	Spotted laurel	E	M	M	7	M	Most soils sun or shade. Tolerates smoke. Leaves are said to be a famine food.
Baccharis halimifolia	Bush groundsel	D	M-T	M	5	M	Any soil.
Baccharis patagonica		E	M	S-M	8	M	Any soil
Bambusa multiplex	Bamboo	E	M-T	M	9		Rich moist soil, sheltered position. Edible shoots. Fibre for paper.
Berberis amurensis	Barberry	D	M	M	6		Most soils
Berberis darwinii	Barberry	E	M	S-M	7	M	Most soils. Edible fruit. Yellow dye, medicinal.
Berberis gagnepainii	Barberry	E	M	S-M	5		Most soils.
Berberis soulieana	Barberry	E	M	M	6		Most soils.
Berberis x stenophylla	Barberry	E	M	S-M	5	M	Most soils. Edible fruit.

Berberis thunbergii	Barberry	D	M	M	4		Most soils. Edible fruit and leaves, not at all nice. Yellow dye, medicinal.
Berberis verruculosa	Barberry	E	M	S-M	5		Most soils.
Berberis vulgaris	Common barberry	D	M	M	3		Most soils. Alternate host of black stem rust of cereals. Edible fruit, tea.
Bupleurum fruticosum		E	M	M	7	M	Well drained soil.
Bursaria spinosa	Christmas bush	E	M	S	8		Well drained moisture retentive soil. Used in suntan lotions to protect from U. V. light.
Buxus sempervirens	Box	E	S-T	S	5		Most soils, sun or semi shade. Resists honey fungus. Medicinal.
Ceasalpinia decapetala		D	M	S	8		Sheltered sunny position in well drained soil. Tannin, medicinal.
Callistemon citrinus	Bottlebrush	E	M	M	9		Sheltered position. Tea. Tan & cinnamon dyes. C. sieberi & C. viridiflorus can also be used.

Calluna vulgaris	Ling	E	S	S	4		Dry acid soil, sunny position. Basketry, thatching, brooms, yellow dye, tea, medicinal, fuel.
Caragana arborescens	Siberian pea shrub	D	M-T	M	2		Sunny position, well drained soil. Edible seed and young pods cooked. Erosion control, dye.
Caragana brevispina		D	M	M	6		Sunny position, well drained soil. Edible seed, cooked. Erosion control.
Carpinus betulus	Hornbeam	D	M-T	M	5		Most soils. Yellow dye, medicinal.
Ceanothus thyrsiflorus	Blueblossom	E	M-T	F	8	M	Sunny position. Slow to establish. Soap from flowers, green dye.
Cedrus libani atlantica	Atlas cedar	E	T	M	5		Most soils. Medicinal.
Celastrus orbiculatus	Bittersweet	D	T	M	4		Deep rich loamy soil. Edible young leaves-cooked. Medicinal.
Chaenomeles speciosa	Japanese quince	D	M	M	5		Most soils, sun or semi shade. Edible fruit. Medicinal.

Botanical name	**Common name**	**Deciduous/ Evergreen**	**Height**	**Growth rate**	**Hardiness**	**Wind**	**Notes**
Chamaecyparis lawsoniana	Lawsons Cypress	E	T	F	6	W	Most soils. Resin

Choisya ternata	Mexican orange	D	M-T	M	7		Light soils.
Colletia armata		D	M-T	S	8	M	Sandy well drained soil, sun or light shade.
Cornus mas	Cornelian cherry	D	T	M	5		Most soils sunny position. Edible fruit. Oil, dye.
Cornus sanguinea	Dogwood	D	M-T	M	5		Most soils. Oil, basketry, grey-blue dye. The fruit is said to be edible but you are welcome to it!
Corokia x. virgata		E	M-T	M	8		Most soils, well drained.
Corylus avellana	Hazel nut	D	M-T	M	4		Most soils. Edible seed, oil. Basketry, wood polish, hurdles. Named varieties can also be used.
Corylus maxima	Filbert	D	M-T	M	4		As above.
Cotoneaster spp.	Cotoneaster	E	M-T	M	5-7		Most soils. Several species can be used inc;- C. "Cornubia", C. divaricatus, C. franchetii, C. frigidus, C. glaucophyllus, C. lacteus, C. simonsii & C. wardii.
Crataegus monogyna	Hawthorn	D	M-T	M-F	5	M	Most soils. Edible fruit, young shoots. Tea, coffee, medicinal. Also C. laevigata, C. mollis, C. sanguinea, & C. submollis.

Cupressocyparis leylandii	Leyland cypress	E	T	F	7	M	Most soils.
Cupressus macrocarpa	Monterey cypress	E	T	F	8	M	Most soils but not shallow. Var. "Lutea" is hardier.
Drimys lanceolata	Mountain pepper	E	M-T	S-M	8		Semi shade. Dioecious. Fruit is a pepper substitute. Medicinal.
Elaeagnus angustifolius	Oleaster	D	M-T	M-F	2	W	Prefers well drained soils. Resists drought and honey fungus. Fixes nitrogen. Edible fruit. Gum.
Elaeagnus commutata	Silverberry	D	M	M	2	M	Light soil, sunny position. Resists drought and honey fungus. Fixes nitrogen. Edible fruit. Fibre.
Elaeagnus x. ebbingei		E	M-T	M-F	6	M	Best in not too rich a soil, tolerates shade. Fixes nitrogen. Edible fruit, produced in April/May.
Elaeagnus glabra		E	M-T	M	8	M	Most soils, fixes nitrogen. Very shade tolerant, will eventually climb into trees. Edible fruit.
Elaeagnus macrophylla		E	M-T	M	8	M	As E. glabra.

Elaeagnus multiflora	Goumi	D	M-T	M	6	M	As E. angustifolius. Tolerates air pollution.
Elaeagnus pungens		E	M-T	M	7	M	As E. glabra.
Elaeagnus x. reflexa		E	M-T	M	7	M	As E. glabra.
Elaeagnus umbellata		D	M-T	M	3	M	As E. angustifolius. Edible fruit and seed.
E. u. parviflora		D	M-T	M	3	M	As above but said to have a superior fruit.
Eleutherococcus sieboldiana		D	M-T	M	4		Well drained humus rich soil, sunny position. Tolerates urban pollution. Edible leaves. Tea.
Erica x. darleyensis	Heather	E	S	M	6		Prefers a light peaty soil but tolerates chalk.
Erica x. veitchii	Heather	E	S-M	M	8		Light peaty soil.
Escallonia spp.	Escallonia	E	M-T	F	7-9	M	Sunny, most soils. Many forms incl:- E. "Alice", E. "Apple blossom", E. " C. F. Ball", E. compacta coccinea, E. "Crimson spire", E. "Donard gem", E. "Donard seedling", E. "Edinensis", E. x. exoniensis, E. "Glasnevin hybrid", E. "Ingrami",

							E. "Iveyi", E. laevis, E. "Langleyense", E. "Pink pearl", E. "Pride of donard", E. pulverulenta, E. "Red hedger", E. rosea, E. rubra macrantha, E. "St. Keverne", E. "Slieve donard", E. "William Watson".
Eucryphia lucida	Leatherwood	E	M-T	M	8		Most soils preferably lime-free. Dislikes cold winds. Sun or semi-shade. Medicinal.

Botanical name	**Common name**	**Deciduous/ Evergreen**	**Height**	**Growth rate**	**Hardiness**	**Wind**	**Notes**
Eucryphia x. nymensensis		E	M-T	M	7		Most soils preferably lime-free. Dislikes cold winds. Full sun only if soil is moist.
Euonymous alatus	Spindle	D	M	M	3		Most soils if well drained. Medicinal, tea. Edible leaves and fruit???I have my doubts on this report.
Euonymous fortunei		E	S	M	5		Most soils sun or shade.

Euonymous japonicus	Japanese Spindle	E	M-T	M-F	7	M	Well drained soil, sun or shade. Hosts sugar beet fly. Rubber from root and stems.
Fagus sylvatica	Beech	D	M-T	S-M	5	W	Most soils except heavy and wet. Edible young leaves, seed and oil. Medicinal.
Forsythia x. intermedia		D	M-T	M	5		Well drained preferably rich soil.
Fuchsia magellanica	Fuchsia	D	M-T	M	6	M	Most soils. Often cut back to base in cold winters. Var. "Ricartonii"is hardier. Dye, medicinal.
Garrya elliptica		E	M-T	M	8	M	Most well drained soils, not rich. Resents root disturbance. Grey to black dye, medicinal.
Gaultheria mucronata		E	S	M	6		Light peaty acid soil, sunny position. Edible fruit?
Genista hispanica	Spanish gorse	D	S	M	6		Sunny position in dry not rich soils. Resents root disturbance.

Griselinia littoralis		E	M-T	M	7	M	Light rich soil, chalk tolerant. Edible fruit with a bitter flavour.
Hakea sericea		E	M	M	9	W	Moist well drained soil. Gum-similar to gum tragacanth.
Hebe brachysiphon		E	S-M	M	7		Sunny, well drained.
Hebe dieffenbachii		E	S-M	M	9		Sunny, well drained.
Hebe x. franciscana		E	S-M	M	7	M	Light well drained soil on poor side, chalk tolerant.
Hebe speciosa		E	S-M	M	7	M	As above.
Helichrysum italicum	Curry plant	E	S	M	8	W	Well drained soil, sunny position. Leaves a flavouring.
Hibiscus syriacus	Mallow	D	M	M	5		Most well drained soils, sunny position. Edible leaves, flowers, oil. Tea, fibre, hair shampoo.
Hippophae rhamnoides	Sea buckthorn	D	M-T	M	3	M	Most soils, sunny position. Fixes nitrogen. Edible fruit, very acid. Dyes, medicinal.
Hydrangea macrophylla	Hydrangea	D	M	M	5		Well drained moist soil.

Hydrangea serrata	Hydrangea	D	M	M	6		Well drained moist soil. Edible leaves, sweet in ssp. amagiana and thunbergii.
Hymenanthera dentata		E	M-T	M	9		Well drained. Purple dye.
Hypericum forrestii		D	S-M	M	5		Most soils.
Hypericum patulum		E	S	M	6		Most soils.
Hyssopus officinalis	Hyssop	E	S	M	3		Prefers light dry calcareous soil and a sunny position. Flavouring. Tea, medicinal.
Ilex x. altaclarensis	Holly	E	M-T	S	6	M	Most soils.
Ilex aquifolium	Holly	E	M-T	S	6	M	Most soils, not dry. Full sun to heavy shade. Medicinal.
Laurus nobilis	Bay tree	E	M	S	8		Well drained fertile soil in full sun. Flavouring.
Lavandula angustifolia	Lavender	E	S	M	5	M	Light dry warm soil, sunny position. Flavouring. Insect repellent, essential oil, medicinal.
Lavandula latifolia	Lavender	E	S	M	7	M	As above.
Leptospermum laevigatum		E	M-T	M	9	M	Most soils. Sand binder.

Leptospermum scoparium	Tea tree	E	M-T	M	8	W	Most soils. Tea, green dye, insect repellent.
Ligustrum delavayanum		E	M-T	M	7		Most soils, sun or shade.
Ligustrum lucidum	Chinese privet	E	M-T	M	7		Most soils, tolerates shade and drought. Medicinal.
Ligustrum ovalifolium	Privet	E	M-T	M	5	M	Most soils, sun or shade.
Ligustrum vulgare	Privet	D	M	M	4	M	Most soils, tolerates drought and shade. Basketry, ink dyes, medicinal.

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Lonicera nitida		E	S-M	M-F	7		Most soils.
Lonicera xylosteum		D	M-T	M	3		Most soils.
Luma apiculata	Temu	E	M-T	S-M	8	W	Most well drained soils. Edible fruit.
Lycium barbarum	Boxthorn	E	M	S-M	6	M	Sunny position, well drained soil. Edible fruit and shoots. Medicinal.
Lycium chinense	Boxthorn	E	M	S-M	6	M	As above.
Maclura pommifera	Osage orange	D	M-T	M	5	W	Most soils, sunny position. Food preservative, insect repellent, tannin, yellow dye.

Mahonia aquifolia	Oregon grape	E	S-M	M	5		Most soils, sun or heavy shade. Edible fruit, dyes, medicinal.
Mahonia trifoliolata		E	M	S-M	7		Most soils preferably hot and dry. Edible fruit. Dyes, ink, tannin.
Metasequoia glyptostroboides		D	T	M-F	6		Most soils but slow in dry sandy soils or shallow chalk. Soil stabilization.
Miscanthus sacchariflorus		Grass	M-T	M-F	8	M	Most soils, not dry. Dies down in winter.
Muehlenbeckia complexa	Maidenhair vine	D	M-T	M	8	M	Well drained soil in sun or semi-shade. Dioecious. Edible fruit.
Myrtus communis	Myrtle	E	M-T	S-M	8	W	Most well drained soils. Flavouring. Essential oil, medicinal.
Olearia spp.	Daisy bush	E	M-T	M	8	M	Most soils. Many species incl;- O. aviceniifolia, O. x. haastii, O. illicifolia, O. macrodonta, O. solandri, O. traversii and O. virgata.
Orixa japonica		D	M	M	6	W	Any soil, sun or shade. Edible young leaves-spicy.

Osmanthus x. burkwoodii		E	M-T	S	6		Most soils esp chalk. Other species include:- O. decorus, O. delavayi and O. heterophyllus.
Paliurus spina-christi	Christ`s thorn	D	M-T	M	8		Most well drained soils, full sun.
Perovskia atriplicifolia		D	S-M		6	M	Well drained soils including chalk. Sunny position.
Philadelphus coronarius	Mock orange	D	M	M	5		Most soils incl chalk. Sunny. Also:- P. delavayi, P. pubescens, P. purpurascens & P. x. virginalis.
Phillyrea latifolia		E	M-T	S	7	M	Most soils. Edible fruit?Medicinal.
Phormium tenax	New Zealand Flax	E	M-T	M	8	M	Most soils, preferably moist. Edible gum, nectar. Fibre, basketry, glue, dyes, tannin, coffee sub.
Photinia davidiana		E	M-T	F	8		Fertile well drained soil in a sheltered sunny position.
Photinia x. fraseri		E	T	M	8		As above. Succeeds on chalk.
Pittosporum crassifolium	Karo	E	M-T	M	9	M	Most soils. Dark blue dye, saponins. Soil stabilization.

Pittosporum ralphii		E	M-T	M	9	M	Most soils.
Pittosporum tenuifolium	Kohuhu	E	M-T	M	9	M	Most soils. Edible gum. Foliage in flower arranging.
Pittosporum tobira	Tobira	E	S	M	9		Well drained soil, sun or semi-shade.
Pittosporum undulatum	Cheesewood	E	M-T	M	9	M	Most soils.
Pleioblastus hindsii	Bamboo	E	M-T	M	7		Most soils, not dry. Prefers shade. Edible young shoots. Plant supports.
Pleioblastus simonii	Medake	E	M-T	M-F	6	M	As above.
Poncirus trifoliata	Bitter orange	E	M-T	M	5		Most soils, sunny position. Edible fruit-a conserve. Medicinal.
Potentilla fruticosa	Cinquefoil	D	S	M	5		Most soils, preferably light, well drained. Tea, tinder, soil stabilization.
Prinsepia utilis		D	M-T	M	5		Light soil, sunny position. Edible fruit, oil. Medicinal.
Prumnopitys andina	Plum-fruited yew	E	M-T	S-M	8		Most soils, sheltered position. Edible fruit-tastes like a grape. Edible seed.
Prunus caroliniana	Laurel cherry	E	M	M	7		Well drained soil in sun or shade. Edible fruit.

Prunus cerasifera	Cherry plum	D	T	M-F	4	W	Well drained, preferably with chalk. Sunny. Edible fruit.
Prunus cerasus	Sour cherry	D	T	M-F	3		Most well drained soils, preferably acid. Edible fruit, oil, gum. Tea.
Prunus x. cistena		D	M	M	3		Well drained soils including chalk, sunny position.

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Prunus incisa	Fuji cherry	D	M-T	M	6		Well drained soils including chalk, sunny position.
Prunus insititia	Damson	D	T	M	5	W	Most soils incl chalky, sunny position. Edible fruit. Medicinal.
Prunus laurocerasus	Cherry laurel	E	T	M	7	W	Most soils, dislikes shallow chalk. Shade tolerant. Edible fruit if fully ripe. Almond flavouring.
Prunus lusitanica	Portuguese laurel	E	T	M	7		Most soils, sun or shade. Susceptible to silver leaf disease.
Prunus spinosa	Sloe	D	M-T	M	4	M	Most well drained soils. Edible fruit-very acid. Ink, tea, dye medicinal.

Pseudosasa japonica	Bamboo	E	T	M	6	M	Most soils. Edible young shoots. Plant supports, medicinal.
Pyracantha spp.	Firethorn	E	M-T	M	6-8	W	Most soils. Susceptible to fireblight. Species include:- P. coccinea, P. rogersiana, P. "Wateri".
Quercus ilex	Holm oak	E	T	S-M	7	M	Most soils except cold poorly drained. Edible seed, oil. Slug repellent, tannin.
Quercus petraea	Oak	D	T	S-M	4	M	Most soils. Edible seed-coffee substitute. Slug repellent, tannin.
Quercus robor	Oak	D	T	S-M	6	M	As above.
Rhamnus alaternus		E	M	M	7		Well drained
Rhamnus catharticus	Buckthorn	D	M-T	M	3		Most soils preferably calcareous. Primary host of Oat crown rust. Dyes, medicinal.
Rhamnus dahuricus		D	M-T	M	5		Most soils. Tea, dye.
Rhamnus frangula	Alder buckthorn	D	M-T	M	6		Moist fairly fertile soil, sun or part shade. Dyes, medicinal.

Rhaphiolepis umbellata		E	M-T	M	8		Most well drained soils, sheltered position. Edible seed, a famine food. Brown dye.
Rhododendron spp.	Rhododendron	E	M-T	M	5-7		Lime free peaty well drained soil. Species incl:- R. lutescens, R. luteum, R. ponticum.
Ribes sanguineum	Flowering currant	D	M-T	M	6	M	Most soils. Edible fruit-can store 2 months but that does not make it any nicer!
Rosa acicularis		D	M	M	2		Most soils. Edible fruit, young shoots. Tea
Rosa glauca	Red leaved rose	D	M	M-F	2	W	Most soils
Rosa macrophylla		D	M-T	M-F	7		Most soils. Edible fruit.
Rosa multiflora		D	M-T	M-F	5	W	Most soils. Edible fruit, young shoots.
Rosa nutcana	Nootka rose	D	M	M	4		Most soils. Edible fruit. petals, young shoots. Tea.
Rosa rubiginosa	Eglantine	D	M-T	M-F	4		Most soils. Edible fruit, petals, young shoots. Tea, medicinal.

Rosa rugosa	Ramanas rose	D	M	M-F	2	M	Most soils. Edible fruit, petals. Tea, medicinal.
Rosa virginiana	Virginian rose	D	M	M	3	W	Most soils. Edible fruit, young shoots. Stabilizing sand dunes.
Salix alba	White willow	D	T	F	2	M	Prefers a stiff moist soil. Edible leaves. Basketry, medicinal.
Salix "Bowles hybrid"	Bowles willow	D	T	F	4	M	Prefers a stiff moist soil. Basketry.
Salix caprea	Goat willow	D	T	F	5	M	Most soils if moist. Basketry, leather substitute.
Salix lanata	Wooly willow	D	S-M	M	2	M	Most soils.
Salix purpurea	Purple osier	D	T	F	5	W	Most soils. Basketry, medicinal.
Sambucus nigra	Elder	D	M-T	F	5	M	Most soils. Edible fruit-cooked-and flowers. Insect repellent, tea, medicinal.
Santolina neopolitanum		E	S	M	7		Sunny position, poor soil.
Santolina rosmarinifolius	Holy flax	E	S	M	7		As above.
Sasa palmata	Bamboo	E	M	M	7		Moist well drained loam. Plant supports.

Semiarundinaria fastuosa	Bamboo	E	T	M	7		Moist well drained loam, sheltered position. Edible young shoots. Plant supports.
Senecio spp.		E	M-T	S-M	8	M	Most soils. Species incl:- S. greyi, S. laxifolius, S. monroi, S. reinoldii, S. "Sunshine".
Shepherdia argentea	Buffalo berry	D	M-T	M	2	W	Most soils, drought resistant. Edible fruit. Red dye.
Sinarundinaria nitida	Bamboo	E	T	M	5		Moist well drained loam, best in semi shade. Plant supports.
Smilax aspera	Sarsaparilla	E	M-T	M	9		Most soils. Edible young shoots. Root used in soft drinks. Dye, medicinal.

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Sorbus intermedia		D	M-T	M	5	M	Most well drained soils, preferably moist. Sunny position. Edible fruit.
Spartium junceum	Spanish broom	D	M-T	F	8	M	Most soils, preferably lime free. Basketry, fibre, dye, essential oil, medicinal.

Spiraea spp.		D	M	M	4-5		Most moist soils, sunny position. Species include:- S. x. arguta, S. japonica and S. thunbergii.
Symphoricarpus albus laevigatus		D	M-T	M-F	3	W	Most soils and situations. Invasive. Edible fruit?Besom. Other species can also be used.
Syringa vulgaris	Lilac	D	M-T	M-F	5		Most soils, warm sunny position. Essential oil, dye, medicinal.
Tamarix gallica	Tamarisk	D	T	M	5	M	Most soils. Edible manna. Medicinal. Also T. africana, T. parviflora and T. ramosissima.
Taxus baccata	Yew	E	M-T	S-M	6	W	Most soils, sun or shade. Edible fruit-sweet. BEWARE:- ALL OTHER PARTS OF PLANT ARE POISONOUS. Insecticide, incense, medicinal. Other species can also be used.
Thamnocalamus spathaceus		E	T	M	6		Moist well drained loam. Edible young shoots. Plant supports.

Thuja occidentalis	White cedar	E	T	S-M	2		Moist soil. Best in west of Britain. Tea, insect repellent, medicinal.
Thuja orientalis		E	M-T	S-M	6		Prefers a dry well drained soil. Often does not do well. Edible seed. Dye, medicinal.
Thuja plicata	Red cedar	E	M-T	M-F	6	W	Most soils except light, sandy. Edible inner bark. Fibre, basketry.
Tsuga heterophylla	Hemlock	E	T	M-F	6		Best in high rainfall areas in a deep well drained soil. Edible inner bark. Tea, tannin, resin, medicinal. Other species to use include:- T. canadensis, T. caroliniana, T. chinensis and T. mertensiana.
Ugni molinae	Ugni	E	M	S-M	8	W	Most well drained soils. Edible fruit. Tea.
Ulex europaeus	Gorse	E	M	F	6	M	Prefers a poor dry soil, sunny position. Soil stabilization, tea, dye, kindling.
Ulex parviflorus		E	M	M-F	7	M	As above.
Viburnum x. juddii		D	M	M	5		Dislikes poor dry soils.

Viburnum opulus	Guelder rose	D	M-T	M-F	3	W	Prefers moist soils. Edible fruit-best cooked. Red dye, medicinal. Ssp. americanum is said to have superior fruit.
Viburnum prunifolium	Black haw	D	M-T	M	3		Tolerates poor dry soils. Edible fruit.
Viburnum tinus	Laurustinus	E	M	F	7	W	Most soils.
Vitex negundo		D	M-T	M	8		Light soil, sunny position. Seed a condiment. Tea, insect repellent, basketry, medicinal.
Weigela florida	Weigela	D	M	M	5		Rich soil, sun or part shade.

TREES AND SHRUBS FOR SHELTERBELTS

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Abies procera	Noble fir	E	T	M	5	W	Prefers a good moist soil but tolerates poor mountain peats. Dislikes atmospheric pollution.
Acacia longifolia	Sallow wattle	E	M	M	8	W	Most soils, sunny position. Tolerates some lime Edible seed and pods-cooked. Soil stabilizer.

Acer negundo	Box elder	D	M-T	M	2	W	Moist well drained soil, sunny position. Edible sap.
Acer platanoides	Norway maple	D	M-T	M	3	W	Moist well drained soil. Edible sap. Dye.
Acer pseudo-platanus	Sycamore	D	T	M-F	5	M	Most soils. Can be wind-shaped. Edible sap. Medicinal.
Acer saccharinum	Silver maple	D	M-T	M-F	3	W	Moist well drained soil. Edible sap and inner bark. Dye, ink.
Alnus cordata	Italian alder	D	T	F	6	M	Succeeds in drier soils than most alders. Lime tolerant.
Alnus glutinosa	Alder	D	M-T	F	3	M	See hedge list.
Alnus rubra	Red alder	D	T	F	6	M	Most soils. Very quick to establish. Edible buds, sap and catkins. Red dye.
Amelanchier alnifolia	Service berry	D	S	M	2	W	Moist well drained soil, sunny position. Lime tolerant. Edible fruit. Tea. Soil stabilisation.
Amelanchier canadensis	Juneberry	D	M	M	4	W	See hedge list.

Araucaria araucana	Monkey puzzle	E	T	S	8	M	Deep moist soil. Best in moister areas of Britain. Dislikes air pollution. Edible seed. Medicinal.
Arbutus unedo	Strawberry tree	E	S-M	M	7	M	Moist soils, lime tolerant. Sunny position. Resents root disturbance. Edible fruit. Tannin.
Arctostaphyllos manzanita	Manzanita	E	S	S	8	M	Sunny well drained lime free soil. Edible fruit. Brown dye.
Buddleia davidii	Butterfly bush	D	S	M-F	5	W	Most soils, sunny position. Dyes.
Bumelia lanuginosa	Chittamwood	D	M	S-M	6	M	Well drained soil, warm sunny position. Edible fruit. Gum-used for chewing.
Castanea sativa	Sweet chestnut	D	T	S-M	5	M	Most soils, but dislikes lime. Edible seed. Hair shampoo, tannin, medicinal.
Cedrus deodara	Deodar	E	T	M	5	W	Most well drained soils, sunny position. Medicinal.

Celtis occidentalis	Sugarberry	D	T	S	2	W	Most soils, drought resistant. Edible fruit and seed. Dye.
Chamaecyparis lawsoniana	Lawson`s cypress	E	T	F	6	W	See hedge list.
Clematis flammula		D	S-M	M	6	W	Dislikes heavy clay or sandy soils. Lime tolerant. Edible young shoots-cooked? Probably toxic.
Cordyline australis	Cabbage palm	E	S-M	S	8	M	Well drained soils. Edible roots, shoots and pith-cooked. Fructose from stem and roots. Fibre.
Cornus capitata	Bentham`s cornel	D	M	M	8	M	Most soils. Edible fruit.
Correa alba	Botany bay tea tree	E	S	S	9	M	Peaty soil, sunny position. Tea.
Crataegus spp.	Hawthorns	D	M	M-F	5	W	Most soils. Edible fruit and young leaves. Most species can be used other than C. apiifolia and C. spathulata.
Cryptomeria japonica	Japanese cedar	E	T	M	6	W	Most soils, doing best in W. Britain. Incense.
Cupressocyparis leylandii	Leyland cypress	E	T	F	7	M	See hedge list.
Cupressus macrocarpa	Monterey cypress	E	T	F	8	M	See hedge list.

Eucalyptus coccifera	Snow gum	E	M	M	8	W	Deep well drained soil, sunny position. Dyes.
Eucalyptus johnstonii	Yellow gum	E	T	M-F	8	M	Deep well drained soil, sunny position.
Eucalyptus niphophylla	Snow gum	E	S-M	S	7	M	Deep well drained soil, sunny position. Essential oil.
Eucalyptus pauciflora	Ghost gum	E	M-T	M	7	M	Deep well drained soil, sunny position.
Fraxinus excelsior	Ash	D	T	F	4	M	Prefers deep soils, succeeding on chalk. Can be wind shaped. Edible seed. Dye, medicinal, string.
Fraxinus pensylvanica	Red ash	D	M-T	M-F	4	W	Most soils. Tolerates urban pollution. Edible inner bark. Medicinal.
Ilex opaca	American holly	E	M	S-M	5	W	Most soils if not waterlogged. Dislikes root disturbance. Tea.
Juniperus communis	Juniper	E	M	S-M	6	M	Most soils. Edible fruit-a flavouring. Incense, fumigant, insect repellent, varnish, tea, medicinal.

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Larix decidua	Larch	D	T	F	4	M	Well drained soils, dislikes chalk or peat. Edible inner bark. Resin, tannin, medicinal.
Maclura pommifera	Osage orange	D	M	M	5	W	See hedge list.
Morus alba	White mulberry	D	M	M	4	W	Good soil, sunny position. Var. "Tartarica"is used. Edible fruit and young leaves. Dye, fibre.
Picea abies	Norway spruce	E	T	F	4	W	Damp well drained soil. Dislikes lime. Sunny position. Pitch, essential oil, varnish, medicinal.
Picea glauca	White spruce	E	T	M	2	W	Damp well drained soil, tolerating poor peats. Var. "denstat"is used. Edible young leaves. Tea.
Picea mariana	Black spruce	E	M	S	2	W	Prefers deep moist soils. Short-lived. Edible catkins, inner bark and gum from bark. Tea, dye.

Picea pungens	Blue spruce	E	T	M	3	W	Tolerates poor peaty soils. Prefers a cold dry high mountain site. Edible cones. Tea.
Picea sitchensis	Sitka spruce	E	T	F	7	M	Thrives in acid soils. Requires cool wet summers. Sunny position. Edible shoots and cones. Tea.
Pinus balfouriana	Foxtail pine	E	T	S	5	W	Sunny well drained soil.
Pinus contorta	Shore pine	E	S-M	M-F	7	M	Sunny position. Tolerates water-logged soils. Edible sap and inner bark. Pitch medicinal.
Pinus flexilis	Limber pine	E	T	M	3	W	Sunny well drained soil. Edible seed and inner bark.
Pinus halepensis	Aleppo pine	E	M-T	M	8	W	Sunny well drained soil, tolerating chalk. Tannin, resin.
Pinus mugo	Mountain pine	E	S	M	3	M	Sunny position. Tolerates poor soils. Stabilizes sandy soils. Medicinal.
Pinus muricata	Bishop pine	E	T	F	8	M	Sunny well drained soil, doing well on barren acid sandy soils.

Pinus nigra	Black pine	E	T	F	5	M	Succeeds on chalk. Sunny well drained soil. Resin, turpentine.
Pinus peuce	Balkan pine	E	T	M	5	W	Sunny well drained soil.
Pinus pinaster	Maritime pine	E	T	F	8	M	Sunny well drained soil. Soil stabilizer. Resin.
Pinus ponderosa	Ponderosa pine	E	T	M-F	4	W	Sunny well drained soil. Edible seed, inner bark. Dye, strewing herb, insulation.
Pinus radiata	Monterey pine	E	T	F	8	M	Sunny well drained soil.
Pinus sylvestris	Scots pine	E	T	M	2	M	Sunny well drained soil. Edible inner bark. Resin, essential oil, dye, candles from roots.
Pinus thunbergii	Japanese pine	E	T	F	6	W	Sunny well drained soil. Edible inner bark. Soil stabilizer. Medicinal.
Platanus occidentalis	Western plane	D	T	F	5	W	Sunny position. Tolerates drought, air pollution and compacted soils. Disease-prone. Edible sap.
Populus alba	White poplar	D	T	M-F	3	M	Deep fertile well drained soil. Edible leaves, inner bark. dye, medicinal.

Populus x. canadensis	Canadian poplar	D	T	F	4	W	Deep fertile well drained soil.
Populus x. canescens	Grey poplar	D	T	F	4	M	Deep fertile well drained soil.
Populus deltoides	Cottonwood	D	T	F	2	W	Deep fertile well drained soil. Edible inner bark and young buds. Soil stabilization.
Populus nigra	Black poplar	D	T	F	2	W	Deep fertile well drained soil. Cork substitute, medicinal.
Populus tremula	Aspen	D	T	F	2	M	Moist including heavy cold and damp soils. Edible inner bark. Medicinal.
Prunus cerasifera	Cherry plum	D	M	M	4	W	See hedge list.
Prunus insititia	Damson	D	S-M	M	5	W	See hedge list.
Prunus maritima	Beach plum	D	S	M	3	M	Well drained soil, preferring chalk. Sunny position. Edible fruit. Soil stabilization.
Prunus spinosa	Sloe	D	S	M	4	M	See hedge list.

Botanical name	Common name	Deciduous/ Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Pseudotsuga menziesii	Douglas fir	E	T	M-F	7	W	Best in a good moist soil, dislikes chalk. Cork substitute, insecticide, tannin, tea, dye, resin.

Pyracantha angustifolia	Firethorn	E	S	M	7	W	Well drained soil, sun or semi-shade. Succeeds on chalk.
Quercus ilex	Holm oak	E	T	S-M	7	M	See hedge list.
Quercus suber	Cork oak	E	T	S-M	8	M	Prefers a deep fertile soil. Cork.
Rhus typhina	Stags horn sumach	D	M	M-F	3	W	Most soils including poor ones. Edible fruit, lemonade-like drink. Dye, tannin. Soil stabilization. R. copallina and R. glabra can also be used.
Salix acutifolia		D	M	F	5	M	Most soils if moist. Sunny position. Sand stabilizer, basketry.
Salix alba	White willow	D	T	F	2	M	See hedge list.
Salix "Bowles hybrid"	Bowle`s willow	D	T	F	4	M	See hedge list.
Salix brachycarpa		D	S	M	4	M	Most soils if moist. Sunny position.
Salix caprea	Goat willow	D	M	F	5	M	See hedge list.
Salix daphnoides	Violet willow	D	M	F	5	M	Most soils if moist. Sunny position. Edible inner bark and catkins. Sand stabilizer, basketry.

Salix hookeriana		D	S	M	6	M	Most soils if moist. Sunny position. Sand stabilizer, string from bark.
Sorbus aria	Whitebeam	D	M	M	5	M	Most soils. Sunny position. Edible fruit-bletted. Medicinal.
Sorbus aucuparia	Rowan	D	M-T	M	2	W	Prefers a cool moist position. Edible fruit, oil from seed. Tea, dye, medicinal.
Sorbus intermedia		D	M	M	5	M	See hedge list.
Tamarix africana	Tamarisk	D	M	M	8	M	Most soils, preferring a good deep loam when inland.
Tamarix gallica	Manna plant	D	S	M	5	M	See hedge list.
Tamarix parviflora	Tamarisk	D	S-M	M	5	M	Most soils, preferring a good deep loam when inland.
Tamarix ramosissima	Tamarisk	D	S-M	M	2	M	Most soils, preferring a good deep loam when inland. Edible manna.
Thuja plicata	Western red cedar	E	T	M-F	6	W	See hedge list.
Tilia americana	American lime	D	T	M	3	W	Prefers a fertile neutral to alkaline soil.

Ulmus spp.	Elms	D	M-T	M-F	5	M	U. glabra, U. parvifolia, U. procera and U. pumila are good wind-resistant trees but are susceptible to Dutch elm disease.

KEY

D = DECIDUOUS E = EVERGREEN

HEIGHT:- S = SMALL (TO 4ft FOR HEDGES, 20ft FOR TREES.) M = MEDIUM (TO 6ft FOR HEDGES, 50ft FOR TREES.) T = TALL (OVER 6ft FOR HEDGES, OVER 50ft FOR TREES.)

RATE OF GROWTH:- S = SLOW M = MEDIUM F = FAST

WIND RESISTANCE:- W = TOLERATES WINDY SITES M = TOLERATES MARITIME EXPOSURE

HARDINESS ZONES 1(HARDIEST) TO 10:- MOST OF BRITAIN IS IN ZONE 7 OR 8 WITH SOME UPLAND AND NORTHERN AREAS BEING COLDER WHILST WESTERN AND SOUTHERN COASTAL AREAS ARE MILDER.

When using this list it is important to remember that it can only contain a small portion of the information we hold on each plant. You are strongly advised to seek more information on any plant before making use of it in the manner suggested. This is especially important with any of the comments on edibility. Information sheets on individual species can be obtained from Plants For A Future, they cost 10p each to produce.

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Checklist of plants suitable for hedging and windbreaks.

A more readable version is also available. The data here is TAB-deliminated to allow it to be imported into a database.

See below for

- Tress and Shrubs For Shelterbelts
- Key to symbols.

Botanical name	Common name	Deciduous/Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Acer campestre	Field Maple	D	M-T	M	4		Most soils. Leaves preserve fruit. Medicinal.
Ailanthus altissima	Tree of heaven	D	T	F	6		Tolerates most soils and conditions including pollution. Insect repellant, medicinal, soil stabilization, yellow dye. Leaves are said to be edible but slightly toxic.
Alnus glutinosa	Alder	D	M-T	F	3	M	Prefers a moist soil. Ink , dyes, tannin, medicinal.
Amelanchier canadensis	Juneberry	D	M-T	M-F	4	W	Moist well drained lime free soil, sunny position. Edible fruit.
Arundo donax	Giant reed	Grass	M-T	F	6		Moist soil esp by water. Edible rhizome. Basketry, plant supports, erosion control, medicinal.
Atriplex canescens	Salt bush	E	M-T	M	7	M	Well drained soil in full sun. Resists fire. Edible leaves-salty. Edible seed.
Atriplex halimus	Salt bush	E	M	M	8	M	As above.
Aucuba japonica	Spotted laurel	E	M	M	7	M	Most soils sun or shade. Tolerates smoke. Leaves are said to be a famine food.
Baccharis halimifolia	Bush groundsel	D	M-T	M	5	M	Any soil.
Baccharis patagonica		E	M	S-M	8	M	Any soil
Bambusa multiplex	Bamboo	E	M-T	M	9		Rich moist soil, sheltered position. Edible shoots. Fibre for paper.
Berberis amurensis	Barberry	D	M	M	6		Most soils
Berberis darwinii	Barberry	E	M	S-M	7	M	Most soils. Edible fruit. Yellow dye, medicinal.
Berberis gagnepainii	Barberry	E	M	S-M	5		Most soils.
Berberis soulieana	Barberry	E	M	M	6		Most soils.
Berberis x stenophylla	Barberry	E	M	S-M	5	M	Most soils. Edible fruit.
Berberis thunbergii	Barberry	D	M	M	4		Most

soils. Edible fruit and leaves, not at all nice. Yellow dye, medicinal.

Berberis verruculosa	Barberry	E	M	S-M	5		Most soils.
Berberis vulgaris	Common barberry	D	M	M	3		Most soils. Alternate host of black stem rust of cereals. Edible fruit, tea.
Bupleurum fruticosum		E	M	M	7	M	Well drained soil.
Bursaria spinosa	Christmas bush	E	M	S	8		Well drained moisture retentive soil. Used in suntan lotions to protect from U. V. light.
Buxus sempervirens	Box	E	S-T	S	5		Most soils, sun or semi shade. Resists honey fungus. Medicinal.
Ceasalpinia decapetala		D	M	S	8		Sheltered sunny position in well drained soil. Tannin, medicinal.
Callistemon citrinus	Bottlebrush	E	M	M	9		Sheltered position. Tea. Tan & cinnamon dyes. C. sieberi & C. viridiflorus can also be used.
Calluna vulgaris	Ling	E	S	S	4		Dry acid soil, sunny position. Basketry, thatching, brooms, yellow dye, tea, medicinal, fuel.
Caragana arborescens	Siberian pea shrub	D	M-T	M	2		Sunny position, well drained soil. Edible seed and young pods cooked. Erosion control, dye.
Caragana brevispina		D	M	M	6		Sunny position, well drained soil. Edible seed, cooked. Erosion control.
Carpinus betulus	Hornbeam	D	M-T	M	5		Most soils. Yellow dye, medicinal.
Ceanothus thyrsiflorus	Blueblossom	E	M-T	F	8	M	Sunny position. Slow to establish. Soap from flowers, green dye.
Cedrus libani atlantica	Atlas cedar	E	T	M	5		Most soils. Medicinal.
Celastrus orbiculatus	Bittersweet	D	T	M	4		Deep rich loamy soil. Edible young leaves-cooked. Medicinal.
Chaenomeles speciosa	Japanese quince	D	M	M	5		Most soils, sun or semi shade. Edible fruit. Medicinal.
Chamaecyparis lawsoniana	Lawsons Cypress	E	T	F	6	W	Most soils. Resin
Choisya ternata	Mexican orange	D	M-T	M	7		Light soils.
Colletia armata		D	M-T	S	8	M	Sandy well drained soil, sun or light shade.
Cornus mas	Cornelian cherry	D	T	M	5		Most soils sunny position. Edible fruit. Oil, dye.
Cornus sanguinea	Dogwood	D	M-T	M	5		Most soils. Oil, basketry, grey-blue dye. The fruit is said to be edible but you are welcome to it!
Corokia x. virgata		E	M-T	M	8		Most soils, well drained.
Corylus avellana	Hazel nut	D	M-T	M	4		Most soils. Edible seed, oil. Basketry, wood polish, hurdles. Named varieties can also be used.
Corylus maxima	Filbert	D	M-T	M	4		As above.
Cotoneaster spp.	Cotoneaster	E	M-T	M	5-7		Most soils. Several species can be used inc;- C. "Cornubia", C. divaricatus, C. franchetii, C. frigidus, C. glaucophyllus, C. lacteus, C. simonsii & C. wardii.
Crataegus monogyna	Hawthorn	D	M-T	M-F	5	M	Most soils. Edible fruit, young shoots. Tea, coffee, medicinal. Also C. laevigata, C. mollis, C. sanguinea, & C. submollis.
Cupressocyparis leylandii	Leyland cypress	E	T	F	7	M	

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Most soils.
Cupressus macrocarpa    Monterey cypress        E       T       F       8       M
Most soils but not shallow. Var. "Lutea" is hardier.

Drimys lanceolata       Mountain pepper E       M-T     S-M     8               Semi
shade. Dioecious. Fruit is a pepper substitute. Medicinal.

Elaeagnus angustifolius Oleaster        D       M-T     M-F     2       W
Prefers well drained soils. Resists drought and honey fungus. Fixes nitrogen. Edible
fruit. Gum.
Elaeagnus commutata     Silverberry     D       M       M       2       M       Light
soil, sunny position. Resists drought and honey fungus. Fixes nitrogen. Edible fruit.
Fibre.
Elaeagnus x. ebbingei           E       M-T     M-F     6       M       Best in not
too rich a soil, tolerates shade. Fixes nitrogen. Edible fruit, produced in
April/May.
Elaeagnus glabra                E       M-T     M       8       M       Most soils,
fixes nitrogen. Very shade tolerant, will eventually climb into trees. Edible fruit.
Elaeagnus macrophylla           E       M-T     M       8       M       As
E. glabra.
Elaeagnus multiflora    Goumi   D       M-T     M       6       M       As
E. angustifolius. Tolerates air pollution.
Elaeagnus pungens               E       M-T     M       7       M       As
E. glabra.
Elaeagnus x. reflexa            E       M-T     M       7       M       As
E. glabra.
Elaeagnus umbellata             D       M-T     M       3       M       As
E. angustifolius. Edible fruit and seed.
E. u. parviflora                D       M-T     M       3       M       As above but
said to have a superior fruit.
Eleutherococcus sieboldiana             D       M-T     M       4               Well
drained humus rich soil, sunny position. Tolerates urban pollution. Edible leaves.
Tea.
Erica x. darleyensis    Heather E       S       M       6               Prefers a
light peaty soil but tolerates chalk.
Erica x. veitchii       Heather E       S-M     M       8               Light peaty
soil.
Escallonia spp.         Escallonia      E       M-T     F       7-9     M
Sunny, most soils. Many forms incl:-  E. "Alice",  E. "Apple blossom",  E. " C. F.
Ball",  E. compacta coccinea,  E. "Crimson spire",  E. "Donard gem",  E. "Donard
seedling",  E. "Edinensis",  E. x. exoniensis,  E. "Glasnevin hybrid",  E. "Ingrami",
E. "Iveyi",  E. laevis,  E. "Langleyense",  E. "Pink pearl",  E. "Pride of donard",
E. pulverulenta,  E. "Red hedger",  E. rosea,  E. rubra macrantha,  E. "St. Keverne",
E. "Slieve donard",  E. "William Watson".
Eucryphia lucida        Leatherwood     E       M-T     M       8               Most
soils preferably lime-free. Dislikes cold winds. Sun or semi-shade. Medicinal.
Eucryphia x. nymensensis                E       M-T     M       7               Most
soils preferably lime-free. Dislikes cold winds. Full sun only if soil is moist.
Euonymous alatus        Spindle D       M       M       3               Most soils if
well drained. Medicinal, tea. Edible leaves and fruit???I have my doubts on this
report.
Euonymous fortunei              E       S       M       5               Most soils
sun or shade.
Euonymous japonicus     Japanese Spindle        E       M-T     M-F     7       M
Well drained soil, sun or shade. Hosts sugar beet fly. Rubber from root and stems.

Fagus sylvatica Beech   D       M-T     S-M     5       W       Most soils except
heavy and wet. Edible young leaves, seed and oil. Medicinal.
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Forsythia x. intermedia         D       M-T     M       5               Well drained
preferably rich soil.
Fuchsia magellanica     Fuchsia D       M-T     M       6       M       Most soils.
Often cut back to base in cold winters. Var. "Ricartonii"is hardier. Dye, medicinal.

Garrya elliptica                E       M-T     M       8       M       Most well
drained soils, not rich. Resents root disturbance. Grey to black dye, medicinal.
Gaultheria mucronata            E       S       M       6               Light peaty
acid soil, sunny position. Edible fruit?
Genista hispanica       Spanish gorse   D       S       M       6               Sunny
position in dry not rich soils. Resents root disturbance.
Griselinia littoralis           E       M-T     M       7       M       Light rich
soil, chalk tolerant. Edible fruit with a bitter flavour.

Hakea sericea           E       M       M       9       W       Moist well drained
soil. Gum-similar to gum tragacanth.
Hebe brachysiphon               E       S-M     M       7               Sunny, well
drained.
Hebe dieffenbachii              E       S-M     M       9               Sunny, well
drained.
Hebe x. franciscana             E       S-M     M       7       M       Light well
drained soil on poor side, chalk tolerant.
Hebe speciosa           E       S-M     M       7       M       As above.
Helichrysum italicum    Curry plant     E       S       M       8       W       Well
drained soil, sunny position. Leaves a flavouring.
Hibiscus syriacus       Mallow  D       M       M       5               Most well
drained soils, sunny position. Edible leaves, flowers, oil. Tea, fibre, hair shampoo.
Hippophae rhamnoides    Sea buckthorn   D       M-T     M       3       M       Most
soils, sunny position. Fixes nitrogen. Edible fruit, very acid. Dyes, medicinal.
Hydrangea macrophylla   Hydrangea       D       M       M       5               Well
drained moist soil.
Hydrangea serrata       Hydrangea       D       M       M       6               Well
drained moist soil. Edible leaves, sweet in ssp. amagiana and thunbergii.
Hymenanthera dentata            E       M-T     M       9               Well drained.
Purple dye.
Hypericum forrestii             D       S-M     M       5               Most soils.
Hypericum patulum               E       S       M       6               Most soils.
Hyssopus officinalis    Hyssop  E       S       M       3               Prefers light
dry calcareous soil and a sunny position. Flavouring. Tea, medicinal.

Ilex x. altaclarensis   Holly   E       M-T     S       6       M       Most soils.
Ilex aquifolium Holly   E       M-T     S       6       M       Most soils, not dry.
Full sun to heavy shade. Medicinal.

Laurus nobilis  Bay tree        E       M       S       8               Well drained
fertile soil in full sun. Flavouring.
Lavandula angustifolia  Lavender        E       S       M       5       M       Light
dry warm soil, sunny position. Flavouring. Insect repellent, essential oil,
medicinal.
Lavandula latifolia     Lavender        E       S       M       7       M       As
above.
Leptospermum laevigatum         E       M-T     M       9       M       Most soils.
Sand binder.
Leptospermum scoparium  Tea tree        E       M-T     M       8       W       Most
soils. Tea, green dye, insect repellent.
Ligustrum delavayanum           E       M-T     M       7               Most soils,
sun or shade.
Ligustrum lucidum       Chinese privet  E       M-T     M       7               Most
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soils, tolerates shade and drought. Medicinal.
Ligustrum ovalifolium Privet E M-T M 5 M Most soils, sun or shade.
Ligustrum vulgare Privet D M M 4 M Most soils, tolerates drought and shade. Basketry, ink dyes, medicinal.
Lonicera nitida E S-M M-F 7 Most soils.
Lonicera xylosteum D M-T M 3 Most soils.
Luma apiculata Temu E M-T S-M 8 W Most well drained soils. Edible fruit.
Lycium barbarum Boxthorn E M S-M 6 M Sunny position, well drained soil. Edible fruit and shoots. Medicinal.
Lycium chinense Boxthorn E M S-M 6 M As above.

Maclura pommifera Osage orange D M-T M 5 W Most soils, sunny position. Food preservative, insect repellent, tannin, yellow dye.
Mahonia aquifolia Oregon grape E S-M M 5 Most soils, sun or heavy shade. Edible fruit, dyes, medicinal.
Mahonia trifoliolata E M S-M 7 Most soils preferably hot and dry. Edible fruit. Dyes, ink, tannin.
Metasequoia glyptostroboides D T M-F 6 Most soils but slow in dry sandy soils or shallow chalk. Soil stabilization.
Miscanthus sacchariflorus Grass M-T M-F 8 M Most soils, not dry. Dies down in winter.
Muehlenbeckia complexa Maidenhair vine D M-T M 8 M Well drained soil in sun or semi-shade. Dioecious. Edible fruit.
Myrtus communis Myrtle E M-T S-M 8 W Most well drained soils. Flavouring. Essential oil, medicinal.

Olearia spp. Daisy bush E M-T M 8 M Most soils. Many species incl;- O. aviceniifolia, O. x. haastii, O. illicifolia, O. macrodonta, O. solandri, O. traversii and O. virgata.
Orixa japonica D M M 6 W Any soil, sun or shade. Edible young leaves-spicy.
Osmanthus x. burkwoodii E M-T S 6 Most soils esp chalk. Other species include:- O. decorus, O. delavayi and O. heterophyllus.

Paliurus spina-christi Christ`s thorn D M-T M 8 Most well drained soils, full sun.
Perovskia atriplicifolia D S-M 6 M Well drained soils including chalk. Sunny position.
Philadelphus coronarius Mock orange D M M 5 Most soils incl chalk. Sunny. Also:- P. delavayi, P. pubescens, P. purpurascens & P. x. virginalis.
Phillyrea latifolia E M-T S 7 M Most soils. Edible fruit?Medicinal.
Phormium tenax New Zealand Flax E M-T M 8 M Most soils, preferably moist. Edible gum, nectar. Fibre, basketry, glue, dyes, tannin, coffee sub.
Photinia davidiana E M-T F 8 Fertile well drained soil in a sheltered sunny position.
Photinia x. fraseri E T M 8 As above. Succeeds on chalk.
Pittosporum crassifolium Karo E M-T M 9 M Most soils. Dark blue dye, saponins. Soil stabilization.
Pittosporum ralphii E M-T M 9 M Most soils.
Pittosporum tenuifolium Kohuhu E M-T M 9 M Most soils. Edible gum. Foliage in flower arranging.
Pittosporum tobira Tobira E S M 9 Well drained

							soil, sun or semi-shade.
Pittosporum undulatum	Cheesewood	E	M-T	M	9	M	Most soils.
Pleioblastus hindsii	Bamboo	E	M-T	M	7		Most soils, not dry. Prefers shade. Edible young shoots. Plant supports.
Pleioblastus simonii	Medake	E	M-T	M-F	6	M	As above.
Poncirus trifoliata	Bitter orange	E	M-T	M	5		Most soils, sunny position. Edible fruit-a conserve. Medicinal.
Potentilla fruticosa	Cinquefoil	D	S	M	5		Most soils, preferably light, well drained. Tea, tinder, soil stabilization.
Prinsepia utilis		D	M-T	M	5		Light soil, sunny position. Edible fruit, oil. Medicinal.
Prumnopitys andina	Plum-fruited yew	E	M-T	S-M	8		Most soils, sheltered position. Edible fruit-tastes like a grape. Edible seed.
Prunus caroliniana	Laurel cherry	E	M	M	7		Well drained soil in sun or shade. Edible fruit.
Prunus cerasifera	Cherry plum	D	T	M-F	4	W	Well drained, preferably with chalk. Sunny. Edible fruit.
Prunus cerasus	Sour cherry	D	T	M-F	3		Most well drained soils, preferably acid. Edible fruit, oil, gum. Tea.
Prunus x. cistena		D	M	M	3		Well drained soils including chalk, sunny position.
Prunus incisa	Fuji cherry	D	M-T	M	6		Well drained soils including chalk, sunny position.
Prunus insititia	Damson	D	T	M	5	W	Most soils incl chalky, sunny position. Edible fruit. Medicinal.
Prunus laurocerasus	Cherry laurel	E	T	M	7	W	Most soils, dislikes shallow chalk. Shade tolerant. Edible fruit if fully ripe. Almond flavouring.
Prunus lusitanica	Portuguese laurel	E	T	M	7		Most soils, sun or shade. Susceptible to silver leaf disease.
Prunus spinosa	Sloe	D	M-T	M	4	M	Most well drained soils. Edible fruit-very acid. Ink, tea, dye medicinal.
Pseudosasa japonica	Bamboo	E	T	M	6	M	Most soils. Edible young shoots. Plant supports, medicinal.
Pyracantha spp.	Firethorn	E	M-T	M	6-8	W	Most soils. Susceptible to fireblight. Species include:- P. coccinea, P. rogersiana, P. "Wateri".
Quercus ilex	Holm oak	E	T	S-M	7	M	Most soils except cold poorly drained. Edible seed, oil. Slug repellent, tannin.
Quercus petraea	Oak	D	T	S-M	4	M	Most soils. Edible seed-coffee substitute. Slug repellent, tannin.
Quercus robor	Oak	D	T	S-M	6	M	As above.
Rhamnus alaternus		E	M	M	7		Well drained
Rhamnus catharticus	Buckthorn	D	M-T	M	3		Most soils preferably calcareous. Primary host of Oat crown rust. Dyes, medicinal.
Rhamnus dahuricus		D	M-T	M	5		Most soils. Tea, dye.
Rhamnus frangula	Alder buckthorn	D	M-T	M	6		Moist fairly fertile soil, sun or part shade. Dyes, medicinal.
Rhaphiolepis umbellata		E	M-T	M	8		Most well drained soils, sheltered position. Edible seed, a famine food. Brown dye.
Rhododendron spp.	Rhododendron	E	M-T	M	5-7		Lime free peaty well drained soil. Species incl:- R. lutescens, R. luteum, R. ponticum.
Ribes sanguineum	Flowering currant	D	M-T	M	6	M	Most soils. Edible fruit-can store 2 months but that does not make it any nicer!

Rosa acicularis		D	M	M	2		Most soils. Edible fruit, young shoots. Tea
Rosa glauca	Red leaved rose	D	M	M-F	2	W	Most soils
Rosa macrophylla		D	M-T	M-F	7		Most soils. Edible fruit.
Rosa multiflora		D	M-T	M-F	5	W	Most soils. Edible fruit, young shoots.
Rosa nutcana	Nootka rose	D	M	M	4		Most soils. Edible fruit. petals, young shoots. Tea.
Rosa rubiginosa	Eglantine	D	M-T	M-F	4		Most soils. Edible fruit, petals, young shoots. Tea, medicinal.
Rosa rugosa	Ramanas rose	D	M	M-F	2	M	Most soils. Edible fruit, petals. Tea, medicinal.
Rosa virginiana	Virginian rose	D	M	M	3	W	Most soils. Edible fruit, young shoots. Stabilizing sand dunes.
Salix alba	White willow	D	T	F	2	M	Prefers a stiff moist soil. Edible leaves. Basketry, medicinal.
Salix "Bowles hybrid"	Bowles willow	D	T	F	4	M	Prefers a stiff moist soil. Basketry.
Salix caprea	Goat willow	D	T	F	5	M	Most soils if moist. Basketry, leather substitute.
Salix lanata	Wooly willow	D	S-M	M	2	M	Most soils.
Salix purpurea	Purple osier	D	T	F	5	W	Most soils. Basketry, medicinal.
Sambucus nigra	Elder	D	M-T	F	5	M	Most soils. Edible fruit-cooked-and flowers. Insect repellent, tea, medicinal.
Santolina neopolitanum		E	S	M	7		Sunny position, poor soil.
Santolina rosmarinifolius	Holy flax	E	S	M	7		As above.
Sasa palmata	Bamboo	E	M	M	7		Moist well drained loam. Plant supports.
Semiarundinaria fastuosa	Bamboo	E	T	M	7		Moist well drained loam, sheltered position. Edible young shoots. Plant supports.
Senecio spp.		E	M-T	S-M	8	M	Most soils. Species incl:- S. greyi, S. laxifolius, S. monroi, S. reinoldii, S. "Sunshine".
Shepherdia argentea	Buffalo berry	D	M-T	M	2	W	Most soils, drought resistant. Edible fruit. Red dye.
Sinarundinaria nitida	Bamboo	E	T	M	5		Moist well drained loam, best in semi shade. Plant supports.
Smilax aspera	Sarsaparilla	E	M-T	M	9		Most soils. Edible young shoots. Root used in soft drinks. Dye, medicinal.
Sorbus intermedia		D	M-T	M	5	M	Most well drained soils, preferably moist. Sunny position. Edible fruit.
Spartium junceum	Spanish broom	D	M-T	F	8	M	Most soils, preferably lime free. Basketry, fibre, dye, essential oil, medicinal.
Spiraea spp.		D	M	M	4-5		Most moist soils, sunny position. Species include:- S. x. arguta, S. japonica and S. thunbergii.
Symphoricarpus albus laevigatus		D	M-T	M-F	3	W	Most soils and situations. Invasive. Edible fruit?Besom. Other species can also be used.
Syringa vulgaris	Lilac	D	M-T	M-F	5		Most soils, warm sunny position. Essential oil, dye, medicinal.
Tamarix gallica	Tamarisk	D	T	M	5	M	Most soils. Edible manna. Medicinal. Also T. africana, T. parviflora and T. ramosissima.
Taxus baccata	Yew	E	M-T	S-M	6	W	Most soils, sun or shade. Edible fruit-sweet. BEWARE:- ALL OTHER PARTS OF PLANT ARE POISONOUS.

Insecticide, incense, medicinal. Other species can also be used.

Thamnocalamus spathaceus		E	T	M	6		Moist well drained loam. Edible young shoots. Plant supports.
Thuja occidentalis	White cedar	E	T	S-M	2		Moist soil. Best in west of Britain. Tea, insect repellent, medicinal.
Thuja orientalis		E	M-T	S-M	6		Prefers a dry well drained soil. Often does not do well. Edible seed. Dye, medicinal.
Thuja plicata	Red cedar	E	M-T	M-F	6	W	Most soils except light, sandy. Edible inner bark. Fibre, basketry.
Tsuga heterophylla	Hemlock	E	T	M-F	6		Best in high rainfall areas in a deep well drained soil. Edible inner bark. Tea, tannin, resin, medicinal. Other species to use include:- T. canadensis, T. caroliniana, T. chinensis and T. mertensiana.
Ugni molinae	Ugni	E	M	S-M	8	W	Most well drained soils. Edible fruit. Tea.
Ulex europaeus	Gorse	E	M	F	6	M	Prefers a poor dry soil, sunny position. Soil stabilization, tea, dye, kindling.
Ulex parviflorus		E	M	M-F	7	M	As above.
Viburnum x. juddii		D	M	M	5		Dislikes poor dry soils.
Viburnum opulus	Guelder rose	D	M-T	M-F	3	W	Prefers moist soils. Edible fruit-best cooked. Red dye, medicinal. Ssp. americanum is said to have superior fruit.
Viburnum prunifolium	Black haw	D	M-T	M	3		Tolerates poor dry soils. Edible fruit.
Viburnum tinus	Laurustinus	E	M	F	7	W	Most soils.
Vitex negundo		D	M-T	M	8		Light soil, sunny position. Seed a condiment. Tea, insect repellent, basketry, medicinal.
Weigela florida	Weigela	D	M	M	5		Rich soil, sun or part shade.

Trees and Shrubs For Shelterbelts

Botanical name	Common name	Deciduous/Evergreen	Height	Growth rate	Hardiness	Wind	Notes
Abies procera	Noble fir	E	T	M	5	W	Prefers a good moist soil but tolerates poor mountain peats. Dislikes atmospheric pollution.
Acacia longifolia	Sallow wattle	E	M	M	8	W	Most soils, sunny position. Tolerates some lime Edible seed and pods-cooked. Soil stabilizer.
Acer negundo	Box elder	D	M-T	M	2	W	Moist well drained soil, sunny position. Edible sap.
Acer platanoides	Norway maple	D	M-T	M	3	W	Moist well drained soil. Edible sap. Dye.
Acer pseudo-platanus	Sycamore	D	T	M-F	5	M	Most soils. Can be wind-shaped. Edible sap. Medicinal.
Acer saccharinum	Silver maple	D	M-T	M-F	3	W	Moist well drained soil. Edible sap and inner bark. Dye, ink.
Alnus cordata	Italian alder	D	T	F	6	M	Succeeds in drier soils than most alders. Lime tolerant.
Alnus glutinosa	Alder	D	M-T	F	3	M	See hedge list.
Alnus rubra	Red alder	D	T	F	6	M	Most soils.

Very quick to establish. Edible buds, sap and catkins. Red dye.

Amelanchier alnifolia	Service berry	D	S	M	2	W	Moist well drained soil, sunny position. Lime tolerant. Edible fruit. Tea. Soil stabilisation.
Amelanchier canadensis	Juneberry	D	M	M	4	W	See hedge list.
Araucaria araucana	Monkey puzzle	E	T	S	8	M	Deep moist soil. Best in moister areas of Britain. Dislikes air pollution. Edible seed. Medicinal.
Arbutus unedo	Strawberry tree	E	S-M	M	7	M	Moist soils, lime tolerant. Sunny position. Resents root disturbance. Edible fruit. Tannin.
Arctostaphyllos manzanita	Manzanita	E	S	S	8	M	Sunny well drained lime free soil. Edible fruit. Brown dye.
Buddleia davidii	Butterfly bush	D	S	M-F	5	W	Most soils, sunny position. Dyes.
Bumelia lanuginosa	Chittamwood	D	M	S-M	6	M	Well drained soil, warm sunny position. Edible fruit. Gum-used for chewing.
Castanea sativa	Sweet chestnut	D	T	S-M	5	M	Most soils, but dislikes lime. Edible seed. Hair shampoo, tannin, medicinal.
Cedrus deodara	Deodar	E	T	M	5	W	Most well drained soils, sunny position. Medicinal.
Celtis occidentalis	Sugarberry	D	T	S	2	W	Most soils, drought resistant. Edible fruit and seed. Dye.
Chamaecyparis lawsoniana	Lawson`s cypress	E	T	F	6	W	See hedge list.
Clematis flammula		D	S-M	M	6	W	Dislikes heavy clay or sandy soils. Lime tolerant. Edible young shoots-cooked? Probably toxic.
Cordyline australis	Cabbage palm	E	S-M	S	8	M	Well drained soils. Edible roots, shoots and pith-cooked. Fructose from stem and roots. Fibre.
Cornus capitata	Bentham`s cornel	D	M	M	8	M	Most soils. Edible fruit.
Correa alba	Botany bay tea tree	E	S	S	9	M	Peaty soil, sunny position. Tea.
Crataegus spp.	Hawthorns	D	M	M-F	5	W	Most soils. Edible fruit and young leaves. Most species can be used other than C. apiifolia and C. spathulata.
Cryptomeria japonica	Japanese cedar	E	T	M	6	W	Most soils, doing best in W. Britain. Incense.
Cupressocyparis leylandii	Leyland cypress	E	T	F	7	M	See hedge list.
Cupressus macrocarpa	Monterey cypress	E	T	F	8	M	See hedge list.
Eucalyptus coccifera	Snow gum	E	M	M	8	W	Deep well drained soil, sunny position. Dyes.
Eucalyptus johnstonii	Yellow gum	E	T	M-F	8	M	Deep well drained soil, sunny position.
Eucalyptus niphophylla	Snow gum	E	S-M	S	7	M	Deep well drained soil, sunny position. Essential oil.
Eucalyptus pauciflora	Ghost gum	E	M-T	M	7	M	Deep well drained soil, sunny position.
Fraxinus excelsior	Ash	D	T	F	4	M	Prefers deep soils, succeeding on chalk. Can be wind shaped. Edible seed. Dye, medicinal, string.
Fraxinus pensylvanica	Red ash	D	M-T	M-F	4	W	Most soils.

Tolerates urban pollution. Edible inner bark. Medicinal.

Ilex opaca	American holly	E	M	S-M	5	W	Most soils if not waterlogged. Dislikes root disturbance. Tea.
Juniperus communis	Juniper	E	M	S-M	6	M	Most soils. Edible fruit-a flavouring. Incense, fumigant, insect repellent, varnish, tea, medicinal.
Larix decidua	Larch	D	T	F	4	M	Well drained soils, dislikes chalk or peat. Edible inner bark. Resin, tannin, medicinal.
Maclura pommifera	Osage orange	D	M	M	5	W	See hedge list.
Morus alba	White mulberry	D	M	M	4	W	Good soil, sunny position. Var. "Tartarica"is used. Edible fruit and young leaves. Dye, fibre.
Picea abies	Norway spruce	E	T	F	4	W	Damp well drained soil. Dislikes lime. Sunny position. Pitch, essential oil, varnish, medicinal.
Picea glauca	White spruce	E	T	M	2	W	Damp well drained soil, tolerating poor peats. Var. "denstat"is used. Edible young leaves. Tea.
Picea mariana	Black spruce	E	M	S	2	W	Prefers deep moist soils. Short-lived. Edible catkins, inner bark and gum from bark. Tea, dye.
Picea pungens	Blue spruce	E	T	M	3	W	Tolerates poor peaty soils. Prefers a cold dry high mountain site. Edible cones. Tea.
Picea sitchensis	Sitka spruce	E	T	F	7	M	Thrives in acid soils. Requires cool wet summers. Sunny position. Edible shoots and cones. Tea.
Pinus balfouriana	Foxtail pine	E	T	S	5	W	Sunny well drained soil.
Pinus contorta	Shore pine	E	S-M	M-F	7	M	Sunny position. Tolerates water-logged soils. Edible sap and inner bark. Pitch medicinal.
Pinus flexilis	Limber pine	E	T	M	3	W	Sunny well drained soil. Edible seed and inner bark.
Pinus halepensis	Aleppo pine	E	M-T	M	8	W	Sunny well drained soil, tolerating chalk. Tannin, resin.
Pinus mugo	Mountain pine	E	S	M	3	M	Sunny position. Tolerates poor soils. Stabilizes sandy soils. Medicinal.
Pinus muricata	Bishop pine	E	T	F	8	M	Sunny well drained soil, doing well on barren acid sandy soils.
Pinus nigra	Black pine	E	T	F	5	M	Succeeds on chalk. Sunny well drained soil. Resin, turpentine.
Pinus peuce	Balkan pine	E	T	M	5	W	Sunny well drained soil.
Pinus pinaster	Maritime pine	E	T	F	8	M	Sunny well drained soil. Soil stabilizer. Resin.
Pinus ponderosa	Ponderosa pine	E	T	M-F	4	W	Sunny well drained soil. Edible seed, inner bark. Dye, strewing herb, insulation.
Pinus radiata	Monterey pine	E	T	F	8	M	Sunny well drained soil.
Pinus sylvestris	Scots pine	E	T	M	2	M	Sunny well drained soil. Edible inner bark. Resin, essential oil, dye, candles from roots.
Pinus thunbergii	Japanese pine	E	T	F	6	W	Sunny well drained soil. Edible inner bark. Soil stabilizer. Medicinal.
Platanus occidentalis	Western plane	D	T	F	5	W	Sunny position. Tolerates drought, air pollution and compacted soils. Disease-prone. Edible sap.

Populus alba	White poplar	D	T	M-F	3	M	Deep fertile well drained soil. Edible leaves, inner bark. dye, medicinal.
Populus x. canadensis	Canadian poplar	D	T	F	4	W	Deep fertile well drained soil.
Populus x. canescens	Grey poplar	D	T	F	4	M	Deep fertile well drained soil.
Populus deltoides	Cottonwood	D	T	F	2	W	Deep fertile well drained soil. Edible inner bark and young buds. Soil stabilization.
Populus nigra	Black poplar	D	T	F	2	W	Deep fertile well drained soil. Cork substitute, medicinal.
Populus tremula	Aspen	D	T	F	2	M	Moist including heavy cold and damp soils. Edible inner bark. Medicinal.
Prunus cerasifera	Cherry plum	D	M	M	4	W	See hedge list.
Prunus insititia	Damson	D	S-M	M	5	W	See hedge list.
Prunus maritima	Beach plum	D	S	M	3	M	Well drained soil, preferring chalk. Sunny position. Edible fruit. Soil stabilization.
Prunus spinosa	Sloe	D	S	M	4	M	See hedge list.
Pseudotsuga menziesii	Douglas fir	E	T	M-F	7	W	Best in a good moist soil, dislikes chalk. Cork substitute, insecticide, tannin, tea, dye, resin.
Pyracantha angustifolia	Firethorn	E	S	M	7	W	Well drained soil, sun or semi-shade. Succeeds on chalk.
Quercus ilex	Holm oak	E	T	S-M	7	M	See hedge list.
Quercus suber	Cork oak	E	T	S-M	8	M	Prefers a deep fertile soil. Cork.
Rhus typhina	Stags horn sumach	D	M	M-F	3	W	Most soils including poor ones. Edible fruit, lemonade-like drink. Dye, tannin. Soil stabilization. R. copallina and R. glabra can also be used.
Salix acutifolia		D	M	F	5	M	Most soils if moist. Sunny position. Sand stabilizer, basketry.
Salix alba	White willow	D	T	F	2	M	See hedge list.
Salix "Bowles hybrid"	Bowle`s willow	D	T	F	4	M	See hedge list.
Salix brachycarpa		D	S	M	4	M	Most soils if moist. Sunny position.
Salix caprea	Goat willow	D	M	F	5	M	See hedge list.
Salix daphnoides	Violet willow	D	M	F	5	M	Most soils if moist. Sunny position. Edible inner bark and catkins. Sand stabilizer, basketry.
Salix hookeriana		D	S	M	6	M	Most soils if moist. Sunny position. Sand stabilizer, string from bark.
Sorbus aria	Whitebeam	D	M	M	5	M	Most soils. Sunny position. Edible fruit-bletted. Medicinal.
Sorbus aucuparia	Rowan	D	M-T	M	2	W	Prefers a cool moist position. Edible fruit, oil from seed. Tea, dye, medicinal.
Sorbus intermedia		D	M	M	5	M	See hedge list.
Tamarix africana	Tamarisk	D	M	M	8	M	Most soils, preferring a good deep loam when inland.

Tamarix gallica	Manna plant	D	S	M	5	M	See hedge list.
Tamarix parviflora	Tamarisk	D	S-M	M	5	M	Most soils, preferring a good deep loam when inland.
Tamarix ramosissima	Tamarisk	D	S-M	M	2	M	Most soils, preferring a good deep loam when inland. Edible manna.
Thuja plicata	Western red cedar	E	T	M-F	6	W	See hedge list.
Tilia americana	American lime	D	T	M	3	W	Prefers a fertile neutral to alkaline soil.
Ulmus spp.	Elms	D	M-T	M-F	5	M	U. glabra, U. parvifolia, U. procera and U. pumila are good wind-resistant trees but are susceptible to Dutch elm disease.

KEY

D = Deciduous E = Evergreen

Height:- S = Small (to 4ft for hedges, 20ft for trees), M = Medium (to 6ft for hedges, 50ft for trees), T = Tall (over 6ft for hedges, over 50ft for trees).

Rate of Growth:- S = Slow, M = Medium, F = Fast.

Wind Resistance:- W = Tolerates Windy Sites, M = Tolerates Maritime Exposure

Hardiness Zones 1 (hardiest) to 10. Most of Britain is in zone 7 or 8 with some upland and northern areas being colder whilst western and southern coastal areas are milder.

When using this list it is important to remember that it can only contain a small portion of the information we hold on each plant. You are strongly advised to seek more information on any plant before making use of it in the manner suggested. This is especially important with any of the comments on edibility. Information sheets on individual species can be obtained from Plants For A Future, they cost 10p each to produce.

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Plants For A Future: Database Search Results

Cupressocyparis leylandii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Leyland cypress	Family:	Cupressaceae
Author:	(Jacks. & Dallimore.) Dallimore.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	A bi-generic hybrid of garden origin. Cupressus macrocarpa x Chamaecyparis nootkatensis.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family

Physical Characteristics

An evergreen tree growing to 40m by 5m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge; Shelterbelt.

Plants can be grown as a windbreak hedge succeeding in very exposed positions and reasonably tolerant of maritime exposure[11, 75]. They can suffer wind burn after prolonged storms but usually recover quickly[75]. Very fast growing, it can be trimmed so long as it is not cut back into old wood[11, 200]. Only young plants should be used for shelterbelts in exposed positions and these must not be pot-bound or they will never become really wind firm[11]. This species has been much used for hedging in urban gardens but it is singularly unsuitable for this purpose[200]. Although it very quickly provides a screen, it is much too vigorous for most gardens and will need constant attention to keep it within bounds[200].

Cultivation details

An easily grown plant, it prefers a moist fertile soil but also succeeds in sandy soils[188] and tolerates calcareous conditions[245]. Very wind resistant, it tolerates salt-laden winds and maritime exposure[11].

A very fast growing tree, capable of reaching 20 metres within 20 years[185]. A number of different clones are available[185, 200].

The Leyland cypress has been widely planted for hedging in recent years, though it is singularly unsuited for this purpose in all but the largest of sites[200]. The plant has gained the reputation of being very bad for wildlife since it offers native species very little in the way of food. However, it is favoured by many birds for roosting, high cover and especially for nesting because it offers such good cover. Our 12 hectare site was totally devoid of trees when we took it over in 1989, five years later we had our first birds nesting in trees on the land - in 4 metre tall Leyland cypresses![K]. Large specimens of this tree help to attract songbirds to the garden[200].

The bruised foliage has a sweet resinous scent[245].

Trees are notably susceptible to honey fungus[200].

Propagation

Cuttings of half-ripe wood, 7cm with a heel, July/August in sandy soil in a humid frame[11]. Strikes readily.

Cuttings from side growths in March[11].

Scent

Leaves: Crushed

The bruised foliage has a sweet resinous scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Cupressocyparis leylandii*

Subject:

Cupressocyparis leylandii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Cupressocyparis leylandii

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Subject:

UK Gov site on wildlife

Group:
Links

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Pages in the PFAF site you would like this comment to be added to:

hedges.html

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Atriplex canescens

Common name:	Grey sage brush	Family:	Chenopodiaceae
Author:	(Pursh.) Nutt.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	No member of this genus contains any toxins, all have more or less edible leaves. However, if grown with artificial fertilizers, they may concentrate harmful amounts of nitrates in their leaves.		
Range:	Central and western N. America - South Dakota to Kansas, Texas, California and Mexico.		
Habitat:	Found mainly on dry saline soils[11, 60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. canescens ssp. linearis[B] A. canescens var. linearis[B,C,CAL] A. linearis[B] Calligonum canescens[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Chamiso [S], Four-Winged Saltbush [S], Four-wing Saltbush [DEN2,B], Four-winged Saltbush, Chamiso Blanco [S], Fourwing Saltbush [P,FEIS], Saltbush [E,S],
Epithets:	From a Dictionary of Botanical Epithets canescens = grayed;
Systematics:	From a UDSA Plants Database Order: Caryophyllales . Goosefoot family
Other Range Info:	From the Ethnobotany Database

	Mexico(Seri); Us(Navajo)

Physical Characteristics

An evergreen shrub growing to 1.8m by 1.8m . It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower in July, and the seeds ripen in August. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Colouring; Drink; Leaves; Seed.

Leaves - cooked or raw[85, 94. A very acceptable taste with a salty tang[K]. The leaves can be used at any time of the year though winter harvesting must be light because the plant is not growing much at this time of year[K].

Seed - cooked[46, 61]. Ground into a powder, mixed with cereals and used in making cakes etc or used as a piñole[94, 95, 183]. It is small and very fiddly to utilize[K]. The ground up seed can also be mixed with water and drunk as a refreshing beverage[183].

The burnt green herb yields culinary ashes high in minerals and these are used by the Hopi Indians to enhance the colour of blue corn products[183, 257]. The ashes can be used like baking soda[257].

Medicinal Uses

Disclaimer

Skin; Stings.

The leaves can be made into a soapy lather and used as a wash on itches and rashes such as chickenpox[257]. A poultice of the crushed leaves can be applied to ant bites to reduce the pain and swelling[257].

Other Uses

Dye; Fire retardant; Hedge; Potash.

A good hedge in maritime areas, it responds well to trimming[K].

The leaves and stems were burnt by the Hopi Indians and the alkaline ash used to maintain the blue colour when cooking blue corn[216].

A yellow dye is obtained from the leaves and stems[257].

The leaves can be made into a soapy lather and used as a hair wash[257].

The plant has fire-retardant properties and can be used for barrier plantings to control bush fires[200].

Cultivation details

Requires a position in full sun in any well-drained but not too fertile soil[11, 134, 200]. Tolerates saline and very alkaline soils[200]. Plants are very tolerant of maritime exposure, though they dislike wet climates[K]. Resents root disturbance when large. Succeeds in a hot dry position.

A very ornamental plant[60], though it is liable to succumb to winter wet when grown on heavy or rich soils[11, 200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow April/May in a cold frame in a compost of peat and sand. Germination usually takes place within 1 - 3 weeks at 13°c[134]. Pot up the seedlings when still small into individual pots, grow on in a greenhouse for the first winter and plant out in late spring or early summer after the last expected frosts.

Cuttings of half-ripe wood, July/August in a very sandy compost in a frame. Very easy. Pot up as soon as they start to root (about 3 weeks) and plant out in their permanent positions late in the following spring[K].

Cuttings of mature wood of the current season's growth, November/December in a frame. Very easy. Pot up in early spring and plant out in their permanent position in early summer[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hedges and their uses
- Winter Salads
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: A
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Atriplex canescens var. linearis* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

References for the family Chenopodiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Atriplex canescens

Carol Sat Apr 28 00:50:18 2001

Atriplex canescens is also highly rated in a Colorado study of plants that attract beneficial (to humans) insects. In particular, it attracts lacewings, ladybugs, and hoverflies.

And it tastes good, too? Since this plant is native to the drier parts of western North America, however, and since several web sites mention that different specimens can vary sufficiently to come close to being different species, I am hesitant to try it. Does anyone know where to buy seeds or plants of an explicitly good-tasting variety? And will this plant grow well in the eastern U.S.? (I am in south-central Indiana, with almost 40 inches of rain in an average year, and winter temperatures that occasionally get into the -20's F.

Cross references: *Web-pages:* Hedges and their uses.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Atriplex+canescens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Atriplex+canescens`

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Plants For A Future: Database Search Results

Atriplex canescens

Common name:	Grey sage brush	Family:	Chenopodiaceae
Author:	(Pursh.) Nutt.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	No member of this genus contains any toxins, all have more or less edible leaves. However, if grown with artificial fertilizers, they may concentrate harmful amounts of nitrates in their leaves.		
Range:	Central and western N. America - South Dakota to Kansas, Texas, California and Mexico.		
Habitat:	Found mainly on dry saline soils[11, 60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canescens ssp. linearis[B] A. canescens var. linearis[B,C,CAL] A. linearis[B] Calligonum canescens[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chamiso [S], Four-Winged Saltbush [S], Four-wing Saltbush [DEN2,B], Four-winged Saltbush, Chamiso Blanco [S], Fourwing Saltbush [P,FEIS], Saltbush [E,S],
Epithets:	From a Dictionary of Botanical Epithets
	canescens = grayed;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family
Other Range Info:	From the Ethnobotany Database
	Mexico(Seri); Us(Navajo)

Physical Characteristics

An evergreen shrub growing to 1.8m by 1.8m . It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower in July, and the seeds ripen in August. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Colouring; Drink; Leaves; Seed.

Leaves - cooked or raw[85, 94. A very acceptable taste with a salty tang[K]. The leaves can be used at any time of the year though winter harvesting must be light because the plant is not growing much at this time of year[K].

Seed - cooked[46, 61]. Ground into a powder, mixed with cereals and used in making cakes etc or used as a piñole[94, 95, 183]. It is small and very fiddly to utilize[K]. The ground up seed can also be mixed with water and drunk as a refreshing beverage[183].

The burnt green herb yields culinary ashes high in minerals and these are used by the Hopi Indians to enhance the colour of blue corn products[183, 257]. The ashes can be used like baking soda[257].

Medicinal Uses

Disclaimer

Skin; Stings.

The leaves can be made into a soapy lather and used as a wash on itches and rashes such as chickenpox[257]. A poultice of the crushed leaves can be applied to ant bites to reduce the pain and swelling[257].

Other Uses

Dye; Fire retardant; Hedge; Potash.

A good hedge in maritime areas, it responds well to trimming[K].

The leaves and stems were burnt by the Hopi Indians and the alkaline ash used to maintain the blue colour when cooking blue corn[216].

A yellow dye is obtained from the leaves and stems[257].

The leaves can be made into a soapy lather and used as a hair wash[257].

The plant has fire-retardant properties and can be used for barrier plantings to control bush fires[200].

Cultivation details

Requires a position in full sun in any well-drained but not too fertile soil[11, 134, 200]. Tolerates saline and very alkaline soils[200]. Plants are very tolerant of maritime exposure, though they dislike wet climates[K]. Resents root disturbance when large. Succeeds in a hot dry position.

A very ornamental plant[60], though it is liable to succumb to winter wet when grown on heavy or rich soils[11, 200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow April/May in a cold frame in a compost of peat and sand. Germination usually takes place within 1 - 3 weeks at 13°c[134]. Pot up the seedlings when still small into individual pots, grow on in a greenhouse for the first winter and plant out in late spring or early summer after the last expected frosts.

Cuttings of half-ripe wood, July/August in a very sandy compost in a frame. Very easy. Pot up as soon as they start to root (about 3 weeks) and plant out in their permanent positions late in the following spring[K].

Cuttings of mature wood of the current season's growth, November/December in a frame. Very easy. Pot up in early spring and plant out in their permanent position in early summer[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hedges and their uses
- Winter Salads
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: A
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Atriplex canescens var. linearis* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

References for the family Chenopodiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Atriplex canescens

Carol Sat Apr 28 00:50:18 2001

Atriplex canescens is also highly rated in a Colorado study of plants that attract beneficial (to humans) insects. In particular, it attracts lacewings, ladybugs, and hoverflies.

And it tastes good, too? Since this plant is native to the drier parts of western North America, however, and since several web sites mention that different specimens can vary sufficiently to come close to being different species, I am hesitant to try it. Does anyone know where to buy seeds or plants of an explicitly good-tasting variety? And will this plant grow well in the eastern U.S.? (I am in south-central Indiana, with almost 40 inches of rain in an average year, and winter temperatures that occasinally get into the -20's F.

Cross references: *Web-pages:* *Hedges and their uses*.

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This page (UK)

`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Atriplex+canescens`
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Winter Salads

Although it is relatively easy to grow leaves for winter consumption, most of the plants used in conventional gardening tend to be annuals (such as cabbage or spinach) and are also nicer when cooked. There are relatively few well known winter salad leaves and many of these (such as winter lettuce) require protection in all but mild winters. I would like to look at a few alternative winter salad plants and how they can be grown outdoors without protection to provide tasty salads throughout the winter. The milder the winters are in your area then the greater the variety that you will be able to grow, but the list of plants at the end of this leaflet contains plants suitable even for the coldest areas of Britain. Unless it says otherwise, all the plants are herbaceous perennials and do not need much work to maintain them once they are established. Many of them are also very ornamental and will not look at all out of place in the flower garden.

Spring to early summer is the best time to plan and plant out the garden. If done at this time of the year you will be able to harvest your leaves in the following winter. When deciding on the size of the garden it is important to remember that plant growth in the winter is much slower than in the summer. In general you need more plants to supply the same quantity of leaves. You also need to understand the growth habit of the plants you are growing. Some, such as chicory, do most of their growing in the summer and autumn, the leaves are hardy enough to stand up to the rigours of winter and can be harvested as required. The plants will make very little further growth until the warmer weather arrives. A few of the plants are evergreen, although they make very little growth in the winter they can be picked with care throughout this season. A number of other plants, usually from Mediterranean climates, have a dormant period in the summer (the dry season in the Mediterranean) and begin their growth cycle in the autumn. They grow slowly throughout the winter and can be harvested moderately as required. Finally, a number of plants come into new growth very early in the year and will normally provide good yields towards the end of winter.

The next step is to choose a suitable site for the garden. The primary requirements are:-

1. The site must be well-drained. Standing water is one of the biggest enemies of the winter garden.
2. It must be in a sheltered position. It is especially important that the site is protected from cold winds (those from the north and north east in Britain).
3. It should be at least fairly sunny. A position that is completely open to the south or southwest is best, southeast or west are the next best, other positions are not very suitable.
4. The ground should be fertile, but not too rich. What is required is healthy growth but not

luxuriant growth, since this is often soft and sappy and therefore more susceptible to damage by the cold.

Many of the plants in the list below can be easily obtained from a garden centre or as seed. The native species can be obtained from the wild (so long as you have the permission of the land owner!). Other species can often be obtained from us (see notes at the end of the leaflet). Unless stated otherwise, the seed of all these plants can be sown in early spring in a greenhouse or cold frame. Prick the plants out into individual pots when they are large enough to handle and plant them into their permanent positions in early summer. Most of the perennials can be divided in the spring or autumn, but spring is usually best especially if you want to harvest them in the coming winter. The few shrubs in the list are easily increased by cuttings in July.

The next thing you need to do is to select the plants. The following list is far from exhaustive, but it does contain some of the more popular leaves we are growing at PFAF. I think you will find it caters for most tastes.

Alliaria petiolata. Hedge garlic. This native biennial plant can be found wild in many hedgerows so there is probably little need to cultivate it. The leaves, flowers and young seedpods have a flavour that is somewhat like a cross between garlic and mustard - fairly pleasant when added in small quantities to a salad. This is one of the more shade-tolerant plants on the list. If you decide to cultivate it then collect the seeds from wild plants in early summer and sow them straightaway in situ. They will normally maintain themselves by self-sowing.

Allium species. Onions, Chives etc. There are a number of species in this genus that can supply winter leaves. Our native wild garlic, A. ursinum, is a woodland plant. Usually available from late January or February, the leaves and flowers have a delicious mild garlic flavour. An aggressive spreader, it is probably best left in the woodland, it is also more tolerant of wet soils than other plants in this list. My personal favourite winter onion leaf is the daffodil garlic, A. neapolitanum. The leaves are available all through the winter and the plant produces beautiful white flowers in early spring. Both the leaves and the flowers have a garlic flavour and are delightful in salads. Whilst seed of this plant can be sown in the spring, we get the best results by sowing it in a greenhouse in early autumn. This species is only hardy in the southern parts of Britain. The perennial onion, A. cepa 'Perutile' is more reliable in colder parts of Britain - its mild onion flavoured leaves are available all year round. There are many other Allium species to choose from - the following should be hardy in most parts of Britain. Welsh onions, A. fistulosum often die down in severe winters but will be back again in late February. Chives, A. schoenoprasum, die down in early winter but are back in February. The three-cornered leek, A. triquetrum can be available from October onwards and has naturalized in parts of Britain.

Atriplex halimus, the salt bush, is an evergreen shrub growing 1 metre or more tall. Very resistant to maritime exposure, it can be trimmed and grown as a hedge to provide shelter for other plants in the winter garden. The leaves are more silvery than green and have a distinctive salty flavour that most of our visitors enjoy. It can be picked in moderation throughout the winter. It has become naturalized on the coasts of S. England but is not hardy in the colder areas of Britain. A. canescens is a very similar-looking N. American shrub that has the same uses.

Barbarea vulgaris. This plant is our native yellow rocket. A short-lived perennial growing about 30cm tall, it has a hot watercress-like flavour. It might die down in colder winters and usually self-sows when happy. B. verna, American land cress, is related to this plant and can also be grown for winter salads though it is not reliably perennial and is normally sown in late summer or early autumn in order to provide winter leaves.

Beta vulgaris cicla is the cultivated spinach beet. Although it is a biennial, this plant usually self-sows freely and provides fresh leaves all year round with very little effort from the grower. The much more ornamental cultivar 'Ruby Chard' can also be used but it does not self-sow as freely, nor is it so hardy, often dying down in cold winters. Not my favourite salad leaf, but some people like its raw beetroot-like flavour.

Campanula poscharskyana is a lovely carpeting harebell (or bluebell if you live in Scotland). About 10 - 25cm tall, this is a rampantly spreading plant that makes good ground-cover. The leaves, although small, are a very nice mild salad and can be eaten all year round.

Campanula versicolor. This is one of the most beautiful harebells we are growing. It is about 1.2 metres tall and flowers in late summer. The plant keeps a basal rosette of leaves all winter and, although only growing slowly, it can be harvested in moderation all through the winter. The leaves have a delicious sweet flavour and are one of the more popular salad leaves that we are growing. The plant is not hardy in the colder areas of Britain and is also popular with slugs.

Cardamine hirsuta. Hairy bittercress is a common garden weed. The leaves have a hot cress-like flavour and, once you have the plant in your garden, it will normally self sow. The leaves are available all year round.

Cichorium intybus. Chicory is a fairly well-known salad plant. Although a perennial, it is best to sow the seed annually in late spring or early summer for winter leaves. Older plants tend to die down in the winter or to only produce a very small basal rosette. It is important to choose the correct cultivars - 'Sugar Loaf' is one of our favourites. The leaves have a somewhat bitter taste that many people enjoy, they can be blanched to make them milder but this will be at the expense of many vitamins and minerals.

Claytonia virginica. Spring beauty is about 20cm tall and usually provides leaves throughout the winter. Both the leaves and the flowers can be eaten and have a fairly mild flavour. I find the taste suggestive of raw beetroot and am not very keen on them though they are quite popular with many other people.

Foeniculum vulgare. Very easy to grow, our fennel plants die down in December, but start growing again almost immediately. In colder parts of the country they will probably be somewhat later into growth. I love adding a few leaves to salads, delighting in their aniseed flavour. The plant is rather vigorous, growing about 1 metre tall and wide. It also self-sows freely with us.

Montia sibirica. Pink purslane is a short-lived perennial, but it self-sows freely and maintains itself so well that it can be used as a ground cover plant. Only about 10cm tall, it is evergreen and both the leaves and flowers can be eaten. A fairly bland flavour, though it becomes somewhat bitter in hot dry weather. M. perfoliata, the miner's lettuce, is an annual that self-sows freely and is also usually available all through the winter. Both of these plants are extremely hardy, they are native to Alaska and Siberia where they can be harvested from under the snow even in the depths of winter.

Myrrhis odorata. Our native Sweet Cicely has a delightful aniseed flavour (I can't help liking aniseed!) and it goes very well as a flavouring in a mixed salad. It dies down in early winter but we are picking it again even in a cold February. The seed is said to have a short viability and is best sown as soon as it is ripe. A well-grown plant is about 1 metre tall and wide.

Peltaria alliacea. A very easily grown plant, it has a rather strong garlic/mustard flavour that some people adore in salads. It becomes much more bitter in the summer. An evergreen herb about 10cm tall it spreads freely once established.

Reichardia picroides. This plant looks somewhat similar to a dandelion but wait until you taste the leaves! Instead of the bitterness of a dandelion the leaves have a very acceptable flavour with a slight sweetness. We use them in quantity in salads - far better than lettuce and so much easier to grow. It is one of the few plants we have where we like the leaves but the slugs don't. We have only been growing it since 1993 but it really has rave reviews and is incredibly productive - even when the plants are flowering the leaves maintain their delicious flavour. We know of no supplier in this country but we can supply seed to all interested parties if you send an SAE (a small donation would also be appreciated).

Rumex acetosa. Sorrel is one of my favourite salad plants. The leaves have a delicious lemon flavour, though they should not be eaten in quantity since they contain oxalic acid. We are growing a very superior cultivar from Poland that virtually never flowers and provides large tasty leaves all the year round. Plants are about 40cm tall and spread slowly.

Rumex alpinus. Unlike other docks, the leaves of the alpine dock make a fairly acceptable addition to winter salads (and a delicious spinach substitute). The plant stays green all winter if the weather is mild, otherwise it will die down but reappear in February. The leaves become more bitter in the summer but are still acceptable cooked. A very vigorous plant, growing about 60cm tall and wide.

Sanguisorba minor. Salad burnet is an evergreen native plant that is sometimes cultivated for its edible leaves. Very easy to grow and often self-sowing freely, the leaves can be eaten all year round and some people claim that they have the flavour of cucumbers. I've not really noticed this and am not very keen on the leaves. Plants are about 50cm tall when flowering and 30cm wide.

Smyrnium olusatrum. Alexanders grows wild in hedgerows in many parts of Britain and does not really need to be cultivated. The leaves have a strong celery-like flavour and are not to everyone's taste (including mine!). A biennial, it grows about 1 metre tall and self-sows freely if given a suitable position.

Taraxacum officinale. Nutritionally very valuable, many people find dandelions too bitter for salads. However, the winter leaves are less bitter and a few leaves added to a chopped salad will hardly be noticed. There are also some cultivated forms that are said to have nicer tasting leaves, though we have not noticed much difference. The seed can be obtained from some of the larger seed catalogues. We find it easier to grow this plant in the lawn - if you let the grass grow a little longer in the winter it will protect the dandelions and they will then be more productive as well as more tender. There are also a number of dandelion look-alikes that can be found growing in gardens and hedgerows in the winter. These tend to be even more bitter than the dandelion but, if you are desperate, you can always give them a try.

Thymus vulgaris. The garden thyme is a dwarf evergreen shrub, usually less than 30cm tall. An excellent addition to salads adding a delightful fragrance. It has also been shown that eating thyme daily can prolong active life (is this an article about winter salads or an advert for dog food?).

Valerianella locusta. Corn salad is a native annual that is sometimes cultivated for its mild-tasting leaves. If allowed to flower it will usually self-sow and can then be available all year round.

Viola odorata. Sweet violets are about 10cm tall and come into flower in the depths of winter. Both the leaves and the flowers can be added to salads, they have a fairly bland flavour, the flowers doing wonders to brighten up winter salads.

Space is too short in a leaflet such as this to go into too many details of the plants. If required, we can supply more comprehensive information on any of the above species and can also often supply these plants if you cannot find another source. All information is supplied on a donations basis that must at least cover our costs (10p per sheet plus postage).

Plants For A Future is a non-profit making resource centre supplying information on useful plants and where possible supplying the plants themselves. All plants are grown without the use of artificial fertilizers, sprays or animal products (vegan-organic). We are always grateful for any donations, investments and legacies (however small or large). Visitors are always welcome to come and view our project, but please let us know in advance. Since showing people around takes up quite a lot of our time, we normally ask visitors either to spend some time working on the project with us or to make a donation.

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Readers Comments:

Winter Salads

Unknown (dena2000@juno.com) Wed Apr 4 16:58:28 2001

Very very interesting but, much reading. I am a senior and do not have a plot of land to grow these plants. The landlords lets his dogs and cats roam all over his yard.

How do I put a plant rich diet together with green veg. etc that are accessible in my health store. Is there a site that would explain it?

It is cold in the Buffalo area. I tried a raw plant diet and lost to much weight, yet they say when you cook them it destroys the vitamins.

Plus one site www.lifefood.com, says you get fungus mold etc.from starch foods like wheat, rice, potatoes corn. Have a ear problem and when I eat starches even oatmeal it acts it up and get to much mucous.

This morning had red grapefuit and raw green beans, raw pecans & potassium broth from pot,celery parsley, green beans, carrots.

I would appricaite an answer to my questions.

Dena Franklen dena2000@juno.com

Add a Follow up to this comment

Winter Salads

D Stahl (stestahl@epud.net) Wed May 23 07:17:00 2001

There are three plants I use for winter/early spring salads here on the West Coast of the USA:

Stellaria media, common chickweed, is a rampant weed with a very mild flavor. You don't so much cultivate it as try to eat it faster than it can grow.

Cardamine oligosperma, winter cress, has a nice mild cress taste--the young leaves are best. This cress doesn't put on as much growth as the chickweed, but it's very forgiving of bad soil and cold.

Brassica campestris, field mustard, blossoms in early spring and before the flower heads open they have a pleasant, mild broccoli flavor. Don't eat it from near industrial areas or roadways, as it is reputed to concentrate lead.

I usually pick these three and add some Rumex and dandelion leaves, all from vacant lots and fields--although both the cress and the chickweed grow in with my spring garden plants if I let them!

Details of Growing Condition: West coast USA, mild winters with abundant moisture, freezing temperatures can be expected November through March..

This comment has also been added to: Stellaria media , Cardamine oligosperma , Brassica campestris.

Add a Follow up to this comment

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Last modified: Sep 14, 1995

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Subject:

Winter Salads

Group:
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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

winsalad.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Stellaria media

Common name:	Chickweed	Family:	Caryophyllaceae
Author:	(L.) Vill.	Botanical references:	17
Synonyms:	Alsine media (L.)		
Known Hazards:	The leaves contain saponins[7, 65]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by thorough cooking. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is advisable not to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Britain.		
Habitat:	Growing almost anywhere, it is a common garden weed[7, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. apetala[B] S. apetala auct. non[P] S. media ssp. media[B,P] S. media var. procera[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Adder's Mouth [H], Alsine [E], Chick Wittles [H], Chickenmeat [E], Chickweed [H,S], Clucken Wort [H], Common Chickweed [H,P,B,L,S], Hashishat Al Qazzaz [E], Passerina [H], Satinflower [H], Sercedili [E], Skirt Buttons [H], Star Chickweed [H], Starweed [H], Starwort [H], Stitchwort [H], Tongue Grass [H], Vogelmuur [D], White Bird's Eye [H], Winterweed [H],
Epithets:	From a Dictionary of Botanical Epithets
	media = intermediate;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pink family
Other Range Info:	From the Ethnobotany Database
	Britain; Iraq; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.12m by 0.5m . It is not frost tender. It is in leaf all year, in flower all year, and the seeds ripen all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Young leaves - raw or cooked as a potherb[2, 7, 9, 12, 52, 54, 183]. They can be available all year round if the winter is not too severe[85]. Very nutritious, they can be added to salads whilst the cooked leaves can scarcely be distinguished from spring spinach[4, K]. The leaves contain saponins so some caution is advised, see the note on toxicity at the top of the page. A nutritional analysis is available[218].

Seed - ground into a powder and used in making bread or to thicken soups[172, 183]. It would be very fiddly to harvest any quantity of this seed since it is produced in small quantities throughout most of the year and is very small[K]. The seed contains 17.8% protein and 5.9% fat[218].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 14.5 Fat: 2.4 Carbohydrate: 63.9 Fibre: 20.5 Ash: 19.3
In milligrammes per 100g weight of food:
VitaminA: 30 Thiamine: 0.02 Riboflavin: 0.14 Niacin: 0.51 VitaminC: 375
Source: [218]
Notes: The figure for vitamin A is in mg

Medicinal Uses

Disclaimer

Astringent; Carminative; Demulcent; Depurative; Diuretic; Emmenagogue; Expectorant; Galactogogue; Kidney; Laxative; Ophthalmic; Poultice; Refrigerant; Vulnerary.

Chickweed has a very long history of herbal use, being particularly beneficial in the external treatment of any kind of itching skin condition[238]. It has been known to soothe severe itchiness even where all other remedies have failed[254]. In excess doses chickweed can cause diarrhoea and vomiting[254]. It should not be used medicinally by pregnant women[254].

The whole plant is astringent, carminative, demulcent, diuretic, expectorant, laxative, refrigerant, vulnerary[4, 7, 9, 21, 54, 165, 222]. Taken internally it is useful in the treatment of chest complaints and in small quantities it also aids digestion[254]. It can be applied as a poultice and will relieve any kind of roseola and is effective wherever there are fragile superficial veins[7]. An infusion of the fresh or dried herb can be added to the bath water and its emollient property will help to reduce inflammation - in rheumatic joints for example - and encourage tissue repair[254]. Chickweed is best harvested between May and July, it can be used fresh or be dried and stored for later use[4, 238].

A decoction of the whole plant is taken internally as a post-partum depurative, emmenagogue, galactogogue and circulatory tonic[218]. It is also believed to relieve constipation and be beneficial in the treatment of kidney complaints[244]. The decoction is also used externally to treat rheumatic pains, wounds and ulcers[4, 218, 222].

The expressed juice of the plant has been used as an eyewash[244].

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Other Uses

None known

Cultivation details

A very easily grown plant, it prefers a moist soil and a position in full sun or partial shade[52, 238]. It can be very lush and vigorous when grown in a fertile soil[1], but in infertile soils it will flower and set seed whilst still very small.

A very common garden weed, chickweed grows, flowers and sets seed all year round. The flowers open around 9 o'clock in the morning and remain open for about 12 hours[4]. They do not open in dull weather[4]. The leaves fold up of a night time, enfolding and protecting the tender buds of new shoots[4].

A food plant for the caterpillars of many butterfly species.

Propagation

Seed - this species should not need any encouragement, you are much more likely to be trying to get rid of it than trying to introduce it (eating it is one way of doing that!)[K].

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

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Habitat:	Growing almost anywhere, it is a common garden weed[7, 17].		
Plants For A Future Rating (1-5):	2		

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Leaves (Dry weight)

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Medicinal Uses

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Range:	Britain.		
Habitat:	Growing almost anywhere, it is a common garden weed[7, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. apetala[B] S. apetala auct. non[P] S. media ssp. media[B,P] S. media var. procera[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adder's Mouth [H], Alsine [E], Chick Wittles [H], Chickenmeat [E], Chickweed [H,S], Clucken Wort [H], Common Chickweed [H,P,B,L,S], Hashishat Al Qazzaz [E], Passerina [H], Satinflower [H], Sercedili [E], Skirt Buttons [H], Star Chickweed [H], Starweed [H], Starwort [H], Stitchwort [H], Tongue Grass [H], Vogelmuur [D], White Bird's Eye [H], Winterweed [H],
Epithets:	From a Dictionary of Botanical Epithets
	media = intermediate;
Systematics:	From a UDSA Plants Database

	Order: Caryophyllales . Pink family
Other Range Info:	From the Ethnobotany Database
	Britain; Iraq; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.12m by 0.5m . It is not frost tender. It is in leaf all year, in flower all year, and the seeds ripen all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Young leaves - raw or cooked as a potherb[2, 7, 9, 12, 52, 54, 183]. They can be available all year round if the winter is not too severe[85]. Very nutritious, they can be added to salads whilst the cooked leaves can scarcely be distinguished from spring spinach[4, K]. The leaves contain saponins so some caution is advised, see the note on toxicity at the top of the page. A nutritional analysis is available[218].

Seed - ground into a powder and used in making bread or to thicken soups[172, 183]. It would be very fiddly to harvest any quantity of this seed since it is produced in small quantities throughout most of the year and is very small[K]. The seed contains 17.8% protein and 5.9% fat[218].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 14.5 Fat: 2.4 Carbohydrate: 63.9 Fibre: 20.5 Ash: 19.3
In milligrammes per 100g weight of food:
VitaminA: 30 Thiamine: 0.02 Riboflavin: 0.14 Niacin: 0.51 VitaminC: 375
Source: [218]
Notes: The figure for vitamin A is in mg

Medicinal Uses

Disclaimer

Astringent; Carminative; Demulcent; Depurative; Diuretic; Emmenagogue; Expectorant; Galactogogue; Kidney; Laxative; Ophthalmic; Poultice; Refrigerant; Vulnerary.

Chickweed has a very long history of herbal use, being particularly beneficial in the external treatment of any kind of itching skin condition[238]. It has been known to soothe severe itchiness even where all other remedies have failed[254]. In excess doses chickweed can cause diarrhoea and vomiting[254]. It should not be used medicinally by pregnant women[254].

The whole plant is astringent, carminative, demulcent, diuretic, expectorant, laxative, refrigerant, vulnerary[4, 7, 9, 21, 54, 165, 222]. Taken internally it is useful in the treatment of chest complaints and in small quantities it also aids digestion[254]. It can be applied as a poultice and will relieve any kind of roseola and is effective wherever there are fragile superficial veins[7]. An infusion of the fresh or dried herb can be added to the bath water and its emollient property will help to reduce inflammation - in rheumatic joints for example - and encourage tissue repair[254]. Chickweed is best harvested between May and July, it can be used fresh or be dried and stored for later use[4, 238].

A decoction of the whole plant is taken internally as a post-partum depurative, emmenagogue, galactogogue and circulatory tonic[218]. It is also believed to relieve constipation and be beneficial in the treatment of kidney complaints[244]. The decoction is also used externally to treat rheumatic pains, wounds and ulcers[4, 218, 222].

The expressed juice of the plant has been used as an eyewash[244].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

A very easily grown plant, it prefers a moist soil and a position in full sun or partial shade[52, 238]. It can be very lush and vigorous when grown in a fertile soil[1], but in infertile soils it will flower and set seed whilst still very small.

A very common garden weed, chickweed grows, flowers and sets seed all year round. The flowers open around 9 o'clock in the morning and remain open for about 12 hours[4]. They do not open in dull weather[4]. The leaves fold up of a night time, enfolding and protecting the tender buds of new shoots[4].

A food plant for the caterpillars of many butterfly species.

Propagation

Seed - this species should not need any encouragement, you are much more likely to be trying to get rid of it than trying to introduce it (eating it is one way of doing that!)[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

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Add a comment on: *Stellaria media*

Subject:

Stellaria media

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Stellaria media

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Cardamine oligosperma

Common name:	Spring cress	Family:	Cruciferae
Author:	Nutt.	Botanical references:	60
Synonyms:	Cardamine umbellata (Greene.)		
Known Hazards:	None known		
Range:	Western N. America - Alaska to California.		
Habitat:	Widespread in wet places[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. hirsuta var. kamtschatica[B,P] C. kamtschatica[B,P] C. oligosperma ssp. kamtschatica[B,P] C. oligosperma var. kamtschatica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	oligosperma = few seeds;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Annual/Biennial growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden.

Edible Uses

Leaves.

Leaves - raw or cooked and used as a vegetable[172, 183].

Medicinal Uses

Disclaimer

Carminative; Digestive.

The plant is carminative and digestive[172].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. A polymorphic species, it is closely related to C. hirsuta[60]. The following notes are based on the general needs of the genus.

Prefers a moist humus rich soil in shade or semi-shade[200] but succeeds in most soils that are not dry[1].

Propagation

Seed - sow spring or autumn in situ.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cardamine oligosperma var. kamtschatica* (a possible synonym).

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See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Habitats and Possible Locations

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Leaves.

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Other Uses

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Propagation

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Add a comment on: *Cardamine oligosperma*

Subject:

Cardamine oligosperma

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cardamine oligosperma

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Add a comment on: *Winter Salads*

Subject:

Winter Salads

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Plant names you would like this comment to be added to:

Stellaria media Cardamine oligosperma
Brassica campestris

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

winsalad.html

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Plants For A Future: Database Search Results

Atriplex canescens

Common name:	Grey sage brush	Family:	Chenopodiaceae
Author:	(Pursh.) Nutt.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	No member of this genus contains any toxins, all have more or less edible leaves. However, if grown with artificial fertilizers, they may concentrate harmful amounts of nitrates in their leaves.		
Range:	Central and western N. America - South Dakota to Kansas, Texas, California and Mexico.		
Habitat:	Found mainly on dry saline soils[11, 60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canescens ssp. linearis[B] A. canescens var. linearis[B,C,CAL] A. linearis[B] Calligonum canescens[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chamiso [S], Four-Winged Saltbush [S], Four-wing Saltbush [DEN2,B], Four-winged Saltbush, Chamiso Blanco [S], Fourwing Saltbush [P,FEIS], Saltbush [E,S],
Epithets:	From a Dictionary of Botanical Epithets
	canescens = grayed;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family
Other Range Info:	From the Ethnobotany Database
	Mexico(Seri); Us(Navajo)

Physical Characteristics

An evergreen shrub growing to 1.8m by 1.8m . It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower in July, and the seeds ripen in August. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Colouring; Drink; Leaves; Seed.

Leaves - cooked or raw[85, 94. A very acceptable taste with a salty tang[K]. The leaves can be used at any time of the year though winter harvesting must be light because the plant is not growing much at this time of year[K].

Seed - cooked[46, 61]. Ground into a powder, mixed with cereals and used in making cakes etc or used as a piñole[94, 95, 183]. It is small and very fiddly to utilize[K]. The ground up seed can also be mixed with water and drunk as a refreshing beverage[183].

The burnt green herb yields culinary ashes high in minerals and these are used by the Hopi Indians to enhance the colour of blue corn products[183, 257]. The ashes can be used like baking soda[257].

Medicinal Uses

Disclaimer

Skin; Stings.

The leaves can be made into a soapy lather and used as a wash on itches and rashes such as chickenpox[257]. A poultice of the crushed leaves can be applied to ant bites to reduce the pain and swelling[257].

Other Uses

Dye; Fire retardant; Hedge; Potash.

A good hedge in maritime areas, it responds well to trimming[K].

The leaves and stems were burnt by the Hopi Indians and the alkaline ash used to maintain the blue colour when cooking blue corn[216].

A yellow dye is obtained from the leaves and stems[257].

The leaves can be made into a soapy lather and used as a hair wash[257].

The plant has fire-retardant properties and can be used for barrier plantings to control bush fires[200].

Cultivation details

Requires a position in full sun in any well-drained but not too fertile soil[11, 134, 200]. Tolerates saline and very alkaline soils[200]. Plants are very tolerant of maritime exposure, though they dislike wet climates[K]. Resents root disturbance when large. Succeeds in a hot dry position.

A very ornamental plant[60], though it is liable to succumb to winter wet when grown on heavy or rich soils[11, 200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow April/May in a cold frame in a compost of peat and sand. Germination usually takes place within 1 - 3 weeks at 13°c[134]. Pot up the seedlings when still small into individual pots, grow on in a greenhouse for the first winter and plant out in late spring or early summer after the last expected frosts.

Cuttings of half-ripe wood, July/August in a very sandy compost in a frame. Very easy. Pot up as soon as they start to root (about 3 weeks) and plant out in their permanent positions late in the following spring[K].

Cuttings of mature wood of the current season's growth, November/December in a frame. Very easy. Pot up in early spring and plant out in their permanent position in early summer[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Atriplex+canescens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Atriplex+canescens`

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Add a comment on: *Atriplex canescens*

Subject:

Atriplex canescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Atriplex canescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

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Subject:

Atriplex canescens

Group:
Comments on Web-Pages

Comment:

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

hedges.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Hedges and their uses*

Subject:

Hedges and their uses

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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hedges.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Checklist of Trees and Shrubs for Shelterbelts*

Subject:

Checklist of Trees and Shrubs for Shelterbelts

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

shelter0.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Checklist of plants suitable for hedging and windbreaks.*

Subject:

Checklist of plants suitable for hedging and windbr

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
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Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

hedge0.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Edible Trees and Shrubs Hardy in Britain: S-T*

Subject:

Edible Trees and Shrubs Hardy in Britain: S-T

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

tree9.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Edible Trees and Shrubs Hardy in Britain: Q-R*

Subject:

Edible Trees and Shrubs Hardy in Britain: Q-R

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

tree8.html

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Your Email Address:

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Add a comment on: *Edible Trees and Shrubs Hardy in Britain: P*

Subject:

Edible Trees and Shrubs Hardy in Britain: P

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

tree7.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:27:36 2004

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Add a comment on: *Edible Trees and Shrubs Hardy in Britain: L-O*

Subject:

Edible Trees and Shrubs Hardy in Britain: L-O

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

tree6.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:27:38 2004

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Add a comment on: *Edible Trees and Shrubs Hardy in Britain: H-K*

Subject:

Edible Trees and Shrubs Hardy in Britain: H-K

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

tree5.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:27:40 2004

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Add a comment on: *Edible Trees and Shrubs Hardy in Britain: F-G*

Subject:

Edible Trees and Shrubs Hardy in Britain: F-G

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

tree4.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:27:41 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Edible Trees and Shrubs Hardy in Britain: D-E*

Subject:

Edible Trees and Shrubs Hardy in Britain: D-E

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

tree3.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future - Readers Comments

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Add a comment on: *Edible Trees and Shrubs Hardy in Britain: C*

Subject:

Edible Trees and Shrubs Hardy in Britain: C

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Pages in the PFAF site you would like this comment to be added to:

tree2.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Aesculus flava

Common name:	Sweet buckeye	Family:	Hippocastanaceae
Author:	Sol.	Botanical references:	11, 43, 200
Synonyms:	Aesculus octandra (Marshall.), Aesculus lutea (Wangenh.)		
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Eastern N. America - Pennsylvanica to Tennessee and west to Ohio.		
Habitat:	Rich river-bottoms and mountain slopes[82]. Woodland on moist rich soils[43]		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. octandra var. vestita[B,P] A. octandra var. virginica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Horse Chestnut [H], Sweet Buckeye [L], Yellow Buckeye [DEN1,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	flava = yellow;

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 20m by 8m . It is hardy to zone 5 and is frost tender. It is in flower from May to June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Nectar; Seed.

Seed - cooked. Said to be as sweet as a chestnut[105, 177]. The seed can be up to 45mm in diameter and is easily harvested[82]. It can be dried, ground into a flour and used as a gruel. The seed contains saponins and needs to be leached of these toxins before it becomes safe to eat - the North American Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213, 229]. The resulting product is said to be tasty and nutritious[229], though most of the minerals etc would have been leached out[K].

The flowers contain a sweet nectar which is delicious when sucked out[245].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap; Wood.

Saponins in the seed are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - very soft, light, close grained, difficult to split. It weighs 27lb per cubic foot[235]. It is used for making artificial limbs, wooden ware, pulp etc, and is occasionally sawn into lumber[46, 62, 82, 171].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

Grows best in eastern and south-eastern areas of England probably needing a continental climate in order to thrive[126, 200]. Although the trees are very hardy when dormant, the new growth can be damaged by late spring frosts[11].

Plants grow well in a woodland situation, tolerating shading by larger trees[229]. Seedlings grow away quickly, the plants reaching maturity when about 60 - 80 years old[229].

Fruits are produced more abundantly in warm summers[130].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aesculus octandra* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Hippocastanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6

Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

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Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
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[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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WEB search engine by Rich Morris - Home Page- Contact Info
Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aesculus+flava`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Aesculus+flava`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Aesculus flava

Common name:	Sweet buckeye	Family:	Hippocastanaceae
Author:	Sol.	Botanical references:	11, 43, 200
Synonyms:	Aesculus octandra (Marshall.), Aesculus lutea (Wangenh.)		
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Eastern N. America - Pennsylvanica to Tennessee and west to Ohio.		
Habitat:	Rich river-bottoms and mountain slopes[82]. Woodland on moist rich soils[43]		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. octandra var. vestita[B,P] A. octandra var. virginica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Horse Chestnut [H], Sweet Buckeye [L], Yellow Buckeye [DEN1,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	flava = yellow;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 20m by 8m . It is hardy to zone 5 and is frost tender. It is in flower from May to June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Nectar; Seed.

Seed - cooked. Said to be as sweet as a chestnut[105, 177]. The seed can be up to 45mm in diameter and is easily harvested[82]. It can be dried, ground into a flour and used as a gruel. The seed contains saponins and needs to be leached of these toxins before it becomes safe to eat - the North American Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213, 229]. The resulting product is said to be tasty and nutritious[229], though most of the minerals etc would have been leached out[K].

The flowers contain a sweet nectar which is delicious when sucked out[245].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap; Wood.

Saponins in the seed are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - very soft, light, close grained, difficult to split. It weighs 27lb per cubic foot[235]. It is used for making artificial limbs, wooden ware, pulp etc, and is occasionally sawn into lumber[46, 62, 82, 171].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

Grows best in eastern and south-eastern areas of England probably needing a continental climate in order to thrive[126, 200]. Although the trees are very hardy when dormant, the new growth can be damaged by late spring frosts[11].

Plants grow well in a woodland situation, tolerating shading by larger trees[229]. Seedlings grow away quickly, the plants reaching maturity when about 60 - 80 years old[229].

Fruits are produced more abundantly in warm summers[130].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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Mike Creel Tue Oct 26 20:14:56 1999

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Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aesculus+flava`
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Plants For A Future: Database Search

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Search for Latin Name: Aesculus

New Search: Aesculus Search

Latin Name	Common Name	Family	Synonyms	Rating
Aesculus californica	Californian buckeye	Hippocastanaceae	Pavia californica.; Pavia californica; Calothyrsus californica	3
Aesculus chinensis	Chinese horse chestnut	Hippocastanaceae		3
Aesculus flava	Sweet buckeye	Hippocastanaceae	Ae lutea. Ae octandra.; Aesculus octandra; Aesculus lutea; A. octandra var. vestita; A. octandra var. virginica	4
Aesculus glabra	Ohio buckeye	Hippocastanaceae		1
Aesculus hippocastanum	Horse chestnut	Hippocastanaceae	A. hippocastanum f. memmingeri; Hippocastanum vulgare	3
Aesculus indica	Indian horse chestnut	Hippocastanaceae	Pavia indica.; Pavia indica	3
Aesculus parviflora		Hippocastanaceae	Ae macrostachya. Pavia macrostachya; Pavia macrostachya; Aesculus macrostachya	3
Aesculus pavia	Red buckeye	Hippocastanaceae		3
Aesculus turbinata	Japanese horse chestnut	Hippocastanaceae	Ae dissimilis.; Aesculus dissimilis	3

Aesculus x carnea	Red horse chestnut	Hippocastanaceae	A. hippocastanum x pavia; A. x carnea var. plantierensis	3

New Search

Latin Name: Aesculus

Common Name:

Family:

Rating: 1 — 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Aesculus californica

Common name:	Californian buckeye	Family:	Hippocastanaceae
Author:	(Spach.) Nutt.	Botanical references:	11, 71, 200
Synonyms:	Pavia californica ((Spach.)Hartw.)		
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K]. The flowers of this plant are toxic to bees[94].		
Range:	South-western N. America - California.		
Habitat:	Moist stream borders, scrub and the edges of oak and pine woods in canyons and dry slopes below 1200 metres[71, 184, 229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Calothyrsus californica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckeye, California [S], California Buckeye [S,P,H,B,DEN1,FEIS,L], California Horse Chestnut [H],
Systematics:	From a UDSA Plants Database

	Order: Sapindales . Horse-chestnut family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

A decidious tree growing to 12m by 10m at a medium rate. It is hardy to zone 7 and is frost tender. It is in flower from July to August, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Seed.

Seed - cooked[22, 46, 63, 92, 94, 95]. It can be dried, ground into a powder and used as a gruel[2]. The seed contains about 23% protein and has an agreeable taste[213]. The seed is large, and can be up to 5cm in diameter[82]. It is often produced abundantly in the warmer areas of Britain and is easily harvested[K]. This was the most commonly used Aesculus species in N. America[213]. It does, however, contain poisonous saponins (see the notes above on toxicity) and so needs careful preparation before being eaten. The seed needs to be leached of these toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 23

Medicinal Uses

Disclaimer

Expectorant; Odontalgic; Salve.

The seed contains saponins and can be used as an expectorant[94].

The crushed fruit is applied as a salve on haemorrhoids[257].

A decoction of the bark is used in the treatment of toothache and loose teeth[257].

Other Uses

Friction sticks; Soap; Wood.

The seed is rich in saponins, these are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - soft, light, very close grained[82]. Of no value as a lumber[229]. The wood was used as friction sticks for making fire by the North American Indians[257].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[11]. Requires a position in full sun[200]. Prefers dry sunny locations[126].

Although fairly hardy throughout Britain, it grows best in areas where winter temperatures do not fall below -10°c[200].

A moderately fast-growing and long-lived tree in the wild[229], in Britain it grows best in eastern and south-eastern England. Plants thrives at Kew[11].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Scent

Flowers: Fresh

The flowers are scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Illustration from the Southwest School of Botanical Medicine
- [S]
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
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References for the family Hippocastanaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[71] **Munz.** *A California Flora.* University of California Press 1959
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[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
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[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
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[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.*

Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants, including Distylium racemosum and some perennial members of the family Berberidaceae.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants:* *Aesculus flava*. *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Plants For A Future: Database Search Results

Aesculus californica

Common name:	Californian buckeye	Family:	Hippocastanaceae
Author:	(Spach.) Nutt.	Botanical references:	11, 71, 200
Synonyms:	Pavia californica ((Spach.)Hartw.)		
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K]. The flowers of this plant are toxic to bees[94].		
Range:	South-western N. America - California.		
Habitat:	Moist stream borders, scrub and the edges of oak and pine woods in canyons and dry slopes below 1200 metres[71, 184, 229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Calothyrsus californica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckeye, California [S], California Buckeye [S,P,H,B,DEN1,FEIS,L], California Horse Chestnut [H],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

A decidious tree growing to 12m by 10m at a medium rate. It is hardy to zone 7 and is frost tender. It is in flower from July to August, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Seed.

Seed - cooked[22, 46, 63, 92, 94, 95]. It can be dried, ground into a powder and used as a gruel[2]. The seed contains about 23% protein and has an agreeable taste[213]. The seed is large, and can be up to 5cm in diameter[82]. It is often produced abundantly in the warmer areas of Britain and is easily harvested[K]. This was the most commonly used Aesculus species in N. America[213]. It does, however, contain poisonous saponins (see the notes above on toxicity) and so needs careful preparation before being eaten. The seed needs to be leached of these toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 23

Medicinal Uses

Disclaimer

Expectorant; Odontalgic; Salve.

The seed contains saponins and can be used as an expectorant[94].

The crushed fruit is applied as a salve on haemorrhoids[257].

A decoction of the bark is used in the treatment of toothache and loose teeth[257].

Other Uses

Friction sticks; Soap; Wood.

The seed is rich in saponins, these are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - soft, light, very close grained[82]. Of no value as a lumber[229]. The wood was used as friction sticks for making fire by the North American Indians[257].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[11]. Requires a position in full sun[200]. Prefers dry sunny locations[126].

Although fairly hardy throughout Britain, it grows best in areas where winter temperatures do not fall below -10°c[200].

A moderately fast-growing and long-lived tree in the wild[229], in Britain it grows best in eastern and south-eastern England. Plants thrives at Kew[11].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Scent

Flowers: Fresh

> The flowers are scented.

Suppliers

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Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants: Aesculus flava. Genera: Aesculus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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Aesculus flava

Common name:	Sweet buckeye	Family:	Hippocastanaceae
Author:	Sol.	Botanical references:	11, 43, 200
Synonyms:	Aesculus octandra (Marshall.), Aesculus lutea (Wangenh.)		
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Eastern N. America - Pennsylvanica to Tennessee and west to Ohio.		
Habitat:	Rich river-bottoms and mountain slopes[82]. Woodland on moist rich soils[43]		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. octandra var. vestita[B,P] A. octandra var. virginica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Horse Chestnut [H], Sweet Buckeye [L], Yellow Buckeye [DEN1,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	flava = yellow;

Systematics:	From a UDSA Plants Database Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 20m by 8m . It is hardy to zone 5 and is frost tender. It is in flower from May to June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Nectar; Seed.

Seed - cooked. Said to be as sweet as a chestnut[105, 177]. The seed can be up to 45mm in diameter and is easily harvested[82]. It can be dried, ground into a flour and used as a gruel. The seed contains saponins and needs to be leached of these toxins before it becomes safe to eat - the North American Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213, 229]. The resulting product is said to be tasty and nutritious[229], though most of the minerals etc would have been leached out[K].

The flowers contain a sweet nectar which is delicious when sucked out[245].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap; Wood.

Saponins in the seed are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - very soft, light, close grained, difficult to split. It weighs 27lb per cubic foot[235]. It is used for making artificial limbs, wooden ware, pulp etc, and is occasionally sawn into lumber[46, 62, 82, 171].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

Grows best in eastern and south-eastern areas of England probably needing a continental climate in order to thrive[126, 200]. Although the trees are very hardy when dormant, the new growth can be damaged by late spring frosts[11].

Plants grow well in a woodland situation, tolerating shading by larger trees[229]. Seedlings grow away quickly, the plants reaching maturity when about 60 - 80 years old[229].

Fruits are produced more abundantly in warm summers[130].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aesculus octandra* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Hippocastanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6

Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants, including Distylium racemosum and some perennial members of the family Berberidaceae.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Aesculus flava

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From: Jim Duke[SMTP:jimduke@cpcug.org]

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> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Genera: Aesculus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: A-B.*

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Plants For A Future: Database Search Results

Aesculus flava

Common name:	Sweet buckeye	Family:	Hippocastanaceae
Author:	Sol.	Botanical references:	11, 43, 200
Synonyms:	Aesculus octandra (Marshall.), Aesculus lutea (Wangenh.)		
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Eastern N. America - Pennsylvanica to Tennessee and west to Ohio.		
Habitat:	Rich river-bottoms and mountain slopes[82]. Woodland on moist rich soils[43]		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. octandra var. vestita[B,P] A. octandra var. virginica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Horse Chestnut [H], Sweet Buckeye [L], Yellow Buckeye [DEN1,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	flava = yellow;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 20m by 8m . It is hardy to zone 5 and is frost tender. It is in flower from May to June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Nectar; Seed.

Seed - cooked. Said to be as sweet as a chestnut[105, 177]. The seed can be up to 45mm in diameter and is easily harvested[82]. It can be dried, ground into a flour and used as a gruel. The seed contains saponins and needs to be leached of these toxins before it becomes safe to eat - the North American Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213, 229]. The resulting product is said to be tasty and nutritious[229], though most of the minerals etc would have been leached out[K].

The flowers contain a sweet nectar which is delicious when sucked out[245].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap; Wood.

Saponins in the seed are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - very soft, light, close grained, difficult to split. It weighs 27lb per cubic foot[235]. It is used for making artificial limbs, wooden ware, pulp etc, and is occasionally sawn into lumber[46, 62, 82, 171].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

Grows best in eastern and south-eastern areas of England probably needing a continental climate in order to thrive[126, 200]. Although the trees are very hardy when dormant, the new growth can be damaged by late spring frosts[11].

Plants grow well in a woodland situation, tolerating shading by larger trees[229]. Seedlings grow away quickly, the plants reaching maturity when about 60 - 80 years old[229].

Fruits are produced more abundantly in warm summers[130].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future: Database Search Results

Aesculus californica

Common name:	Californian buckeye	Family:	Hippocastanaceae
Author:	(Spach.) Nutt.	Botanical references:	11, 71, 200
Synonyms:	Pavia californica ((Spach.)Hartw.)		
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K]. The flowers of this plant are toxic to bees[94].		
Range:	South-western N. America - California.		
Habitat:	Moist stream borders, scrub and the edges of oak and pine woods in canyons and dry slopes below 1200 metres[71, 184, 229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Calothyrsus californica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckeye, California [S], California Buckeye [S,P,H,B,DEN1,FEIS,L], California Horse Chestnut [H],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

A deciduous tree growing to 12m by 10m at a medium rate. It is hardy to zone 7 and is frost tender. It is in flower from July to August, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Seed.

Seed - cooked[22, 46, 63, 92, 94, 95]. It can be dried, ground into a powder and used as a gruel[2]. The seed contains about 23% protein and has an agreeable taste[213]. The seed is large, and can be up to 5cm in diameter[82]. It is often produced abundantly in the warmer areas of Britain and is easily harvested[K]. This was the most commonly used Aesculus species in N. America[213]. It does, however, contain poisonous saponins (see the notes above on toxicity) and so needs careful preparation before being eaten. The seed needs to be leached of these toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 23

Medicinal Uses

Disclaimer

Expectorant; Odontalgic; Salve.

The seed contains saponins and can be used as an expectorant[94].

The crushed fruit is applied as a salve on haemorrhoids[257].

A decoction of the bark is used in the treatment of toothache and loose teeth[257].

Other Uses

Friction sticks; Soap; Wood.

The seed is rich in saponins, these are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - soft, light, very close grained[82]. Of no value as a lumber[229]. The wood was used as friction sticks for making fire by the North American Indians[257].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[11]. Requires a position in full sun[200]. Prefers dry sunny locations[126].

Although fairly hardy throughout Britain, it grows best in areas where winter temperatures do not fall below -10°c[200].

A moderately fast-growing and long-lived tree in the wild[229], in Britain it grows best in eastern and south-eastern England. Plants thrives at Kew[11].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Scent

Flowers: Fresh

> The flowers are scented.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aesculus californica*

Subject:

Aesculus californica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aesculus californica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:28:01 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Aesculus chinensis

Common name:	Chinese horse chestnut	Family:	Hippocastanaceae
Author:	Bunge.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	E. Asia - N. China.		
Habitat:	Mountains of Szechwan[178]		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	T'Ien Shih Li [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 25m by 10m at a slow rate. It is hardy to zone 6 and is frost tender. It is in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked. It can be dried and ground into a powder and used as a gruel. The seed is quite large, it can be 3cm in diameter, and is easily harvested. Unfortunately it is also rich in saponins, these must be removed before it can be used as a food and this process also removes many of the minerals and vitamins, leaving behind mainly starch. See also the notes above on toxicity.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213].

Medicinal Uses

Disclaimer

Antirheumatic; Emetic.

The seed is antirheumatic and emetic[178, 218]. The sweet tasting seed is said to be used in the treatment of contracted limbs that are due to palsy or rheumatism[178, 218]. It is also used in the treatment of stomach aches[218].

Other Uses

Soap; Wood.

Saponins in the seed are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[11].

Plants grow best in eastern and south-eastern areas of England, probably needing a continental climate in order to thrive[11, 200]. Although the trees are very hardy when dormant, the new growth can be damaged by late spring frosts[11].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Hippocastanaceae.

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References

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Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants: Aesculus flava. Genera: Aesculus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Aesculus chinensis

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Plants For A Future Rating (1-5):	3		

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aesculus chinensis*

Subject:

Aesculus chinensis

Group:
Plant Information

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aesculus chinensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:28:08 2004

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Aesculus flava

Group:
Plant Information

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Aesculus glabra

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Ohio buckeye	Family:	Hippocastanaceae
Author:	Willd.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern and Central N. America - Pennsylvania to Nebraska, south to Tennessee and Oklahoma.		
Habitat:	Usually found in moist sites such as river bottoms and streambank soils, but it is sometimes also found on drier sites though does not grow so well there[229].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckeye [E], Buckeye, Ohio [S], Fetid Buckeye [L], Kahle Kastanie [E], Marron Glabre [E], Ohio Buckeye [S,L,P,DEN1,B],
	From a Dictionary of Botanical Epithets

Epithets:	glabra = glabrous;
Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious tree growing to 20m. It is hardy to zone 5 and is frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[222]. It can be dried, ground into a flour and used as a gruel. The seed is quite large, up to 35mm in diameter[82], and is easily harvested[K]. It is quite rich in saponins and needs to be leached of these toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days. By this time most of the minerals etc would also have been leached out[K].

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Most members of this genus transplant easily, even when fairly large[11].

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Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

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Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants:* *Aesculus flava*. *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Aesculus glabra

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Ohio buckeye	Family:	Hippocastanaceae
Author:	Willd.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern and Central N. America - Pennsylvania to Nebraska, south to Tennessee and Oklahoma.		
Habitat:	Usually found in moist sites such as river bottoms and streambank soils, but it is sometimes also found on drier sites though does not grow so well there[229].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckeye [E], Buckeye, Ohio [S], Fetid Buckeye [L], Kahle Kastanie [E], Marron Glabre [E], Ohio Buckeye [S,L,P,DEN1,B],
Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database

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Physical Characteristics

A decidious tree growing to 20m. It is hardy to zone 5 and is frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[222]. It can be dried, ground into a flour and used as a gruel. The seed is quite large, up to 35mm in diameter[82], and is easily harvested[K]. It is quite rich in saponins and needs to be leached of these toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days. By this time most of the minerals etc would also have been leached out[K].

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Add a comment on: *Aesculus glabra*

Subject:

Aesculus glabra

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aesculus glabra

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Aesculus hippocastanum

Common name:	Horse chestnut	Family:	Hippocastanaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins[10, 21, 65]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Europe - N. Greece and Albania. Naturalized in Britain[17].		
Habitat:	Mountain woods[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hippocastanum f. memmingeri[G] Hippocastanum vulgare[H]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Atkestanesi [E], Buckeye [E], Castagno D'India [E], Castanheiro Da India [E], Castano De India [E], Castano De Indias [E], Castogno D'India [E], Chataigne De Cheval [E], Common Horse Chestnut [H], Common Horse-chestnut [L], Eschilo [E], Horse Chestnut [S,H,P,E], Horse-chestnut [B,L], Horsechestnut [DEN1], Ippocastano [E], Marronnier D'Inde [E], Paarde Kastanje [E], Rosskastanie [E], Seiyo-Toti-No-Ki [E], Wilde Kastanje [E], Witte Paardenkastanje [D],
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless; hippocastanum = horse chestnut;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family
Other Range Info:	From the Ethnobotany Database
	Britain; France; Germany; Italy; Mexico; Netherlands; Portugal; Spain; Turkey; Us

Physical Characteristics

A decidious tree growing to 30m by 15m at a fast rate. It is hardy to zone 3 and is frost tender. It is in flower in May, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

The roasted seed is used as a coffee substitute[2, 7].

Seed - cooked. It can be dried, ground into a powder and used as a gruel[7, 46, 55, 61]. The seed is quite large, about 3cm in diameter, and is easily harvested. It is usually produced in abundance in Britain. Unfortunately the seed is also rich in saponins, these must be removed before it can be used as a food and this process also removes many of the minerals and vitamins, leaving behind mainly starch. See also the notes above on toxicity. The seed contains up to 40% water, 8 - 11%

protein and 8 - 26% toxic saponins[218].

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213].

Medicinal Uses

Disclaimer

Alterative; Analgesic; Antiinflammatory; Astringent; Bach; Diuretic; Expectorant; Febrifuge; Haemostatic; Narcotic; Tonic; Vasoconstrictor; Vulnerary.

Horse chestnut is an astringent, anti-inflammatory herb that helps to tone the vein walls which, when slack or distended, may become varicose, haemorrhoidal or otherwise problematic[254]. The plant also reduces fluid retention by increasing the permeability of the capillaries and allowing the re-absorption of excess fluid back into the circulatory system[254]. This plant is potentially toxic if ingested and should not be used internally without professional supervision[254].

Alterative, analgesic, haemostatic and vulnerary[165, 218].

The bark is anti-inflammatory, astringent, diuretic, febrifuge, narcotic, tonic and vasoconstrictive[4, 7, 222]. It is harvested in the spring and dried for later use[4]. The plant is taken in small doses internally for the treatment of a wide range of venous diseases, including hardening of the arteries, varicose veins, phlebitis, leg ulcers, haemorrhoids and frostbite[238, 254]. It is also made into a lotion or gel for external application[254]. A tea made from the bark is used in the treatment of malaria and dysentery, externally in the treatment of lupus and skin ulcers[4, 222].

A tea made from the leaves is tonic and is used in the treatment of fevers and whooping cough[222, 240, 254].

The pericarp is peripherally vasoconstrictive[7].

The seeds are decongestant, expectorant and tonic[7, 21]. They have been used in the treatment of rheumatism, neuralgia and haemorrhoids[4]. They are said to be narcotic and that 10 grains of the nut are equal to 3 grains of opium[213].

An oil extracted from the seeds has been used externally as a treatment for rheumatism[254].

A compound of the powdered roots is analgesic and has been used to treat chest pains[257].

The buds are used in Bach flower remedies - the keywords for prescribing it are 'Failure to learn by experience', 'Lack of observation in the lessons of life' and hence 'The need of repetition'[209].

The flowers are used in Bach flower remedies - the keywords for prescribing it are 'Persistent unwanted thoughts' and 'Mental arguments and conversations'[209].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Soap; Starch; Tannin; Wood.

Saponins in the seed are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K]. The seed contains variable amounts of saponins, up to a maximum of 10%[240].

A starch obtained from the seed is used in laundering[100].

The bark and other parts of the plant contain tannin, but the quantities are not given[223].

A yellow dye is obtained from the bark[4].

The flowers contain the dyestuff quercetin[223].

Wood - soft, light, not durable. Of little commercial value, it is used for furniture, boxes, charcoal[2, 11, 46, 61].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy tolerating poorer drier soils[11, 200]. Tolerates exposed positions and atmospheric pollution[200].

A very ornamental and fast-growing tree[1, 4], it succeeds in most areas of Britain but grows best in eastern and south-eastern England[200]. Trees are very hardy when dormant, but the young growth in spring can be damaged by late frosts. The flowers have a delicate honey-like perfume[245].

Trees are tolerant of drastic cutting back and can be severely lopped[200]. They are prone to suddenly losing old heavy branches[98].

The tree comes into bearing within 20 years from seed[98].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Scent

Flowers: Fresh

> The flowers have a delicate honey-like perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Soap Plants

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *aesculus hippocastanum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Hippocastanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981

A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants, including Distylium racemosum and some perennial members of the family Berberidaceae.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*

An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996

ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal PayPal DONATE

Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants: Aesculus flava. Genera: Aesculus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aesculus+hippocastanum`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Aesculus+hippocastanum`

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Plants For A Future: Database Search Results

Aesculus hippocastanum

Common name:	Horse chestnut	Family:	Hippocastanaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins[10, 21, 65]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Europe - N. Greece and Albania. Naturalized in Britain[17].		
Habitat:	Mountain woods[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

The roasted seed is used as a coffee substitute[2, 7].

Seed - cooked. It can be dried, ground into a powder and used as a gruel[7, 46, 55, 61]. The seed is quite large, about 3cm in diameter, and is easily harvested. It is usually produced in abundance in Britain. Unfortunately the seed is also rich in saponins, these must be removed before it can be used as a food and this process also removes many of the minerals and vitamins, leaving behind mainly starch. See also the notes above on toxicity. The seed contains up to 40% water, 8 - 11% protein and 8 - 26% toxic saponins[218].

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Medicinal Uses

Disclaimer

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Horse chestnut is an astringent, anti-inflammatory herb that helps to tone the vein walls which, when slack or distended, may become varicose, haemorrhoidal or otherwise problematic[254]. The plant also reduces fluid retention by increasing the permeability of the capillaries and allowing the re-absorption of excess fluid back into the circulatory system[254]. This plant is potentially toxic if ingested and should not be used internally without professional supervision[254].

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make a credit card donation with PayPal

Other Uses

Dye; Soap; Starch; Tannin; Wood.

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A starch obtained from the seed is used in laundering[100].

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The flowers contain the dyestuff quercetin[223].

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Scent

Flowers: Fresh

The flowers have a delicate honey-like perfume.

Suppliers

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- [HP] PhotoFrom Henriette's plant pictures

References for the family Hippocastanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses

without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants, including Distylium racemosum and some perennial members of the family Berberidaceae.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants:* *Aesculus flava*. *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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Soap Plants

Commercially soaps are made by mixing an alkali (wood ashes or the ashes of other plants can be used) with an oil (usually palm oil) and then often adding substances such as herbal extracts or essential oils to give it a scent. Whilst this process can be done successfully on a small scale, we will look at another type of soap that can be produced much more easily.

Many plants contain substances called saponins - these are toxic glycosides and can be found, usually in low concentrations, in many of our foods, especially in beans and some leaves. Fortunately saponins are destroyed by prolonged heat and are also very poorly absorbed by the body, so most of what we ingest passes straight through us. These saponins, however, are not without their uses and one of their properties is to form a lather in water that is a gentle but effective cleaner. A number of plants contain quite high concentrations of saponins and have been used as an alternative soap. One of the best known examples of this, at least in Europe, is our native wild flower Soapwort (Saponaria officinalis). This is a perennial plant usually found in damper soils in woods, hedgerows, by streams, etc. It is still used nowadays particularly for cleaning delicate fabrics, including the Bayeaux Tapestry! The saponins are extracted by boiling for a short time and then infusing the whole plant. It can also be used as a hair and body wash. Closely related to Soapwort are a number of other native plants that contain useful quantities of saponins, including Ragged Robin (Lychnis flos-cuculi) and many of the Campions (Silene spp).

Bracken (Pteridium aquilinum) is another native plant that has a report of being rich in saponins, the rhizome is used. This is just one of a number of uses for this ubiquitous weed; a glue can be made from the rootstock, the fronds are used as a packing material - it is excellent for lining fruit baskets where it repels insects and helps prevent rotting, a compost made from the fronds is excellent for tree seedlings. The root and young fronds have been eaten but there is some evidence to suggest that they are carcinogenic.

The Horse Chestnut (Aesculus hippocastanum) is a native of S. Europe but has been grown in Britain for so long that you would be forgiven for thinking it was native. Its seeds are rich in saponins and will lather well in cold, preferably soft, water when rubbed between the hands like a bar of soap. A fairly effective cleanser though it does leave its smell behind! The seed is a good source of edible starch if the saponins are first removed by leeching in water and then by thorough cooking. Since this process also removes most of the vitamins and minerals (and the starch is less than exquisite), we'll leave this to more dedicated wild food enthusiasts. Other members of the genus have similar uses.

North America provides quite a number of 'soap plants'. One very interesting plant is the Soap Lily (Chlorogalum pomeridianum) - a bulbous plant from California where it grows on dry, open hills and plains and occasionally in woods. Although not often seen in Britain it grows quite well here if given a reasonably rich, well drained soil. The bulb, stripped of its outer covering, is very rich in saponins and can as be dried and grated up as required to be used as soap flakes. This bulb, if given a long slow baking, can be eaten and is said to be very nice - we've not tried it yet and have some reservations, particularly having read that a fibre from the bulb is used as a stuffing for mattresses and to make small brushes. The sap that exudes from a baking bulb can be used as a glue and the young spring growth can be eaten - it is said to be sweet when baked. Altogether a very useful plant.

Ceanothus cuneatus is another Californian growing on dry slopes. An evergreen shrub, it requires a sunny position in a light soil - it does not like chalk nor does it like being transplanted - so should be pot grown prior to being put in its final position. Probably not hardy away from southern Britain. The flowers are used and these impart a pleasant aroma. Indeed the N. American Indians often used them when bathing and a bride would traditionally use them on her wedding night. Most other members of the genus could be similarly used.

There are many species of Yucca growing in the more arid areas of southern N. America and a surprising number of them are hardy in most areas of Britain if given a free draining soil and a sunny position. These plants were a vital part of the local economy, providing food (fruits, flowers, and flowering stems), fibres for ropes etc, leaves for basketry and as brooms, plus a soap from the root. This soap is said to be a particularly good hair wash. Species to try include Y. baccata, Y. filamentosa, Y. glauca, Y. gloriosa and Y. whipplei.

Philadelphus lewisii comes from western N. America where it grows in gullies, along water courses and on rocky cliffs and hillsides. In Britain it prefers a loamy soil, and full sun or partial shade. The leaves and flowers lather well in cold water, an infusion of the bark can also be used.

You might also be intrested in the following sites: Soap Making Past and present soap making. Files about soap making Including an FAQ. Note for UK readers I think Lye is made from wood ash.

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Readers Comments:

Soap Plants

Anita Olson & Mary Boyer Sun Mar 19 22:31:25 2000

Please inform us on anything dealing with the Soapweed Plant grown in the Nebraska Sandhills area of Nebraska. (Yucca Glauca) We also would like any information on transplanting, growing from seed, harvesting (time, etc.), rules, laws and regulations. We appreciate any information that you can provide for us. Thank you, soapweed@aol.com or BoyerEnt1@aol.com

Details of Growing Condition: Sandhills of Nebraska, sandy soil.

Add a Follow up to this comment

Soap Plants

lisa mercardo (sweetheart_132@hotmail.com) Wed Apr 12 21:26:12 2000

Its very good.

But we like to know the pollution related to soil and how can soap affects the plants?

Thank you

Add a Follow up to this comment

Soap Plants

Unknown (mekka@teleport.com) Tue Apr 24 02:34:39 2001

Great site! Do you have information on an asian soap plant that has a green nut which, when opened, has a liquid inside that is used as soap/shampoo?

Add a Follow up to this comment

Soap Plants

Marie (wish@penalvagold.net) Sun Feb 9 15:02:46 2003

Hi, Yes, lye can be made from wood ash, but it is much easier to use caustic soda, available in supermarkets. Nasty stuff in itself, but essential to the soap-making process and fine once you've used it!

Add a Follow up to this comment

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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soap.html

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Date: Sun May 16 01:28:24 2004

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Plants For A Future: Database Search Results

Aesculus hippocastanum

Common name:	Horse chestnut	Family:	Hippocastanaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins[10, 21, 65]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Europe - N. Greece and Albania. Naturalized in Britain[17].		
Habitat:	Mountain woods[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hippocastanum f. memmingeri[G] Hippocastanum vulgare[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Atkestanesi [E], Buckeye [E], Castagno D'India [E], Castanheiro Da India [E], Castano De India [E], Castano De Indias [E], Castogno D'India [E], Chataigne De Cheval [E], Common Horse Chestnut [H], Common Horse-chestnut [L], Eschilo [E], Horse Chestnut [S,H,P,E], Horse-chestnut [B,L], Horsechestnut [DEN1], Ippocastano [E], Marronnier D'Inde [E], Paarde Kastanje [E], Rosskastanie [E], Seiyo-Toti-No-Ki [E], Wilde Kastanje [E], Witte Paardenkastanje [D],
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless; hippocastanum = horse chestnut;

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family
Other Range Info:	From the Ethnobotany Database
	Britain; France; Germany; Italy; Mexico; Netherlands; Portugal; Spain; Turkey; Us

Physical Characteristics

A decidious tree growing to 30m by 15m at a fast rate. It is hardy to zone 3 and is frost tender. It is in flower in May, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

The roasted seed is used as a coffee substitute[2, 7].

Seed - cooked. It can be dried, ground into a powder and used as a gruel[7, 46, 55, 61]. The seed is quite large, about 3cm in diameter, and is easily harvested. It is usually produced in abundance in Britain. Unfortunately the seed is also rich in saponins, these must be removed before it can be used as a food and this process also removes many of the minerals and vitamins, leaving behind mainly starch. See also the notes above on toxicity. The seed contains up to 40% water, 8 - 11% protein and 8 - 26% toxic saponins[218].

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213].

Medicinal Uses

Disclaimer

Alterative; Analgesic; Antiinflammatory; Astringent; Bach; Diuretic; Expectorant; Febrifuge; Haemostatic; Narcotic; Tonic; Vasoconstrictor; Vulnerary.

Horse chestnut is an astringent, anti-inflammatory herb that helps to tone the vein walls which, when slack or distended, may become varicose, haemorrhoidal or otherwise problematic[254]. The plant also reduces fluid retention by increasing the permeability of the capillaries and allowing the re-absorption of excess fluid back into the circulatory system[254]. This plant is potentially toxic if ingested and should not be used internally without professional supervision[254].

Alterative, analgesic, haemostatic and vulnerary[165, 218].

The bark is anti-inflammatory, astringent, diuretic, febrifuge, narcotic, tonic and vasoconstrictive[4, 7, 222]. It is harvested in the spring and dried for later use[4]. The plant is taken in small doses internally for the treatment of a wide range of venous diseases, including hardening of the arteries, varicose veins, phlebitis, leg ulcers, haemorrhoids and frostbite[238, 254]. It is also made into a lotion or gel for external application[254]. A tea made from the bark is used in the treatment of malaria and dysentery, externally in the treatment of lupus and skin ulcers[4, 222].

A tea made from the leaves is tonic and is used in the treatment of fevers and whooping cough[222, 240, 254].

The pericarp is peripherally vasoconstrictive[7].

The seeds are decongestant, expectorant and tonic[7, 21]. They have been used in the treatment of rheumatism, neuralgia and haemorrhoids[4]. They are said to be narcotic and that 10 grains of the nut are equal to 3 grains of opium[213].

An oil extracted from the seeds has been used externally as a treatment for rheumatism[254].

A compound of the powdered roots is analgesic and has been used to treat chest pains[257].

The buds are used in Bach flower remedies - the keywords for prescribing it are 'Failure to learn by experience', 'Lack of observation in the lessons of life' and hence 'The need of repetition'[209].

The flowers are used in Bach flower remedies - the keywords for prescribing it are 'Persistent unwanted thoughts' and 'Mental arguments and conversations'[209].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

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Other Uses

Dye; Soap; Starch; Tannin; Wood.

Saponins in the seed are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K]. The seed contains variable amounts of saponins, up to a maximum of 10%[240].

A starch obtained from the seed is used in laundering[100].

The bark and other parts of the plant contain tannin, but the quantities are not given[223].

A yellow dye is obtained from the bark[4].

The flowers contain the dyestuff quercetin[223].

Wood - soft, light, not durable. Of little commercial value, it is used for furniture, boxes, charcoal[2, 11, 46, 61].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy tolerating poorer drier soils[11, 200]. Tolerates exposed positions and atmospheric pollution[200].

A very ornamental and fast-growing tree[1, 4], it succeeds in most areas of Britain but grows best in eastern and south-eastern England[200]. Trees are very hardy when dormant, but the young growth in spring can be damaged by late frosts. The flowers have a delicate honey-like perfume[245].

Trees are tolerant of drastic cutting back and can be severely lopped[200]. They are prone to suddenly losing old heavy branches[98].

The tree comes into bearing within 20 years from seed[98].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Scent

Flowers: Fresh

The flowers have a delicate honey-like perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Aesculus indica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Indian horse chestnut	Family:	Hippocastanaceae
Author:	(Wallich. ex Camb.) Hook.	Botanical references:	11, 51, 200
Synonyms:	Pavia indica (Wall. ex Camb.)		
Known Hazards:	The seed is rich in saponins[20, 65]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	E. Asia - North-western Himalayas.		
Habitat:	Wet temperate forests and shady ravines to 3,000 metres[51, 243].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Horse Chestnut [H],
Epithets:	From a Dictionary of Botanical Epithets
	indica = Indian;
	From a UDSA Plants Database

Systematics:	Order: Sapindales . Horse-chestnut family
Other Range Info:	From the Ethnobotany Database
	India

Physical Characteristics

A decidious tree growing to 30m by 12m . It is hardy to zone 7 and is frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked. It can be dried, ground into a powder and used as a gruel[2, 63, 145, 146, 158]. The seed is quite large, about 35mm in diameter[194], and is easily harvested. Unfortunately it also contains toxic saponins and these need to be removed before it can be eaten. The seed is used as an emergency food in times of famine when all else fails[177]. It is dried and ground into a powder, this is then soaked in water for about 12 hours before use in order to remove the bitter saponins and can be used to make a 'halva'[194]. It is estimated that mature trees yield about 60kg of seeds per annum in the wild[194]. See also the notes above on toxicity.

Medicinal Uses

Disclaimer

Antirheumatic; Stomachic.

An oil from the seed is applied externally in the treatment of rheumatism[240, 243].

The seed is given to horses suffering from colic[240, 243].

Other Uses

Soap; Wood.

Saponins in the seed are used as a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - soft, close grained. Used for construction, cases, spoons, cups etc[145, 146, 158].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11, 200]. Succeeds on chalk[11]. Dislikes dry soils[11].

This species does very well in south-west England, growing best in areas where the minimum temperatures do not fall below about -5°c[200]. Young shoots in the spring can be cut back by late frosts in low-lying districts[11, 126].

Trees cast quite a dense shade[194].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Suppliers

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Web References

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Hippocastanaceae.

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Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

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> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

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Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants:* *Aesculus flava*. *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Habitat:	Wet temperate forests and shady ravines to 3,000 metres[51, 243].		
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Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
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A decidious tree growing to 30m by 12m . It is hardy to zone 7 and is frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

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Woodland, Canopy.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aesculus indica*

Subject:

Aesculus indica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aesculus indica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:28:34 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Aesculus parviflora

Common name:		Family:	Hippocastanaceae
Author:	Walt.	Botanical references:	11, 72, 200
Synonyms:	Pavia macrostachya ((Michx.)Loisel.), Aesculus macrostachya (Michx.)		
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Georgia and Alabama to Florida.		
Habitat:	Wooded bluffs and rich woods, also by streams, on the coastal plain[72, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below. Bottlebrush Buckeye [B,P,DEN1], Horse Chestnut [H],
Epithets:	From a Dictionary of Botanical Epithets flora = flowered; parviflora = small flowered;
Systematics:	From a UDSA Plants Database

	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious shrub growing to 4m by 4m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower in August, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Seed.

Seed - cooked[2, 22, 105, 177]. It can be dried and ground into a powder and used as a gruel. The seed is quite large and easily harvested, though it is rarely produced in Britain[11]. Unfortunately, it is rich in bitter-tasting saponins and these need to be leached out before the seed can be eaten. See notes on toxicity above.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Medicinal Uses

Disclaimer

Antiperiodic; Antirheumatic; Miscellany.

Antiperiodic, antirheumatic[194]. Used in the treatment of colic, piles, constipation and whooping cough[194].

Other Uses

Ground cover; Soap; Wood.

Saponins contained in the seed are used a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Plants can be used as a tall ground cover for large areas of land[208]. They are slow to establish but eventually form large spreading clumps[208].

Wood - easily worked. Used for making water troughs, packing cases, tea boxes, ornamental articles etc[194].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11]. Succeeds in most situations in sun or shade[126, 200]. Plants are very shade tolerant[200].

A very ornamental plant[1, 11], it is hardy to about -20°c[184] though it is slow to establish[208]. The young growth in spring can be damaged by late frosts. The flowers have a delicate honey perfume[245].

This species does best on the western side of Britain according to one report[126] whilst another says that it is best in a continental climate, which would suggest that it was best grown in the eastern half of the country[200].

Trees rarely fruit in Britain except after a long hot, dry summer[11, 130].

Spreads freely by suckers[182]. Grows well on a lawn[11].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Root cuttings 5 - 7 cm long in December. Store the roots upside down in sand and pot them up in

March/April[78]. Grow them on until they are 20cm or more tall and then plant them out into their permanent positions, preferably in late spring or early summer after the last expected frosts.

Division of suckers in the dormant season[200]. The suckers can be planted out direct into their permanent positions if required.

Scent

Flowers: Fresh

The flowers have a delicate honey perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local

ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants: Aesculus flava. Genera: Aesculus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Aesculus parviflora

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Range:	Southern N. America - Georgia and Alabama to Florida.		
Habitat:	Wooded bluffs and rich woods, also by streams, on the coastal plain[72, 184].		
Plants For A Future Rating (1-5):	3		

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Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; parviflora = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious shrub growing to 4m by 4m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower in August, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Seed.

Seed - cooked[2, 22, 105, 177]. It can be dried and ground into a powder and used as a gruel. The seed is quite large and easily harvested, though it is rarely produced in Britain[11]. Unfortunately, it is rich in bitter-tasting saponins and these need to be leached out before the seed can be eaten. See notes on toxicity above.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Synonyms:	Pavia macrostachya ((Michx.)Loisel.), Aesculus macrostachya (Michx.)		
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Georgia and Alabama to Florida.		
Habitat:	Wooded bluffs and rich woods, also by streams, on the coastal plain[72, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bottlebrush Buckeye [B,P,DEN1], Horse Chestnut [H],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; parviflora = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious shrub growing to 4m by 4m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower in August, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Seed.

Seed - cooked[2, 22, 105, 177]. It can be dried and ground into a powder and used as a gruel. The seed is quite large and easily harvested, though it is rarely produced in Britain[11]. Unfortunately, it is rich in bitter-tasting saponins and these need to be leached out before the seed can be eaten. See notes on toxicity above.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Medicinal Uses

Disclaimer

Antiperiodic; Antirheumatic; Miscellany.

Antiperiodic, antirheumatic[194]. Used in the treatment of colic, piles, constipation and whooping cough[194].

Other Uses

Ground cover; Soap; Wood.

Saponins contained in the seed are used a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Plants can be used as a tall ground cover for large areas of land[208]. They are slow to establish but eventually form large spreading clumps[208].

Wood - easily worked. Used for making water troughs, packing cases, tea boxes, ornamental articles etc[194].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11]. Succeeds in most situations in sun or shade[126, 200]. Plants are very shade tolerant[200].

A very ornamental plant[1, 11], it is hardy to about -20°c[184] though it is slow to establish[208]. The young growth in spring can be damaged by late frosts. The flowers have a delicate honey perfume[245].

This species does best on the western side of Britain according to one report[126] whilst another says that it is best in a continental climate, which would suggest that it was best grown in the eastern half of the country[200].

Trees rarely fruit in Britain except after a long hot, dry summer[11, 130].

Spreads freely by suckers[182]. Grows well on a lawn[11].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Root cuttings 5 - 7 cm long in December. Store the roots upside down in sand and pot them up in

March/April[78]. Grow them on until they are 20cm or more tall and then plant them out into their permanent positions, preferably in late spring or early summer after the last expected frosts.

Division of suckers in the dormant season[200]. The suckers can be planted out direct into their permanent positions if required.

Scent

Flowers: Fresh

The flowers have a delicate honey perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aesculus+parviflora`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Aesculus+parviflora`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aesculus parviflora*

Subject:

Aesculus parviflora

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aesculus parviflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:28:42 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Aesculus pavia

Common name:	Red buckeye	Family:	Hippocastanaceae
Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - Virginia to Florida, west to Louisiana.		
Habitat:	Rich moist soils in deciduous woods, on the sides of streams and swamp margins[149, 192, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckeye [H], Red Buckeye [P,B,H,L,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious shrub growing to 5m by 3m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Seed.

Seed - cooked. It can be dried and ground into a powder and used as a gruel. The seed is quite large, about 25mm in diameter[227], and is easily harvested. Unfortunately, the seed is also rich in saponins and these need to be removed before it can be eaten. See also the notes above on toxicity.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Medicinal Uses

Disclaimer

Cancer; Hypnotic; Odontalgic; Salve.

The powdered bark is hypnotic and odontalgic. It is used in the treatment of ulcers[149, 192, 227].

A poultice of the powdered seeds has been used in the treatment of cancer tumours and infections, and as a salve for sores[257].

An infusion of the roots has been used as a bath in the treatment of dyspepsia[257].

Other Uses

Soap; Wood.

Saponins in the seed and roots are a soap substitute[149, 169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11]. Very shade tolerant, it also succeeds in a sunny position[200].

A very ornamental shrub, when dormant it is hardy to about -15°c[184] though the young growth in spring can be damaged by late frosts. It prefers a continental climate, growing best in eastern and south-eastern England[200].

Trees are fast-growing in the wild, though they are also short-lived[229]. They can commence flowering when only 1 metre tall[229]. Plants spread by means of suckers[200].

There are a number of named varieties, developed for their ornamental value. Var. 'Humilis' is a low growing form[182].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Division of suckers in the dormant season[200]. The suckers can be planted out straight into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Hippocastanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
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[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
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Covers all aspects of growing your own clothes, from fibre plants to dyes.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants:* *Aesculus flava*. *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aesculus+pavia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Aesculus+pavia`

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Plants For A Future: Database Search Results

Aesculus pavia

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Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - Virginia to Florida, west to Louisiana.		
Habitat:	Rich moist soils in deciduous woods, on the sides of streams and swamp margins[149, 192, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious shrub growing to 5m by 3m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

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soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Seed.

Seed - cooked. It can be dried and ground into a powder and used as a gruel. The seed is quite large, about 25mm in diameter[227], and is easily harvested. Unfortunately, the seed is also rich in saponins and these need to be removed before it can be eaten. See also the notes above on toxicity.

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Other Uses

Soap; Wood.

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Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11]. Very shade tolerant, it also succeeds in a sunny position[200].

A very ornamental shrub, when dormant it is hardy to about -15°c[184] though the young growth in spring can be damaged by late frosts. It prefers a continental climate, growing best in eastern and south-eastern England[200].

Trees are fast-growing in the wild, though they are also short-lived[229]. They can commence flowering when only 1 metre tall[229]. Plants spread by means of suckers[200].

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped. You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants:* *Aesculus flava*. *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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Plants For A Future: Database Search Results

Aesculus pavia

Common name:	Red buckeye	Family:	Hippocastanaceae
Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - Virginia to Florida, west to Louisiana.		
Habitat:	Rich moist soils in deciduous woods, on the sides of streams and swamp margins[149, 192, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckeye [H], Red Buckeye [P,B,H,L,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious shrub growing to 5m by 3m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Seed.

Seed - cooked. It can be dried and ground into a powder and used as a gruel. The seed is quite large, about 25mm in diameter[227], and is easily harvested. Unfortunately, the seed is also rich in saponins and these need to be removed before it can be eaten. See also the notes above on toxicity.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Medicinal Uses

Disclaimer

Cancer; Hypnotic; Odontalgic; Salve.

The powdered bark is hypnotic and odontalgic. It is used in the treatment of ulcers[149, 192, 227].

A poultice of the powdered seeds has been used in the treatment of cancer tumours and infections, and as a salve for sores[257].

An infusion of the roots has been used as a bath in the treatment of dyspepsia[257].

Other Uses

Soap; Wood.

Saponins in the seed and roots are a soap substitute[149, 169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11]. Very shade tolerant, it also succeeds in a sunny position[200].

A very ornamental shrub, when dormant it is hardy to about -15°c[184] though the young growth in spring can be damaged by late frosts. It prefers a continental climate, growing best in eastern and south-eastern England[200].

Trees are fast-growing in the wild, though they are also short-lived[229]. They can commence flowering when only 1 metre tall[229]. Plants spread by means of suckers[200].

There are a number of named varieties, developed for their ornamental value. Var. 'Humilis' is a low growing form[182].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Division of suckers in the dormant season[200]. The suckers can be planted out straight into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aesculus pavia*

Subject:

Aesculus pavia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aesculus pavia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:28:49 2004

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Aesculus turbinata

Common name:	Japanese horse chestnut	Family:	Hippocastanaceae
Author:	Bl.	Botanical references:	58
Synonyms:	Aesculus dissimilis		
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	E. Asia - China, Japan		
Habitat:	Mountains, especially in ravines, all over Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Horse Chestnut [P], Toti-No-Ki [E],
Epithets:	From a Dictionary of Botanical Epithets
	binata = paired; turbinata = top shaped;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 20m by 12m . It is hardy to zone 6 and is frost tender. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Leaves; Seed.

Young leaves cooked[177]. Some caution is advised on this entry since the leaves are likely to contain toxic saponins (see notes above on toxicity).

Seed - cooked. It can be dried, ground into a flour and used as a gruel. The starch is extracted and eaten[177]. The seed is quite large, about 25 - 30mm in diameter, and is easily harvested. Unfortunately it is also rich in saponins and these need to be removed before the seed can be eaten. See also the notes above on toxicity.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap; Wood.

Saponins in the seed are a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - weak, nicely grained. Used for house fittings, domestic items etc[11].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

The dormant plant is very cold-hardy, though the young growth in spring can be damaged by late frosts. It prefers growing in a continental climate, doing best in eastern and south-eastern England[200].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

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References for the family Hippocastanaceae.

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Readers Comments

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Cross references: *Plants: Aesculus flava. Genera: Aesculus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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Medicinal Uses

Disclaimer

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Cross references: *Plants:* *Aesculus flava*. *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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Plants For A Future: Database Search Results

Aesculus turbinata

Common name:	Japanese horse chestnut	Family:	Hippocastanaceae
Author:	Bl.	Botanical references:	58
Synonyms:	Aesculus dissimilis		
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	E. Asia - China, Japan		
Habitat:	Mountains, especially in ravines, all over Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Horse Chestnut [P], Toti-No-Ki [E],
Epithets:	From a Dictionary of Botanical Epithets
	binata = paired; turbinata = top shaped;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 20m by 12m . It is hardy to zone 6 and is frost tender. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Leaves; Seed.

Young leaves cooked[177]. Some caution is advised on this entry since the leaves are likely to contain toxic saponins (see notes above on toxicity).

Seed - cooked. It can be dried, ground into a flour and used as a gruel. The starch is extracted and eaten[177]. The seed is quite large, about 25 - 30mm in diameter, and is easily harvested. Unfortunately it is also rich in saponins and these need to be removed before the seed can be eaten. See also the notes above on toxicity.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap; Wood.

Saponins in the seed are a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Wood - weak, nicely grained. Used for house fittings, domestic items etc[11].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

The dormant plant is very cold-hardy, though the young growth in spring can be damaged by late frosts. It prefers growing in a continental climate, doing best in eastern and south-eastern England[200].

Most members of this genus transplant easily, even when fairly large[11].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aesculus turbinata*

Subject:

Aesculus turbinata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aesculus turbinata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Aesculus x carnea

Common name:	Red horse chestnut	Family:	Hippocastanaceae
Author:	Hayne.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	A cultivated hybrid of garden origin, A. hippocastanum x A. pavia.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hippocastanum x pavia[H] A. x carnea var. plantierensis[G]
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	Pink Horse Chestnut [H], Rode Paardenkastanje [D],
Epithets:	From a Dictionary of Botanical Epithets
	carnea = flesh colored;

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 25m. It is hardy to zone 4 and is frost tender. It is in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

We have no details for this species, but the following notes almost certainly apply to it.

Seed - cooked. It can be dried, ground into a flour and used as a gruel. The seed is quite large, about 20mm in diameter, and is also easily harvested. Unfortunately, it is rich in saponins and these toxins need to be removed before the seed can be eaten. See also the notes above on toxicity.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Medicinal Uses

Disclaimer

Bach.

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Excessive fear' and 'Anxiety for others'[209].

Other Uses

Soap.

Saponins in the seed are a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

The dormant tree tolerates temperatures down to at least -15°c[200], though the young growth in spring can be damaged by late frosts. It prefers a continental climate, growing best in eastern and south-eastern England[200].

There are some named forms selected for their ornamental value[11, 200].

Most members of this genus transplant easily, even when fairly large[11].

Abnormal cell development in this species may result in eruptions on trunks over 30cm in diameter - these ultimately decay[200].

Although a hybrid species, it breeds true from seed due to a doubling of the chromosomes[11, 17].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer. This species is a garden hybrid though it breeds relatively true from seed[200].

Cultivars

"

> There are many named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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References for the family Hippocastanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Details the 38 remedies plus how and where to prescribe them.

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Readers Comments

Aesculus flava

Mike Creel Tue Oct 26 20:14:56 1999

Rich, I e-mailed you area about the toxicity of buckeyes. Dr. Duke is an authority in this area. This information should be useful to you.

From: Jim Duke[SMTP:jimduke@cpcug.org]

> Hi Mike; being as sweet as dosen't make it edible.

> I have for the first time in my life a chestnut and a horsechestnut (really I'm growin a local ornamental Aesculus which set seed). harvested in my own yard. I won't eat but one of them.

> I treat all Aesculus as poisonous and think the europeans who are selling horse chestnut are downplaying the poisonous natures.

Note from Rich: detailed information on the active ingredients of this plant have been snipped.

You can detailed info at Ethnobotany Database or one of the other online database mentioned above.

Cross references: *Plants:* *Aesculus flava*. *Genera:* *Aesculus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: A-B*.

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Aesculus x carnea

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Author:	Hayne.	Botanical references:	11, 200
Synonyms:			
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Range:	A cultivated hybrid of garden origin, A. hippocastanum x A. pavia.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	carnea = flesh colored;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 25m. It is hardy to zone 4 and is frost tender. It is in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

We have no details for this species, but the following notes almost certainly apply to it.

Seed - cooked. It can be dried, ground into a flour and used as a gruel. The seed is quite large, about 20mm in diameter, and is also easily harvested. Unfortunately, it is rich in saponins and these toxins need to be removed before the seed can be eaten. See also the notes above on toxicity.

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Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

The dormant tree tolerates temperatures down to at least -15°c[200], though the young growth in spring can be damaged by late frosts. It prefers a continental climate, growing best in eastern and south-eastern England[200].

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Aesculus x carnea

Common name:	Red horse chestnut	Family:	Hippocastanaceae
Author:	Hayne.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The seed is rich in saponins[169]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also normally remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	A cultivated hybrid of garden origin, A. hippocastanum x A. pavia.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hippocastanum x pavia[H] A. x carnea var. plantierensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pink Horse Chestnut [H], Rode Paardenkastanje [D],
Epithets:	From a Dictionary of Botanical Epithets
	carnea = flesh colored;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Horse-chestnut family

Physical Characteristics

A decidious tree growing to 25m. It is hardy to zone 4 and is frost tender. It is in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

We have no details for this species, but the following notes almost certainly apply to it.

Seed - cooked. It can be dried, ground into a flour and used as a gruel. The seed is quite large, about 20mm in diameter, and is also easily harvested. Unfortunately, it is rich in saponins and these toxins need to be removed before the seed can be eaten. See also the notes above on toxicity.

The following notes apply to A. californica, but are probably also relevant here:-

The seed needs to be leached of toxins before it becomes safe to eat - the Indians would do this by slow-roasting the nuts (which would have rendered the saponins harmless) and then cutting them into thin slices, putting them into a cloth bag and rinsing them in a stream for 2 - 5 days[213]. Most of the minerals etc would also have been leached out by this treatment[K].

Medicinal Uses

Disclaimer

Bach.

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Excessive fear' and 'Anxiety for others'[209].

Other Uses

Soap.

Saponins in the seed are a soap substitute[169]. The saponins can be easily obtained by chopping the seed into small pieces and infusing them in hot water. This water can then be used for washing the body, clothes etc. Its main drawback is a lingering odour of horse chestnuts[K].

Cultivation details

Prefers a deep loamy well-drained soil but is not too fussy[1, 11].

The dormant tree tolerates temperatures down to at least -15°c[200], though the young growth in spring can be damaged by late frosts. It prefers a continental climate, growing best in eastern and south-eastern England[200].

There are some named forms selected for their ornamental value[11, 200].

Most members of this genus transplant easily, even when fairly large[11].

Abnormal cell development in this species may result in eruptions on trunks over 30cm in diameter - these ultimately decay[200].

Although a hybrid species, it breeds true from seed due to a doubling of the chromosomes[11, 17].

Propagation

Seed - best sown outdoors or in a cold frame as soon as it is ripe[11, 80]. The seed germinates almost immediately and must be given protection from severe weather[130]. The seed has a very limited viability and must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing and even after this may still not be viable[80, 113]. It is best to sow the seed with its 'scar' downwards[130]. If sowing the seed in a cold frame, pot up the seedlings in early spring and plant them out into their permanent positions in the summer. This species is a garden hybrid though it breeds relatively true from seed[200].

Cultivars

"

> There are many named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Subject:

Aesculus x carnea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aesculus x carnea

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Plant Genera you would like this comment to be added to:

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Search for Latin Name: Aesculus

New Search: Aesculus Search

Latin Name	Common Name	Family	Synonyms	Rating
Aesculus californica	Californian buckeye	Hippocastanaceae	Pavia californica.; Pavia californica; Calothyrsus californica	3
Aesculus chinensis	Chinese horse chestnut	Hippocastanaceae		3
Aesculus flava	Sweet buckeye	Hippocastanaceae	Ae lutea. Ae octandra.; Aesculus octandra; Aesculus lutea; A. octandra var. vestita; A. octandra var. virginica	4
Aesculus glabra	Ohio buckeye	Hippocastanaceae		1
Aesculus hippocastanum	Horse chestnut	Hippocastanaceae	A. hippocastanum f. memmingeri; Hippocastanum vulgare	3
Aesculus indica	Indian horse chestnut	Hippocastanaceae	Pavia indica.; Pavia indica	3
Aesculus parviflora		Hippocastanaceae	Ae macrostachya. Pavia macrostachya; Pavia macrostachya; Aesculus macrostachya	3
Aesculus pavia	Red buckeye	Hippocastanaceae		3
Aesculus turbinata	Japanese horse chestnut	Hippocastanaceae	Ae dissimilis.; Aesculus dissimilis	3

Aesculus x carnea	Red horse chestnut	Hippocastanaceae	A. hippocastanum x pavia; A. x carnea var. plantierensis	3

New Search

Latin Name Aesculus

Common Name

Family

Rating 1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

Submit

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/find_lat?LAT=Aesculus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/find_lat?LAT=Aesculus`

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Subject:

Aesculus flava

Group:

Plant Information

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Aesculus flava

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Aesculus

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Subject:

Edible Trees and Shrubs Hardy in Britain: A-B

Group:
Comments on Web-Pages

Comment:

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Add a comment on: *Arbutus unedo*

Subject:

Arbutus unedo

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Subject:

Arbutus unedo, The Strawberry Tree

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Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Arbutus unedo

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

straw_tree.html

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Group:
Comments on Web-Pages

Comment:

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Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

straw_tree.html

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Could not find Common name in Portuguese: Medronheiro
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Subject:

Arbutus unedo, The Strawberry Tree

Group:
Comments on Web-Pages

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Arbutus unedo Common name in Portuguese: Medronheiro

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Add a comment on: *The Urban Garden*

Subject:

The Urban Garden

Group:
Comments on Web-Pages

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

urbangdn.html

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Arundo donax

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Giant reed	Family:	Gramineae
Author:	L.	Botanical references:	50, 200
Synonyms:	Arundo maxima		
Known Hazards:	None known		
Range:	S. Europe		
Habitat:	Ditches, riversides and marshland[7, 200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. donax var. versicolor[B] A. versicolor[B]
Other Common Names:	From various places around the Web, may not be correct. See below. Arundo [E], Cana [E], Canne De Provence [E], Ghab Farsi [E], Giant Reed [L,FEIS], Giant-reed [B], Giantreed [P], Herbe Roseau [E], Kamis [E], Qamish [E], Roseau [E], Z'Herbe Roseau [E],
Systematics:	From a UDSA Plants Database Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database Haiti; Iraq; Italy; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: New South Wales.

Physical Characteristics

Perennial growing to 6m by 4m . It is hardy to zone 6. It is in flower in September, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Hedge, Woodland, Sunny Edge.

Edible Uses

Leaves; Root.

Rhizome - raw or cooked[84]. The rhizome can be dried and ground into a powder to make bread, usually in conjunction with cereal flours[7, K]. It can also be roasted or boiled[84].

Leaves - cooked as a potherb[84]. They are very bitter[177]. The young shoots are used[177].

Medicinal Uses

Disclaimer

Diaphoretic; Diuretic; Emollient; Galactofuge; Hypotensive.

The root is diaphoretic, diuretic, emollient and galactofuge[7]. An infusion is said to stimulate menstrual discharge and diminish milk flow[240]. Isolated alkaloids have been experimentally shown to raise the blood pressure and contract the intestine and uterus[240]. The rhizome or rootstock is used in the treatment of dropsy. Boiled in wine with honey, the root or rhizome has been used for treating cancer[269].

The plant contains the alkaloid gramine. This is said to be a vasopressor, raising the blood pressure in dogs after small doses, causing a fall in larger doses[269].

The stems have been used as splints for broken limbs[257].

Other Uses

Basketry; Biomass; Broom; Dye; Hedge; Musical; Paper; Pipes; Plant support; Shelterbelt; Soil stabilization; Thatching; Weaving.

Brooms are made from the terminal panicles[7].

Plants are grown alongside irrigation canals to check soil erosion[169].

The plant can be grown as a windbreak screen[1, 169]. If cut down, the culms branch and in this form the plants can be used as a hedge[236].

The leaves can be woven into mats etc, whilst the split and flattened stems are used to make screens, walls of houses etc[46, 50, 61, 84].

A yellow dye is obtained from the pollen[257].

The stems of the plant have a multitude of applications. They are used as plant supports for vines and other climbing plants[7, 169, 269] and to make clarinets, bag-pipes etc[46, 61, 103]. They are also used as pipe stems[84], for roofing[46], to make screens, walking sticks and in basketry[100, 195]. They are used to make the reeds of clarinets and organ pipes[236]. The stems can be harvested as desired at any time of the year[269].

The fibre from the stems can be used to make a good quality paper[269]. This plant is currently (1995) under investigation at Rosewarne in Cornwall as a potential commercial paper crop for small-scale industries in SW. England[K].

Because of rather high yields from natural stands, the plant has been suggested as a source of biomass for energy production[7, 269]. Dry cane yields of ca 10, 15, and 20 tonnes per hectare were reported respectively from infertile, partly fertile and fertile soils[269]. According to the phytomass files annual productivity ranges from 10 to 59 tonnes per hectare, the latter figure from Westlake's (1963) estimate of 57 - 59 tonnes[269]. In addendum, Westlake cites evidence that Arundo donax can produce 40-75 MT/ha/yr. in warm temperate and tropical regions. Early vegetative growth has ME (metabolizable energy) of 2.22 megacalories/kg DM, while hay has an ME of only 1.37 (Gohl, 1981). Such annual productivity, if sustainable, makes this a notable energy candidate, especially when one considers the energy as a by-product, with leaf protein and potential pharmaceutical as primary products[269].

A particular type of cellulose is obtained from the plant[7]. In Italy, the plant is used in the manufacture of rayon[269].

Cultivation details

Prefers a moist fertile soil in a sunny sheltered position, preferably by water[1, 134, 200]. Tolerates a pH in the range 5.5 to 8.3. Plants can be grown as a specimen in lawns etc, succeeding in quite coarse grass[233]. Plants are succeeding in a site that is very exposed to maritime winds at Rosewarne in Cornwall[K].

Adapted to tropical, subtropical and warm temperate climates of the World, Giant reed is often found on sand dunes near seashores. It tolerates some salt. It grows best along river banks and in other wet places, and is best developed in poor sandy soil and in sunny situations. Said to tolerate all types of soils, from heavy clays to loose sands and gravelly soils. Ranging from Cool Temperate Wet through Tropical Dry to Wet Forest Life Zones, giant reed is reported to tolerate annual precipitation of 30 to 400cm, an average annual temperature range of 9 to 28.5°C and a pH in the range of 5.0 to 8.7[269].

One report says that this plant is only hardy in the milder areas of Britain[1] whilst another report says that it is hardy to between -5 and -10°c[200]. This contradicts with the hardiness zone rating of 6 which would make the plant hardy in most areas of Britain[200]. Plants thrive outdoors at Oxford Botanical Gardens[233] as well as at Hilliers Arboretum in Hampshire and the RHS Gardens in Surrey[K].

Extensively cultivated in S. Europe for basket making etc[50].

Plants rarely if ever flower in British gardens233].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow in a greenhouse in February to April. Stand the pots in about 3cm of water to keep the soil moist until the seed germinates. It usually germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Once they are 20cm or more tall, plant them out into their permanent positions in late spring or early summer.

Division in spring[1]. Whilst large divisions can be planted out direct into their permanent positions, we have found that it is best to pot the divisions up and keep them in light shade in a greenhouse until they are rooting away well.

Stem cuttings, placed in water, root easily[1].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: A
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with

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Readers Comments

Edible Shrubs

(un)leash Thu May 17 05:35:05 2001

Is ARUNDO DONAX edible at any stage along the way?

The reason being that here in California it is an exotic strangling out native plants in waterways, and the main response has been horrible herbicides.

It seems to me that if it is indeed edible it could be HARVESTED and thus sustainably used, so that it won't spread.

Does anyone know about the edible or medicinal qualities of ARUNDO DONAX?

If so, please email (un)leash at COURTJESTERHELTERSKELTER@HOTMAIL.COM.

Thank you.

Cross references: *Web-pages:* *Edible Shrubs*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.

Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Arundo+donax`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Arundo+donax`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Arundo donax

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Giant reed	Family:	Gramineae
Author:	L.	Botanical references:	50, 200
Synonyms:	Arundo maxima		
Known Hazards:	None known		
Range:	S. Europe		
Habitat:	Ditches, riversides and marshland[7, 200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. donax var. versicolor[B] A. versicolor[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arundo [E], Cana [E], Canne De Provence [E], Ghab Farsi [E], Giant Reed [L,FEIS], Giant-reed [B], Giantreed [P], Herbe Roseau [E], Kamis [E], Qamish [E], Roseau [E], Z'Herbe Roseau [E],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Haiti; Iraq; Italy; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales.

Physical Characteristics

Perennial growing to 6m by 4m . It is hardy to zone 6. It is in flower in September, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Hedge, Woodland, Sunny Edge.

Edible Uses

Leaves; Root.

Rhizome - raw or cooked[84]. The rhizome can be dried and ground into a powder to make bread, usually in conjunction with cereal flours[7, K]. It can also be roasted or boiled[84].

Leaves - cooked as a potherb[84]. They are very bitter[177]. The young shoots are used[177].

Medicinal Uses

Disclaimer

Diaphoretic; Diuretic; Emollient; Galactofuge; Hypotensive.

The root is diaphoretic, diuretic, emollient and galactofuge[7]. An infusion is said to stimulate menstrual discharge and diminish milk flow[240]. Isolated alkaloids have been experimentally shown to raise the blood pressure and contract the intestine and uterus[240]. The rhizome or rootstock is used in the treatment of dropsy. Boiled in wine with honey, the root or rhizome has been used for treating cancer[269].

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Basketry; Biomass; Broom; Dye; Hedge; Musical; Paper; Pipes; Plant support; Shelterbelt; Soil stabilization; Thatching; Weaving.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Arundo donax

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Giant reed	Family:	Gramineae
Author:	L.	Botanical references:	50, 200
Synonyms:	Arundo maxima		
Known Hazards:	None known		
Range:	S. Europe		
Habitat:	Ditches, riversides and marshland[7, 200].		
Plants For A Future Rating (1-5):	3		

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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Haiti; Iraq; Italy; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

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Bog Garden, Hedge, Woodland, Sunny Edge.

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Disclaimer

Diaphoretic; Diuretic; Emollient; Galactofuge; Hypotensive.

The root is diaphoretic, diuretic, emollient and galactofuge[7]. An infusion is said to stimulate menstrual discharge and diminish milk flow[240]. Isolated alkaloids have been experimentally shown to raise the blood pressure and contract the intestine and uterus[240]. The rhizome or rootstock is used in the treatment of dropsy. Boiled in wine with honey, the root or rhizome has been used for treating cancer[269].

The plant contains the alkaloid gramine. This is said to be a vasopressor, raising the blood pressure in dogs after small doses, causing a fall in larger doses[269].

The stems have been used as splints for broken limbs[257].

Other Uses

Basketry; Biomass; Broom; Dye; Hedge; Musical; Paper; Pipes; Plant support; Shelterbelt; Soil stabilization; Thatching; Weaving.

Brooms are made from the terminal panicles[7].

Plants are grown alongside irrigation canals to check soil erosion[169].

The plant can be grown as a windbreak screen[1, 169]. If cut down, the culms branch and in this form the plants can be used as a hedge[236].

The leaves can be woven into mats etc, whilst the split and flattened stems are used to make screens, walls of houses etc[46, 50, 61, 84].

A yellow dye is obtained from the pollen[257].

The stems of the plant have a multitude of applications. They are used as plant supports for vines and other climbing plants[7, 169, 269] and to make clarinets, bag-pipes etc[46, 61, 103]. They are also used as pipe stems[84], for roofing[46], to make screens, walking sticks and in basketry[100, 195]. They are used to make the reeds of clarinets and organ pipes[236]. The stems can be harvested as desired at any time of the year[269].

The fibre from the stems can be used to make a good quality paper[269]. This plant is currently (1995) under investigation at Rosewarne in Cornwall as a potential commercial paper crop for small-scale industries in SW. England[K].

Because of rather high yields from natural stands, the plant has been suggested as a source of biomass for energy production[7, 269]. Dry cane yields of ca 10, 15, and 20 tonnes per hectare were reported respectively from infertile, partly fertile and fertile soils[269]. According to the phytomass files annual productivity ranges from 10 to 59 tonnes per hectare, the latter figure from Westlake's (1963) estimate of 57 - 59 tonnes[269]. In addendum, Westlake cites evidence that Arundo donax can produce 40-75 MT/ha/yr. in warm temperate and tropical regions. Early vegetative growth has ME (metabolizable energy) of 2.22 megacalories/kg DM, while hay has an ME of only 1.37 (Gohl, 1981). Such annual productivity, if sustainable, makes this a notable energy candidate, especially when one considers the energy as a by-product, with leaf protein and potential pharmaceutical as primary products[269].

A particular type of cellulose is obtained from the plant[7]. In Italy, the plant is used in the manufacture of rayon[269].

Cultivation details

Prefers a moist fertile soil in a sunny sheltered position, preferably by water[1, 134, 200]. Tolerates a pH in the range 5.5 to 8.3. Plants can be grown as a specimen in lawns etc, succeeding in quite coarse grass[233]. Plants are succeeding in a site that is very exposed to maritime winds at Rosewarne in Cornwall[K].

Adapted to tropical, subtropical and warm temperate climates of the World, Giant reed is often found on sand dunes near seashores. It tolerates some salt. It grows best along river banks and in other wet places, and is best developed in poor sandy soil and in sunny situations. Said to tolerate all types of soils, from heavy clays to loose sands and gravelly soils. Ranging from Cool Temperate Wet through Tropical Dry to Wet Forest Life Zones, giant reed is reported to tolerate annual precipitation of 30 to 400cm, an average annual temperature range of 9 to 28.5°C and a pH in the range of 5.0 to 8.7[269].

One report says that this plant is only hardy in the milder areas of Britain[1] whilst another report says that it is hardy to between -5 and -10°c[200]. This contradicts with the hardiness zone rating of 6 which would make the plant hardy in most areas of Britain[200]. Plants thrive outdoors at Oxford Botanical Gardens[233] as well as at Hilliers Arboretum in Hampshire and the RHS Gardens in Surrey[K].

Extensively cultivated in S. Europe for basket making etc[50].

Plants rarely if ever flower in British gardens233].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow in a greenhouse in February to April. Stand the pots in about 3cm of water to keep the soil moist until the seed germinates. It usually germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Once they are 20cm or more tall, plant them out into their permanent positions in late spring or early summer.

Division in spring[1]. Whilst large divisions can be planted out direct into their permanent positions, we have found that it is best to pot the divisions up and keep them in light shade in a greenhouse until they are rooting away well.

Stem cuttings, placed in water, root easily[1].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Arundo+donax`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Arundo+donax`

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Subject:

Arundo donax

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:

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Plant names you would like this comment to be added to:

Arundo donax

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Subject:

Edible Shrubs

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site: http://

Details:

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Plant names you would like this comment to be added to:

Arundo donax

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Plant Genera you would like this comment to be added to:

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Add a comment on: *Edible Shrubs*

Subject:

Edible Shrubs

Group:
Comments on Web-Pages

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Hawthorn

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Add a comment on: *Edible Shrubs*

Subject:

Edible Shrubs

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Amelanchier canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Juneberry	Family:	Rosaceae
Author:	(L.) Medik.	Botanical references:	11, 43, 200
Synonyms:	Mespilus canadensis (L.), Amelanchier oblongifolia (Roem.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, south to Florida. Naturalized in Britain[17].		
Habitat:	Swamps, low ground, woods and thickets[43]. Grows in woods and hedgerows in Britain[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea var. arborea[B,P] A. canadensis var. subintegra[B,P] A. lamarckii[DUTCH] A. lucida[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canadian Service-berry [B], Canadian Serviceberry [P], Common Serviceberry [P], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database

	Us

Physical Characteristics

A decidious shrub growing to 6m by 3m at a medium rate. It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Prince William'**: Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[3, 55, 101, 159]. The fruit contains a few small seeds at the centre, it has a sweet flavour with a hint of apple[1, 2]. It can be eaten out of hand, used in pies, preserves etc or dried and used like raisins[183]. We have found the fruit to be of variable quality, with some forms having a distinct bitterness in the flavour whilst others are sweet, juicy and delicious[K]. When the fruit is thoroughly cooked in puddings or pies the seed imparts an almond flavour to the food[183]. The fruit is rich in iron and copper[226]. It is about 10mm in diameter[200]. Trees can yield 7 to 15 tonnes per hectare[160].

Medicinal Uses

Disclaimer

Anthelmintic; Disinfectant; Women's complaints.

A tea made from the root bark (mixed with other unspecified herbs) was used as a tonic in the treatment of excessive menstrual bleeding and also to treat diarrhoea[222, 257]. A bath of the bark tea was used on children with worms[222, 257]. An infusion of the root was used to prevent miscarriage after an injury[257].

A compound concoction of the inner bark was used as a disinfectant wash[257].

Other Uses

Hedge; Rootstock; Shelterbelt; Wood.

This species can be used as a dwarfing rootstock for Malus spp. (the apples) and Pyrus spp. (the pears)[160].

Plants can be grown as an informal hedge[200]. Any trimming is best done after flowering[200]. A fairly wind-tolerant species, it can be used to give protection from the wind as part of a mixed shelterbelt[200].

Wood - hard, strong, close grained. Used for tool handles, small implements etc[46, 61].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not water-logged, too dry or poor[11], though it is more wet-tolerant than other members of this genus[11]. Grows well in heavy clay soils. Prefers an acid soil[17, 43]. Trees produce more and better quality fruits better when growing in a sunny position[1].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

There is at least one named variety of this species with superior fruits. 'Prince William' is a large multi-stemmed shrub to 3 metres tall and 2 metres across[183, 200]. It crops heavily and its good quality fruit is about 12mm in diameter[183].

Considerable confusion has existed between this species and A. arborea, A. laevis and A. lamarckii, see [11] for the most recent (1991) classification. Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Prince William'

The purplish-blue fruits are up to 12mm in diameter, their quality is good and they are produced abundantly[183]. A large multi-stemmed shrub that grows up to 3 metres tall and 2 metres wide[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Amelanchier canadensis* (Juneberry)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03

Item: *Amelanchier canadensis* (Juneberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Trees and Shrubs for Shelterbelts: A
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: A
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier arborea var. arborea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Genera: Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Genera: Amelanchier*.

Amelanchier canadensis

Fri May 11 17:31:46 2001

You want pictures of juneberries, well here you go...

dugan garden center Rain Tree Alabama Forest Info iastate uni

that should be enough :) I got some small ones planted, but they are to young to fruit yet. They could also be chokecherries, but not sure.

Look at this to be sure:

http://wcd.saultc.on.ca:8900/dendro/webpages/servicegen.html

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+canadensis`

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Plants For A Future: Database Search Results

Amelanchier canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Juneberry	Family:	Rosaceae
Author:	(L.) Medik.	Botanical references:	11, 43, 200
Synonyms:	Mespilus canadensis (L.), Amelanchier oblongifolia (Roem.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, south to Florida. Naturalized in Britain[17].		
Habitat:	Swamps, low ground, woods and thickets[43]. Grows in woods and hedgerows in Britain[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea var. arborea[B,P] A. canadensis var. subintegra[B,P] A. lamarckii[DUTCH] A. lucida[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canadian Service-berry [B], Canadian Serviceberry [P], Common Serviceberry [P], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 6m by 3m at a medium rate. It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Prince William'**: Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[3, 55, 101, 159]. The fruit contains a few small seeds at the centre, it has a sweet flavour with a hint of apple[1, 2]. It can be eaten out of hand, used in pies, preserves etc or dried and used like raisins[183]. We have found the fruit to be of variable quality, with some forms having a distinct bitterness in the flavour whilst others are sweet, juicy and delicious[K]. When the fruit is thoroughly cooked in puddings or pies the seed imparts an almond flavour to the food[183]. The fruit is rich in iron and copper[226]. It is about 10mm in diameter[200]. Trees can yield 7 to 15 tonnes per hectare[160].

Medicinal Uses

Disclaimer

Anthelmintic; Disinfectant; Women's complaints.

A tea made from the root bark (mixed with other unspecified herbs) was used as a tonic in the treatment of excessive menstrual bleeding and also to treat diarrhoea[222, 257]. A bath of the bark tea was used on children with worms[222, 257]. An infusion of the root was used to prevent miscarriage after an injury[257].

A compound concoction of the inner bark was used as a disinfectant wash[257].

Other Uses

Hedge; Rootstock; Shelterbelt; Wood.

This species can be used as a dwarfing rootstock for Malus spp. (the apples) and Pyrus spp. (the pears)[160].

Plants can be grown as an informal hedge[200]. Any trimming is best done after flowering[200]. A fairly wind-tolerant species, it can be used to give protection from the wind as part of a mixed shelterbelt[200].

Wood - hard, strong, close grained. Used for tool handles, small implements etc[46, 61].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not water-logged, too dry or poor[11], though it is more wet-tolerant than other members of this genus[11]. Grows well in heavy clay soils. Prefers an acid soil[17, 43]. Trees produce more and better quality fruits better when growing in a sunny position[1].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

There is at least one named variety of this species with superior fruits. 'Prince William' is a large multi-stemmed shrub to 3 metres tall and 2 metres across[183, 200]. It crops heavily and its good quality fruit is about 12mm in diameter[183].

Considerable confusion has existed between this species and A. arborea, A. laevis and A. lamarckii, see [11] for the most recent (1991) classification. Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Prince William'

> The purplish-blue fruits are up to 12mm in diameter, their quality is good and they are produced abundantly[183]. A large multi-stemmed shrub that grows up to 3 metres tall and 2 metres wide[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Amelanchier canadensis* (Juneberry)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03

Item: *Amelanchier canadensis* (Juneberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Trees and Shrubs for Shelterbelts: A
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: A
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier arborea var. arborea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Genera: Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Genera: Amelanchier*.

Amelanchier canadensis

Fri May 11 17:31:46 2001

You want pictures of juneberries, well here you go...

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that should be enough :) I got some small ones planted, but they are to young to fruit yet. They could also be chokecherries, but not sure.

Look at this to be sure:

http://wcd.saultc.on.ca:8900/dendro/webpages/servicegen.html

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Search for Latin Name: Amelanchier

New Search: Amelanchier Search

Latin Name	Common Name	Family	Synonyms	Rating
Amelanchier alnifolia	Saskatoon	Rosaceae	Aronia alnifolia.; Aronia alnifolia; A. alnifolia var. pumila; A. basalticola; A. cuneata; A. florida; A. glabra; A. polycarpa; A. pumila	5
Amelanchier alnifolia cusickii	Cusick's serviceberry	Rosaceae	A. cusickii. Fern.; Amelanchier cusickii; A. alnifolia var. cusickii; A. florida var. cusickii	4
Amelanchier alnifolia semiintegrifolia	Pacific serviceberry	Rosaceae	A. alnifolia. non Nutt. A. florida. A. oxyodon; Amelanchier oxyodon; Amelanchier florida; A. alnifolia; A. alnifolia ssp. florida; A. alnifolia var. semiintegrifolia; Aronia alnifolia	5
Amelanchier arborea	Downy serviceberry	Rosaceae	A. canadensis. Wieg. non (L.)Med. Mespilus arborea; Mespilus arborea; Amelanchier canadensis; A. canadensis var. subintegra; A. lamarckii; A. lucida; Mespilus canadensis	3
Amelanchier asiatica	Korean juneberry	Rosaceae	A. canadensis japonica. Aronia asiatica.; Aronia asiatica; Amelanchier canadensis japonica	3

Amelanchier bartramiana		Rosaceae	A. oligocarpa. Pyrus bartramiana.; Pyrus bartramiana; Amelanchier oligocarpa	3
Amelanchier basalticola		Rosaceae	A. alnifolia pumila. (Nutt.)Nels.; Amelanchier alnifolia pumila; A. alnifolia; A. alnifolia var. pumila; A. cuneata; A. glabra; A. polycarpa; A. pumila	5
Amelanchier canadensis	Juneberry	Rosaceae	A. oblongifolia. Mespilus canadensis.; Mespilus canadensis; Amelanchier oblongifolia; A. arborea var. arborea; A. canadensis var. subintegra; A. lamarckii; A. lucida	4
Amelanchier confusa		Rosaceae		5
Amelanchier humilis		Rosaceae	A. humilis var. campestris; A. humilis var. compacta; A. humilis var. exserrata; A. mucronata; A. stolonifera; A. stolonifera auct. p. p. non	3
Amelanchier huroensis		Rosaceae	A. amabilis; A. huronensis; A. sanguinea; A. sanguinea var. sanguinea; Pyrus sanguinea	3
Amelanchier interior		Rosaceae	A. wiegandii	3
Amelanchier intermedia		Rosaceae		3

Amelanchier laevis	Allegheny shadberry	Rosaceae	A. canadensis. non (L.)Medik. A. confusa.; Amelanchier canadensis; A. arborea ssp. laevis; A. arborea var. cordifolia; A. arborea var. laevis; A. canadensis var. subintegra; A. laevis var. nitida; A. lamarckii; A. lucida; A. x grandiflora; Mespilus canadensis	5
Amelanchier lamarckii	Apple serviceberry	Rosaceae	A. canadensis. non (L.)Medik. A. botryapium. A. grandiflora. Franco. non Rehd. Crataegus racemosa. Pyrus botryapium.; Crataegus racemosa; Amelanchier grandiflora; Amelanchier canadensis; Amelanchier botryapium; A. canadensis var. subintegra; A. lucida; A. sanguinea var. grandiflora; Mespilus canadensis	5
Amelanchier obovalis	Southern juneberry	Rosaceae	Mespilus canadensis obovalis.; Mespilus canadensis obovalis; Mespilus canadensis var. obovalis	3
Amelanchier ovalis	Snowy mespilus	Rosaceae	A. rotundifolia. (Lam.)Dum-Cours. A. vulgaris. Crataegus rotundifolia. Mespilus amelanchier.; Mespilus amelanchier; Crataegus rotundifolia; Amelanchier vulgaris; Amelanchier rotundifolia; Crataegus aboriginum; Crataegus brunetiana; Crataegus brunetiana var. fernaldii; Crataegus caliciglabrata; Crataegus chrysocarpa;	2

			Crataegus chrysocarpa var. aboriginum; Crataegus chrysocarpa var. chrysocarpa; Crataegus chrysocarpa var. longiacuminata; Crataegus chrysocarpa var. phoenicea; Crataegus chrysocarpa var. rotundifolia; Crataegus coccinata; Crataegus coccinea; Crataegus columbiana var. chrysocarpa; Crataegus doddsi; Crataegus faxonii; Crataegus faxonii var. durifrucata; Crataegus faxonii var. praecoqua; Crataegus faxonii var. praetermissa; Crataegus illuminata; Crataegus jackii; Crataegus laurentiana var. brunetiana; Crataegus laurentiana var. dissimilifolia; Crataegus mercerensis; Crataegus praecoqua; Crataegus praecox; Crataegus putnamiana; Crataegus sicca; Crataegus sicca var. glabrifolia; Crataegus subrotundifolia	
Amelanchier ovalis integrifolia		Rosaceae	A. integrifolia. Boiss.; Amelanchier integrifolia	2
Amelanchier pallida	Pale serviceberry	Rosaceae	A. alnifolia. non Nutt. A. gracilis. A. siskiyouensis. A. subintegra.; Amelanchier subintegra; Amelanchier siskiyouensis; Amelanchier gracilis; A. alnifolia var. pallida; A. florida var. gracilis	3
Amelanchier parviflora		Rosaceae		2

Amelanchier sanguinea	Roundleaf serviceberry	Rosaceae	Pyrus sanguinea.; Pyrus sanguinea; A. huronensis	3
Amelanchier spicata		Rosaceae	A, ovalis. non Med. Crataegus spicata.; Crataegus spicata; Amelanchier ovalis; A. rotundifolia; A. spicata auct. p. p. non; A. stolonifera; A. vulgaris; Crataegus rotundifolia; Mespilus amelanchier	3
Amelanchier stolonifera	Quebec berry	Rosaceae	A. spicata. non (Lam.)K.Koch.; Amelanchier spicata; A. humilis; A. humilis var. campestris; A. humilis var. compacta; A. humilis var. exserrata; A. mucronata; A. spicata auct. p. p. non; A. stolonifera auct. p. p. non	5
Amelanchier utahensis	Utah serviceberry	Rosaceae	A. prunifolia. A. rubescens.; Amelanchier rubescens; Amelanchier prunifolia; A. oreophila	3
Amelanchier weigandii		Rosaceae	A. interior; A. wiegandii	3
Amelanchier x grandiflora		Rosaceae	A. botryapium lanceolata. A. canadensis grandiflora. Zab.; Amelanchier canadensis grandiflora; Amelanchier botryapium lanceolata; A. arborea ssp. laevis; A. arborea var. cordifolia; A. arborea var. laevis; A. arborea x laevis; A. laevis; A. laevis var. nitida	5
Crataegus rotundifolia		Rosaceae	Amelanchier ovalis; Amelanchier rotundifolia; Amelanchier vulgaris; Mespilus amelanchier	3

New Search

Latin Name: Amelanchier

Common Name:

Family:

Rating: 1 — 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Amelanchier alnifolia

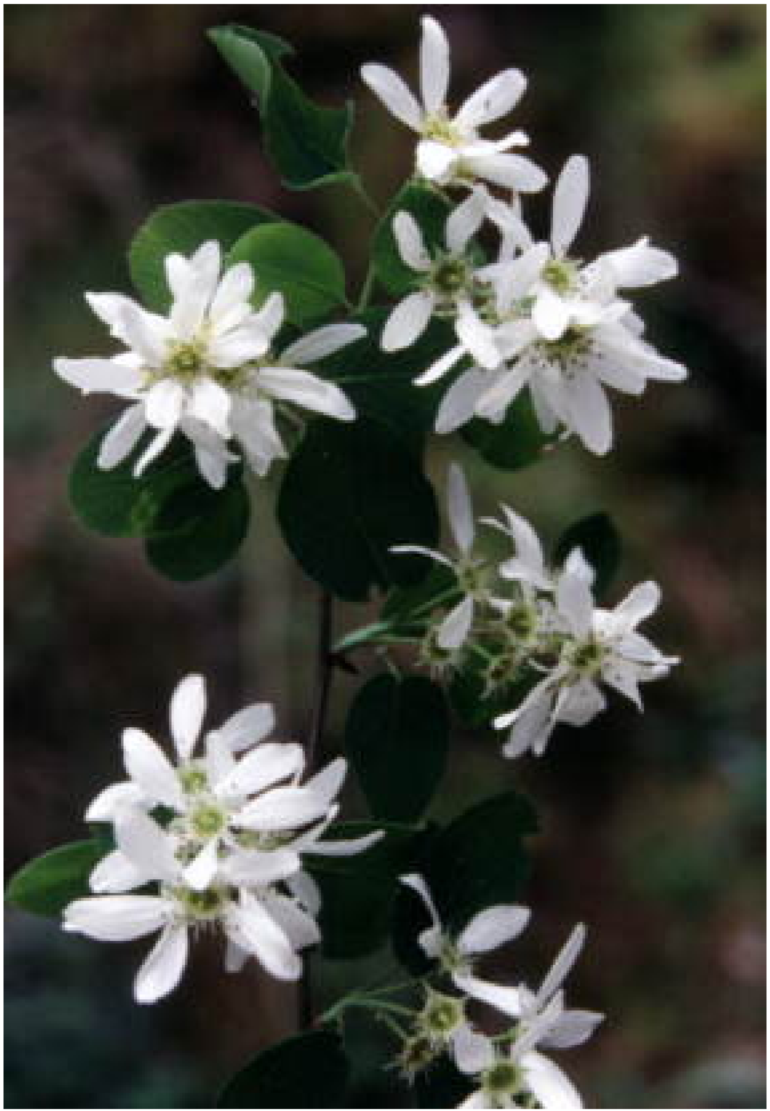

Photo by Derrick Ditchburn

Common name:	Saskatoon	Family:	Rosaceae
Author:	(Nutt.) Nutt.	Botanical references:	11, 43, 200
Synonyms:	Aronia alnifolia (Nutt.)		

Known Hazards:	None known
Range:	Western and Central N. America - Saskatchewan and south to Colorado and Idaho.
Habitat:	Thickets, woodland edges and banks of streams[43] in moist well-drained soils[99, 200]. Small bushy forms grow on fairly dry hillsides[212].
Plants For A Future Rating (1-5):	5

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia var. pumila[B,P] A. basalticola[B,P] A. cuneata[B,P] A. florida[G] A. glabra[B,P] A. polycarpa[B,P] A. pumila[B,C,CAL,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dwarf Service-berry [B], Dwarf Serviceberry [P], June Berries [H], Pacific Serviceberry [DEN1], Saskatoon [H], Saskatoon Service-berry [B], Saskatoon Serviceberry [FEIS,P], Service Berry, Saskatoon Berry [S], Serviceberry [H,S], Shadblow [H], Shadbush [H],
Epithets:	From a Dictionary of Botanical Epithets
	alnifolia = leaves like Alnus (alder);
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us(Flathead)

Physical Characteristics

A decidious shrub growing to 4m by 3m . It is hardy to zone 2 and is not frost tender. It is in flower in May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Northline'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Timm'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Thiessen'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Smoky'**: Woodland, Sunny Edge, Dappled Shade.
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Cultivar **'Gypsy'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Forestburg'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Beaverlodge'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Pembina'**: Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Edible fruit - raw or cooked[3, 11, 46, 62, 101]. The fruit ripens in mid summer (early July in southern Britain), it is soft and juicy with a few small seeds in the centre. A very nice sweet flavour that is enjoyed by almost everyone who tries it, there is a hint of apple in the taste[K]. About the size of a blackcurrant, the fruit is produced in small clusters and the best wild forms can be 15mm in diameter[200, 212]. The fruit can also be dried and used as raisins or made into pemmican[101, 183]. The fruit is rich in iron and copper[226].

The leaves are a tea substitute[161, 257].

Medicinal Uses

Disclaimer

Appetizer; Birthing aid; Contraceptive; Diaphoretic; Febrifuge; Laxative; Ophthalmic; Stomachic.

Saskatoon was quite widely employed as a medicinal herb by the North American Indians, who used it to treat a wide range of minor complaints[257]. It is little used in modern herbalism.

An infusion of the inner bark is used as a treatment for snow-blindness[172].

A decoction of the fruit juice is mildly laxative. It has been used in the treatment of upset stomachs, to restore the appetite in children, it is also applied externally as ear and eye drops[257].

A decoction of the roots has been used in the treatment of colds[257]. It has also been used as a treatment for too frequent menstruation[257].

A decoction of the stems, combined with the stems of snowberry (Symphoricarpos spp) is diaphoretic. It has been used to induce sweating in the treatment of fevers, flu etc and also in the treatment of chest pains and lung infections[257].

A decoction of the plant, together with bitter cherry (Prunus emarginata) has been used as a contraceptive[257]. Other recipes involving this plant have also been used as contraceptives including a decoction of the ashes of the plant combined with the ashes of pine branches or buds[257]. A strong decoction of the bark was taken immediately after childbirth to hasten the dropping of the placenta. It was said to help clean out and help heal the woman's insides and also to stop her menstrual periods after the birth, thus acting as a form of birth control[257].

Other Uses

Shelterbelt; Soil stabilization.

Plants have a spreading, suckering root system and are used in windbreaks for erosion control[200].

Young branches can be twisted to make a rope[257].

Wood - hard, straight grained, tough. Used for tool handles etc. The wood can be made even harder by heating it over a fire and it is easily moulded whilst still hot[99]. The young stems are used to make rims, handles and as a stiffening in basket making[257].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Plants are fairly lime tolerant[200], they also grow well in heavy clay soils.

Hardy to about -20°c according to one report[184], whilst another suggests that this species is hardy to about -50°c[11].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. This species is particularly interesting because it is quite compact and produces an excellent quality quite large fruit[K]. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A very variable species, ranging from a thicket-forming shrub to a small tree in the wild[229]. It is occasionally cultivated for its edible fruit, there are several named varieties[183].

A stoloniferous species, spreading by suckers to form a thicket[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii

or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Timm'

The large blueberry-shaped fruit is very sweet and flavoursome, ripening early[183]. A medium-size tree, it can produce fruit in its 2nd year[183].

'Thiessen'

A very productive plant with fruits up to 12mm in diameter[183]. It is similar to 'Honeywood' in most respects[183]. Forms a roundish tree that can in time reach 5 metres in height[183].

'Success'

The fruits are up to 12mm in diameter and are very good for eating out of hand[183]. A bushy shrub growing to 2.4 metres tall and suckering freely[183].

'Smoky'

A large round fruit to 15mm in diameter, the flesh is very sweet and juicy with a full flavour[183]. A reliable and very heavy bearing cultivar, yields of 40 kilos per plant have been recorded[183]. Plants grow to 2.4 metres tall and produce suckers freely[183]. This is the leading commercial variety in Canada[183].

'Regent'

Produces an abundant crop of fruit that is excellent for jams and jellies[183]. A semi-dwarf shrub, 1.2 - 2 metres tall with a spread of 1.2 metres[183]. It has been selected both for ornamental use and for fruiting[183].

'Pembina'

The large sweet fully-flavoured fruit is produced on long clusters[183]. A very vigorous and productive plant, forming an upright, slightly spreading shrub that does not sucker freely, it grows to 3 metres tall[183].

'Northline'

Large, sweet, good quality fruits[183]. A small, freely suckering shrub, to 1.5 metres tall[183].

'Moonlake'

Yields large fruits, but is a sporadic bearer[183].

'Honeywood'

Large dark purple fruit with an excellent pleasant flavour[183]. The fruit is abundantly produced in heavy clusters of up to 15 berries[183]. Plants commence bearing at an early age[183]. Plants grow to about 2 metres tall, eventually becoming multi-stemmed clumps[183].

'Gypsy'

Large juicy fruit of fine flavour[183].

'Forestburg'

The large, mild-flavoured fruit is about 12mm in diameter and is produced in very tight clusters[183].

'Beaverlodge'

Large juicy fruit with excellent flavour[183].

'Altaglow'

A white-fruited ornamental form[183]. A pyramidal shrub, growing to 4.5 metres tall[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF Catalogue: Checklist of plants
- Edible Shrubs
- Why Perennials

- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Trees and Shrubs for Shelterbelts: A
- Checklist of plants suitable for hedging and windbreaks.
- PFAF Plant Catalogue (A)
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Amelanchier pumila* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*

A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

Plant information taken from the Plants For A Future - Species Database. Copyright (c) 1997-2003.
WEB search engine by Rich Morris - Home Page- Contact Info
Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+alnifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+alnifolia`

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Plants For A Future: Database Search Results

Amelanchier alnifolia

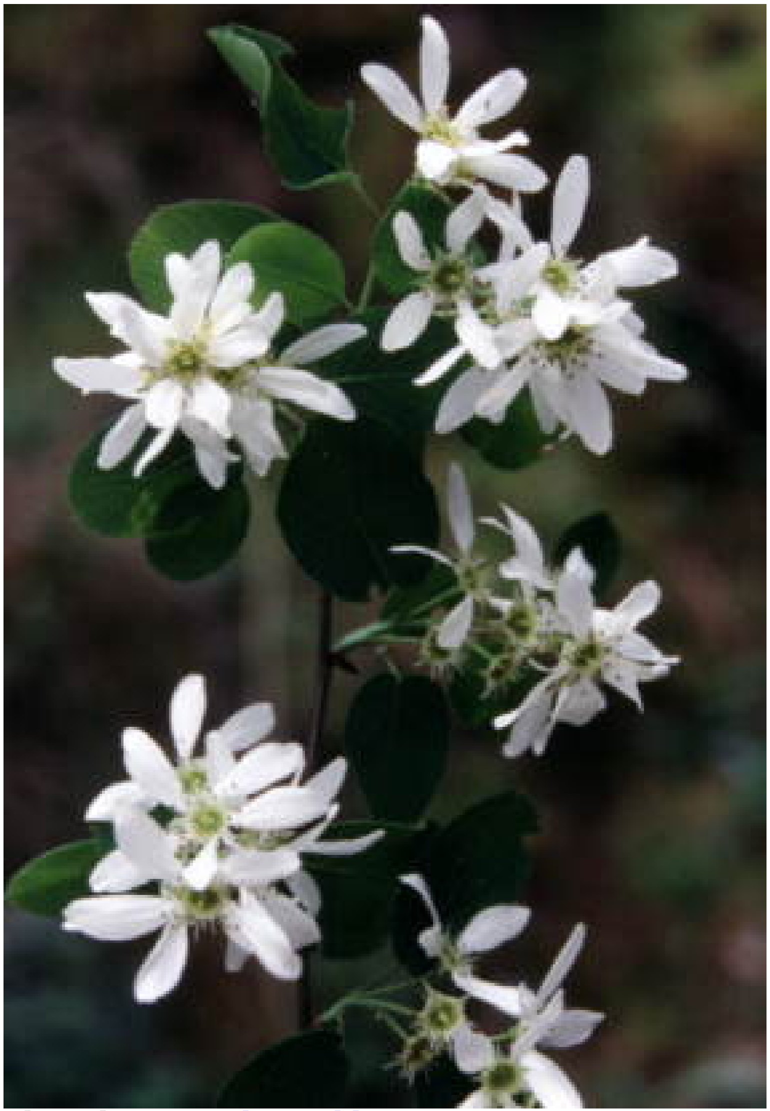

Photo by Derrick Ditchburn

Common name:	Saskatoon	Family:	Rosaceae
Author:	(Nutt.) Nutt.	Botanical references:	11, 43, 200
Synonyms:	Aronia alnifolia (Nutt.)		
Known Hazards:	None known		
Range:	Western and Central N. America - Saskatchewan and south to Colorado and Idaho.		

Habitat:	Thickets, woodland edges and banks of streams[43] in moist well-drained soils[99, 200]. Small bushy forms grow on fairly dry hillsides[212].
Plants For A Future Rating (1-5):	5

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia var. pumila[B,P] A. basalticola[B,P] A. cuneata[B,P] A. florida[G] A. glabra[B,P] A. polycarpa[B,P] A. pumila[B,C,CAL,P]
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- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Amelanchier pumila* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*

A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Plants For A Future: Database Search Results

Amelanchier canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Juneberry	Family:	Rosaceae
Author:	(L.) Medik.	Botanical references:	11, 43, 200
Synonyms:	Mespilus canadensis (L.), Amelanchier oblongifolia (Roem.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, south to Florida. Naturalized in Britain[17].		
Habitat:	Swamps, low ground, woods and thickets[43]. Grows in woods and hedgerows in Britain[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea var. arborea[B,P] A. canadensis var. subintegra[B,P] A. lamarckii[DUTCH] A. lucida[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canadian Service-berry [B], Canadian Serviceberry [P], Common Serviceberry [P], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 6m by 3m at a medium rate. It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Prince William'**: Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[3, 55, 101, 159]. The fruit contains a few small seeds at the centre, it has a sweet flavour with a hint of apple[1, 2]. It can be eaten out of hand, used in pies, preserves etc or dried and used like raisins[183]. We have found the fruit to be of variable quality, with some forms having a distinct bitterness in the flavour whilst others are sweet, juicy and delicious[K]. When the fruit is thoroughly cooked in puddings or pies the seed imparts an almond flavour to the food[183]. The fruit is rich in iron and copper[226]. It is about 10mm in diameter[200]. Trees can yield 7 to 15 tonnes per hectare[160].

Medicinal Uses

Disclaimer

Anthelmintic; Disinfectant; Women's complaints.

A tea made from the root bark (mixed with other unspecified herbs) was used as a tonic in the treatment of excessive menstrual bleeding and also to treat diarrhoea[222, 257]. A bath of the bark tea was used on children with worms[222, 257]. An infusion of the root was used to prevent miscarriage after an injury[257].

A compound concoction of the inner bark was used as a disinfectant wash[257].

Other Uses

Hedge; Rootstock; Shelterbelt; Wood.

This species can be used as a dwarfing rootstock for Malus spp. (the apples) and Pyrus spp. (the pears)[160].

Plants can be grown as an informal hedge[200]. Any trimming is best done after flowering[200]. A fairly wind-tolerant species, it can be used to give protection from the wind as part of a mixed shelterbelt[200].

Wood - hard, strong, close grained. Used for tool handles, small implements etc[46, 61].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not water-logged, too dry or poor[11], though it is more wet-tolerant than other members of this genus[11]. Grows well in heavy clay soils. Prefers an acid soil[17, 43]. Trees produce more and better quality fruits better when growing in a sunny position[1].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

There is at least one named variety of this species with superior fruits. 'Prince William' is a large multi-stemmed shrub to 3 metres tall and 2 metres across[183, 200]. It crops heavily and its good quality fruit is about 12mm in diameter[183].

Considerable confusion has existed between this species and A. arborea, A. laevis and A. lamarckii, see [11] for the most recent (1991) classification. Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Prince William'

> The purplish-blue fruits are up to 12mm in diameter, their quality is good and they are produced abundantly[183]. A large multi-stemmed shrub that grows up to 3 metres tall and 2 metres wide[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Amelanchier canadensis* (Juneberry)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03

Item: *Amelanchier canadensis* (Juneberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future: Database Search Results

Amelanchier alnifolia

Photo by Derrick Ditchburn

Common name:	Saskatoon	Family:	Rosaceae
Author:	(Nutt.) Nutt.	Botanical references:	11, 43, 200
Synonyms:	Aronia alnifolia (Nutt.)		
Known Hazards:	None known		
Range:	Western and Central N. America - Saskatchewan and south to Colorado and Idaho.		

Habitat:	Thickets, woodland edges and banks of streams[43] in moist well-drained soils[99, 200]. Small bushy forms grow on fairly dry hillsides[212].
Plants For A Future Rating (1-5):	5

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia var. pumila[B,P] A. basalticola[B,P] A. cuneata[B,P] A. florida[G] A. glabra[B,P] A. polycarpa[B,P] A. pumila[B,C,CAL,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dwarf Service-berry [B], Dwarf Serviceberry [P], June Berries [H], Pacific Serviceberry [DEN1], Saskatoon [H], Saskatoon Service-berry [B], Saskatoon Serviceberry [FEIS,P], Service Berry, Saskatoon Berry [S], Serviceberry [H,S], Shadblow [H], Shadbush [H],
Epithets:	From a Dictionary of Botanical Epithets
	alnifolia = leaves like Alnus (alder);
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us(Flathead)

Physical Characteristics

A decidious shrub growing to 4m by 3m . It is hardy to zone 2 and is not frost tender. It is in flower in May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar '**Northline**': Woodland, Sunny Edge, Dappled Shade.
Cultivar '**Timm**': Woodland, Sunny Edge, Dappled Shade.
Cultivar '**Thiessen**': Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Smoky'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Honeywood'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Gypsy'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Forestburg'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Beaverlodge'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Pembina'**: Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Edible fruit - raw or cooked[3, 11, 46, 62, 101]. The fruit ripens in mid summer (early July in southern Britain), it is soft and juicy with a few small seeds in the centre. A very nice sweet flavour that is enjoyed by almost everyone who tries it, there is a hint of apple in the taste[K]. About the size of a blackcurrant, the fruit is produced in small clusters and the best wild forms can be 15mm in diameter[200, 212]. The fruit can also be dried and used as raisins or made into pemmican[101, 183]. The fruit is rich in iron and copper[226].

The leaves are a tea substitute[161, 257].

Medicinal Uses

Disclaimer

Appetizer; Birthing aid; Contraceptive; Diaphoretic; Febrifuge; Laxative; Ophthalmic; Stomachic.

Saskatoon was quite widely employed as a medicinal herb by the North American Indians, who used it to treat a wide range of minor complaints[257]. It is little used in modern herbalism.

An infusion of the inner bark is used as a treatment for snow-blindness[172].

A decoction of the fruit juice is mildly laxative. It has been used in the treatment of upset stomachs, to restore the appetite in children, it is also applied externally as ear and eye drops[257].

A decoction of the roots has been used in the treatment of colds[257]. It has also been used as a treatment for too frequent menstruation[257].

A decoction of the stems, combined with the stems of snowberry (Symphoricarpos spp) is diaphoretic. It has been used to induce sweating in the treatment of fevers, flu etc and also in the treatment of chest pains and lung infections[257].

A decoction of the plant, together with bitter cherry (Prunus emarginata) has been used as a contraceptive[257]. Other recipes involving this plant have also been used as contraceptives including a decoction of the ashes of the plant combined with the ashes of pine branches or buds[257]. A strong decoction of the bark was taken immediately after childbirth to hasten the dropping of the placenta. It was said to help clean out and help heal the woman's insides and also to stop her menstrual periods after the birth, thus acting as a form of birth control[257].

Other Uses

Shelterbelt; Soil stabilization.

Plants have a spreading, suckering root system and are used in windbreaks for erosion control[200].

Young branches can be twisted to make a rope[257].

Wood - hard, straight grained, tough. Used for tool handles etc. The wood can be made even harder by heating it over a fire and it is easily moulded whilst still hot[99]. The young stems are used to make rims, handles and as a stiffening in basket making[257].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Plants are fairly lime tolerant[200], they also grow well in heavy clay soils.

Hardy to about -20°c according to one report[184], whilst another suggests that this species is hardy to about -50°c[11].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. This species is particularly interesting because it is quite compact and produces an excellent quality quite large fruit[K]. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A very variable species, ranging from a thicket-forming shrub to a small tree in the wild[229]. It is occasionally cultivated for its edible fruit, there are several named varieties[183].

A stoloniferous species, spreading by suckers to form a thicket[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Timm'

> The large blueberry-shaped fruit is very sweet and flavoursome, ripening early[183]. A medium-size tree, it can produce fruit in its 2nd year[183].

'Thiessen'

> A very productive plant with fruits up to 12mm in diameter[183]. It is similar to 'Honeywood' in most respects[183]. Forms a roundish tree that can in time reach 5 metres in height[183].

'Success'

> The fruits are up to 12mm in diameter and are very good for eating out of hand[183]. A bushy shrub growing to 2.4 metres tall and suckering freely[183].

'Smoky'

> A large round fruit to 15mm in diameter, the flesh is very sweet and juicy with a full flavour[183]. A reliable and very heavy bearing cultivar, yields of 40 kilos per plant have been recorded[183]. Plants grow to 2.4 metres tall and produce suckers freely[183]. This is the leading commercial variety in Canada[183].

'Regent'

> Produces an abundant crop of fruit that is excellent for jams and jellies[183]. A semi-dwarf shrub, 1.2 - 2 metres tall with a spread of 1.2 metres[183]. It has been selected both for ornamental use and for fruiting[183].

'Pembina'

The large sweet fully-flavoured fruit is produced on long clusters[183]. A very vigorous and productive plant, forming an upright, slightly spreading shrub that does not sucker freely, it grows to 3 metres tall[183].

'Northline'

Large, sweet, good quality fruits[183]. A small, freely suckering shrub, to 1.5 metres tall[183].

'Moonlake'

Yields large fruits, but is a sporadic bearer[183].

'Honeywood'

Large dark purple fruit with an excellent pleasant flavour[183]. The fruit is abundantly produced in heavy clusters of up to 15 berries[183]. Plants commence bearing at an early age[183]. Plants grow to about 2 metres tall, eventually becoming multi-stemmed clumps[183].

'Gypsy'

Large juicy fruit of fine flavour[183].

'Forestburg'

The large, mild-flavoured fruit is about 12mm in diameter and is produced in very tight clusters[183].

'Beaverlodge'

Large juicy fruit with excellent flavour[183].

'Altaglow'

A white-fruited ornamental form[183]. A pyramidal shrub, growing to 4.5 metres tall[183].

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Amelanchier alnifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier alnifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Amelanchier alnifolia cusickii

Common name:	Cusick's serviceberry	Family:	Rosaceae
Author:	(Fern.) C. Hitchc.	Botanical references:	11, 60, 200
Synonyms:	Amelanchier cusickii (Fernald.)		
Known Hazards:	None known		
Range:	Western N. America		
Habitat:	Open woods, canyons and hillsides from near sea-level to the sub-alpine zone[60], mainly in the Rockies[11].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia var. cusickii[B,G,P] A. florida var. cusickii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cusick's Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	alnifolia = leaves like Alnus (alder);
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 2 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay

soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[161, 177]. Ripening in mid summer, the fruit is soft and juicy with a few small seeds in the centre, it has a very nice sweet flavour with a hint of apple in the taste[K]. The fruit can also be dried and used as raisins or made into pemmican[101, 183]. The fruit is about 10mm in diameter, it is rich in iron and copper[226].

The leaves are a tea substitute[161].

Medicinal Uses

Disclaimer

Ophthalmic.

An infusion of the inner bark is used as a treatment for snow-blindness[172].

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Plants are fairly lime tolerant[200], they also grow well in heavy clay soils.

Hardy to about -20°c according to one report[184], whilst another suggests that this species is hardy to about -50°c[11].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. This species is particularly interesting because it is quite compact and produces an excellent quality quite large fruit[K]. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This plant is considered to be a part of A. alnifolia by some botanists whilst others give it specific status as A. cusickii[11, 60, 200]. It has the largest flowers in the genus, they are up to 5cm across[11], and it is considered to be of value in breeding programmes because of its large fruits, long fruit clusters and large flowers[183].

A stoloniferous species, spreading by suckers to form a thicket[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Amelanchier alnifolia cusickii

Common name:	Cusick's serviceberry	Family:	Rosaceae
Author:	(Fern.) C. Hitchc.	Botanical references:	11, 60, 200
Synonyms:	Amelanchier cusickii (Fernald.)		
Known Hazards:	None known		
Range:	Western N. America		
Habitat:	Open woods, canyons and hillsides from near sea-level to the sub-alpine zone[60], mainly in the Rockies[11].		
Plants For A Future Rating (1-5):	4		

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Epithets:	From a Dictionary of Botanical Epithets
	alnifolia = leaves like Alnus (alder);
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 2 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[161, 177]. Ripening in mid summer, the fruit is soft and juicy with a few small seeds in the centre, it has a very nice sweet flavour with a hint of apple in the taste[K]. The fruit can also be dried and used as raisins or made into pemmican[101, 183]. The fruit is about 10mm in diameter, it is rich in iron and copper[226].

The leaves are a tea substitute[161].

Medicinal Uses

Disclaimer

Ophthalmic.

An infusion of the inner bark is used as a treatment for snow-blindness[172].

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Plants are fairly lime tolerant[200], they also grow well in heavy clay soils.

Hardy to about -20°c according to one report[184], whilst another suggests that this species is hardy to about -50°c[11].

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Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier alnifolia cusickii*

Subject:

Amelanchier alnifolia cusickii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier alnifolia cusickii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier alnifolia semiintegrifolia

Common name:	Pacific serviceberry	Family:	Rosaceae
Author:	(Hook.) Hitchc	Botanical references:	11, 71, 200
Synonyms:	Amelanchier oxyodon (Koehne.), Amelanchier florida (Lindl.)		
Known Hazards:	None known		
Range:	Western. N. America.		
Habitat:	Moist woods and open places[71].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia[B,C,CAL,E,G,H,HORTIPLEX,Sn7,Swal,P] A. alnifolia ssp. florida[B,P] A. alnifolia var. semiintegrifolia[B,CPHOTO,CAL,CAL,P] Aronia alnifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	alnifolia = leaves like Alnus (alder); integrifolia = leaves entire;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us(Flathead)

Physical Characteristics

A decidious shrub growing to 3m at a slow rate. It is hardy to zone 2 and is not frost tender. It is in flower in May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[2, 11, 118, 257]. A sweet and succulent fruit[82], it is soft and juicy with a few small seeds in the centre and has a hint of apple in the flavour[K]. A very acceptable fruit that can be eaten in quantity, it matures about 2 - 3 weeks later than most other members of the genus[K]. Formerly an important food for the N. American Indians[82], it can also be dried and used as a raisin substitute[183]. It is up to 13mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Ophthalmic; VD.

An infusion of the inner bark is used as a treatment for snow-blindness[172].

A compound concoction of the plant has been used in the treatment of gonorrhoea[257].

Other Uses

Wood.

Wood - tough, hard, heavy, close grained[82, 118].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

Plants are hardy to about -35°c[160].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. This species is particularly interesting because it is quite compact and produces an excellent quality quite large fruit[K]. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species loses its leaves early in the autumn, especially in dry years[K].

Closely related to, and included as a sub-species of A. alnifolia by most botanists.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

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A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Email Address:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

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Common name:	Pacific serviceberry	Family:	Rosaceae
Author:	(Hook.) Hitchc	Botanical references:	11, 71, 200
Synonyms:	Amelanchier oxyodon (Koehne.), Amelanchier florida (Lindl.)		
Known Hazards:	None known		
Range:	Western. N. America.		
Habitat:	Moist woods and open places[71].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 3m at a slow rate. It is hardy to zone 2 and is not frost tender. It is in flower in May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

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Woodland, Sunny Edge, Dappled Shade.

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Fruit.

Edible fruit - raw or cooked[2, 11, 118, 257]. A sweet and succulent fruit[82], it is soft and juicy with a few small seeds in the centre and has a hint of apple in the flavour[K]. A very acceptable fruit that can be eaten in quantity, it matures about 2 - 3 weeks later than most other members of the genus[K]. Formerly an important food for the N. American Indians[82], it can also be dried and used as a raisin substitute[183]. It is up to 13mm in diameter[200]. The fruit is rich in iron and copper[226].

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Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

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Rich Wed Dec 20 11:01:57 2000

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If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+alnifolia+semiintegrifolia`

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Plants For A Future: Database Search Results

Amelanchier alnifolia semiintegrifolia

Common name:	Pacific serviceberry	Family:	Rosaceae
Author:	(Hook.) Hitchc	Botanical references:	11, 71, 200
Synonyms:	Amelanchier oxyodon (Koehne.), Amelanchier florida (Lindl.)		
Known Hazards:	None known		
Range:	Western. N. America.		
Habitat:	Moist woods and open places[71].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia[B,C,CAL,E,G,H,HORTIPLEX,Sn7,Swal,P] A. alnifolia ssp. florida[B,P] A. alnifolia var. semiintegrifolia[B,CPHOTO,CAL,CAL,P] Aronia alnifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	June Berries [H], Pacific Serviceberry [DEN1,P], Saskatoon [H], Saskatoon Service-berry [B], Saskatoon Serviceberry [FEIS,P], Service Berry, Saskatoon Berry [S], Serviceberry [S,H], Shadblow [H], Shadbush [H],
Epithets:	From a Dictionary of Botanical Epithets
	alnifolia = leaves like Alnus (alder); integrifolia = leaves entire;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us(Flathead)

Physical Characteristics

A decidious shrub growing to 3m at a slow rate. It is hardy to zone 2 and is not frost tender. It is in flower in May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[2, 11, 118, 257]. A sweet and succulent fruit[82], it is soft and juicy with a few small seeds in the centre and has a hint of apple in the flavour[K]. A very acceptable fruit that can be eaten in quantity, it matures about 2 - 3 weeks later than most other members of the genus[K]. Formerly an important food for the N. American Indians[82], it can also be dried and used as a raisin substitute[183]. It is up to 13mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Ophthalmic; VD.

An infusion of the inner bark is used as a treatment for snow-blindness[172].

A compound concoction of the plant has been used in the treatment of gonorrhoea[257].

Other Uses

Wood.

Wood - tough, hard, heavy, close grained[82, 118].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

Plants are hardy to about -35°c[160].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. This species is particularly interesting because it is quite compact and produces an excellent quality quite large fruit[K]. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species loses its leaves early in the autumn, especially in dry years[K].

Closely related to, and included as a sub-species of A. alnifolia by most botanists.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier alnifolia semiintegrifolia*

Subject:

Amelanchier alnifolia semiintegrifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier alnifolia semiintegrifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:30:16 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier arborea

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Downy serviceberry	Family:	Rosaceae
Author:	(Michx. f.) Fern.	Botanical references:	11, 43, 200
Synonyms:	Mespilus arborea (F.Michx.), Amelanchier canadensis (Wiegand. non (L.)Med.)		
Known Hazards:	None known		
Range:	Eastern N. America - New Brunswick to Florida, west to Minnesota and Texas.		
Habitat:	Rich woods, thickets and slopes[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canadensis var. subintegra[B,P] A. lamarckii[DUTCH] A. lucida[B,P] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canadian Service-berry [B], Canadian Serviceberry [P], Common Serviceberry [P], Downy Service-berry [B], Downy Serviceberry [DEN1,FEIS], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	arborea = tree like;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious tree growing to 10m by 12m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[101, 227]. The fruit has a few small seeds at the centre, some forms are dry and tasteless[11, 177, 227] whilst others are sweet and juicy[183, 227]. The fruit ripens unevenly over a period of 2 - 3 weeks and is very attractive to birds, this makes harvesting them in quantity rather difficult[229]. The fruit is borne in small clusters and is up to 10mm in diameter[200]. It is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Anthelmintic; Astringent; Tonic; VD.

A compound infusion of the plant has been used as an anthelmintic, in the treatment of diarrhoea and as a spring tonic[257].

An infusion of the bark has been used in the treatment of gonorrhoea[257].

Other Uses

Soil stabilization.

The trees have an extensive root system and can be planted on banks etc for erosion control[200].

Wood - close-grained, hard, strong, tough and elastic. It weighs 49lb per cubic foot[227]. Too small for commercial interest, it is sometimes used for making handles[227, 229].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

The plant becomes dwarfed when growing in sterile (poor and acid) ground[227].

Hybridises with A. bartramiana, A. canadensis, A. humilis and A. laevis. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Web References

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Amelanchier canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206

A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* Amelanchier canadensis. *Genera:* Amelanchier.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Amelanchier arborea

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Downy serviceberry	Family:	Rosaceae
Author:	(Michx. f.) Fern.	Botanical references:	11, 43, 200
Synonyms:	Mespilus arborea (F.Michx.), Amelanchier canadensis (Wiegand. non (L.)Med.)		
Known Hazards:	None known		
Range:	Eastern N. America - New Brunswick to Florida, west to Minnesota and Texas.		
Habitat:	Rich woods, thickets and slopes[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canadensis var. subintegra[B,P] A. lamarckii[DUTCH] A. lucida[B,P] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	arborea = tree like;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious tree growing to 10m by 12m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[101, 227]. The fruit has a few small seeds at the centre, some forms are dry and tasteless[11, 177, 227] whilst others are sweet and juicy[183, 227]. The fruit ripens unevenly over a period of 2 - 3 weeks and is very attractive to birds, this makes harvesting them in quantity rather difficult[229]. The fruit is borne in small clusters and is up to 10mm in diameter[200]. It is rich in iron and copper[226].

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A compound infusion of the plant has been used as an anthelmintic, in the treatment of diarrhoea and as a spring tonic[257].

An infusion of the bark has been used in the treatment of gonorrhoea[257].

Other Uses

Soil stabilization.

The trees have an extensive root system and can be planted on banks etc for erosion control[200].

Wood - close-grained, hard, strong, tough and elastic. It weighs 49lb per cubic foot[227]. Too small for commercial interest, it is sometimes used for making handles[227, 229].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

The plant becomes dwarfed when growing in sterile (poor and acid) ground[227].

Hybridises with A. bartramiana, A. canadensis, A. humilis and A. laevis. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier*.

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Plants For A Future: Database Search Results

Amelanchier arborea

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Downy serviceberry	Family:	Rosaceae
Author:	(Michx. f.) Fern.	Botanical references:	11, 43, 200
Synonyms:	Mespilus arborea (F.Michx.), Amelanchier canadensis (Wiegand. non (L.)Med.)		
Known Hazards:	None known		
Range:	Eastern N. America - New Brunswick to Florida, west to Minnesota and Texas.		
Habitat:	Rich woods, thickets and slopes[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canadensis var. subintegra[B,P] A. lamarckii[DUTCH] A. lucida[B,P] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canadian Service-berry [B], Canadian Serviceberry [P], Common Serviceberry [P], Downy Service-berry [B], Downy Serviceberry [DEN1,FEIS], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	arborea = tree like;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious tree growing to 10m by 12m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[101, 227]. The fruit has a few small seeds at the centre, some forms are dry and tasteless[11, 177, 227] whilst others are sweet and juicy[183, 227]. The fruit ripens unevenly over a period of 2 - 3 weeks and is very attractive to birds, this makes harvesting them in quantity rather difficult[229]. The fruit is borne in small clusters and is up to 10mm in diameter[200]. It is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Anthelmintic; Astringent; Tonic; VD.

A compound infusion of the plant has been used as an anthelmintic, in the treatment of diarrhoea and as a spring tonic[257].

An infusion of the bark has been used in the treatment of gonorrhoea[257].

Other Uses

Soil stabilization.

The trees have an extensive root system and can be planted on banks etc for erosion control[200].

Wood - close-grained, hard, strong, tough and elastic. It weighs 49lb per cubic foot[227]. Too small for commercial interest, it is sometimes used for making handles[227, 229].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

The plant becomes dwarfed when growing in sterile (poor and acid) ground[227].

Hybridises with A. bartramiana, A. canadensis, A. humilis and A. laevis. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier arborea*

Subject:

Amelanchier arborea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier arborea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:30:24 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier asiatica

Common name:	Korean juneberry	Family:	Rosaceae
Author:	(Sieb. & Zucc.) Walp.	Botanical references:	11, 58, 200
Synonyms:	Aronia asiatica (Siebold.&Zucc.), Amelanchier canadensis japonica (Miq.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Hilly and mountainous regions[58].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	asiatica = Asian;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious tree growing to 8m by 10m . It is hardy to zone 5 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit, raw or cooked[3, 105, 177]. Of good quality[183], the fruit is sweet and juicy, contains a few small seeds at the centre and has a hint of apple in the flavour[K]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil, including chalk, so long as it is not too dry or water-logged[11, 200]. Plants succeed in quite shady positions but do not flower or fruit well there[K]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A very ornamental plant[1], it is closely allied to A. canadensis and A. laevis, and is also very similar to A. arborea[11].

The sub-species A. asiatica sinica C. Schneid. is found in China. It has smaller fruits than the type species[200].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

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Rich Wed Dec 20 11:01:57 2000

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Other Uses

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Plants For A Future: Database Search Results

Amelanchier asiatica

Common name:	Korean juneberry	Family:	Rosaceae
Author:	(Sieb. & Zucc.) Walp.	Botanical references:	11, 58, 200
Synonyms:	Aronia asiatica (Siebold.&Zucc.), Amelanchier canadensis japonica (Miq.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Hilly and mountainous regions[58].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	asiatica = Asian;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious tree growing to 8m by 10m . It is hardy to zone 5 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit, raw or cooked[3, 105, 177]. Of good quality[183], the fruit is sweet and juicy, contains a few small seeds at the centre and has a hint of apple in the flavour[K]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil, including chalk, so long as it is not too dry or water-logged[11, 200]. Plants succeed in quite shady positions but do not flower or fruit well there[K]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A very ornamental plant[1], it is closely allied to A. canadensis and A. laevis, and is also very similar to A. arborea[11].

The sub-species A. asiatica sinica C. Schneid. is found in China. It has smaller fruits than the type species[200].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier asiatica*

Subject:

Amelanchier asiatica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier asiatica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:30:32 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier bartramiana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	(Tausch.) Roem.	Botanical references:	11, 43, 200
Synonyms:	Pyrus bartramiana (Tausch.), Amelanchier oligocarpa (M.Roem.)		
Known Hazards:	None known		
Range:	N. America - Labrador to Minnesota and south to Pennsylvania.		
Habitat:	Peaty or boggy thickets, sphagnum bogs, bushy and mountain slopes to the sub-alpine zone[43].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Oblong-fruit Service-berry [B], Oblongfruit Serviceberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay

soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[101, 105, 161]. The fruit contains a few small seeds at the centre, it is sweet but rather dry according to one report[177] whilst others have found it to be sweet and juicy[183, K]. The fruit can be added to pancakes or dried for later use[183]. Fruits are oval or pear shaped unlike other members of this genus that have round fruits[183]. They are 15mm long[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil, including chalk, so long as it is not too dry or water-logged[11, 200]. Grows well in heavy clay soils.

Plants are hardy to about -30°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species hybridises with A. sanguinea, A. humilis, A. stolonifera, A. fernaldii and A. canadensis. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Details:

Enter your details here:

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Range:	N. America - Labrador to Minnesota and south to Pennsylvania.		
Habitat:	Peaty or boggy thickets, sphagnum bogs, bushy and mountain slopes to the sub-alpine zone[43].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

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The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Plants For A Future: Database Search Results

Amelanchier bartramiana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	(Tausch.) Roem.	Botanical references:	11, 43, 200
Synonyms:	Pyrus bartramiana (Tausch.), Amelanchier oligocarpa (M.Roem.)		
Known Hazards:	None known		
Range:	N. America - Labrador to Minnesota and south to Pennsylvania.		
Habitat:	Peaty or boggy thickets, sphagnum bogs, bushy and mountain slopes to the sub-alpine zone[43].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Oblong-fruit Service-berry [B], Oblongfruit Serviceberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[101, 105, 161]. The fruit contains a few small seeds at the centre, it is sweet but rather dry according to one report[177] whilst others have found it to be sweet and juicy[183, K]. The fruit can be added to pancakes or dried for later use[183]. Fruits are oval or pear shaped unlike other members of this genus that have round fruits[183]. They are 15mm long[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil, including chalk, so long as it is not too dry or water-logged[11, 200]. Grows well in heavy clay soils.

Plants are hardy to about -30°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species hybridises with A. sanguinea, A. humilis, A. stolonifera, A. fernaldii and A. canadensis. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier bartramiana*

Subject:

Amelanchier bartramiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier bartramiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:30:39 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Amelanchier basalticola

Common name:		Family:	Rosaceae
Author:	Piper.	Botanical references:	200
Synonyms:	Amelanchier alnifolia pumila ((Nutt.)Nels.)		
Known Hazards:	None known		
Range:	North-western N. America - Washington.		
Habitat:	Open woods, canyons and hillsides, from near sea level to the sub-alpine zone[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia[C] A. alnifolia var. pumila[B,P] A. cuneata[B,P] A. glabra[B,P] A. polycarpa[B,P] A. pumila[B,C,CAL,P]
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Epithets:	From a Dictionary of Botanical Epithets
	alticola = dweller in the heights;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 5 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5

for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

We have no records for this species, but the fruit is almost certainly edible both raw or cooked[K]. It is 9 - 12mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

There is much difference of opinion in the naming of members of this genus, with many botanists viewing this species as no more than a form of A. alnifolia[60]. It hybridizes freely with other members of the genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

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Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia[C] A. alnifolia var. pumila[B,P] A. cuneata[B,P] A. glabra[B,P] A. polycarpa[B,P] A. pumila[B,C,CAL,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dwarf Service-berry [B], Dwarf Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	alticola = dweller in the heights;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 5 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

We have no records for this species, but the fruit is almost certainly edible both raw or cooked[K]. It is 9 - 12mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

There is much difference of opinion in the naming of members of this genus, with many botanists viewing this species as no more than a form of A. alnifolia[60]. It hybridizes freely with other members of the genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+basalticola`
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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+basalticola`

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Add a comment on: *Amelanchier basalticola*

Subject:

Amelanchier basalticola

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier basalticola

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:30:46 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Amelanchier canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Juneberry	Family:	Rosaceae
Author:	(L.) Medik.	Botanical references:	11, 43, 200
Synonyms:	Mespilus canadensis (L.), Amelanchier oblongifolia (Roem.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, south to Florida. Naturalized in Britain[17].		
Habitat:	Swamps, low ground, woods and thickets[43]. Grows in woods and hedgerows in Britain[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea var. arborea[B,P] A. canadensis var. subintegra[B,P] A. lamarckii[DUTCH] A. lucida[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canadian Service-berry [B], Canadian Serviceberry [P], Common Serviceberry [P], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database

	Us

Physical Characteristics

A decidious shrub growing to 6m by 3m at a medium rate. It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Prince William'**: Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[3, 55, 101, 159]. The fruit contains a few small seeds at the centre, it has a sweet flavour with a hint of apple[1, 2]. It can be eaten out of hand, used in pies, preserves etc or dried and used like raisins[183]. We have found the fruit to be of variable quality, with some forms having a distinct bitterness in the flavour whilst others are sweet, juicy and delicious[K]. When the fruit is thoroughly cooked in puddings or pies the seed imparts an almond flavour to the food[183]. The fruit is rich in iron and copper[226]. It is about 10mm in diameter[200]. Trees can yield 7 to 15 tonnes per hectare[160].

Medicinal Uses

Disclaimer

Anthelmintic; Disinfectant; Women's complaints.

A tea made from the root bark (mixed with other unspecified herbs) was used as a tonic in the treatment of excessive menstrual bleeding and also to treat diarrhoea[222, 257]. A bath of the bark tea was used on children with worms[222, 257]. An infusion of the root was used to prevent miscarriage after an injury[257].

A compound concoction of the inner bark was used as a disinfectant wash[257].

Other Uses

Hedge; Rootstock; Shelterbelt; Wood.

This species can be used as a dwarfing rootstock for Malus spp. (the apples) and Pyrus spp. (the pears)[160].

Plants can be grown as an informal hedge[200]. Any trimming is best done after flowering[200]. A fairly wind-tolerant species, it can be used to give protection from the wind as part of a mixed shelterbelt[200].

Wood - hard, strong, close grained. Used for tool handles, small implements etc[46, 61].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not water-logged, too dry or poor[11], though it is more wet-tolerant than other members of this genus[11]. Grows well in heavy clay soils. Prefers an acid soil[17, 43]. Trees produce more and better quality fruits better when growing in a sunny position[1].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

There is at least one named variety of this species with superior fruits. 'Prince William' is a large multi-stemmed shrub to 3 metres tall and 2 metres across[183, 200]. It crops heavily and its good quality fruit is about 12mm in diameter[183].

Considerable confusion has existed between this species and A. arborea, A. laevis and A. lamarckii, see [11] for the most recent (1991) classification. Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Prince William'

> The purplish-blue fruits are up to 12mm in diameter, their quality is good and they are produced abundantly[183]. A large multi-stemmed shrub that grows up to 3 metres tall and 2 metres wide[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Amelanchier canadensis* (Juneberry)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03

Item: *Amelanchier canadensis* (Juneberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Trees and Shrubs for Shelterbelts: A
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: A
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier arborea var. arborea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Genera: Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Genera: Amelanchier*.

Amelanchier canadensis

Fri May 11 17:31:46 2001

You want pictures of juneberries, well here you go...

dugan garden center Rain Tree Alabama Forest Info iastate uni

that should be enough :) I got some small ones planted, but they are to young to fruit yet. They could also be chokecherries, but not sure.

Look at this to be sure:

http://wcd.saultc.on.ca:8900/dendro/webpages/servicegen.html

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Subject:

Amelanchier canadensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier canadensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:30:51 2004

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Amelanchier confusa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	N. Hylander.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - S. Sweden.		
Habitat:	This species is only known from plants naturalised in Sweden, its origin is uncertain[11, 200].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	confusa = confused;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

We have no records for this species, but the fruit is almost certainly edible both raw and cooked[K]. It is 7 - 9mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A suckering plant, the suckers are formed very close to the original stem so the plant forms a gradually expanding clump[K].

Plants growing at Hilliers Arboretum in Hampshire were 4 metres tall in early April 1999, they were suckering quite freely in a tight clump and flowering very freely[K].

This species is closely related to A. laevis[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Very good on identification for non-experts, the book also has a lot of information on plant uses.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They

carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Amelanchier confusa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	N. Hylander.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - S. Sweden.		
Habitat:	This species is only known from plants naturalised in Sweden, its origin is uncertain[11, 200].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	confusa = confused;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

We have no records for this species, but the fruit is almost certainly edible both raw and cooked[K]. It is 7 - 9mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A suckering plant, the suckers are formed very close to the original stem so the plant forms a gradually expanding clump[K].

Plants growing at Hilliers Arboretum in Hampshire were 4 metres tall in early April 1999, they were suckering quite freely in a tight clump and flowering very freely[K].

This species is closely related to A. laevis[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

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Cross references: *Plants: Amelanchier canadensis*. *Genera: Amelanchier*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+confusa`

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Plants For A Future: Database Search Results

Amelanchier confusa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	N. Hylander.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - S. Sweden.		
Habitat:	This species is only known from plants naturalised in Sweden, its origin is uncertain[11, 200].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	confusa = confused;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

We have no records for this species, but the fruit is almost certainly edible both raw and cooked[K]. It is 7 - 9mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A suckering plant, the suckers are formed very close to the original stem so the plant forms a gradually expanding clump[K].

Plants growing at Hilliers Arboretum in Hampshire were 4 metres tall in early April 1999, they were suckering quite freely in a tight clump and flowering very freely[K].

This species is closely related to A. laevis[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier confusa*

Subject:

Amelanchier confusa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier confusa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:30:59 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier humilis

Common name:		Family:	Rosaceae
Author:	Wiegg.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Vermont to Alberta and south to New York and Iowa..		
Habitat:	Rocky or sandy shores and banks, often calcareous[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. humilis var. campestris[B,P] A. humilis var. compacta[B,P] A. humilis var. exserrata[B,P] A. mucronata[B,P] A. stolonifera[B] A. stolonifera auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Low Service-berry [B], Low Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	humilis = low growing;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 1.8m by 3m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[105, 159, 177]. Sweet[43]. A very pleasant flavour, the fruit is juicy with a hint of apple in the taste and contains a few small seeds at the centre[K]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Plants are often found growing on calcareous soils in the wild[43].

Hardy to about -25°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species produces suckers freely, forming thickets[184].

Closely related to A. stolonifera[11, 200].

Hybridizes with A. stolonifera, A. arborea and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

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Jan Kola Mon Dec 04 23:42:43 2000

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Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+humilis`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Amelanchier humilis

Common name:		Family:	Rosaceae
Author:	Wiegg.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Vermont to Alberta and south to New York and Iowa..		
Habitat:	Rocky or sandy shores and banks, often calcareous[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. humilis var. campestris[B,P] A. humilis var. compacta[B,P] A. humilis var. exserrata[B,P] A. mucronata[B,P] A. stolonifera[B] A. stolonifera auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Low Service-berry [B], Low Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	humilis = low growing;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 1.8m by 3m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[105, 159, 177]. Sweet[43]. A very pleasant flavour, the fruit is juicy with a hint of apple in the taste and contains a few small seeds at the centre[K]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Plants are often found growing on calcareous soils in the wild[43].

Hardy to about -25°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species produces suckers freely, forming thickets[184].

Closely related to A. stolonifera[11, 200].

Hybridizes with A. stolonifera, A. arborea and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

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Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Plants For A Future: Database Search Results

Amelanchier humilis

Common name:		Family:	Rosaceae
Author:	Wiegg.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Vermont to Alberta and south to New York and Iowa..		
Habitat:	Rocky or sandy shores and banks, often calcareous[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. humilis var. campestris[B,P] A. humilis var. compacta[B,P] A. humilis var. exserrata[B,P] A. mucronata[B,P] A. stolonifera[B] A. stolonifera auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Low Service-berry [B], Low Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	humilis = low growing;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 1.8m by 3m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[105, 159, 177]. Sweet[43]. A very pleasant flavour, the fruit is juicy with a hint of apple in the taste and contains a few small seeds at the centre[K]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Plants are often found growing on calcareous soils in the wild[43].

Hardy to about -25°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species produces suckers freely, forming thickets[184].

Closely related to A. stolonifera[11, 200].

Hybridizes with A. stolonifera, A. arborea and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier humilis*

Subject:

Amelanchier humilis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier humilis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:31:06 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Amelanchier huroensis

Common name:		Family:	Rosaceae
Author:	Wieg.	Botanical references:	43
Synonyms:			
Known Hazards:	None known		
Range:	North-western N. America - Ontario, Michigan, Wisconsin and Minnesota.		
Habitat:	Open woods, cliffs and shores, chiefly on trap or other basic rocks[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. amabilis[B,P] A. huronensis[B,G,P] A. sanguinea[B,G,HORTIPLEX,P] A. sanguinea var. sanguinea[B,P] Pyrus sanguinea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Round-leaf Service-berry [B], Roundleaf Serviceberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious tree growing to 6m. It is hardy to zone 6 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[177]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier sanguinea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Add a longer comment

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Plants For A Future: Database Search Results

Amelanchier huroensis

Common name:		Family:	Rosaceae
Author:	Wieg.	Botanical references:	43
Synonyms:			
Known Hazards:	None known		
Range:	North-western N. America - Ontario, Michigan, Wisconsin and Minnesota.		
Habitat:	Open woods, cliffs and shores, chiefly on trap or other basic rocks[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. amabilis[B,P] A. huronensis[B,G,P] A. sanguinea[B,G,HORTIPLEX,P] A. sanguinea var. sanguinea[B,P] Pyrus sanguinea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Round-leaf Service-berry [B], Roundleaf Serviceberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious tree growing to 6m. It is hardy to zone 6 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[177]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

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Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier sanguinea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

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	Order: Rosales . Rose family

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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[177]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

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Propagation

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Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Amelanchier huroensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier huroensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Amelanchier interior

Common name:		Family:	Rosaceae
Author:	Nielson.	Botanical references:	43
Synonyms:			
Known Hazards:	None known		
Range:	Central N. America - Wisconsin to S. Minnesota and south to S. Dakota		
Habitat:	Hillsides and banks of streams[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. wiegandii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
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Physical Characteristics

A decidious tree growing to 9m. It is hardy to zone 6 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked. A sweet taste[177, K] and a juicy texture[229, K], even before the fruit is fully ripe[K]. The fruit is produced in small clusters and is up to 8mm in diameter[229]. The fruit is rich in iron and copper[226]. This species has been seen fruiting well at Kew where the fruit ripened about 3 weeks later than most of the other species[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species. We do not know if it will be hardy in Britain, though it is growing and fruiting well at Kew Gardens in London[K] and judging by its native range it should succeed outdoors in most parts of the country. This species is not stoloniferous[43]. The following notes are based on the general needs of the genus.

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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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Rich Wed Dec 20 11:01:57 2000

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URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950

A bit dated but good and concise flora of the eastern part of N. America.

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Plants For A Future: Database Search Results

Amelanchier interior

Common name:		Family:	Rosaceae
Author:	Nielson.	Botanical references:	43
Synonyms:			
Known Hazards:	None known		
Range:	Central N. America - Wisconsin to S. Minnesota and south to S. Dakota		
Habitat:	Hillsides and banks of streams[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. wiegandii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Inland Service-berry [B], Pacific Serviceberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious tree growing to 9m. It is hardy to zone 6 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked. A sweet taste[177, K] and a juicy texture[229, K], even before the fruit is fully ripe[K]. The fruit is produced in small clusters and is up to 8mm in diameter[229]. The fruit is rich in iron and copper[226]. This species has been seen fruiting well at Kew where the fruit ripened about 3 weeks later than most of the other species[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species. We do not know if it will be hardy in Britain, though it is growing and fruiting well at Kew Gardens in London[K] and judging by its native range it should succeed outdoors in most parts of the country. This species is not stoloniferous[43]. The following notes are based on the general needs of the genus.

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left

out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier interior*

Subject:

Amelanchier interior

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier interior

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:31:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Amelanchier intermedia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	Spach.	Botanical references:	11, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Vermont to North Carolina.		
Habitat:	Swamps and moist soils[235].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	intermedia = intermediate; media = intermediate;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[11]. We have yet to see the fruit on this species, but if it is like the closely related A. lamarckii, then it will be sweet and succulent with a flavour of apples[K]. The fruit can also be dried for later use and is up to 10mm in diameter. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Plants are hardy to about -25°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. laevis, see [11] for the latest (1991) classification. Some botanists consider this species to be part of A. canadensis or A. lamarckii[11, 200].

A group of plants growing at Kew were about 5 years old in 1995. They were flowering well in early April, were about 2 metres tall and had lots of side branches[K]. Their native range was given as western N. America, which conflicts with other reports[K]. Older plants are being grown at Hilliers Arboretum in Hampshire, in early April 1999 they were 4 metres tall, suckering quite freely in a tight clump and flowering very freely[K].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

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Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Amelanchier intermedia

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Author:	Spach.	Botanical references:	11, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Vermont to North Carolina.		
Habitat:	Swamps and moist soils[235].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	intermedia = intermediate; media = intermediate;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[11]. We have yet to see the fruit on this species, but if it is like the closely related A. lamarckii, then it will be sweet and succulent with a flavour of apples[K]. The fruit can also be dried for later use and is up to 10mm in diameter. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Plants are hardy to about -25°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

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[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+intermedia`
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Plants For A Future: Database Search Results

Amelanchier intermedia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	Spach.	Botanical references:	11, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Vermont to North Carolina.		
Habitat:	Swamps and moist soils[235].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	intermedia = intermediate; media = intermediate;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[11]. We have yet to see the fruit on this species, but if it is like the closely related A. lamarckii, then it will be sweet and succulent with a flavour of apples[K]. The fruit can also be dried for later use and is up to 10mm in diameter. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Plants are hardy to about -25°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. laevis, see [11] for the latest (1991) classification. Some botanists consider this species to be part of A. canadensis or A. lamarckii[11, 200].

A group of plants growing at Kew were about 5 years old in 1995. They were flowering well in early April, were about 2 metres tall and had lots of side branches[K]. Their native range was given as western N. America, which conflicts with other reports[K]. Older plants are being grown at Hilliers Arboretum in Hampshire, in early April 1999 they were 4 metres tall, suckering quite freely in a tight clump and flowering very freely[K].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier intermedia*

Subject:

Amelanchier intermedia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier intermedia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:31:28 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier laevis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Allegheny shadberry	Family:	Rosaceae
Author:	Wiegg.	Botanical references:	11, 43, 200
Synonyms:	Amelanchier canadensis (Auct. pro parte non (L.)Medik.)		
Known Hazards:	None known		
Range:	Eastern N. America. Naturalized in Britain.		
Habitat:	Dry to moist thickets, woodland edges and edges of swamps in cool ravines and on hillsides[43, 82]. Naturalized in Britain on light acidic soils[17].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea ssp. laevis[B,P] A. arborea var. cordifolia[B,P] A. arborea var. laevis[B,P] A. canadensis var. subintegra[B,P] A. laevis var. nitida[B,P] A. lamarckii[DUTCH] A. lucida[B,P] A. x grandiflora[B,P] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Allegheny Service-berry [B], Allegheny Serviceberry [P], Canadian Service-berry [B], Canadian Serviceberry [P], Krentenboompje [D], Service Berry [L], Serviceberry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	laevis = smooth;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 9m by 6m . It is hardy to zone 4 and is not frost tender. It is in flower from April to May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[2, 11, 105, 159]. Succulent and sweet[82, 183]. This is one of the nicest fruits in the genus, it can be eaten and enjoyed in quantity[K]. The fruit can also be dried for winter use[183]. Up to 18mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Miscellany.

An infusion of the bark was used by expectant mothers[257].

Other Uses

Wood.

Wood - heavy, exceedingly hard, strong, close grained. Used for tool handles etc[82].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Found in the wild on light acidic soils[17].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals, this species is worthy of especial attention because of the quality of its fruit. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Trees come into bearing in about 12 years from seed[98].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. lamarckii, see [11] for the latest (1991) classification. It hybridizes with A. sanguinea, A. huronensis, A. wiegandii, A. stolonifera, A. canadensis, A. arborea and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

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Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier laevis, a. lamarckii & birds

Klaus Dichtel (klaussss@web.de) Thu Feb 26 11:04:13 2004

In 2003 we experienced, that a. lamarckii was harvested by birds, but a. laevis not. Greetings from Klaus

Details of Growing Condition: Germany, Lower Sachsony, 650mm rainfall, sandy soil, windy site.

Cross references: *Plants:* *Amelanchier lamarckii*. *Genera:* *amelanchier sp.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+laevis`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Amelanchier laevis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Allegheny shadberry	Family:	Rosaceae
Author:	Wiegg.	Botanical references:	11, 43, 200
Synonyms:	Amelanchier canadensis (Auct. pro parte non (L.)Medik.)		
Known Hazards:	None known		
Range:	Eastern N. America. Naturalized in Britain.		
Habitat:	Dry to moist thickets, woodland edges and edges of swamps in cool ravines and on hillsides[43, 82]. Naturalized in Britain on light acidic soils[17].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea ssp. laevis[B,P] A. arborea var. cordifolia[B,P] A. arborea var. laevis[B,P] A. canadensis var. subintegra[B,P] A. laevis var. nitida[B,P] A. lamarckii[DUTCH] A. lucida[B,P] A. x grandiflora[B,P] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Allegheny Service-berry [B], Allegheny Serviceberry [P], Canadian Service-berry [B], Canadian Serviceberry [P], Krentenboompje [D], Service Berry [L], Serviceberry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	laevis = smooth;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 9m by 6m . It is hardy to zone 4 and is not frost tender. It is in flower from April to May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[2, 11, 105, 159]. Succulent and sweet[82, 183]. This is one of the nicest fruits in the genus, it can be eaten and enjoyed in quantity[K]. The fruit can also be dried for winter use[183]. Up to 18mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Miscellany.

An infusion of the bark was used by expectant mothers[257].

Other Uses

Wood.

Wood - heavy, exceedingly hard, strong, close grained. Used for tool handles etc[82].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Found in the wild on light acidic soils[17].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals, this species is worthy of especial attention because of the quality of its fruit. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Trees come into bearing in about 12 years from seed[98].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. lamarckii, see [11] for the latest (1991) classification. It hybridizes with A. sanguinea, A. huronensis, A. wiegandii, A. stolonifera, A. canadensis, A. arborea and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF: Edible Trees and Shrubs Hardy in Britain

- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981

A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier laevis, a. lamarckii & birds

Klaus Dichtel (klaussss@web.de) Thu Feb 26 11:04:13 2004

In 2003 we experienced, that a. lamarckii was harvested by birds, but a. laevis not. Greetings from Klaus

Details of Growing Condition: Germany, Lower Sachsony, 650mm rainfall, sandy soil, windy site.

Cross references: *Plants:* *Amelanchier lamarckii*. *Genera:* *amelanchier sp.*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+laevis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+laevis`

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Plants For A Future: Database Search Results

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Amelanchier lamarckii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Apple serviceberry	Family:	Rosaceae
Author:	Schroeder.	Botanical references:	11, 200
Synonyms:	Crataegus racemosa (Lam. non Lindl.), Amelanchier grandiflora (Franco. non Rehder.), Amelanchier canadensis (Auct pro parte non (L.)Medik.), Amelanchier botryapium (DC.)		
Known Hazards:	None known		
Range:	N. America. Naturalized in Britain.		
Habitat:	Possibly no longer found in its original wild habitat, it is naturalized in S. England on sandy heaths and damp acid woods[11, 184].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canadensis var. subintegra[B,P] A. lucida[B,P] A. sanguinea var. grandiflora[B] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amerikaans Krentenboompje [D], Canadian Service-berry [B], Canadian Serviceberry [P], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Ballerina'**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[11]. Sweet and succulent with a flavour of apples[177], they can also be dried for later use[183]. This is one of the nicest fruits in the genus, they can be eaten and enjoyed in quantity[K]. The fruit is rich in iron and copper[226]. It is up to 10mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Hardy to about -25°c[184]. This species does not produce suckers[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K]. This species is worthy of special attention because of the quality of its fruit. It was formerly cultivated for these fruits and there are some named varieties[183]. The fruit is freely produced in Britain[184].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. laevis, see [11] for the latest (1991) classification. Some botanists consider this species to be a natural hybrid A. canadensis x A. laevis.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Princess Diana'

> The fruit is up to 10mm in diameter[183]. A small, gracefully spreading tree[183].

'Ballerina'

> A very tasty fruit, about the size of a blackcurrant[183, K]. A large shrub or small tree, it can reach 4.5 metres in height[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Amelanchier lamarckii* (Apple serviceberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier sanguinea var. grandiflora* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2

Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

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Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* Amelanchier canadensis. *Genera:* Amelanchier.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier laevis, a. lamarckii & birds

Klaus Dichtel (klausssss@web.de) Thu Feb 26 11:04:13 2004

In 2003 we experienced, that a. lamarckii was harvested by birds, but a. laevis not. Greetings from Klaus

Details of Growing Condition: Germany, Lower Sachsony, 650mm rainfall, sandy soil, windy site.

Cross references: *Plants:* *Amelanchier laevis*. *Genera:* *amelanchier sp.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Amelanchier lamarckii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Apple serviceberry	Family:	Rosaceae
Author:	Schroeder.	Botanical references:	11, 200
Synonyms:	Crataegus racemosa (Lam. non Lindl.), Amelanchier grandiflora (Franco. non Rehder.), Amelanchier canadensis (Auct pro parte non (L.)Medik.), Amelanchier botryapium (DC.)		
Known Hazards:	None known		
Range:	N. America. Naturalized in Britain.		
Habitat:	Possibly no longer found in its original wild habitat, it is naturalized in S. England on sandy heaths and damp acid woods[11, 184].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. canadensis var. subintegra[B,P] A. lucida[B,P] A. sanguinea var. grandiflora[B] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amerikaans Krentenboompje [D], Canadian Service-berry [B], Canadian Serviceberry [P], Krentenboompje [D], Service Berry [L], Shad Bush [L], Shadblow [H],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5

for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Ballerina'**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[11]. Sweet and succulent with a flavour of apples[177], they can also be dried for later use[183]. This is one of the nicest fruits in the genus, they can be eaten and enjoyed in quantity[K]. The fruit is rich in iron and copper[226]. It is up to 10mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Hardy to about -25°c[184]. This species does not produce suckers[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K]. This species is worthy of special attention because of the quality of its fruit. It was formerly cultivated for these fruits and there are some named varieties[183]. The fruit is freely produced in Britain[184].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. laevis, see [11] for the latest (1991) classification. Some botanists consider this species to be a natural hybrid A. canadensis x A. laevis.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

'Princess Diana'

> The fruit is up to 10mm in diameter[183]. A small, gracefully spreading tree[183].

'Ballerina'

> A very tasty fruit, about the size of a blackcurrant[183, K]. A large shrub or small tree, it can reach 4.5 metres in height[183].

Suppliers

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Amelanchier lamarckii* (Apple serviceberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Amelanchier laevis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Allegheny shadberry	Family:	Rosaceae
Author:	Wiegg.	Botanical references:	11, 43, 200
Synonyms:	Amelanchier canadensis (Auct. pro parte non (L.)Medik.)		
Known Hazards:	None known		
Range:	Eastern N. America. Naturalized in Britain.		
Habitat:	Dry to moist thickets, woodland edges and edges of swamps in cool ravines and on hillsides[43, 82]. Naturalized in Britain on light acidic soils[17].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea ssp. laevis[B,P] A. arborea var. cordifolia[B,P] A. arborea var. laevis[B,P] A. canadensis var. subintegra[B,P] A. laevis var. nitida[B,P] A. lamarckii[DUTCH] A. lucida[B,P] A. x grandiflora[B,P] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Allegheny Service-berry [B], Allegheny Serviceberry [P], Canadian Service-berry [B], Canadian Serviceberry [P], Krentenboompje [D], Service Berry [L], Serviceberry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	laevis = smooth;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Other Range Info:	From the Ethnobotany Database Us

Physical Characteristics

A decidious shrub growing to 9m by 6m . It is hardy to zone 4 and is not frost tender. It is in flower from April to May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[2, 11, 105, 159]. Succulent and sweet[82, 183]. This is one of the nicest fruits in the genus, it can be eaten and enjoyed in quantity[K]. The fruit can also be dried for winter use[183]. Up to 18mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Miscellany.

An infusion of the bark was used by expectant mothers[257].

Other Uses

Wood.

Wood - heavy, exceedingly hard, strong, close grained. Used for tool handles etc[82].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Found in the wild on light acidic soils[17].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals, this species is worthy of especial attention because of the quality of its fruit. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Trees come into bearing in about 12 years from seed[98].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. lamarckii, see [11] for the latest (1991) classification. It hybridizes with A. sanguinea, A. huronensis, A. wiegandii, A. stolonifera, A. canadensis, A. arborea and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier laevis, a. lamarckii & birds

Klaus Dichtel (klausssss@web.de) Thu Feb 26 11:04:13 2004

In 2003 we experienced, that a. lamarckii was harvested by birds, but a. laevis not. Greetings from Klaus

Details of Growing Condition: Germany, Lower Sachsony, 650mm rainfall, sandy soil, windy site.

Cross references: *Plants:* *Amelanchier lamarckii*. *Genera:* *amelanchier sp.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Amelanchier laevis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Allegheny shadberry	Family:	Rosaceae
Author:	Wiegg.	Botanical references:	11, 43, 200
Synonyms:	Amelanchier canadensis (Auct. pro parte non (L.)Medik.)		
Known Hazards:	None known		
Range:	Eastern N. America. Naturalized in Britain.		
Habitat:	Dry to moist thickets, woodland edges and edges of swamps in cool ravines and on hillsides[43, 82]. Naturalized in Britain on light acidic soils[17].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea ssp. laevis[B,P] A. arborea var. cordifolia[B,P] A. arborea var. laevis[B,P] A. canadensis var. subintegra[B,P] A. laevis var. nitida[B,P] A. lamarckii[DUTCH] A. lucida[B,P] A. x grandiflora[B,P] Mespilus canadensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Allegheny Service-berry [B], Allegheny Serviceberry [P], Canadian Service-berry [B], Canadian Serviceberry [P], Krentenboompje [D], Service Berry [L], Serviceberry [L], Shad Bush [L], Shadblow [H],
Epithets:	From a Dictionary of Botanical Epithets
	laevis = smooth;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 9m by 6m . It is hardy to zone 4 and is not frost tender. It is in flower from April to May, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[2, 11, 105, 159]. Succulent and sweet[82, 183]. This is one of the nicest fruits in the genus, it can be eaten and enjoyed in quantity[K]. The fruit can also be dried for winter use[183]. Up to 18mm in diameter[200]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Miscellany.

An infusion of the bark was used by expectant mothers[257].

Other Uses

Wood.

Wood - heavy, exceedingly hard, strong, close grained. Used for tool handles etc[82].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Found in the wild on light acidic soils[17].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals, this species is worthy of especial attention because of the quality of its fruit. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Trees come into bearing in about 12 years from seed[98].

Considerable confusion has existed between this species and A. arborea, A. canadensis and A. lamarckii, see [11] for the latest (1991) classification. It hybridizes with A. sanguinea, A. huronensis, A. wiegandii, A. stolonifera, A. canadensis, A. arborea and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Search for Latin Name: amelanchier sp.

New Search: amelanchier sp. [Search]

Latin Name	Common Name	Family	Synonyms	Rating
Amelanchier alnifolia semiintegrifolia	Pacific serviceberry	Rosaceae	A. alnifolia. non Nutt. A. florida. A. oxyodon; A. alnifolia ssp. florida	5
Amelanchier laevis	Allegheny shadberry	Rosaceae	A. canadensis. non (L.)Medik. A. confusa.; A. arborea ssp. laevis	5
Amelanchier x grandiflora		Rosaceae	A. botryapium lanceolata. A. canadensis grandiflora. Zab.; A. arborea ssp. laevis	5

New Search

Latin Name	amelanchier sp.
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Amelanchier x grandiflora

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	Rehd.	Botanical references:	200
Synonyms:	Amelanchier canadensis grandiflora (Zabel.), Amelanchier botryapium lanceolata (Hort Simon-Louis)		
Known Hazards:	None known		
Range:	A hybrid of garden origin, A. arborea x A. laevis.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arborea ssp. laevis[B,P] A. arborea var. cordifolia[B,P] A. arborea var. laevis[B,P] A. arborea x laevis[H] A. laevis[B,E,G,H,HORTIPLEX,L,P] A. laevis var. nitida[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Allegheny Service-berry [B], Allegheny Serviceberry [P], Serviceberry [L],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; grandiflora = large flowered;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[200]. Sweet and succulent with a flavour of apples[K], they can also be dried for later use[183]. The fruit is rich in iron and copper[226]. It is up to 10mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Plants are hardy to about -25°c[184]. This species does not produce suckers[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K]. This species is occasionally cultivated for its edible fruits, there are some named varieties[200]. The fruit is freely produced in Britain[184].

Considerable confusion has existed between this species, A. arborea, A. canadensis, A. lamarckii and A. laevis, see [11 and 200] for the latest (1991) classification.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Amelanchier laevis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
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See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Very good on identification for non-experts, the book also has a lot of information on plant uses.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* Amelanchier canadensis. *Genera:* Amelanchier.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+x+grandiflora`

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Plants For A Future: Database Search Results

Amelanchier x grandiflora

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	Rehd.	Botanical references:	200
Synonyms:	Amelanchier canadensis grandiflora (Zabel.), Amelanchier botryapium lanceolata (Hort Simon-Louis)		
Known Hazards:	None known		
Range:	A hybrid of garden origin, A. arborea x A. laevis.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. arborea ssp. laevis[B,P] A. arborea var. cordifolia[B,P] A. arborea var. laevis[B,P] A. arborea x laevis[H] A. laevis[B,E,G,H,HORTIPLEX,L,P] A. laevis var. nitida[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Allegheny Service-berry [B], Allegheny Serviceberry [P], Serviceberry [L],
Epithets:	From a Dictionary of Botanical Epithets flora = flowered; grandiflora = large flowered;
Systematics:	From a UDSA Plants Database Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database Us

Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5

for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[200]. Sweet and succulent with a flavour of apples[K], they can also be dried for later use[183]. The fruit is rich in iron and copper[226]. It is up to 10mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Prefers an acid or neutral soil.

Plants are hardy to about -25°c[184]. This species does not produce suckers[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K]. This species is occasionally cultivated for its edible fruits, there are some named varieties[200]. The fruit is freely produced in Britain[184].

Considerable confusion has existed between this species, A. arborea, A. canadensis, A. lamarckii and A. laevis, see [11 and 200] for the latest (1991) classification.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Amelanchier laevis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

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Author:	Rehd.	Botanical references:	200
Synonyms:	Amelanchier canadensis grandiflora (Zabel.), Amelanchier botryapium lanceolata (Hort Simon-Louis)		
Known Hazards:	None known		
Range:	A hybrid of garden origin, A. arborea x A. laevis.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	5		

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	flora = flowered; grandiflora = large flowered;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 6m by 4m . It is hardy to zone 4 and is not frost tender. It is in flower in April, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5

for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

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Edible Uses

Fruit.

Edible fruit - raw or cooked[200]. Sweet and succulent with a flavour of apples[K], they can also be dried for later use[183]. The fruit is rich in iron and copper[226]. It is up to 10mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Subject:

Amelanchier x grandiflora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier x grandiflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Add a comment on: *Amelanchier laevis*

Subject:

Amelanchier laevis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:

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Plant names you would like this comment to be added to:

Amelanchier laevis

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Add a comment on: *Amelanchier lamarckii*

Subject:

Amelanchier lamarckii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier lamarckii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Amelanchier obovalis

Common name:	Southern juneberry	Family:	Rosaceae
Author:	(Michx.) Ashe.	Botanical references:	11, 43
Synonyms:	Mespilus canadensis obovalis (Michx.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Georgia and Alabama north to southern New Jersey[43].		
Habitat:	Pinelands and low woods[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Mespilus canadensis var. obovalis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Coastal Service-berry [B], Coastal Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	ovalis = oval;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious tree. It is hardy to zone 6 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Jennybelle'**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit, raw or cooked[177]. Sweet and of very good quality, the fruit is eaten out of hand or used in pies, preserves, drinks etc[183]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

Plants are stoloniferous[43].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K]. There is at least one named variety with improved fruits. 'Jennybelle' is a small bush, to 3.5 metres and produces few suckers so is easier to manage[183]. The fruit is up to 12mm in diameter and is sweet even before it is fully ripe. Plants fruit heavily and start to yield when young. They are resistant to drought, frost and high temperatures[183].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

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If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* Amelanchier canadensis. *Genera:* Amelanchier.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+obovalis`
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Plants For A Future: Database Search Results

Amelanchier obovalis

Common name:	Southern juneberry	Family:	Rosaceae
Author:	(Michx.) Ashe.	Botanical references:	11, 43
Synonyms:	Mespilus canadensis obovalis (Michx.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Georgia and Alabama north to southern New Jersey[43].		
Habitat:	Pinelands and low woods[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Mespilus canadensis var. obovalis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	ovalis = oval;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A deciduous tree. It is hardy to zone 6 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought.

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Fruit.

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Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

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All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K]. There is at least one named variety with improved fruits. 'Jennybelle' is a small bush, to 3.5 metres and produces few suckers so is easier to manage[183]. The fruit is up to 12mm in diameter and is sweet even before it is fully ripe. Plants fruit heavily and start to yield when young. They are resistant to drought, frost and high temperatures[183].

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Plants For A Future Rating (1-5):	3		

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier obovalis*

Subject:

Amelanchier obovalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier obovalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 01:32:03 2004

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Amelanchier ovalis

Common name:	Snowy mespilus	Family:	Rosaceae
Author:	Medik.	Botanical references:	11, 50, 200
Synonyms:	Mespilus amelanchier (L.), Crataegus rotundifolia (Lam.), Amelanchier vulgaris (Moench.), Amelanchier rotundifolia ((Lam.)Dum.Cours.)		
Known Hazards:	None known		
Range:	C. and S. Europe		
Habitat:	Rocky places and stony woods[45], mainly on limestone[50, 184].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Crataegus aboriginum[B,P] Crataegus brunetiana[B,P] Crataegus brunetiana var. fernaldii[B,P] Crataegus caliciglabrata[B,P] Crataegus chrysocarpa[B,G,H,HORTIPLEX,P] Crataegus chrysocarpa var. aboriginum[B,P] Crataegus chrysocarpa var. chrysocarpa[G] Crataegus chrysocarpa var. longiacuminata[B,P] Crataegus chrysocarpa var. phoenicea[B,P] Crataegus chrysocarpa var. rotundifolia[B,P] Crataegus coccinata[B,P] Crataegus coccinea[B,P] Crataegus columbiana var. chrysocarpa[B,P] Crataegus doddsi[G] Crataegus faxonii[B,G,P] Crataegus faxonii var. durifrucata[B,P] Crataegus faxonii var. praecoqua[B,P] Crataegus faxonii var. praetermissa[B,P] Crataegus illuminata[B,P] Crataegus jackii[B,P] Crataegus laurentiana var. brunetiana[B,P] Crataegus laurentiana var. dissimilifolia[B,P] Crataegus mercerensis[B,P] Crataegus praecoqua[G] Crataegus praecox[G] Crataegus putnamiana[B,P] Crataegus sicca[B,P] Crataegus sicca var. glabrifolia[B,P] Crataegus subrotundifolia[B,P]

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Other Range Info:	From the Ethnobotany Database
	Spain

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked. Not very palatable, but it can be used for preserves etc[183]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - fine grained, hard, very heavy, reddish. Used for small articles[74].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Fairly lime tolerant[200].

Hardy to about -20°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A very ornamental plant[74].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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References

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Plants For A Future: Database Search Results

Amelanchier ovalis

Common name:	Snowy mespilus	Family:	Rosaceae
Author:	Medik.	Botanical references:	11, 50, 200
Synonyms:	Mespilus amelanchier (L.), Crataegus rotundifolia (Lam.), Amelanchier vulgaris (Moench.), Amelanchier rotundifolia ((Lam.)Dum.Cours.)		
Known Hazards:	None known		
Range:	C. and S. Europe		
Habitat:	Rocky places and stony woods[45], mainly on limestone[50, 184].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Crataegus aboriginum[B,P] Crataegus brunetiana[B,P] Crataegus brunetiana var. fernaldii[B,P] Crataegus caliciglabrata[B,P] Crataegus chrysocarpa[B,G,H,HORTIPLEX,P] Crataegus chrysocarpa var. aboriginum[B,P] Crataegus chrysocarpa var. chrysocarpa[G] Crataegus chrysocarpa var. longiacuminata[B,P] Crataegus chrysocarpa var. phoenicea[B,P] Crataegus chrysocarpa var. rotundifolia[B,P] Crataegus coccinata[B,P] Crataegus coccinea[B,P] Crataegus columbiana var. chrysocarpa[B,P] Crataegus doddsi[G] Crataegus faxonii[B,G,P] Crataegus faxonii var. durifrucata[B,P] Crataegus faxonii var. praecoqua[B,P] Crataegus faxonii var. praetermissa[B,P] Crataegus illuminata[B,P] Crataegus jackii[B,P] Crataegus laurentiana var. brunetiana[B,P] Crataegus laurentiana var. dissimilifolia[B,P] Crataegus mercerensis[B,P] Crataegus praecoqua[G] Crataegus praecox[G] Crataegus putnamiana[B,P] Crataegus sicca[B,P] Crataegus sicca var. glabrifolia[B,P] Crataegus subrotundifolia[B,P]
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	Fire-berry Hawthorn [B], Fireberry Hawthorn [P], Guillomo [E], Service-berry [H],
Epithets:	From a Dictionary of Botanical Epithets
	ovalis = oval;

Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked. Not very palatable, but it can be used for preserves etc[183]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

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Wood.

Wood - fine grained, hard, very heavy, reddish. Used for small articles[74].

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Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Fairly lime tolerant[200].

Hardy to about -20°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

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Add a comment on: *Amelanchier ovalis*

Subject:

Amelanchier ovalis

Group:
Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier ovalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:32:11 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier ovalis integrifolia

Common name:		Family:	Rosaceae
Author:	(Boiss. & Hohen.) Browicz.	Botanical references:	11, 74
Synonyms:	Amelanchier integrifolia (Boiss.)		
Known Hazards:	None known		
Range:	Europe - Greece to W. Asia.		
Habitat:	Rocky sites up to the middle mountain zone[74].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	integrifolia = leaves entire; ovalis = oval;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit, raw or cooked[74]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Often found on calcareous soils in the wild.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Considered to be part of A. ovalis by some botanists, whilst others give it specific status.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Amelanchier ovalis integrifolia

Common name:		Family:	Rosaceae
Author:	(Boiss. & Hohen.) Browicz.	Botanical references:	11, 74
Synonyms:	Amelanchier integrifolia (Boiss.)		
Known Hazards:	None known		
Range:	Europe - Greece to W. Asia.		
Habitat:	Rocky sites up to the middle mountain zone[74].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	integrifolia = leaves entire; ovalis = oval;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit, raw or cooked[74]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Often found on calcareous soils in the wild.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Considered to be part of A. ovalis by some botanists, whilst others give it specific status.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

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[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+ovalis+integrifolia`

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Plants For A Future: Database Search Results

Amelanchier ovalis integrifolia

Common name:		Family:	Rosaceae
Author:	(Boiss. & Hohen.) Browicz.	Botanical references:	11, 74
Synonyms:	Amelanchier integrifolia (Boiss.)		
Known Hazards:	None known		
Range:	Europe - Greece to W. Asia.		
Habitat:	Rocky sites up to the middle mountain zone[74].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	integrifolia = leaves entire; ovalis = oval;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit, raw or cooked[74]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Often found on calcareous soils in the wild.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Considered to be part of A. ovalis by some botanists, whilst others give it specific status.

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+ovalis+integrifolia`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier ovalis integrifolia*

Subject:

Amelanchier ovalis integrifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier ovalis integrifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:32:18 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Amelanchier pallida

Common name:	Pale serviceberry	Family:	Rosaceae
Author:	Greene.	Botanical references:	11, 71
Synonyms:	Amelanchier subintegra, Amelanchier siskiyouensis, Amelanchier gracilis (Heller.)		
Known Hazards:	None known		
Range:	South-western N. America		
Habitat:	Dry gravelly and rocky slopes and flats below 3300 metres especially in moist coniferous forests in California[71].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia var. pallida[B,P] A. florida var. gracilis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pale Service-berry [B], Pale Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	pallida = pale;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 4m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[161, 172, 177]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Ophthalmic; Women's complaints.

An infusion of the inner bark is used to treat snow-blindness[172].

A decoction of the boiled roots has been used to check too frequent menstruation[257].

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species is closely related to A. alnifolia and A. florida[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Plants For A Future: Database Search Results

Amelanchier pallida

Common name:	Pale serviceberry	Family:	Rosaceae
Author:	Greene.	Botanical references:	11, 71
Synonyms:	Amelanchier subintegra, Amelanchier siskiyouensis, Amelanchier gracilis (Heller.)		
Known Hazards:	None known		
Range:	South-western N. America		
Habitat:	Dry gravelly and rocky slopes and flats below 3300 metres especially in moist coniferous forests in California[71].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alnifolia var. pallida[B,P] A. florida var. gracilis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pale Service-berry [B], Pale Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	pallida = pale;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 4m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[161, 172, 177]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Ophthalmic; Women's complaints.

An infusion of the inner bark is used to treat snow-blindness[172].

A decoction of the boiled roots has been used to check too frequent menstruation[257].

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species is closely related to A. alnifolia and A. florida[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Range:	South-western N. America		
Habitat:	Dry gravelly and rocky slopes and flats below 3300 metres especially in moist coniferous forests in California[71].		
Plants For A Future Rating (1-5):	3		

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Epithets:	From a Dictionary of Botanical Epithets
	pallida = pale;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 4m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[161, 172, 177]. The fruit is rich in iron and copper[226].

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Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

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Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

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Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier pallida*

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Amelanchier pallida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier pallida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Amelanchier parviflora

Common name:		Family:	Rosaceae
Author:	Boiss.	Botanical references:	11
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Turkey.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; parviflora = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood - fine grained, hard, very heavy, reddish. Used for small articles[74].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Fairly lime tolerant[200].

Plants are hardy to about -20°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A group of young plants about 5 years old growing at Kew under this name were about 2 metres tall with almost no side-branches in 1995 and flowering at the end of April. They look as though their final height will be substantially more than that given above[K].

This species is closely related to A. ovalis[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

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[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Amelanchier parviflora

Common name:		Family:	Rosaceae
Author:	Boiss.	Botanical references:	11
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Turkey.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; parviflora = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood - fine grained, hard, very heavy, reddish. Used for small articles[74].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Fairly lime tolerant[200].

Plants are hardy to about -20°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A group of young plants about 5 years old growing at Kew under this name were about 2 metres tall with almost no side-branches in 1995 and flowering at the end of April. They look as though their final height will be substantially more than that given above[K].

This species is closely related to A. ovalis[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left

out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948

A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* Amelanchier canadensis. *Genera:* Amelanchier.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Plants For A Future: Database Search Results

Amelanchier parviflora

Common name:		Family:	Rosaceae
Author:	Boiss.	Botanical references:	11
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Turkey.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; parviflora = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood - fine grained, hard, very heavy, reddish. Used for small articles[74].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils. Fairly lime tolerant[200].

Plants are hardy to about -20°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

A group of young plants about 5 years old growing at Kew under this name were about 2 metres tall with almost no side-branches in 1995 and flowering at the end of April. They look as though their final height will be substantially more than that given above[K].

This species is closely related to A. ovalis[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left

out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier parviflora*

Subject:

Amelanchier parviflora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier parviflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:32:34 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier sanguinea

Common name:	Roundleaf serviceberry	Family:	Rosaceae
Author:	(Pursh.) DC.	Botanical references:	11, 43, 200
Synonyms:	Pyrus sanguinea (Pursh.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to New Jersey, west to Minnesota and Iowa.		
Habitat:	Open woods, rocky slopes and river banks on neutral to slightly calcareous soils[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. huronensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Round-leaf Service-berry [B], Roundleaf Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	anguinea = snake like; sanguinea = bloody;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 4 and is not frost tender. It is in flower in April. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[101, 105]. A sweet flavour[177]. The fruit is produced in small clusters and is up to 11mm in diameter[229]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200, but thrives in any soil that is not water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Plants produce suckers and form thickets[200].

Hybridizes with A. stolonifera, A. laevis and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van

Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* Amelanchier canadensis. *Genera:* Amelanchier.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Amelanchier sanguinea

Common name:	Roundleaf serviceberry	Family:	Rosaceae
Author:	(Pursh.) DC.	Botanical references:	11, 43, 200
Synonyms:	Pyrus sanguinea (Pursh.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to New Jersey, west to Minnesota and Iowa.		
Habitat:	Open woods, rocky slopes and river banks on neutral to slightly calcareous soils[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. huronensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Round-leaf Service-berry [B], Roundleaf Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	anguinea = snake like; sanguinea = bloody;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 4 and is not frost tender. It is in flower in April. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[101, 105]. A sweet flavour[177]. The fruit is produced in small clusters and is up to 11mm in diameter[229]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200, but thrives in any soil that is not water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Plants produce suckers and form thickets[200].

Hybridizes with A. stolonifera, A. laevis and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

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Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left

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If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)

`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+sanguinea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+sanguinea`

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Plants For A Future: Database Search Results

Amelanchier sanguinea

Common name:	Roundleaf serviceberry	Family:	Rosaceae
Author:	(Pursh.) DC.	Botanical references:	11, 43, 200
Synonyms:	Pyrus sanguinea (Pursh.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to New Jersey, west to Minnesota and Iowa.		
Habitat:	Open woods, rocky slopes and river banks on neutral to slightly calcareous soils[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. huronensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Round-leaf Service-berry [B], Roundleaf Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	anguinea = snake like; sanguinea = bloody;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 4 and is not frost tender. It is in flower in April. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[101, 105]. A sweet flavour[177]. The fruit is produced in small clusters and is up to 11mm in diameter[229]. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200, but thrives in any soil that is not water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Plants produce suckers and form thickets[200].

Hybridizes with A. stolonifera, A. laevis and A. bartramiana. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left

out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier sanguinea*

Subject:

Amelanchier sanguinea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier sanguinea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:32:42 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier spicata

Common name:		Family:	Rosaceae
Author:	(Lam.) K. Koch.	Botanical references:	11, 200, 235
Synonyms:	Crataegus spicata (Lam.), Amelanchier ovalis (non Med.)		
Known Hazards:	None known		
Range:	N. America - Ontario to Michigan, Iowa, Pennsylvania and North Carolina.		
Habitat:	Dry rocky places[235].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. rotundifolia[G] A. spicata auct. p. p. non[P] A. stolonifera[B,HORTIPLEX,P] A. vulgaris[G] Crataegus rotundifolia[G] Mespilus amelanchier[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Guillomo [E], Running Service-berry [B], Running Serviceberry [P], Service-berry [H],
Epithets:	From a Dictionary of Botanical Epithets
	spica = spike; spicata = in spikes;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Spain

Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 4 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked. Sweet and juicy[177, 183]. The fruit is rich in iron and copper[226]. It is rather small, about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200], but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

Plants are hardy to about -25°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Produces suckers freely, forming thickets.

This species is closely related to A stolonifera[11], it is possibly a hybrid of A. canadensis x A stolonifera[177].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

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Layering in spring - takes 18 months[78].

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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References for *Amelanchier ovalis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *amelanchier spicata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of

edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

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Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

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http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

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Known Hazards:	None known		
Range:	N. America - Ontario to Michigan, Iowa, Pennsylvania and North Carolina.		
Habitat:	Dry rocky places[235].		
Plants For A Future Rating (1-5):	3		

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	Order: Rosales . Rose family
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Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 4 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked. Sweet and juicy[177, 183]. The fruit is rich in iron and copper[226]. It is rather small, about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200], but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

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Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier ovalis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier stolonifera* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *amelanchier spicata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+spicata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+spicata`

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Plants For A Future: Database Search Results

Amelanchier spicata

Common name:		Family:	Rosaceae
Author:	(Lam.) K. Koch.	Botanical references:	11, 200, 235
Synonyms:	Crataegus spicata (Lam.), Amelanchier ovalis (non Med.)		
Known Hazards:	None known		
Range:	N. America - Ontario to Michigan, Iowa, Pennsylvania and North Carolina.		
Habitat:	Dry rocky places[235].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. rotundifolia[G] A. spicata auct. p. p. non[P] A. stolonifera[B,HORTIPLEX,P] A. vulgaris[G] Crataegus rotundifolia[G] Mespilus amelanchier[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Guillomo [E], Running Service-berry [B], Running Serviceberry [P], Service-berry [H],
Epithets:	From a Dictionary of Botanical Epithets
	spica = spike; spicata = in spikes;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Spain

Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 4 and is not frost tender. It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked. Sweet and juicy[177, 183]. The fruit is rich in iron and copper[226]. It is rather small, about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200], but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

Plants are hardy to about -25°c[184].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Produces suckers freely, forming thickets.

This species is closely related to A stolonifera[11], it is possibly a hybrid of A. canadensis x A stolonifera[177].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii

or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier spicata*

Subject:

Amelanchier spicata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier spicata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:32:50 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Amelanchier stolonifera

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Quebec berry	Family:	Rosaceae
Author:	Wieg.	Botanical references:	11, 43, 200
Synonyms:	Amelanchier spicata (non (Lam.)K.Koch.)		
Known Hazards:	None known		
Range:	Eastern N. America		
Habitat:	Dry acid rocky or sandy open habitats[43].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. humilis[B,E,G,HORTIPLEX,P] A. humilis var. campestris[B,P] A. humilis var. compacta[B,P] A. humilis var. exserrata[B,P] A. mucronata[B,P] A. spicata auct. p. p. non[P] A. stolonifera auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Low Service-berry [B], Low Serviceberry [P], Running Service-berry [B], Running Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	stolonifer = producing stolons; stolonifera = producing stolons;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 1.5m. It is hardy to zone 4 and is not frost tender. It is in flower in May, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[3, 101, 105]. Sweet and juicy with a good flavour that has a hint of apple[1, 11, 183, K]. The plant usually yields very well in Britain and the well-flavoured fruit means that it has excellent potential as a commercial crop[K] The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Tonic.

The root bark has been used as a tonic[257].

Other Uses

None known

Cultivation details

Dislikes calcareous soils[11]. Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Produces suckers quite freely, the plant forms thickets. When propagated by these suckers, the new plants can begin producing a crop of fruit in their second year[K].

The sub-species A. stolonifera micropetala was seen growing in dappled shade at Hilliers Arboretum in early April 1999. It was about 2 metres tall, suckering freely with some suckers more than 50cm from the parent plant, and flowering freely[K].

Hybridizes with A. arborea, A. bartramiana, A. laevis and A. sanguinea. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

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Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier humilis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
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[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Jan Kola Mon Dec 04 23:42:43 2000

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Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

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Native Fruit Development Program

http://www.saskatoonfarm.com/

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Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+stolonifera`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Amelanchier stolonifera

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Quebec berry	Family:	Rosaceae
Author:	Wieg.	Botanical references:	11, 43, 200
Synonyms:	Amelanchier spicata (non (Lam.)K.Koch.)		
Known Hazards:	None known		
Range:	Eastern N. America		
Habitat:	Dry acid rocky or sandy open habitats[43].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. humilis[B,E,G,HORTIPLEX,P] A. humilis var. campestris[B,P] A. humilis var. compacta[B,P] A. humilis var. exserrata[B,P] A. mucronata[B,P] A. spicata auct. p. p. non[P] A. stolonifera auct. p. p. non[P]
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	stolonifer = producing stolons; stolonifera = producing stolons;
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	Order: Rosales . Rose family
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	Us

Physical Characteristics

A decidious shrub growing to 1.5m. It is hardy to zone 4 and is not frost tender. It is in flower in May, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[3, 101, 105]. Sweet and juicy with a good flavour that has a hint of apple[1, 11, 183, K]. The plant usually yields very well in Britain and the well-flavoured fruit means that it has excellent potential as a commercial crop[K] The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Tonic.

The root bark has been used as a tonic[257].

Other Uses

None known

Cultivation details

Dislikes calcareous soils[11]. Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Produces suckers quite freely, the plant forms thickets. When propagated by these suckers, the new plants can begin producing a crop of fruit in their second year[K].

The sub-species A. stolonifera micropetala was seen growing in dappled shade at Hilliers Arboretum in early April 1999. It was about 2 metres tall, suckering freely with some suckers more than 50cm from the parent plant, and flowering freely[K].

Hybridizes with A. arborea, A. bartramiana, A. laevis and A. sanguinea. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier humilis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier spicata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *amelanchier spicata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7

A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Very good on identification for non-experts, the book also has a lot of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants: Amelanchier canadensis. Genera: Amelanchier.*

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+stolonifera`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+stolonifera`

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Plants For A Future: Database Search Results

Amelanchier stolonifera

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Quebec berry	Family:	Rosaceae
Author:	Wieg.	Botanical references:	11, 43, 200
Synonyms:	Amelanchier spicata (non (Lam.)K.Koch.)		
Known Hazards:	None known		
Range:	Eastern N. America		
Habitat:	Dry acid rocky or sandy open habitats[43].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. humilis[B,E,G,HORTIPLEX,P] A. humilis var. campestris[B,P] A. humilis var. compacta[B,P] A. humilis var. exserrata[B,P] A. mucronata[B,P] A. spicata auct. p. p. non[P] A. stolonifera auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Low Service-berry [B], Low Serviceberry [P], Running Service-berry [B], Running Serviceberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	stolonifer = producing stolons; stolonifera = producing stolons;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 1.5m. It is hardy to zone 4 and is not frost tender. It is in flower in May, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit - raw or cooked[3, 101, 105]. Sweet and juicy with a good flavour that has a hint of apple[1, 11, 183, K]. The plant usually yields very well in Britain and the well-flavoured fruit means that it has excellent potential as a commercial crop[K] The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

Tonic.

The root bark has been used as a tonic[257].

Other Uses

None known

Cultivation details

Dislikes calcareous soils[11]. Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Produces suckers quite freely, the plant forms thickets. When propagated by these suckers, the new plants can begin producing a crop of fruit in their second year[K].

The sub-species A. stolonifera micropetala was seen growing in dappled shade at Hilliers Arboretum in early April 1999. It was about 2 metres tall, suckering freely with some suckers more than 50cm from the parent plant, and flowering freely[K].

Hybridizes with A. arborea, A. bartramiana, A. laevis and A. sanguinea. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+stolonifera`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier stolonifera*

Subject:

Amelanchier stolonifera

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier stolonifera

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:32:58 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

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Amelanchier utahensis

Common name:	Utah serviceberry	Family:	Rosaceae
Author:	Koehne.	Botanical references:	11, 60, 200
Synonyms:	Amelanchier rubescens, Amelanchier prunifolia (Greene.)		
Known Hazards:	None known		
Range:	South-western N. America - Utah to New Mexico.		
Habitat:	Drier areas on rimrock valleys, gullies and hillsides from sagebrush desert to middle elevations in mountains[11].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. oreophila[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Utah Service-berry [B], Utah Serviceberry [DEN2,FEIS,P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 3 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no

shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit, raw or cooked[105, 172, 229, 257]. The fruit can also be dried and used as a raisin substitute[177, 183]. The fruit is rich in iron and copper[226]. It is produced in small clusters and is about 10mm in diameter[200].

Medicinal Uses

Disclaimer

Ophthalmic; Oxytoxic.

An infusion of the inner bark is used to treat snow-blindness[172].

The plant has been used to ease childbirth during labour and delivery[257].

Other Uses

Wood.

Wood - heavy, hard and strong. The hardness of the wood makes it suitable for use as the spindle of a fire drill[257]. Trees are seldom large enough to be of commercial interest[229]. The wood has been used to make the rims of baskets[257].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species is closely related to A. alnifolia[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

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Web References

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

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Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Amelanchier utahensis

Common name:	Utah serviceberry	Family:	Rosaceae
Author:	Koehne.	Botanical references:	11, 60, 200
Synonyms:	Amelanchier rubescens, Amelanchier prunifolia (Greene.)		
Known Hazards:	None known		
Range:	South-western N. America - Utah to New Mexico.		
Habitat:	Drier areas on rimrock valleys, gullies and hillsides from sagebrush desert to middle elevations in mountains[11].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. oreophila[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Utah Service-berry [B], Utah Serviceberry [DEN2,FEIS,P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 3 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit, raw or cooked[105, 172, 229, 257]. The fruit can also be dried and used as a raisin substitute[177, 183]. The fruit is rich in iron and copper[226]. It is produced in small clusters and is about 10mm in diameter[200].

Medicinal Uses

Disclaimer

Ophthalmic; Oxytoxic.

An infusion of the inner bark is used to treat snow-blindness[172].

The plant has been used to ease childbirth during labour and delivery[257].

Other Uses

Wood.

Wood - heavy, hard and strong. The hardness of the wood makes it suitable for use as the spindle of a fire drill[257]. Trees are seldom large enough to be of commercial interest[229]. The wood has been used to make the rims of baskets[257].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species is closely related to A. alnifolia[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects

Information System.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Author:	Koehne.	Botanical references:	11, 60, 200
Synonyms:	Amelanchier rubescens, Amelanchier prunifolia (Greene.)		
Known Hazards:	None known		
Range:	South-western N. America - Utah to New Mexico.		
Habitat:	Drier areas on rimrock valleys, gullies and hillsides from sagebrush desert to middle elevations in mountains[11].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. oreophila[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Utah Service-berry [B], Utah Serviceberry [DEN2,FEIS,P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 3 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Edible fruit, raw or cooked[105, 172, 229, 257]. The fruit can also be dried and used as a raisin substitute[177, 183]. The fruit is rich in iron and copper[226]. It is produced in small clusters and is about 10mm in diameter[200].

Medicinal Uses

Disclaimer

Ophthalmic; Oxytoxic.

An infusion of the inner bark is used to treat snow-blindness[172].

The plant has been used to ease childbirth during labour and delivery[257].

Other Uses

Wood.

Wood - heavy, hard and strong. The hardness of the wood makes it suitable for use as the spindle of a fire drill[257]. Trees are seldom large enough to be of commercial interest[229]. The wood has been used to make the rims of baskets[257].

Cultivation details

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not water-logged[11]. Grows well in heavy clay soils. Tolerates dry soils[200].

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

This species is closely related to A. alnifolia[11].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier utahensis*

Subject:

Amelanchier utahensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier utahensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 01:33:06 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Amelanchier weigandii

Common name:		Family:	Rosaceae
Author:	Nielson.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Canada.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. interior[B,HORTIPLEX,P] A. wiegandii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Inland Service-berry [B], Pacific Serviceberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit, raw or cooked. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species, though it is growing well at Kew Botanical Gardens, where 8 year old plants are about 3 metres tall with multiple stems and lots of side branches[K]. They were flowering well at the end of April 1995[K]. The following notes are based on the general needs of the genus.

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

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Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier interior* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

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Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They

carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

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Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Amelanchier weigandii

Common name:		Family:	Rosaceae
Author:	Nielson.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Canada.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. interior[B,HORTIPLEX,P] A. wiegandii[B,P]
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	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit, raw or cooked. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species, though it is growing well at Kew Botanical Gardens, where 8 year old plants are about 3 metres tall with multiple stems and lots of side branches[K]. They were flowering well at the end of April 1995[K]. The following notes are based on the general needs of the genus.

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amelanchier interior* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of

plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

Readers Comments

Amelanchier canadensis

Jan Kola Mon Dec 04 23:42:43 2000

Juneberry is more frequently called saskatoonberry. There was project long ago, funded by Canada government, based on the breeding works of Canadian gardeners, I forgot the name. The project failed, for in Canada hand work is expensive. Saskatoonberry needs a lot of hand work. They carried out the project properly, they even built a factory for the preservation of the berries to make jellies and other products. But when it failed, there are now indians sleeping in the factory. I think it was in Alberta, Bevearlodge. Research station there now works with different plants.

But Canadian farmers soon recognized, that it is good for them to produce it, though they probably they earn more money on selling plants, than on fruits.

The fruit of A. lamarckii is so tasty, that everybody has to love it only to get used to it. They will soon love also another species fruit, though the taste of some species is a litle strange.

Don't forget, that Amelanchier is not only a Northern America plant, but it grows also in Russia, Caucasus, Crete, Northern Africa. Especially in Russia it is called IRGA and it is frequented between gardeners.

Cross references: *Plants:* Amelanchier canadensis. *Genera:* Amelanchier.

Amelanchier canadensis

Rich Wed Dec 20 11:01:57 2000

Two intresting sites for Amelanchier:

Native Fruit Development Program

http://www.saskatoonfarm.com/

If people want to get in contact with Jan Koan who wrote the previous comment they can get in touch with him at: Jan Kola, Jasminova 1616, Ostrava 70800, Czech Republik, Tel. 69 6951114

Cross references: *Plants:* *Amelanchier canadensis*. *Genera:* *Amelanchier*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+weigandii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+weigandii`

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Plants For A Future: Database Search Results

Amelanchier weigandii

Common name:		Family:	Rosaceae
Author:	Nielson.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Canada.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. interior[B,HORTIPLEX,P] A. wiegandii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Inland Service-berry [B], Pacific Serviceberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit, raw or cooked. The fruit is rich in iron and copper[226].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species, though it is growing well at Kew Botanical Gardens, where 8 year old plants are about 3 metres tall with multiple stems and lots of side branches[K]. They were flowering well at the end of April 1995[K]. The following notes are based on the general needs of the genus.

Prefers a rich loamy soil in a sunny position or semi-shade[1, 200] but thrives in any soil that is not too dry or water-logged[11]. Grows well in heavy clay soils.

All members of this genus have edible fruits and, whilst this is dry and uninteresting in some species, in many others it is sweet and juicy. Many of the species have potential for use in the garden as edible ornamentals. The main draw-back to this genus is that birds adore the fruit and will often completely strip a tree before it is fully ripe[K].

Hybridizes freely with other members of this genus[200]. Grafting onto seedlings of A. lamarckii or Sorbus aucuparia is sometimes practised in order to avoid the potential problem of hybridizing[1].

Propagation

Seed - it is best harvested 'green', when the seed is fully formed but before the seed coat has hardened, and then sown immediately in pots outdoors or in a cold frame. If stored seed is obtained early enough in the autumn, it can be given 4 weeks warm stratification before being left out in the winter and it should then germinate in the spring. Otherwise seed can be very slow to germinate, perhaps taking 18 months or more. When large enough to handle, prick the seedlings out into individual pots and grow them on in a sheltered outdoor position, planting them out once they are 20cm or more tall.

If there is sufficient seed it is best to sow it thinly in an outdoor seedbed[78, 80]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions during the winter.

Layering in spring - takes 18 months[78].

Division of suckers in late winter. The suckers need to have been growing for 2 years before you dig them up, otherwise they will not have formed roots. They can be planted out straight into their permanent positions if required.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amelanchier+weigandii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amelanchier+weigandii`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amelanchier weigandii*

Subject:

Amelanchier weigandii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amelanchier weigandii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:33:14 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

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Crataegus rotundifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	Moench.	Botanical references:	235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Amelanchier ovalis[E,G,H,HORTIPLEX] Amelanchier rotundifolia[G] Amelanchier vulgaris[G] C. aboriginum[B,P] C. brunetiana[B,P] C. brunetiana var. fernaldii[B,P] C. caliciglabrata[B,P] C. chrysocarpa[B,G,H,HORTIPLEX,P] C. chrysocarpa var. aboriginum[B,P] C. chrysocarpa var. chrysocarpa[G] C. chrysocarpa var. longiacuminata[B,P] C. chrysocarpa var. phoenicea[B,P] C. chrysocarpa var. rotundifolia[B,P] C. coccinata[B,P] C. coccinea[B,P] C. columbiana var. chrysocarpa[B,P] C. doddsi[G] C. faxonii[B,G,P] C. faxonii var. durifrucata[B,P] C. faxonii var. praecoqua[B,P] C. faxonii var. praetermissa[B,P] C. illuminata[B,P] C. jackii[B,P] C. laurentiana var. brunetiana[B,P] C. laurentiana var. dissimilifolia[B,P] C. mercerensis[B,P] C. praecoqua[G] C. praecox[G] C. putnamiana[B,P] C. sicca[B,P] C. sicca var. glabrifolia[B,P] C. subrotundifolia[B,P] Mespilus amelanchier[G]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Fire-berry Hawthorn [B], Fireberry Hawthorn [P], Guillomo [E], Service-berry [H],
Epithets:	From a Dictionary of Botanical Epithets
	rotundifolia = round leaved;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Spain
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 6m by 4m . It is hardy to zone 5 and is not frost tender. It is in flower in June, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. A fair size fruit, to 15mm in diameter, with a reasonable sweet mealy taste, though when not fully ripe there is a distinct bitterness[K]. It makes an acceptable dessert fruit[K]. The fruit can be used in making pies, preserves, etc, and can also be dried for later use. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

Hybridizes freely with other members of this genus[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

A tree bearing this name at Kew in September 1993 was fruiting abundantly[K]. There is some confusion over the correct name of this species. C. rotundifolia Moench. is said to be a synonym for C. chrysocarpa phoenicea, C. rotundifolia Borckh. is a synonym of C. chrysocarpa. There is also a C. rotundifolia Lam, which is a synonym of Amelanchier rotundifolia[200].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Amelanchier ovalis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Crataegus chrysocarpa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Crataegus chrysocarpa var. chrysocarpa* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera: Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants:* *Crataegus marshallii*. *Genera:* *Crataegus*. *Web-pages:* *Crataegus Species - The Hawthorns.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Crataegus rotundifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	Moench.	Botanical references:	235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Amelanchier ovalis[E,G,H,HORTIPLEX] Amelanchier rotundifolia[G] Amelanchier vulgaris[G] C. aboriginum[B,P] C. brunetiana[B,P] C. brunetiana var. fernaldii[B,P] C. caliciglabrata[B,P] C. chrysocarpa[B,G,H,HORTIPLEX,P] C. chrysocarpa var. aboriginum[B,P] C. chrysocarpa var. chrysocarpa[G] C. chrysocarpa var. longiacuminata[B,P] C. chrysocarpa var. phoenicea[B,P] C. chrysocarpa var. rotundifolia[B,P] C. coccinata[B,P] C. coccinea[B,P] C. columbiana var. chrysocarpa[B,P] C. doddsi[G] C. faxonii[B,G,P] C. faxonii var. durifrucata[B,P] C. faxonii var. praecoqua[B,P] C. faxonii var. praetermissa[B,P] C. illuminata[B,P] C. jackii[B,P] C. laurentiana var. brunetiana[B,P] C. laurentiana var. dissimilifolia[B,P] C. mercerensis[B,P] C. praecoqua[G] C. praecox[G] C. putnamiana[B,P] C. sicca[B,P] C. sicca var. glabrifolia[B,P] C. subrotundifolia[B,P] Mespilus amelanchier[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Fire-berry Hawthorn [B], Fireberry Hawthorn [P], Guillomo [E], Service-berry [H],
Epithets:	From a Dictionary of Botanical Epithets
	rotundifolia = round leaved;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Other Range Info:	From the Ethnobotany Database Spain
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 6m by 4m . It is hardy to zone 5 and is not frost tender. It is in flower in June, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. A fair size fruit, to 15mm in diameter, with a reasonable sweet mealy taste, though when not fully ripe there is a distinct bitterness[K]. It makes an acceptable dessert fruit[K]. The fruit can be used in making pies, preserves, etc, and can also be dried for later use. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

Hybridizes freely with other members of this genus[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

A tree bearing this name at Kew in September 1993 was fruiting abundantly[K]. There is some confusion over the correct name of this species. C. rotundifolia Moench. is said to be a synonym for C. chrysocarpa phoenicea, C. rotundifolia Borckh. is a synonym of C. chrysocarpa. There is also a C. rotundifolia Lam, which is a synonym of Amelanchier rotundifolia[200].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Amelanchier ovalis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Crataegus chrysocarpa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Crataegus chrysocarpa var. chrysocarpa* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera: Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants: Crataegus marshallii*. *Genera: Crataegus*. *Web-pages: Crataegus Species - The Hawthorns.*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)

`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Crataegus+rotundifolia`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Crataegus+rotundifolia`

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Aronia arbutifolia

Common name:	Red chokeberry	Family:	Rosaceae
Author:	(L.) Pers.	Botanical references:	11, 43, 200
Synonyms:	Pyrus arbutifolia ((L.)L.f.)		
Known Hazards:	None known		
Range:	Eastern N. America - Massachusetts to Minnesota and south to Texas and Florida.		
Habitat:	Low woods, thickets, swamps, damp pine barrens etc[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. brilliantissima[G] A. arbutifolia var. glabra[B,P] Crataegus pyrifolia[G] Mespilus arbutifolia[G] Photinia pyrifolia[B,G] Pyrus arbutifolia var. glabra[B,P] Sorbus arbutifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chokeberry [DEN1], Red Chokeberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 4. It is in flower in May, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. It can also be dried and used for making pemmican[161, 183]. Fruit quality is rather variable, some forms are rather pleasant when fully ripe, especially if they have experienced some frost[2]. The fruit is about 7mm in diameter[200], it can hang on the plant for several months[235].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[134]. Succeeds in most soils[1] but dislikes shallow chalk[200]. Tolerates atmospheric pollution[227].

Plants are hardy to about -25°c[184].

This genus is closely related to Sorbus species[200].

A suckering plant, it forms thickets in the wild[182].

Some named forms have been developed for their ornamental value[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring.

Cuttings of half-ripe wood, July/August in a frame[113].

Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

Layering[200].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Photinia pyrifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

Aronia arbutifolia

Prof. Helmut Halbmayr Thu Jul 27 22:42:18 2000

Dear Sirs,

we are working with Aronia on our Horticultural College. I found during surfing in the internet the facts about Aronia in PFAF. If you want you should supplement some data:

Cultivars

'Aron' (Denmark, 1985) - 1,5-2 m, leaves 8x5 cm, fruits 10-12 mm

'Autumn Magic' (University of British Columbia, 1996) - 2 m, leaves 5x3 cm, red and yellow autumn color.

'Elata' (syn. var. elata) - 2-3 m, leaves 3-8 x 2-5 mm, fruits 6-8 mm

'Estland' (syn. Eastland)- 2-2,5 m, leaves 6 x 4 cm, fruits 8-10 mm

'Grandiflora' (var. grandiflora) - 2,5 m, leaves 7 x 5 cm, fruits 10-12 mm

'Hugin' (University of Sweden, 1992) - 1-2 m, leaves 5x3 cm, fruits 6-10 mm. Flowers 3 weeks later than the other cultivars.

'Karhumäki' (Finland) - 3m, leaves 8x5 cm, fruits 9-10 mm

'Mandschurica'

'Nero' (Tschechia, 1987) - 3m, leaves 10x8 cm, fruits 9-10 mm. Most importants cultivar for fruit production. Many new crosses with this cultivar.

'Rubina'

'Serina' (Germany, 1987) - 2,5 m, leaves 10x7 cm, fruits 12-13 mm

'Viking' (Finland, 1980) - 2,5 m, leaves 7x4 cm, fruits 10-13 mm

Several Polish new cultivars with numbers are tested in Polan and USA.

Medicinal Use

leaves and fruits against high blood pressure. (Juice can be dangerous for persons with low blood pressure). Fruits against gastritis. Fruits help to excrete heavy metals.

Other uses

The fruit is a source of anthocyanes, substances to color foodstuff, preventing types of cancer.

Prof. Helmut Halbmayr, Federal Horticultural College, Gruenbergstrasse 24, A-1131 Vienna, Austria

Cross references: *Genera:* *Aronia*.

Aronia arbutifolia

Helmut Sun Jul 30 11:56:00 2000

Rich >> We have three different species in the Aronia genus Aronia arbutifolia, Aronia melanocarpa and Aronia prunifolia does this refer to all of then or just one species? >>

Cultivars of Aronia exists from all 3 important species (Aronia melanocarpa, A. x prunifolia, A. arbutifolia). Aronia arbutifolia is only important for cultivars with nice autumn colour. The other two are used for fruit production. In Poland European enterprises plant large new areas with Aronia (jam for joghurt and medical use). Now Americans start in northern China for juice.

Helmut

Cross references: *Genera:* *Aronia*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aronia+arbutifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Aronia+arbutifolia`

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Plants For A Future: Database Search Results

Aronia arbutifolia

Common name:	Red chokeberry	Family:	Rosaceae
Author:	(L.) Pers.	Botanical references:	11, 43, 200
Synonyms:	Pyrus arbutifolia ((L.)L.f.)		
Known Hazards:	None known		
Range:	Eastern N. America - Massachusetts to Minnesota and south to Texas and Florida.		
Habitat:	Low woods, thickets, swamps, damp pine barrens etc[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. brilliantissima[G] A. arbutifolia var. glabra[B,P] Crataegus pyrifolia[G] Mespilus arbutifolia[G] Photinia pyrifolia[B,G] Pyrus arbutifolia var. glabra[B,P] Sorbus arbutifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chokeberry [DEN1], Red Chokeberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 4. It is in flower in May, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. It can also be dried and used for making pemmican[161, 183]. Fruit quality is rather variable, some forms are rather pleasant when fully ripe, especially if they have experienced some frost[2]. The fruit is about 7mm in diameter[200], it can hang on the plant for several months[235].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[134]. Succeeds in most soils[1] but dislikes shallow chalk[200]. Tolerates atmospheric pollution[227].

Plants are hardy to about -25°c[184].

This genus is closely related to Sorbus species[200].

A suckering plant, it forms thickets in the wild[182].

Some named forms have been developed for their ornamental value[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at

15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring.

Cuttings of half-ripe wood, July/August in a frame[113].

Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

Layering[200].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
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References for *Photinia pyrifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
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[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
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Readers Comments

Aronia arbutifolia

Prof. Helmut Halbmayr Thu Jul 27 22:42:18 2000

Dear Sirs,

we are working with Aronia on our Horticultural College. I found during surfing in the internet the facts about Aronia in PFAF. If you want you should supplement some data:

Cultivars

'Aron' (Denmark, 1985) - 1,5-2 m, leaves 8x5 cm, fruits 10-12 mm

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Several Polish new cultivars with numbers are tested in Polan and USA.

Medicinal Use

leaves and fruits against high blood pressure. (Juice can be dangerous for persons with low blood pressure). Fruits against gastritis. Fruits help to excrete heavy metals.

Other uses

The fruit is a source of anthocyanes, substances to color foodstuff, preventing types of cancer.

Prof. Helmut Halbmayr, Federal Horticultural College, Gruenbergstrasse 24, A-1131 Vienna, Austria

Cross references: *Genera: Aronia.*

Aronia arbutifolia

Helmut Sun Jul 30 11:56:00 2000

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Cultivars of Aronia exists from all 3 important species (Aronia melanocarpa, A. x prunifolia, A. arbutifolia). Aronia arbutifolia is only important for cultivars with nice autumn colour. The other two are used for fruit production. In Poland European enterprises plant large new areas with Aronia (jam for joghurt and medical use). Now Americans start in northern China for juice.

Helmut

Cross references: *Genera: Aronia.*

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Search for Latin Name: Aronia

New Search: Aronia Search

Latin Name	Common Name	Family	Synonyms	Rating
Amelanchier alnifolia	Saskatoon	Rosaceae	Aronia alnifolia.; Aronia alnifolia	5
Amelanchier alnifolia semiintegrifolia	Pacific serviceberry	Rosaceae	A. alnifolia. non Nutt. A. florida. A. oxyodon; Aronia alnifolia	5
Amelanchier asiatica	Korean juneberry	Rosaceae	A. canadensis japonica. Aronia asiatica.; Aronia asiatica	3
Aronia arbutifolia	Red chokeberry	Rosaceae	Pyrus arbutifolia.; Pyrus arbutifolia; A. arbutifolia var. brilliantissima; A. arbutifolia var. glabra; Crataegus pyrifolia; Mespilus arbutifolia; Photinia pyrifolia; Pyrus arbutifolia var. glabra; Sorbus arbutifolia	2
Aronia melanocarpa	Black chokeberry	Rosaceae	A. arbutifolia var. atropurpurea; A. arbutifolia var. nigra; A. atropurpurea; A. floribunda; A. melanocarpa; A. melanocarpa ; A. nigra; A. x prunifolia; Crataegus aronia; Crataegus prunifolia; Hahnia arbutifolia var. nigra; Mespilus	3

			arbutifolia var. melanocarpa; Mespilus prunifolia; Photinia floribunda; Photinia melanocarpa; Pyrus arbutifolia var. atropurpurea; Pyrus arbutifolia var. nigra; Pyrus floribunda; Pyrus melanocarpa; Pyrus nigra; Sorbus arbutifolia var. atropurpurea; Sorbus melanocarpa	
Aronia prunifolia	Purple chokeberry	Rosaceae	A. arbutifolia var. atropurpurea; A. atropurea; A. floribunda; Photinia floribunda; Pyrus arbutifolia var. atropurpurea; Pyrus floribunda; Sorbus arbutifolia var. atropurpurea	2
Crataegus azarolus	Azarole	Rosaceae	C. aronia.; Crataegus aronia; Aronia arbutifolia var. nigra; Aronia melanocarpa; Aronia nigra	4
Malus floribunda	Japanese crab	Rosaceae	Pyrus floribunda. P. pulcherrima.; Aronia arbutifolia var. atropurpurea; Aronia atropurpurea; Aronia floribunda; Aronia melanocarpa; Aronia prunifolia; Aronia x prunifolia	3
Oemleria cerasiformis	Oso berry	Rosaceae	Nuttallia cerasiformis. Osmaronia cerasiformis.; Osmaronia cerasiformis	2
Pyrus regellii		Rosaceae	P. heterophylla.; X Sorbaronia hybrida	2

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Latin Name	Aronia
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Plants For A Future: Database Search Results

Aronia arbutifolia

Common name:	Red chokeberry	Family:	Rosaceae
Author:	(L.) Pers.	Botanical references:	11, 43, 200
Synonyms:	Pyrus arbutifolia ((L.)L.f.)		
Known Hazards:	None known		
Range:	Eastern N. America - Massachusetts to Minnesota and south to Texas and Florida.		
Habitat:	Low woods, thickets, swamps, damp pine barrens etc[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. brilliantissima[G] A. arbutifolia var. glabra[B,P] Crataegus pyrifolia[G] Mespilus arbutifolia[G] Photinia pyrifolia[B,G] Pyrus arbutifolia var. glabra[B,P] Sorbus arbutifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chokeberry [DEN1], Red Chokeberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 4. It is in flower in May, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. It can also be dried and used for making pemmican[161, 183]. Fruit quality is rather variable, some forms are rather pleasant when fully ripe, especially if they have experienced some frost[2]. The fruit is about 7mm in diameter[200], it can hang on the plant for several months[235].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[134]. Succeeds in most soils[1] but dislikes shallow chalk[200]. Tolerates atmospheric pollution[227].

Plants are hardy to about -25°c[184].

This genus is closely related to Sorbus species[200].

A suckering plant, it forms thickets in the wild[182].

Some named forms have been developed for their ornamental value[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at

15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring.

Cuttings of half-ripe wood, July/August in a frame[113].

Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

Layering[200].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Aronia melanocarpa

Common name:	Black chokeberry	Family:	Rosaceae
Author:	(Michx.) Elliot.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, south to Florida and Michigan.		
Habitat:	Swamps and low woodlands, it is sometimes also found in drier soils[200, 235].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. atropurpurea[P] A. arbutifolia var. nigra[B,P] A. atropurpurea[P] A. floribunda[P] A. melanocarpa[H] A. melanocarpa [H] A. nigra[B,G,P] A. x prunifolia[G,H,P] Crataegus aronia[H] Crataegus prunifolia[G] Hahnia arbutifolia var. nigra[G] Mespilus arbutifolia var. melanocarpa[G] Mespilus prunifolia[G] Photinia floribunda[G] Photinia melanocarpa[B,G] Pyrus arbutifolia var. atropurpurea[P] Pyrus arbutifolia var. nigra[B,G,P] Pyrus floribunda[G,P] Pyrus melanocarpa[B,G,P] Pyrus nigra[G] Sorbus arbutifolia var. atropurpurea[P] Sorbus melanocarpa[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Chokeberry [P], Hybrid Chokeberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	melanocarpa = black fruited;

Systematics:	From a UDSA Plants Database Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database Us

Physical Characteristics

A decidious shrub growing to 2.5m by 3m . It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Cultivar **'Nero'**: Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Pectin.

Fruit - cooked. A good flavour but very astringent[183]. The fruit should be fully ripe before being eaten and is best after a frost or two[K]. It makes a good jelly when sugar is added and is also dried and used for making pemmican[183]. The fruit is rich in pectin and can be added to fruits that are low in this substance when making jams etc[183]. Pectin is also said to protect the body against radiation[201]. The fruit is about 9mm in diameter[200].

Medicinal Uses

Disclaimer

Miscellany.

An infusion of the berries has been used in the treatment of colds[257].

Other Uses

Pectin.

The fruit is a source of pectin[183], a substance that is used to thicken jams etc and as a culture medium in laboratories.

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[200]. Succeeds in most soils but dislikes shallow chalk[200]. More tolerant of dry soils than other members of this genus[200].

Plants are hardy to about -25°c.

There is at least one cultivar developed for its improved fruit. 'Nero' has fruits twice the size of the species with a vitamin C content of 15 - 30 mg (per 100g?). The fruit is borne in clusters of about 15, it is more flavourful and the yield is about twice that of wild forms[183]. Other cultivars developed mainly for their ornamental value include 'Viking' with extra large berries and 'Aron' with numerous large berries[182].

The sub-species A. melanocarpa elata Rehd. and A. melanocarpa grandifolia (Lindl.)Schneid. are more vigorous than the type species with larger flowers and fruits[200].

This genus is closely related to Sorbus species[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring.

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Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

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Cultivars

'Nero'

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] PhotoFrom Henriette's plant pictures
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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Helmut

Cross references: *Genera*: *Aronia*.

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Plants For A Future: Database Search Results

Aronia melanocarpa

Common name:	Black chokeberry	Family:	Rosaceae
Author:	(Michx.) Elliot.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, south to Florida and Michigan.		
Habitat:	Swamps and low woodlands, it is sometimes also found in drier soils[200, 235].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. atropurpurea[P] A. arbutifolia var. nigra[B,P] A. atropurpurea[P] A. floribunda[P] A. melanocarpa[H] A. melanocarpa [H] A. nigra[B,G,P] A. x prunifolia[G,H,P] Crataegus aronia[H] Crataegus prunifolia[G] Hahnia arbutifolia var. nigra[G] Mespilus arbutifolia var. melanocarpa[G] Mespilus prunifolia[G] Photinia floribunda[G] Photinia melanocarpa[B,G] Pyrus arbutifolia var. atropurpurea[P] Pyrus arbutifolia var. nigra[B,G,P] Pyrus floribunda[G,P] Pyrus melanocarpa[B,G,P] Pyrus nigra[G] Sorbus arbutifolia var. atropurpurea[P] Sorbus melanocarpa[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Chokeberry [P], Hybrid Chokeberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	melanocarpa = black fruited;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 2.5m by 3m . It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Cultivar **'Nero'**: Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Pectin.

Fruit - cooked. A good flavour but very astringent[183]. The fruit should be fully ripe before being eaten and is best after a frost or two[K]. It makes a good jelly when sugar is added and is also dried and used for making pemmican[183]. The fruit is rich in pectin and can be added to fruits that are low in this substance when making jams etc[183]. Pectin is also said to protect the body against radiation[201]. The fruit is about 9mm in diameter[200].

Medicinal Uses

Disclaimer

Miscellany.

An infusion of the berries has been used in the treatment of colds[257].

Other Uses

Pectin.

The fruit is a source of pectin[183], a substance that is used to thicken jams etc and as a culture medium in laboratories.

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[200]. Succeeds in most soils but dislikes shallow chalk[200]. More tolerant of dry soils than other members of this genus[200].

Plants are hardy to about -25°c.

There is at least one cultivar developed for its improved fruit. 'Nero' has fruits twice the size of the species with a vitamin C content of 15 - 30 mg (per 100g?). The fruit is borne in clusters of about 15, it is more flavourful and the yield is about twice that of wild forms[183]. Other cultivars developed mainly for their ornamental value include 'Viking' with extra large berries and 'Aron' with numerous large berries[182].

The sub-species A. melanocarpa elata Rehd. and A. melanocarpa grandifolia (Lindl.)Schneid. are more vigorous than the type species with larger flowers and fruits[200].

This genus is closely related to Sorbus species[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring.

Cuttings of half-ripe wood, July/August in a frame[113].

Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

Layering[200].

Cultivars

'Nero'

> This cultivar has fruits twice the size of the species with a vitamin C content of 15 - 30 mg (per 100g?). The fruit is borne in clusters of about 15, it is more flavourful and the yield is about twice that of wild forms[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aronia x prunifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Photinia melanocarpa* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

References for *aronia melanocarpa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009

A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Aronia arbutifolia

Prof. Helmut Halbmayr Thu Jul 27 22:42:18 2000

Dear Sirs,

we are working with Aronia on our Horticultural College. I found during surfing in the internet the facts about Aronia in PFAF. If you want you should supplement some data:

Cultivars

'Aron' (Denmark, 1985) - 1,5-2 m, leaves 8x5 cm, fruits 10-12 mm

'Autumn Magic' (University of British Columbia, 1996) - 2 m, leaves 5x3 cm, red and yellow autumn color.

'Elata' (syn. var. elata) - 2-3 m, leaves 3-8 x 2-5 mm, fruits 6-8 mm

'Estland' (syn. Eastland)- 2-2,5 m, leaves 6 x 4 cm, fruits 8-10 mm

'Grandiflora' (var. grandiflora) - 2,5 m, leaves 7 x 5 cm, fruits 10-12 mm

'Hugin' (University of Sweden, 1992) - 1-2 m, leaves 5x3 cm, fruits 6-10 mm. Flowers 3 weeks later than the other cultivars.

'Karhumäki' (Finland) - 3m, leaves 8x5 cm, fruits 9-10 mm

'Mandschurica'

'Nero' (Tschechia, 1987) - 3m, leaves 10x8 cm, fruits 9-10 mm. Most importants cultivar for fruit production. Many new crosses with this cultivar.

'Rubina'

'Serina' (Germany, 1987) - 2,5 m, leaves 10x7 cm, fruits 12-13 mm

'Viking' (Finland, 1980) - 2,5 m, leaves 7x4 cm, fruits 10-13 mm

Several Polish new cultivars with numbers are tested in Polan and USA.

Medicinal Use

leaves and fruits against high blood pressure. (Juice can be dangerous for persons with low blood pressure). Fruits against gastritis. Fruits help to excrete heavy metals.

Other uses

The fruit is a source of anthocyanes, substances to color foodstuff, preventing types of cancer.

Prof. Helmut Halbmayr, Federal Horticultural College, Gruenbergstrasse 24, A-1131 Vienna, Austria

Cross references: *Genera: Aronia*.

Aronia arbutifolia

Helmut Sun Jul 30 11:56:00 2000

Rich >> We have three different species in the Aronia genus Aronia arbutifolia, Aronia melanocarpa and Aronia prunifolia does this refer to all of then or just one species? >>

Cultivars of Aronia exists from all 3 important species (Aronia melanocarpa, A. x prunifolia, A. arbutifolia). Aronia arbutifolia is only important for cultivars with nice autumn colour. The other two are used for fruit production. In Poland European enterprises plant large new areas with Aronia (jam for joghurt and medical use). Now Americans start in northern China for juice.

Helmut

Cross references: *Genera*: *Aronia*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Aronia+melanocarpa`

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Plants For A Future: Database Search Results

Aronia melanocarpa

Common name:	Black chokeberry	Family:	Rosaceae
Author:	(Michx.) Elliot.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, south to Florida and Michigan.		
Habitat:	Swamps and low woodlands, it is sometimes also found in drier soils[200, 235].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. atropurpurea[P] A. arbutifolia var. nigra[B,P] A. atropurpurea[P] A. floribunda[P] A. melanocarpa[H] A. melanocarpa [H] A. nigra[B,G,P] A. x prunifolia[G,H,P] Crataegus aronia[H] Crataegus prunifolia[G] Hahnia arbutifolia var. nigra[G] Mespilus arbutifolia var. melanocarpa[G] Mespilus prunifolia[G] Photinia floribunda[G] Photinia melanocarpa[B,G] Pyrus arbutifolia var. atropurpurea[P] Pyrus arbutifolia var. nigra[B,G,P] Pyrus floribunda[G,P] Pyrus melanocarpa[B,G,P] Pyrus nigra[G] Sorbus arbutifolia var. atropurpurea[P] Sorbus melanocarpa[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Chokeberry [P], Hybrid Chokeberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	melanocarpa = black fruited;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 2.5m by 3m . It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Cultivar **'Nero'**: Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Pectin.

Fruit - cooked. A good flavour but very astringent[183]. The fruit should be fully ripe before being eaten and is best after a frost or two[K]. It makes a good jelly when sugar is added and is also dried and used for making pemmican[183]. The fruit is rich in pectin and can be added to fruits that are low in this substance when making jams etc[183]. Pectin is also said to protect the body against radiation[201]. The fruit is about 9mm in diameter[200].

Medicinal Uses

Disclaimer

Miscellany.

An infusion of the berries has been used in the treatment of colds[257].

Other Uses

Pectin.

The fruit is a source of pectin[183], a substance that is used to thicken jams etc and as a culture medium in laboratories.

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[200]. Succeeds in most soils but dislikes shallow chalk[200]. More tolerant of dry soils than other members of this genus[200].

Plants are hardy to about -25°c.

There is at least one cultivar developed for its improved fruit. 'Nero' has fruits twice the size of the species with a vitamin C content of 15 - 30 mg (per 100g?). The fruit is borne in clusters of about 15, it is more flavourful and the yield is about twice that of wild forms[183]. Other cultivars developed mainly for their ornamental value include 'Viking' with extra large berries and 'Aron' with numerous large berries[182].

The sub-species A. melanocarpa elata Rehd. and A. melanocarpa grandifolia (Lindl.)Schneid. are more vigorous than the type species with larger flowers and fruits[200].

This genus is closely related to Sorbus species[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring.

Cuttings of half-ripe wood, July/August in a frame[113].

Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

Layering[200].

Cultivars

'Nero'

> This cultivar has fruits twice the size of the species with a vitamin C content of 15 - 30 mg (per 100g?). The fruit is borne in clusters of about 15, it is more flavourful and the yield is about twice that of wild forms[183].

Suppliers

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Aronia+melanocarpa`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aronia melanocarpa*

Subject:

Aronia melanocarpa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aronia melanocarpa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:33:36 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Aronia prunifolia

Common name:	Purple chokeberry	Family:	Rosaceae
Author:	(Schneid.) Gräbn.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America.		
Habitat:	Low woodlands[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. atropurpurea[B] A. atropurpurea[B] A. floribunda[B] Photinia floribunda[B] Pyrus arbutifolia var. atropurpurea[B] Pyrus floribunda[B] Sorbus arbutifolia var. atropurpurea[B]
Epithets:	From a Dictionary of Botanical Epithets
	unifolia = one leaved;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 3m by 2.5m . It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - dried and used for making pemmican. The fruit is about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[200]. Succeeds in most soils but dislikes shallow chalk[200].

Plants are hardy to about -25°c[200].

This genus is closely related to Sorbus species[200].

Plants in this genus are notably resistant to honey fungus[200].

This species is probably a naturally occurring hybrid, A. arbutifolia x A. melanocarpa[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring. Since this species is believed to be a hybrid it will probably not breed true from seed.

Cuttings of half-ripe wood, July/August in a frame[113].

Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

Layering[200].

Suppliers

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Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Photinia floribunda* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Aronia arbutifolia

Prof. Helmut Halbmayr Thu Jul 27 22:42:18 2000

Dear Sirs,

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Cultivars

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'Elata' (syn. var. elata) - 2-3 m, leaves 3-8 x 2-5 mm, fruits 6-8 mm

'Estland' (syn. Eastland)- 2-2,5 m, leaves 6 x 4 cm, fruits 8-10 mm

'Grandiflora' (var. grandiflora) - 2,5 m, leaves 7 x 5 cm, fruits 10-12 mm

'Hugin' (University of Sweden, 1992) - 1-2 m, leaves 5x3 cm, fruits 6-10 mm. Flowers 3 weeks later than the other cultivars.

'Karhumäki' (Finland) - 3m, leaves 8x5 cm, fruits 9-10 mm

'Mandschurica'

'Nero' (Tschechia, 1987) - 3m, leaves 10x8 cm, fruits 9-10 mm. Most importants cultivar for fruit production. Many new crosses with this cultivar.

'Rubina'

'Serina' (Germany, 1987) - 2,5 m, leaves 10x7 cm, fruits 12-13 mm

'Viking' (Finland, 1980) - 2,5 m, leaves 7x4 cm, fruits 10-13 mm

Several Polish new cultivars with numbers are tested in Polan and USA.

Medicinal Use

leaves and fruits against high blood pressure. (Juice can be dangerous for persons with low blood pressure). Fruits against gastritis. Fruits help to excrete heavy metals.

Other uses

The fruit is a source of anthocyanes, substances to color foodstuff, preventing types of cancer.

Prof. Helmut Halbmayr, Federal Horticultural College, Gruenbergstrasse 24, A-1131 Vienna, Austria

Cross references: *Genera:* *Aronia*.

Aronia arbutifolia

Helmut Sun Jul 30 11:56:00 2000

Rich >> We have three different species in the Aronia genus Aronia arbutifolia, Aronia melanocarpa and Aronia prunifolia does this refer to all of then or just one species? >>

Cultivars of Aronia exists from all 3 important species (Aronia melanocarpa, A. x prunifolia, A. arbutifolia). Aronia arbutifolia is only important for cultivars with nice autumn colour. The other two are used for fruit production. In Poland European enterprises plant large new areas with Aronia (jam for joghurt and medical use). Now Americans start in northern China for juice.

Helmut

Cross references: *Genera:* *Aronia*.

Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aronia+prunifolia`
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Plants For A Future: Database Search Results

Aronia prunifolia

Common name:	Purple chokeberry	Family:	Rosaceae
Author:	(Schneid.) Gräbn.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America.		
Habitat:	Low woodlands[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. atropurpurea[B] A. atropurpurea[B] A. floribunda[B] Photinia floribunda[B] Pyrus arbutifolia var. atropurpurea[B] Pyrus floribunda[B] Sorbus arbutifolia var. atropurpurea[B]
Epithets:	From a Dictionary of Botanical Epithets
	unifolia = one leaved;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 3m by 2.5m . It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - dried and used for making pemmican. The fruit is about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[200]. Succeeds in most soils but dislikes shallow chalk[200].

Plants are hardy to about -25°c[200].

This genus is closely related to Sorbus species[200].

Plants in this genus are notably resistant to honey fungus[200].

This species is probably a naturally occurring hybrid, A. arbutifolia x A. melanocarpa[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring. Since this species is believed to be a hybrid it will probably not breed true from seed.

Cuttings of half-ripe wood, July/August in a frame[113].

Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

Layering[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Photinia floribunda* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

Aronia arbutifolia

Prof. Helmut Halbmayr Thu Jul 27 22:42:18 2000

Dear Sirs,

we are working with Aronia on our Horticultural College. I found during surfing in the internet the facts about Aronia in PFAF. If you want you should supplement some data:

Cultivars

'Aron' (Denmark, 1985) - 1,5-2 m, leaves 8x5 cm, fruits 10-12 mm

'Autumn Magic' (University of British Columbia, 1996) - 2 m, leaves 5x3 cm, red and yellow autumn color.

'Elata' (syn. var. elata) - 2-3 m, leaves 3-8 x 2-5 mm, fruits 6-8 mm

'Estland' (syn. Eastland)- 2-2,5 m, leaves 6 x 4 cm, fruits 8-10 mm

'Grandiflora' (var. grandiflora) - 2,5 m, leaves 7 x 5 cm, fruits 10-12 mm

'Hugin' (University of Sweden, 1992) - 1-2 m, leaves 5x3 cm, fruits 6-10 mm. Flowers 3 weeks later than the other cultivars.

'Karhumäki' (Finland) - 3m, leaves 8x5 cm, fruits 9-10 mm

'Mandschurica'

'Nero' (Tschechia, 1987) - 3m, leaves 10x8 cm, fruits 9-10 mm. Most importants cultivar for fruit production. Many new crosses with this cultivar.

'Rubina'

'Serina' (Germany, 1987) - 2,5 m, leaves 10x7 cm, fruits 12-13 mm

'Viking' (Finland, 1980) - 2,5 m, leaves 7x4 cm, fruits 10-13 mm

Several Polish new cultivars with numbers are tested in Polan and USA.

Medicinal Use

leaves and fruits against high blood pressure. (Juice can be dangerous for persons with low blood pressure). Fruits against gastritis. Fruits help to excrete heavy metals.

Other uses

The fruit is a source of anthocyanes, substances to color foodstuff, preventing types of cancer.

Prof. Helmut Halbmayr, Federal Horticultural College, Gruenbergstrasse 24, A-1131 Vienna, Austria

Cross references: *Genera:* *Aronia*.

Aronia arbutifolia

Helmut Sun Jul 30 11:56:00 2000

Rich >> We have three different species in the Aronia genus Aronia arbutifolia, Aronia melanocarpa and Aronia prunifolia does this refer to all of then or just one species? >>

Cultivars of Aronia exists from all 3 important species (Aronia melanocarpa, A. x prunifolia, A. arbutifolia). Aronia arbutifolia is only important for cultivars with nice autumn colour. The other two are used for fruit production. In Poland European enterprises plant large new areas with Aronia (jam for joghurt and medical use). Now Americans start in northern China for juice.

Helmut

Cross references: *Genera:* *Aronia*.

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Plants For A Future: Database Search Results

Aronia prunifolia

Common name:	Purple chokeberry	Family:	Rosaceae
Author:	(Schneid.) Gräbn.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America.		
Habitat:	Low woodlands[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbutifolia var. atropurpurea[B] A. atropurpurea[B] A. floribunda[B] Photinia floribunda[B] Pyrus arbutifolia var. atropurpurea[B] Pyrus floribunda[B] Sorbus arbutifolia var. atropurpurea[B]
Epithets:	From a Dictionary of Botanical Epithets
	unifolia = one leaved;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 3m by 2.5m . It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from October to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - dried and used for making pemmican. The fruit is about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist peaty soil in full sun or partial shade[200]. Succeeds in most soils but dislikes shallow chalk[200].

Plants are hardy to about -25°c[200].

This genus is closely related to Sorbus species[200].

Plants in this genus are notably resistant to honey fungus[200].

This species is probably a naturally occurring hybrid, A. arbutifolia x A. melanocarpa[200].

Propagation

Seed - best sown as soon as it is ripe in pots outdoors or in a cold frame[113]. Pre-soak stored seed overnight and then cold stratify for 3 months at 2°c[113]. The seed germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter. Plant out in late spring. Since this species is believed to be a hybrid it will probably not breed true from seed.

Cuttings of half-ripe wood, July/August in a frame[113].

Division of suckers in the dormant season[200]. Very easy, they can be planted straight out into their permanent positions.

Layering[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aronia prunifolia*

Subject:

Aronia prunifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aronia prunifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:33:44 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Crataegus azarolus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Azarole	Family:	Rosaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:	Crataegus aronia (Bosc.)		
Known Hazards:	None known		
Range:	S. Europe to W. Asia.		
Habitat:	Dry hillsides and mountains in woods and hedges[50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Aronia arbutifolia var. nigra[P] Aronia melanocarpa[E,G,H,HPIC,HORTIPLEX,P] Aronia nigra[G,P] Hahnia arbutifolia var. nigra[G] Mespilus arbutifolia var. melanocarpa[G] Photinia melanocarpa[G] Pyrus arbutifolia var. nigra[G,P] Pyrus melanocarpa[G,P] Pyrus nigra[G] Sorbus melanocarpa[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Chokeberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: South Australia.

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar '**Julieta**': Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **Fruto Blanco''**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked in pies, preserves etc[1, 2, 3, 11, 34, 183]. The fruit can be used fresh or dried for later use. A pleasant acid taste[89]. In warm temperate areas the fruit develops more fruit sugars and has a fragrant sugary pulp with a slightly acid flavour[183]. It can be eaten out of hand. In cooler zones, however, the fruit does not develop so well and is best cooked or used in preserves[183]. The fruit is very variable in size and colour, it is up to 25mm in diameter[200]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

The azarole has long been cultivated for its edible fruit in S. Europe, though it is now going out of favour[3, 11]. There are some named varieties[46].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Hawthorns in general hybridize freely with other members of the genus[200].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

Fruto Blanco"

> The large white fruit has a pleasant aromatic flavour[183]. It ripens in early to mid autumn[183].

'Julieta'

> The small red fruit has a pleasant aromatic flavour[183]. It ripens in early to mid autumn[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Crataegus Species - The Hawthorns.
- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aronia melanocarpa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Crataegus aronia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *aronia melanocarpa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much

information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera:* *Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants:* *Crataegus marshallii*. *Genera:* *Crataegus*. *Web-pages:* *Crataegus Species - The Hawthorns.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Plants For A Future: Database Search Results

Crataegus azarolus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Azarole	Family:	Rosaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:	Crataegus aronia (Bosc.)		
Known Hazards:	None known		
Range:	S. Europe to W. Asia.		
Habitat:	Dry hillsides and mountains in woods and hedges[50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Aronia arbutifolia var. nigra[P] Aronia melanocarpa[E,G,H,HPIC,HORTIPLEX,P] Aronia nigra[G,P] Hahnia arbutifolia var. nigra[G] Mespilus arbutifolia var. melanocarpa[G] Photinia melanocarpa[G] Pyrus arbutifolia var. nigra[G,P] Pyrus melanocarpa[G,P] Pyrus nigra[G] Sorbus melanocarpa[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Chokeberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: South Australia.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Julieta'**: Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **Fruto Blanco''**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked in pies, preserves etc[1, 2, 3, 11, 34, 183]. The fruit can be used fresh or dried for later use. A pleasant acid taste[89]. In warm temperate areas the fruit develops more fruit sugars and has a fragrant sugary pulp with a slightly acid flavour[183]. It can be eaten out of hand. In cooler zones, however, the fruit does not develop so well and is best cooked or used in preserves[183]. The fruit is very variable in size and colour, it is up to 25mm in diameter[200]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

The azarole has long been cultivated for its edible fruit in S. Europe, though it is now going out of favour[3, 11]. There are some named varieties[46].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Hawthorns in general hybridize freely with other members of the genus[200].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

Fruto Blanco"

The large white fruit has a pleasant aromatic flavour[183]. It ripens in early to mid autumn[183].

'Julieta'

The small red fruit has a pleasant aromatic flavour[183]. It ripens in early to mid autumn[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Crataegus Species - The Hawthorns.
- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aronia melanocarpa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Crataegus aronia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *aronia melanocarpa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera: Crataegus.*

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants: Crataegus marshallii. Genera: Crataegus. Web-pages: Crataegus Species - The Hawthorns..*

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Plants For A Future: Database Search Results

Crataegus azarolus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Azarole	Family:	Rosaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:	Crataegus aronia (Bosc.)		
Known Hazards:	None known		
Range:	S. Europe to W. Asia.		
Habitat:	Dry hillsides and mountains in woods and hedges[50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Aronia arbutifolia var. nigra[P] Aronia melanocarpa[E,G,H,HPIC,HORTIPLEX,P] Aronia nigra[G,P] Hahnia arbutifolia var. nigra[G] Mespilus arbutifolia var. melanocarpa[G] Photinia melanocarpa[G] Pyrus arbutifolia var. nigra[G,P] Pyrus melanocarpa[G,P] Pyrus nigra[G] Sorbus melanocarpa[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Chokeberry [P],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: South Australia.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Cultivar **'Julieta'**: Woodland, Secondary, Sunny Edge, Dappled Shade.
Cultivar **Fruto Blanco''**: Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked in pies, preserves etc[1, 2, 3, 11, 34, 183]. The fruit can be used fresh or dried for later use. A pleasant acid taste[89]. In warm temperate areas the fruit develops more fruit sugars and has a fragrant sugary pulp with a slightly acid flavour[183]. It can be eaten out of hand. In cooler zones, however, the fruit does not develop so well and is best cooked or used in preserves[183]. The fruit is very variable in size and colour, it is up to 25mm in diameter[200]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

The azarole has long been cultivated for its edible fruit in S. Europe, though it is now going out of favour[3, 11]. There are some named varieties[46].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Hawthorns in general hybridize freely with other members of the genus[200].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

Fruto Blanco"

> The large white fruit has a pleasant aromatic flavour[183]. It ripens in early to mid autumn[183].

'Julieta'

> The small red fruit has a pleasant aromatic flavour[183]. It ripens in early to mid autumn[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Crataegus azarolus*

Subject:

Crataegus azarolus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Crataegus azarolus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:33:54 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Malus floribunda

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Japanese crab	Family:	Rosaceae
Author:	Van Houtte.	Botanical references:	11, 200

Synonyms:	Pyrus pulcherrima (Aschers.&Graebn.), Pyrus floribunda (Kirchn. non Lindl.)
Known Hazards:	All members of this genus contain the toxin hydrogen cyanide in their seeds and possibly also in their leaves, but not in their fruits. Hydrogen cyanide is the substance that gives almonds their characteristic taste but it should only be consumed in very small quantities. Apple seeds do not normally contain very high quantities of hydrogen cyanide but, even so, should not be consumed in very large quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.
Range:	E. Asia - Japan? Probably not a truly wild species but a hybrid M. sieboldii x M. baccata or M. prun
Habitat:	Not known in the wild.
Plants For A Future Rating (1-5):	3

Other Possible Synonyms:	From various places across the web, may not be correct. See below.

	Aronia arbutifolia var. atropurpurea[B,P] Aronia atropurpurea[B,P] Aronia floribunda[B,P] Aronia melanocarpa[H] Aronia prunifolia[B] Aronia x prunifolia[G,H,P] Crataegus prunifolia[G] M. pulcherrima[B,P] Mespilus prunifolia[G] Photinia floribunda[B,G] Pyrus arbutifolia var. atropurpurea[B,P] Sorbus arbutifolia var. atropurpurea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Hybrid Chokeberry [P], Japanese Flowering Crabapple [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	floribunda = profusely flowered;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m by 10m . It is hardy to zone 4 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. Up to 1cm in diameter[200]. It tastes like a soft fruit. Acid but nice, about the size of a large blackcurrant[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most fertile soils, preferring a moisture retentive well-drained loamy soil[1, 200]. Grows well in heavy clay soils. Prefers a sunny position but succeeds in partial shade, though it fruits less well in such a situation[200].

A very ornamental plant[1], the fruit is a good wildlife food source, especially for birds[200].

Hybridizes freely with other members of this genus[200].

The tree is a very good pollinator for the apple orchard[200].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame. It usually germinates in late winter. Stored seed requires stratification for 3 months at 1°c and should be sown in a cold frame as soon as it is received[200]. It might not germinate for 12 months or more. Prick out the seedlings into individual pots as soon as they are large enough to handle. If given a rich compost they usually grow away quickly and can be large enough to plant out in late summer, though consider giving them some protection from the cold in their first winter. Otherwise, keep them in pots in a cold frame and plant them out in late spring of the following year.

Cuttings of mature wood, November in a frame[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aronia x prunifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Photinia floribunda* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Malus floribunda

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Japanese crab	Family:	Rosaceae
Author:	Van Houtte.	Botanical references:	11, 200
Synonyms:	Pyrus pulcherrima (Aschers.&Graebn.), Pyrus floribunda (Kirchn. non Lindl.)		
Known Hazards:	All members of this genus contain the toxin hydrogen cyanide in their seeds and possibly also in their leaves, but not in their fruits. Hydrogen cyanide is the substance that gives almonds their characteristic taste but it should only be consumed in very small quantities. Apple seeds do not normally contain very high quantities of hydrogen cyanide but, even so, should not be consumed in very large quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	E. Asia - Japan? Probably not a truly wild species but a hybrid M. sieboldii x M. baccata or M. prun		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Aronia arbutifolia var. atropurpurea[B,P] Aronia atropurpurea[B,P] Aronia floribunda[B,P] Aronia melanocarpa[H] Aronia prunifolia[B] Aronia x prunifolia[G,H,P] Crataegus prunifolia[G] M. pulcherrima[B,P] Mespilus prunifolia[G] Photinia floribunda[B,G] Pyrus arbutifolia var. atropurpurea[B,P] Sorbus arbutifolia var. atropurpurea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Hybrid Chokeberry [P], Japanese Flowering Crabapple [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	floribunda = profusely flowered;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m by 10m . It is hardy to zone 4 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. Up to 1cm in diameter[200]. It tastes like a soft fruit. Acid but nice, about the size of a large blackcurrant[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most fertile soils, preferring a moisture retentive well-drained loamy soil[1, 200]. Grows well in heavy clay soils. Prefers a sunny position but succeeds in partial shade, though it fruits less well in such a situation[200].

A very ornamental plant[1], the fruit is a good wildlife food source, especially for birds[200].

Hybridizes freely with other members of this genus[200].

The tree is a very good pollinator for the apple orchard[200].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame. It usually germinates in late winter. Stored seed requires stratification for 3 months at 1°c and should be sown in a cold frame as soon as it is received[200]. It might not germinate for 12 months or more. Prick out the seedlings into individual pots as soon as they are large enough to handle. If given a rich compost they usually grow away quickly and can be large enough to plant out in late summer, though consider giving them some protection from the cold in their first winter. Otherwise, keep them in pots in a cold frame and plant them out in late spring of the following year.

Cuttings of mature wood, November in a frame[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aronia x prunifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Photinia floribunda* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Malus floribunda

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Japanese crab	Family:	Rosaceae
Author:	Van Houtte.	Botanical references:	11, 200
Synonyms:	Pyrus pulcherrima (Aschers.&Graebn.), Pyrus floribunda (Kirchn. non Lindl.)		
Known Hazards:	All members of this genus contain the toxin hydrogen cyanide in their seeds and possibly also in their leaves, but not in their fruits. Hydrogen cyanide is the substance that gives almonds their characteristic taste but it should only be consumed in very small quantities. Apple seeds do not normally contain very high quantities of hydrogen cyanide but, even so, should not be consumed in very large quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	E. Asia - Japan? Probably not a truly wild species but a hybrid M. sieboldii x M. baccata or M. prun		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Aronia arbutifolia var. atropurpurea[B,P] Aronia atropurpurea[B,P] Aronia floribunda[B,P] Aronia melanocarpa[H] Aronia prunifolia[B] Aronia x prunifolia[G,H,P] Crataegus prunifolia[G] M. pulcherrima[B,P] Mespilus prunifolia[G] Photinia floribunda[B,G] Pyrus arbutifolia var. atropurpurea[B,P] Sorbus arbutifolia var. atropurpurea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Hybrid Chokeberry [P], Japanese Flowering Crabapple [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	floribunda = profusely flowered;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m by 10m . It is hardy to zone 4 and is not frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. Up to 1cm in diameter[200]. It tastes like a soft fruit. Acid but nice, about the size of a large blackcurrant[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most fertile soils, preferring a moisture retentive well-drained loamy soil[1, 200]. Grows well in heavy clay soils. Prefers a sunny position but succeeds in partial shade, though it fruits less well in such a situation[200].

A very ornamental plant[1], the fruit is a good wildlife food source, especially for birds[200].

Hybridizes freely with other members of this genus[200].

The tree is a very good pollinator for the apple orchard[200].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame. It usually germinates in late winter. Stored seed requires stratification for 3 months at 1°c and should be sown in a cold frame as soon as it is received[200]. It might not germinate for 12 months or more. Prick out the seedlings into individual pots as soon as they are large enough to handle. If given a rich compost they usually grow away quickly and can be large enough to plant out in late summer, though consider giving them some protection from the cold in their first winter. Otherwise, keep them in pots in a cold frame and plant them out in late spring of the following year.

Cuttings of mature wood, November in a frame[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Malus floribunda*

Subject:

Malus floribunda

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Malus floribunda

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Oemleria cerasiformis

Common name:	Oso berry	Family:	Rosaceae
Author:	(Torr. & Gray.) Greene.	Botanical references:	11, 60, 200
Synonyms:	Osmaronia cerasiformis ((Torr.&A.Gray.)Greene.), Nuttallia cerasiformis (Torr.&A.Gray.)		
Known Hazards:	Although no specific mention has been found for this plant. it belongs to a family where the leaves, seed (and sometimes also the fruit) often contain significant amounts of hydrogen cyanide. This is the toxin that gives almonds their characteristic flavour and it should only be eaten in very small quantities. Since the fruit of this species is said to have almond-scented fruit it would be unwise to eat a large quantity of it. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	Western N. America - British Columbia to California.		
Habitat:	Rocky valleys and canyons by streams, roadsides and moist to fairly dry open woods[60].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Indian Plum [DEN1,P], Oso-berry [B],
Epithets:	From a Dictionary of Botanical Epithets
	cerasiformis = cherry shaped;
Systematics:	From a UDSA Plants Database

	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl)

Physical Characteristics

A decidious shrub growing to 2.5m by 4m . It is hardy to zone 6. It is in flower from March to April. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[46, 61, 118, 183]. A poor flavour[106]. The fruit looks like a small plum but is very bitter with an almond flavour[11]. The fully ripe fruit loses most of its bitterness[256]. The fruit only has a thin layer of flesh[200]. The fruit can be dried and stored for winter use[257]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Laxative; Poultice; TB.

The bark is mildly laxative[257]. A decoction has been used in the treatment of tuberculosis[257].

A poultice of the chewed burned plant, mixed with oil, has been used to treat sore parts of the body[257].

Other Uses

None known

Cultivation details

Succeeds in an ordinary well-drained garden soil[11, 200], but becomes chlorotic on shallow soils over chalk[200]. Prefers a well-drained moisture retentive soil in a shady position[200]. Requires a sunny position according to another report[182].

Plants are hardy to about -20°c[184].

This species grows well in a woodland garden or in a damp shady border[200]. The plants often sucker freely and can form dense thickets[188].

Old plants can be rejuvenated by cutting them back hard into the old wood in late winter, they will resprout freely from the base[200]. Growth can be restricted by removing suckers and cutting old shoots back or down to the base in late winter[188].

Some, if not all plants are dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires 4 months stratification at 4°c. It is probably best sown in a cold frame as soon as it is ripe in the autumn. Sow stored seed as early in the year as possible. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame.

Layering in spring. Takes 6 months[78].

Suckers, taken at any time in the dormant season[188].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948

A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[118] **Gunther. E.** *Ethnobotany of Western Washington.* University of Washington Press 1981 ISBN 0-295-95258-X
A small book, it is a good guide to useful plants in Western N. America.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[256] **Turner. N. J.** *Food Plants of Coastal First Peoples* UBC Press. Vancouver. 1995 ISBN 0-7748-0533-1
Excellent little handbook about the native food plants of Western Canada. Good descriptions of the plants and their uses with colour photos of most plants.

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URL for Site: http://

Details:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Oemleria cerasiformis

Common name:	Oso berry	Family:	Rosaceae
Author:	(Torr. & Gray.) Greene.	Botanical references:	11, 60, 200
Synonyms:	Osmaronia cerasiformis ((Torr.&A.Gray.)Greene.), Nuttallia cerasiformis (Torr.&A.Gray.)		
Known Hazards:	Although no specific mention has been found for this plant. it belongs to a family where the leaves, seed (and sometimes also the fruit) often contain significant amounts of hydrogen cyanide. This is the toxin that gives almonds their characteristic flavour and it should only be eaten in very small quantities. Since the fruit of this species is said to have almond-scented fruit it would be unwise to eat a large quantity of it. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	Western N. America - British Columbia to California.		
Habitat:	Rocky valleys and canyons by streams, roadsides and moist to fairly dry open woods[60].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Indian Plum [DEN1,P], Oso-berry [B],
Epithets:	From a Dictionary of Botanical Epithets
	cerasiformis = cherry shaped;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl)

Physical Characteristics

A decidious shrub growing to 2.5m by 4m . It is hardy to zone 6. It is in flower from March to April. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[46, 61, 118, 183]. A poor flavour[106]. The fruit looks like a small plum but is very bitter with an almond flavour[11]. The fully ripe fruit loses most of its bitterness[256]. The fruit only has a thin layer of flesh[200]. The fruit can be dried and stored for winter use[257]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Laxative; Poultice; TB.

The bark is mildly laxative[257]. A decoction has been used in the treatment of tuberculosis[257].

A poultice of the chewed burned plant, mixed with oil, has been used to treat sore parts of the body[257].

Other Uses

None known

Cultivation details

Succeeds in an ordinary well-drained garden soil[11, 200], but becomes chlorotic on shallow soils over chalk[200]. Prefers a well-drained moisture retentive soil in a shady position[200]. Requires a sunny position according to another report[182].

Plants are hardy to about -20°c[184].

This species grows well in a woodland garden or in a damp shady border[200]. The plants often sucker freely and can form dense thickets[188].

Old plants can be rejuvenated by cutting them back hard into the old wood in late winter, they will resprout freely from the base[200]. Growth can be restricted by removing suckers and cutting old shoots back or down to the base in late winter[188].

Some, if not all plants are dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires 4 months stratification at 4°c. It is probably best sown in a cold frame as soon as it is ripe in the autumn. Sow stored seed as early in the year as possible. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame.

Layering in spring. Takes 6 months[78].

Suckers, taken at any time in the dormant season[188].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[118] **Gunther. E.** *Ethnobotany of Western Washington.* University of Washington Press 1981 ISBN 0-295-95258-X
A small book, it is a good guide to useful plants in Western N. America.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Range:	Western N. America - British Columbia to California.		
Habitat:	Rocky valleys and canyons by streams, roadsides and moist to fairly dry open woods[60].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	cerasiformis = cherry shaped;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 2.5m by 4m . It is hardy to zone 6. It is in flower from March to April. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[46, 61, 118, 183]. A poor flavour[106]. The fruit looks like a small plum but is very bitter with an almond flavour[11]. The fully ripe fruit loses most of its bitterness[256]. The fruit only has a thin layer of flesh[200]. The fruit can be dried and stored for winter use[257]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Laxative; Poultice; TB.

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A poultice of the chewed burned plant, mixed with oil, has been used to treat sore parts of the body[257].

Other Uses

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Cultivation details

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Propagation

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Cuttings of half-ripe wood, July/August in a frame.

Layering in spring. Takes 6 months[78].

Suckers, taken at any time in the dormant season[188].

Suppliers

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Plant Information

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Oemleria cerasiformis

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Pyrus regellii

Common name:		Family:	Rosaceae
Author:	Rehd.	Botanical references:	11, 74, 200
Synonyms:	Pyrus heterophylla (Regel.&Schmalh. non Poir. non Steud.)		
Known Hazards:	None known		
Range:	W. Asia - Turkestan.		
Habitat:	Dry stony slopes, rocks, sometimes in valleys on deeper moist soils, 1000 - 2000 metres[74].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Azarolus heterophylla[G] P. hybrida[G,P] P. regelii[G] P. spuria[G] Sorbus x heterophylla[G] X Sorbaronia hybrida[G]
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 9m. It is hardy to zone 6. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit - raw or cooked[177]. The fruit is about 3cm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Rootstock.

Used as a rootstock[74].

Cultivation details

Prefers a good well-drained loam in full sun[200]. Grows well in heavy clay soils. Tolerates light shade but does not fruit so well in such a position. Tolerates atmospheric pollution, excessive moisture and a range of soil types if they are moderately fertile[200]. Established plants are very drought resistant[74].

Plants are hardy to at least -15°c[200].

Cultivated for its edible fruit in China and Japan, there are many named varieties. A hybrid between this plant and P. communis culta is more suitable for warmer climates.

The leaves are remarkably variable in shape[11].

Trees are used in the re-afforestation of arid areas[74].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the autumn, it will then usually germinate in mid to late winter. Stored seed requires 8 - 10 weeks cold stratification at 1°c and should be sown as early in the year as possible[200]. Temperatures over 15 - 20°c induce a secondary dormancy in the seed[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade in a cold frame or greenhouse for their first year. Plant them out in late spring or early summer of the following year.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Pyrus regelii* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *X Sorbaronia hybrida* (a possible synonym).

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Pyrus+regellii`

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Plants For A Future: Database Search Results

Pyrus regellii

Common name:		Family:	Rosaceae
Author:	Rehd.	Botanical references:	11, 74, 200
Synonyms:	Pyrus heterophylla (Regel.&Schmalh. non Poir. non Steud.)		
Known Hazards:	None known		
Range:	W. Asia - Turkestan.		
Habitat:	Dry stony slopes, rocks, sometimes in valleys on deeper moist soils, 1000 - 2000 metres[74].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Azarolus heterophylla[G] P. hybrida[G,P] P. regelii[G] P. spuria[G] Sorbus x heterophylla[G] X Sorbaronia hybrida[G]
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 9m. It is hardy to zone 6. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit - raw or cooked[177]. The fruit is about 3cm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Rootstock.

Used as a rootstock[74].

Cultivation details

Prefers a good well-drained loam in full sun[200]. Grows well in heavy clay soils. Tolerates light shade but does not fruit so well in such a position. Tolerates atmospheric pollution, excessive moisture and a range of soil types if they are moderately fertile[200]. Established plants are very drought resistant[74].

Plants are hardy to at least -15°c[200].

Cultivated for its edible fruit in China and Japan, there are many named varieties. A hybrid between this plant and P. communis culta is more suitable for warmer climates.

The leaves are remarkably variable in shape[11].

Trees are used in the re-afforestation of arid areas[74].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the autumn, it will then usually germinate in mid to late winter. Stored seed requires 8 - 10 weeks cold stratification at 1°c and should be sown as early in the year as possible[200]. Temperatures over 15 - 20°c induce a secondary dormancy in the seed[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade in a cold frame or greenhouse for their first year. Plant them out in late spring or early summer of the following year.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Pyrus regellii*

Subject:

Pyrus regellii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Pyrus regellii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:34:17 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future - Readers Comments

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Add a comment on: *Aronia arbutifolia*

Subject:

Aronia arbutifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aronia arbutifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Crataegus species

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A group of plants of uncertain origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Meidoorn Soorten [D],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious shrub. It is not frost tender. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. The fruit can be used in making pies, preserves, etc, and can also be dried for later use. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood.

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

This genus is surprisingly little used as a fruit crop. Although many species produce small mealy fruits with poor flavour, there are many others with very acceptable fruits and a few species that are delicious. The fruit of all members of this genus is potentially edible, so it will always be worth your while trying out any promising looking fruits[K].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Hybridizes freely with other members of this genus[200].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Families
- Edible Shrubs
- Hedges and their uses
- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.
- Trees and Shrubs for Shelterbelts: B-C
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Fruit - Food of the Gods
- Why Perennials
- Garden visits - Kew
- PFAF - introduction
- Hedges and their uses
- Edible Shrubs
- Crataegus Species - The Hawthorns.
- Alternative fruits
- Alternative Food Crops
- Plant For A Future - Home Page
- PFAF Database Common names

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

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Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera:* *Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants:* *Crataegus marshallii*. *Genera:* *Crataegus*. *Web-pages:* *Crataegus Species - The Hawthorns.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Crataegus++species`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Crataegus++species`

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Plants For A Future: Database Search Results

Crataegus species

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A group of plants of uncertain origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Meidoorn Soorten [D],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious shrub. It is not frost tender. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. The fruit can be used in making pies, preserves, etc, and can also be dried for later use. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Medicinal Uses

Disclaimer

Cardiotonic; Hypotensive.

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222]. Prolonged use is necessary for it to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Other Uses

Wood.

Wood - heavy, hard, tough, close-grained. Useful for making tool handles, mallets and other small items[82].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

This genus is surprisingly little used as a fruit crop. Although many species produce small mealy fruits with poor flavour, there are many others with very acceptable fruits and a few species that are delicious. The fruit of all members of this genus is potentially edible, so it will always be worth your while trying out any promising looking fruits[K].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

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Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

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Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- Edible Shrubs
- Hedges and their uses
- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- Checklist of plants suitable for hedging and windbreaks.
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- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Fruit - Food of the Gods
- Why Perennials
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- PFAF - introduction
- Hedges and their uses
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- Crataegus Species - The Hawthorns.
- Alternative fruits
- Alternative Food Crops
- Plant For A Future - Home Page
- PFAF Database Common names

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera: Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants: Crataegus marshallii. Genera: Crataegus. Web-pages: Crataegus Species - The Hawthorns.*.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Crataegus++species`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Crataegus++species`

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Families in the Database

You can also look a list of all the Common Names of plants in the database (75K).

This list is something that me (the webmaster) put together on a rainy afternoon, so any errors are mine rather than pfaf's. Most of the clasification has come from *Flowering Plants of The World* ed: V.Haywood, Batsford. With a few alterations to get the names of families in the database to fit.

Jump to Monocotyledon (Single seed leaf) Dicotyledons (Two seed leaves) Non-flowering plants including Ferns and Conifers.

First off there are some items with general entries for an entire genus.

Latin Name	Common Name	Family	Members
Castanea species	Chestnut hybrids	Fagaceae	Castanea
Ceanothus species		Rhamnaceae	Ceanothus
Crataegus species	Hawthorns etc.	Rosaceae	Crataegus
Escallonia species	Escallonia	Escalloniaceae	Escallonia
Fuchsia species	Fuchsia	Onagraceae	Fuchsia
Hemerocallis species	Day Lilies	Hemerocallidaceae	Hemerocallis
Hosta species	Hosta	Funkiaceae	Hosta
Lavatera species	Tree lavatera	Malvaceae	Lavatera
Lilium species	Lily	Liliaceae	Lilium
Mentha species	Mint etc.	Labiatae	Mentha
Morus species	Mulberry	Moraceae	Morus
Quercus species	Oaks	Fagaceae	Quercus
Rubus species	Hybrid berries	Rosaceae	Rubus
Sorbopyrus species		Rosaceae	Sorbopyrus
Sorbus species	Mountain Ash, Whitebeam	Rosaceae	Sorbus

Non-Flowering Plants

- **Lichen**
  - Parmeliaceae
- **Mosses**
  - Polytrichaceae: Hair-cap moss
  - Sphagnaceae: Sphagnum moss
- **Club mosses**
  - Lycopodiaceae: Club moss.
- **Horsetails**
  - Equisetaceae
- **Ferns**
  - Blechnaceae
  - Dryopteridaceae
  - Marsileaceae
  - Onocleaceae
  - Ophioglossaceae
  - Osmundaceae
  - Pteridaceae
  - Polypodiaceae: Bracken
- **Tree ferns**
  - Cyatheaceae: Tree fern.
  - Dicksoniaceae
- **Gnetophyta - Mormon tea**
  - Ephedraceae
- **Gymnosperms** (Naked Seeds)
  - Cycades
    - Cycadaceae: Sago palm.
  - Maidenhairs
    - Ginkgoaceae: Ginkgo.
  - Conifers (Pinales)
    - Araucariaceae: Monkey-puzzle tree.
    - Cephalotaxaceae: Plum Yew, Nutmeg.
    - Cupressaceae: Cypress, Juniperus (Juniper).

    - Pinaceae: Abies (Fir), Larix (Larch), Picea (Spruce), Pinus (Pine), Hemlock.
    - Podocarpaceae
    - Taxaceae: Yew.
    - Taxodiaceae: Redwood, Swamp Cypress.

Angiosperm (flowering plants)

Monocotyledon (Single seed leaf)

Alismatidea

- Alismataceae: Water plantain.
- Aponogetonaceae: Water hawthorn.
- Butomaceae: Flowering Rush.
- Hydrocharitaceae: Frogbit.
- Juncaginaceae: Arrowgrass.
- Najadaceae: Naiad.
- Potamogetonaceae: Pondweed.
- Zannichelliaceae: Horned pondweed.
- Zosteraceae: Eelgrass.

Commelinidae

- Bromeliaceae: Pineapple.
- Cannaceae: Queensland Arrowroot.
- Commelinaceae: Spiderwort.
- Cyperaceae: Sedge, Bulrush.
- Gramineae (Poaceae): Grass, Avena (Oat), Hordeum (Barley), Phyllostachys (Bamboo, Mandrake), Triticum (Wheat), Reed, Millet, Rye, Corn.
- Juncaceae: Rushes.
- Musaceae: Bananas, Manila Hemp.
- Sparganiaceae: Bur-reeds.
- Typhaceae: Reedmace, Bulrush, Cattail.
- Xyridaceae: Yellow-eyed Grasses.
- Zingiberaceae: Ginger, Cardomom, Tumeric.

Arecidae

- Araceae: Arum, Aroids, Lords and Ladies.
- Lemnaceae: Duckweed.

- Palmae (Arecaceae): Palm, Palmetto.

Liliidae

- Liliales
    - Agavaceae: Yucca.
    - Alliaceae: Allium (Onions, Garlic, Leaks).
    - Aloeaceae: Aloe vera.
    - Alstroemeriaceae
    - Amaryllidaceae: Daffodil, Snowdrop, Spider Lily.
    - Asparagaceae: Asparagus.
    - Asphodelaceae
    - Calochortaceae
    - Colchicaceae
    - Convallariaceae: Lily of the valley.
    - Dioscoreaceae: Yams.
    - Funkiaceae: Hosta.
    - Haemodoraceae: Kangaroo Paw.
    - Hemerocallidaceae: Day lily.
    - Hyacinthaceae: Hyacinth, Soap lily.
    - Hypoxidaceae
    - Iridaceae: Saffron, Iris, Crocus.
    - Liliaceae: Lily, Bluebell.
    - Lomandraceae: Mat Rush.
    - Melanthiaceae: Hellebore.
    - Pontederiaceae: Water Hyacinth.
    - Philesiaceae
    - Ruscaceae: Butcher's Broom.
    - Smilacaceae: Tree of heaven.
    - Tecophilaeaceae
    - Trilliaceae: Herb Paris, Trillium.
    - Xanthorrhoeaceae: Grass Trees.
- Orchidales
    - Orchidaceae: Orchid.

Dicotyledons (Two seed leaves)

Asteridae

- Asterales
  - Compositae (Asteraceae): Mace, Yarrow, Burdock, Chamomile, Artemisia (Tarragon, Wormwood), Sage, Dandelion, Daisy, Marigold, Cirsium (Thistle), Chicory, Sunflower, Lettuce, Groundsel.
- Campanulales
  - Campanulaceae: Bellflower, Rampion.
- Dipsacales
  - Calyceraceae
  - Caprifoliaceae: Lornicera (Honeysuckle), Sambucus (Elder), Guelder rose.
  - Dipsacaceae: Teasel.
  - Valerianaceae: Spinknard, Valerian.
- Gentianales
  - Apocynaceae: Periwinkle.
  - Asclepiadaceae: Milkweed.
  - Buddleiaceae: Buddlia.
  - Gentianaceae: Gentain.
  - Loganiaceae: Strychnine.
  - Oleaceae: Fraxinus (Ash), Jasmine, Privet, Olive, Lilac.
- Lamiales
  - Callitrichaceae: Starwort.
  - Labiatae (Lamiaceae): Mentha (Mint, Pennyroyal), Salvia (Sage), Thymus (Thyme), Basil, Pennyroyal, Lavender, Lemon balm, Bergamot, Marjoram, Oregano, Savory.
  - Phrymaceae: Lopseed.
  - Verbenaceae: Lemon verbena, Vervain.
- Plantaginales
  - Plantaginaceae: Plantain.
- Polemoniales
  - Boraginaceae: Borage, Comfrey, Forget-me-not.
  - Convolvulaceae: Bindweed, Morning Glory. Sweet potato.
  - Ehretiaceae
  - Hydrophyllaceae: Waterleaf.
  - Menyanthaceae: Bogbean.

    - Polemoniaceae: Phlox, Skunk weed.
    - Solanaceae: Aubergine, Deadly Nightshade, Pepper, Potato, Tomato, Tobacco.
- Scrophulariales
    - Acanthaceae: Bear's breeches.
    - Bignoniaceae: Indian bean tree, Trumpet creeper.
    - Gesneriaceae: Chinese foxglove.
    - Globulariaceae
    - Lentibulariaceae: Bladderwort.
    - Martyniaceae: Unicorn Plant.
    - Myoporaceae: Boobyalla.
    - Orobanchaceae: Broomrape.
    - Pedaliaceae: Sesame.
    - Scrophulariaceae: Figwort, Eyebright, Foxglove, Mullein, Musk, Snapdragon, Speedwell, Toadflax.
- Rubiales
    - Rubiaceae: Bedstraw, Sweet woodruff, Madder, Coffee.

Caryophyllidae

- Caryophyllales
    - Amaranthaceae: Love lies bleeding, Amaranthus.
    - Aizoaceae: Hotton Fig.
    - Basellaceae
    - Cactaceae: Cactus.
    - Caryophyllaceae: Carnation, Campion.
    - Chenopodiaceae: Orach, Beta (Beet), Chenopodium (Quinoa, Fan Hen, Goosefoot), Spinach.
    - Nyctaginaceae
    - Phytolaccaceae: Pokeweed.
    - Portulacaceae: Purslane.
- Polygonales
    - Polygonaceae: Polygonum (Knotwwed, Bindweed), Buckwheat, Rheum (Rhubarb), Rumex (Sorrel, Dock).
- Plumbaginales
    - Plumbaginaceae: Sea lavender, Thrift.

Dilleniidae

- Capparales

  - Capparidaceae: Caper.
  - Cruciferae (Brassicaceae): Brassica (Broccoli, Brussel sprout, Cabbage, Cauliflower, Kale, Kohl rabi, Mustard, Turnip), Cress, Rocket, Woad, Maca, Radish.
  - Morinaceae
  - Resedaceae: Mignonette.
- Diapensiales
  - Diapensiaceae: Galex.
- Dilleniales
  - Paeoniaceae: Peony.
- Ebenales
  - Ebenaceae: Persimmon.
  - Sapotaceae
  - Styracaceae: Silverberry Tree.
- Ericales
  - Clethraceae
  - Empetraceae: Crowberry.
  - Epacridaceae
  - Ericaceae: Heath, Vaccinium (Blueberry, Cranberry, Whortleberry), Heather, Checkerberry, Huckleberry, Rhododendron.
  - Pyrolaceae: Wintergreen.
- Malvales
  - Elaeocarpaceae
  - Malvaceae: Mallow, Okra, Jute, Hibiscus.
  - Sterculiaceae
  - Tiliaceae: Jute, Lime.
- Nepenthales
  - Droseraceae
  - Sarraceniaceae
- Primulales
  - Myrsinaceae
  - Primulaceae: Cowslip, Primrose, Scarlet pimpernel.
- Salicales
  - Salicaceae Populus (Poplar), Salix (Willow).
- Theales
  - Actinidiaceae: Kewi Fruit.

    - Hypericaceae (Guttiferae): St. John's wort.
    - Theaceae: Tea
    - Symplocaceae
- Violales
    - Begoniaceae: Begonia.
    - Cistaceae: Rock Rose.
    - Cucurbitaceae: Cucumber, Gourd, Melon, Squash, Pumpkin.
    - Datiscaceae
    - Flacourtiaceae
    - Loasaceae
    - Passifloraceae: Passion flower.
    - Tamaricaceae: Tamarisk.
    - Turneraceae: Damiana.
    - Violaceae: Pansy, Violet.
- Urticales
    - Cannabidaceae: Hemp, Hop.
    - Moraceae: Fig, Mulberry.
    - Ulmaceae: Elm.
    - Urticaceae: Stinging nettle.

Hamamelididae

- Casuarinales
    - Casuarinaceae; She Oak.
- Ecommiales
    - Eucommiaceae
- Fagales
    - Betulaceae: Alnus (Alder), Betula (Birch), Hornbeam, Corylus (Hazel).
    - Fagaceae: Castanea (Chestnut), Fagus (Beach), Quercus (Oak).
- Hamamelidales
    - Cercidiphyllaceae
    - Hamamelidaceae: Witch hazel.
    - Platanaceae: Plane.
- Leitneriales
    - Leitneriaceae
- Myricales

  - Myricaceae: Bayberry.
- Trochodendrales
  - Eupteleaceae

Magnoliidae

- Aristolochiales
  - Aristolochiaceae
- Illiciales
  - Illiciaceae
  - Schisandraceae
- Laurales
  - Atherospermataceae
  - Calycanthaceae: Allspice.
  - Lauraceae: Bay, Camphor.
  - Monimiaceae
- Magnoliales
  - Annonaceae: Papaw.
  - Magnoliaceae: Tulip tree, Magnolia.
  - Winteraceae
- Nymphaeales
  - Ceratophyllaceae
  - Cabombaceae
  - Euryalaceae
  - Nelumbonaceae: Water lotus.
  - Nymphaeaceae: Water lily.
- Papaverales
  - Fumariaceae: Fumitory.
  - Papaveraceae: Poppy.
- Piperales
  - Saururaceae: Tsi, Swamp Lily.
- Ranunculales
  - Berberidaceae
  - Lardizabalaceae
  - Menispermaceae
  - Podophyllaceae: American Mandrake.

  - Ranunculaceae: Wolfsbane, Anemone, Columbine, Marsh marigold, Fennel, Cumin, Buttercup.
  - Sargentodoxaceae

Rosidae

- Celastrales
  - Aquifoliaceae: Ilex (Holly).
  - Celastraceae: Bittersweet.
  - Corynocarpaceae
- Cornales
  - Alangiaceae
  - Cornaceae: Dogwood.
  - Garryaceae
  - Nyssaceae
- Euphorbiales
  - Buxaceae: Box.
  - Daphniphyllaceae
  - Euphorbiaceae: Spurge, Castor-oil plant.
- Fabales
  - Leguminosae (Fabaceae): Acacia (Acacia, Wattle), Lathyrus (Pea), Trifolium (Clover), Vicia (Vetch), Peanut, Groundnut, Rooibos, Carob, Chick pea, Broom, Gorse, Rue, Locust, Liquorice, Laburnum, Lentil, Lupin, Melilot, Bean, Fenugreek, Wisteria.
- Geraniales
  - Balsaminaceae
  - Geraniaceae: Geranium.
  - Limnanthaceae: Poached egg plant.
  - Linaceae: Flax.
  - Oxalidaceae: Sorrel.
  - Tropaeolaceae: Nasturtium.
- Haloragales
  - Cynocrambaceae
  - Gunneraceae
  - Haloragidaceae
  - Hippuridaceae: Marestail
- Juglandales

  - Juglandaceae: Carya (Hickory), Juglans (Walnut).
- Myrtales
  - Lythraceae
  - Melastomataceae
  - Myrtaceae: Eucalyptus (Eucalyptus, Gum), Feijoa, Myrtle, Tea-tree, Uñi.
  - Onagraceae: Fuchsia, Evening primrose.
  - Punicaceae: Pomegranate.
  - Thymelaeaceae: Daphne.
  - Trapaceae: Water chestnut.
- Polygalales
  - Polygalaceae
- Proteales
  - Elaeagnaceae: Elaeagnus, Sea buckthorn.
  - Proteaceae: Banksia, Geebung.
- Rhamnales
  - Rhamnaceae: Buckthorn, Jujube.
  - Vitaceae: Grape.
- Rosales
  - Crassulaceae: Stonecrop, House Leek, Pennywort.
  - Cunoniaceae
  - Escalloniaceae
  - Eucryphiaceae
  - Grossulariaceae: Ribes (Current, Blackcurrent, Gooseberry).
  - Hydrangeaceae: Hydrangea.
  - Parnassiaceae
  - Pittosporaceae: Appleberry, Karo.
  - Rosaceae: Quince, Juneberry, Juneberry, Chokeberry, Crataegus (Hawthorn), Fragaria (Strawberry), Malus (Apple), Medlar, Prunus (Almond, Apricot, Cherry, Damson, Nectarine, Sloe, Peach, Plum), Pyrus (Pear), Rose (Rose), Rubus (Bramble, Blackberry, Dewberry, Cloudberry, Loganberry, Raspberry, Salmonberry), Salad burnet, Sorbus (Rowan, Mountain Ash, Whitebeam).
  - Saxifragaceae
- Santalales
  - Santalaceae
  - Viscaceae: Mistletoe.

- Sapindales
    - Aceraceae: Acre (Maple).
    - Anacardiaceae: Poison Ivy, Sumach.
    - Cneoraceae
    - Coriariaceae
    - Hippocastanaceae: Horse chestnut.
    - Melianthaceae
    - Meliaceae
    - Pistaciaceae: Pistachio.
    - Rutaceae: Orange, Lemon, Kumquat, Rue.
    - Sapindaceae
    - Simaroubaceae: Tree of Heaven.
    - Staphyleaceae: Bladdernut.
    - Zygophyllaceae
- Umbellales
    - Araliaceae: Ivy, Ginseng.
    - Umbelliferae (Apiaceae): Aniseed, Angelica, Caraway, Carrot, Celery, Coriander, Cumin, Dill, Fennel, Lovage, Parsley, Parsnip, Sweet cicely.

Unknown:

A few families I haven't been able to place.

- Asteliaceae
- Phormiaceae: Flax lily.
- Sciadoptyaceae: Umbrella pine.
- Tricyrtidaceae: Toad Lily.
- Uvulariaceae: Fairybells, bellwort.

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Common Names of Plants in the Database

Arranged by Family and Genus.

New alphabetical lists
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z To make the page smaller I have just given a plain list if you want to look up the plant you can use the following form. If you have a recent browser an easier method of looking up plants is available when javascript is enabled.

Latin Name	
Common Name	
Family	

Submit Reset

Common names of plants

```
Acanthaceae
        Acanthus
                Bear's breeches
        Justicia
Aceraceae
        Acer
                Field maple
                Hornbeam maple
                Vine maple
                Hawthorn-leaved maple
                Amur maple
                Rock maple
```

        - Oregon maple
        - Box elder
        - Japanese maple
        - Norway maple
        - Sycamore
        - Red maple
        - Silver maple
        - Big-tooth maple
        - Black maple
        - Sugar maple
        - Tatarian maple
        - Mountain maple
        - Moosewood
- Actinidiaceae
    - Actinidia
        - Tara vine
        - Kiwi fruit
        - Red kiwi
        - Silver vine
- Agavaceae
    - Agave
        - Century plant
    - Cordyline
        - Cabbage tree
    - Dasylirion
        - Sotol
    - Hesperocallis
    - Phormium
        - Wharariki
        - New Zealand flax
    - Polianthes
        - Tuberose
    - Sanseviera
        - Bowstring hemp
    - Yucca
        - Spanish bayonet
        - Soap tree
        - Spoonleaf yucca
        - Soapweed
        - Spanish dagger
        - Twisted-leaf yucca
        - Adam's needle
        - Our Lord's candle
        - Joshua tree
- Aizoaceae

- Carpobrotus
  - Hottentot fig
  - Sweet hottentot fig
  - Sea fig
- Disphyma
  - Pig's face
- Mesembryanthemum
  - Ice plant
- Tetragonia
  - New Zealand spinach

Alangiaceae
- Alangium

Alismataceae
- Alisma
  - Great water plantain
- Damasonium
  - Thrumwort
- Sagittaria
  - Duck potato
  - Arrow head
  - Wapato
  - Chinese arrowhead

Alliaceae
- Agapanthus
- Allium
  - Babbington's leek
  - Leek
  - Wild leek
  - Mouse garlic
  - Aspen onion
  - Wild garlic
  - Keeled garlic
  - Potato onion
  - Shallot
  - Tree onion
  - Onion
  - Nodding onion
  - Rakkyo
  - Prairie onion
  - Welsh onion
  - Egyptian leek
  - Golden garlic
  - Wild onion
  - Daffodil garlic
  - Twistedleaf garlic
  - Field garlic

        - Chinese chives
        - Rosy garlic
        - Garlic
        - Giant chives
        - Chives
        - Rocambole
        - German garlic
        - Round-headed leek
        - Miyama-rakkyo
        - Three-cornered leek
        - Garlic chives
        - One-leaved onion
        - Ramsons
        - Alpine leek
        - Crow garlic
        - Swamp onion
        - Jimbur
        - Serpent garlic
        - Few-flowered leek
    - Androstephium
    - Bloomeria
        - Golden stars
    - Brodiaea
        - Californian hyacinth
    - Dichelostemma
        - Snake lily
        - Wild hyacinth
    - Nothoscordum
    - Triteleia
        - Grassnut
    - Tulbhagia
        - Society garlic
- Aloeaceae
    - Aloe
        - Aloe vera
- Alstroemeriaceae
    - Bomarea
        - Yatzi
- Amaranthaceae
    - Achyranthes
    - Amaranthus
        - Love lies bleeding
        - Purple amaranth
        - Rough pigweed
        - Prince's feather
        - Pigweed

- Amaranthus
- Calalu
- Quinoa de Castilla
- Ataco

- Amaryllidaceae
    - Alstroemeria
    - Crinum
        - Murray lily
    - Cyanella
        - Lady's hand
    - Cyrtanthus
    - Galanthus
        - Snowdrop
    - Leucojum
        - Summer snowflake
        - Spring snowflake
    - Lycoris
        - Spider lily
        - Resurrection lily
        - Golden spider lily
    - Narcissus
        - Jonquil
        - Poet's narcissus
        - Wild daffodil
    - Pancratium
        - Sea daffodil
    - Zephyranthes
        - Atamasco lily
- Anacardiaceae
    - Cotinus
        - Smoke tree
        - Chittamwood
    - Rhus
        - Lemon sumach
        - Chinese gall
        - Dwarf sumach
        - Elm-leaved sumach
        - Western poison oak
        - Smooth sumach
        - Lemonade berry
        - Desert sumach
        - Sugar bush
        - Poison ivy
        - Wax tree
        - Poison oak
        - Skunk bush

- Stag's horn sumach
- Lacquer tree
- Poison sumach

  - Schinus
    - California peppertree
    - Huigen
- Annonaceae
  - Asimina
    - Papaw
- Apocynaceae
  - Apocynum
    - Dogbane
    - Indian hemp
  - Nerium
    - Oleander
  - Trachelospermum
    - Star jasmine
  - Vinca
    - Lesser periwinkle
    - Greater periwinkle
- Aponogetonaceae
  - Aponogeton
    - Water hawthorn
- Aquifoliaceae
  - Ilex
    - Holly
    - Cassine
    - Large gallberry
    - Horned holly
    - Japanese holly
    - Inkberry
    - American holly
    - Winterberry
    - Yaupon holly
    - Tarajo
  - Nemopanthus
    - Mountain holly
- Araceae
  - Acorus
    - Sweet flag
  - Amorphophallus
    - Elephant yam
    - Devil's tongue
  - Arisaema
    - Jack in the pulpit
  - Arisarum

        - Friar's cowl
    - Arum
        - Cuckoo pint
    - Calla
        - Water arum
    - Eminium
    - Lysichiton
        - Yellow skunk cabbage
    - Oplopanax
    - Orontium
        - Golden club
    - Peltandra
        - White arrow arum
        - Green arrow arum
    - Pinellia
    - Symplocarpus
        - Skunk cabbage
    - Zantedeschia
        - Arum lily
- Araliaceae
    - Aralia
        - Chinese angelica tree
        - Udo
        - Angelica tree
        - Manchurian angelica tree
        - Wild sarsaparilla
        - American spikenard
        - Hercule's club
        - Manchurian spikenard
        - Bristly sarsaparilla
        - Sakhalin spikenard
    - Eleutherococcus
        - Siberian ginseng
    - Gamblea
        - Taka-no-tsume
    - Hedera
        - Ivy
        - Nepal ivy
    - Kalopanax
    - Kirkophytum
    - Oplopanax
        - Devil's club
    - Panax
        - Ginseng
        - Japanese ginseng
        - American ginseng

        - Ground nut
    - Polyscias
        - Elderberry panax
    - Pseudopanax
        - Puahou
    - Stilbocarpa
    - Tetrapanax
        - Rice paper plant
- Araucariaceae
    - Araucaria
        - Monkey-puzzle tree
        - Bunya-bunya
- Aristolochiaceae
    - Aristolochia
        - Birthwort
        - Snakeroot
        - Virginia snakeroot
        - Dutchman's pipe
    - Asarum
        - Snake root
        - Asarabacca
- Asclepiadaceae
    - Araujia
        - Cruel plant
    - Asclepias
        - Bedstraw milkweed
        - Swamp milkweed
        - Showy milkweed
        - Common milkweed
        - Pleurisy root
        - Purple milkweed
        - Red silkweed
        - Purple silkweed
        - Low milkweed
        - Green milkweed
    - Cynanchum
    - Metaplexis
    - Periploca
        - Silk vine
    - Vincetoxicum
- Asparagaceae
    - Asparagus
        - Fern asparagus
        - Chinese asparagus
        - Asparagus
        - Shatavari

- Asphodelaceae
  - Anemarrhena
  - Arthropodium
    - Pale vanilla lily
    - Small vanilla lily
  - Asphodeline
    - King's spear
  - Asphodelus
    - Asphodel
  - Bulbinella
    - Maori onion
  - Bulbinopsis
    - Golden lily
  - Eremurus
  - Kniphofia
    - Red hot poker
  - Thysanotus
    - Twining fringed lily
    - Fringed lily
- Asteliaceae
  - Astelia
- Atherospermataceae
  - Atherosperma
    - Black sassafras
  - Laurelia
    - Pukatea
    - Chilean laurel
- Balsaminaceae
  - Impatiens
    - Jewelweed
    - Touch-me-not
    - Pale jewelweed
- Basellaceae
  - Anredera
  - Basella
    - Indian spinach
  - Ullucus
    - Olluco
- Begoniaceae
  - Begonia
    - Begonia
- Berberidaceae
  - Berberis
    - Chitra
    - Allegheny barberry
    - Barberry

- Bongardia
- Caulophyllum
  - Papoose root
- Diphylleia
  - Umbrella leaf
- Epimedium
- Jeffersonia
  - Twinleaf
- Leontice
  - Rakaf
- Mahoberberis
- Mahonia
  - Oregon grape
  - Mexican barberry
  - Creeping Oregon grape
  - Texas mahonia
- Nandina
  - Sacred bamboo

Betulaceae

- Alnus
  - Italian alder
  - Alder
  - Grey alder
  - White alder
  - Red alder
  - Speckled alder
  - Sitka alder
  - Mountain alder
  - Smooth alder
- Betula
  - Yellow birch
  - Gold birch
  - Cherry birch
  - River birch
  - Paper birch
  - Silver birch
  - Grey birch
  - White birch
  - Indian paper birch
  - Scrub birch
  - Dwarf birch
  - Water birch
- Carpinus
  - Hornbeam
  - American hornbeam
- Corylus

        - American hazel
        - Hazel
        - Chinese hazel
        - Turkish hazel
        - Beaked hazel
        - Siberian filbert
        - Indian tree hazel
        - Filbert
        - California hazel
        - Trazel
        - Himalayan hazel
        - Chinese trazel
        - Japanese hazel
    - Ostrya
        - Hop hornbeam
        - Ironwood
- Bignoniaceae
    - Campsis
        - Trumpet creeper
        - Trumpet vine
    - Catalpa
        - Indian bean tree
        - Shawnee wood
    - Chilopsis
        - Desert willow
    - Incarvillea
- Blechnaceae
    - Blechnum
        - Hard fern
    - Woodwardia
        - Chain fern
- Boraginaceae
    - Alkanna
        - Alkanet
    - Amsinckia
    - Anchusa
        - Anchusa
    - Arnebia
    - Borago
        - Borage
    - Cynoglossum
        - Hound's tongue
    - Echium
        - Viper's bugloss
    - Heliotropium
        - Heliotrope

  - Lithospermum
    - Paint Indian
    - Gromwell
  - Macromeria
  - Mertensia
    - Oyster plant
    - Mountain bell
  - Myosotis
    - Water forget-me-not
    - Alpine forget-me-not
  - Onosma
  - Pentaglottis
  - Pulmonaria
    - Lungwort
    - Jerusalem sage
  - Symphytum
    - Comfrey
    - Prickly comfrey
  - Trigonotis
- Bromeliaceae
  - Puya
- Buddleiaceae
  - Buddleia
    - Buddlia
    - Orange ball tree
- Butomaceae
  - Butomus
    - Flowering rush
- Buxaceae
  - Buxus
    - Japanese box
    - Box
  - Pachysandra
- Cabombaceae
  - Brasenia
    - Water shield
- Cactaceae
  - Opuntia
    - Indian fig
    - Prickly pear
    - Bunny ears
    - Bastard fig
- Callitrichaceae
  - Callitriche
    - Water starwort
- Calochortaceae

- Calochortus
  - Star tulip
  - Mariposa lily
  - Yellow mariposa
  - Sego lily
- Calycanthaceae
  - Calycanthus
    - Carolina allspice
    - Californian allspice
  - Chimonanthus
    - Winter sweet
- Calyceraceae
  - Boopsis
- Campanulaceae
  - Adenophora
  - Campanula
    - Canterbury bells
    - Harebell
    - Creeping bellflower
    - Rampion
    - Chinese rampion
    - Tussock bellflower
    - Fairies thimbles
    - Chimney bellflower
    - Clustered bellflower
  - Codonopsis
  - Cyananthus
    - Trailing bellflower
  - Legousia
    - Venus' looking glass
  - Lobelia
    - Cardinal flower
    - Lobelia
    - Devil's tobacco
    - Pale spike
  - Phyteuma
    - Roundheaded rampion
    - Spiked rampion
  - Platycodon
  - Pratia
- Cannabidaceae
  - Cannabis
    - Hemp
  - Humulus
    - Hop
    - Japanese hop

- Cannaceae
  - Canna
    - Achira
    - Indian shot
- Capparidaceae
  - Capparis
    - Caper
  - Cleome
    - Rocky Mountain beeplant
    - Tickweed
- Caprifoliaceae
  - Abelia
  - Diervilla
    - Bush honeysuckle
  - Leycesteria
    - Himalayan honeysuckle
  - Linnaea
    - Twinflower
  - Lonicera
    - Fly honeysuckle
    - Italian honeysuckle
    - Twinberry
    - Boxleaf honeysuckle
    - Honeysuckle
    - Trumpet honeysuckle
  - Sambucus
    - Yellow elderberry
    - Blue elder
    - Red coast elder
    - American elder
    - Chinese elder
    - Dwarf elder
    - Black elder
    - Mexican elder
    - Elderberry
    - American red elder
    - Red elder
    - Elder
  - Symphoricarpos
    - Snowberry
    - Wolfberry
    - Coralberry
  - Triosteum
    - Wild coffee
  - Viburnum
    - Withe rod

    - Mooseberry
    - Wayfaring tree
    - Hobbleberry
    - Sheepberry
    - Smooth withe rod
    - Guelder rose
    - Stagberry
    - Southern black haw
    - Laurustinus
    - American cranberry
    - Arrow wood
  - Weigela
- Caryophyllaceae
  - Agrostemma
    - Corncockle
  - Arenaria
  - Cerastium
    - Little mouse-ear chickweed
  - Corrigiola
    - Strapwort
  - Cucubalus
    - Berry-bearing catchfly
  - Dianthus
    - Sweet William
    - Cheddar pink
    - Carnation
    - Fringed pink
    - Pink
    - Chinese pink
  - Drymaria
  - Gypsophila
    - Baby's breath
  - Herniaria
    - Rupture wort
    - Hairy rupture wort
  - Honckenya
    - Sea sandwort
  - Lychnis
    - Ragged Robin
  - Myosoton
    - Water chickweed
  - Paronychia
    - Algerian tea
  - Sagina
  - Saponaria
    - Soapwort

Tumbling Ted
Scleranthus
Silene
Moss campion
Red campion
White campion
Bladder campion
Spergula
Corn spurrey
Spergularia
Stellaria
Chickweed
Vaccaria
Casuarinaceae
Casuarina
Celastraceae
Celastrus
Oriental bittersweet
Climbing bittersweet
Euonymus
Winged spindle tree
Strawberry bush
Wahoo
Spindle tree
Japanese spindle tree
Maytenus
Mayten tree
Tripterygium
Cephalotaxaceae
Cephalotaxus
Chinese plum yew
Japanese plum yew
Korean plum yew
Yunnan plum yew
Torreya
California nutmeg
Chinese nutmeg tree
Kaya
Yunnan nutmeg yew
Ceratophyllaceae
Ceratophyllum
Hornwort
Cercidiphyllaceae
Cercidiphyllum
Katsura tree
Chenopodiaceae

- Arthrocnemum
  - Glasswort
- Atriplex
  - Silvery orach
  - Grey sage brush
  - Shadscale
  - Sea orach
  - Hastate orach
  - Orach
  - Quail bush
- Bassia
  - Summer cypress
- Beta
  - Sugar beet
  - Spinach beet
  - Beetroot
  - Swiss chard
  - Sea beet
- Camphorosma
- Chenopodium
  - Fat hen
  - Wormseed
  - Southern huauzontle
  - Good King Henry
  - Jerusalem oak
  - Strawberry blite
  - Fig-leaved goosefoot
  - Tree spinach
  - Oak-leaved goosefoot
  - Narrow leaved goosefoot
  - Huauzontle
  - Cañihua
  - All-seed
  - Quinoa
  - Red goosefoot
  - Mexican tea
  - Stinking goosefoot
- Cycloloma
  - Winged pigweed
- Enchylaena
  - Ruby saltbush
- Halimione
  - Sea purslane
- Haloxylon
  - Salt tree
- Monolepis

-
  -
    - Povertyweed
  - Rhagodia
  - Salicornia
    - Chicken claws
  - Salsola
    - Barilla plant
    - Saltwort
  - Sarcobatus
    - Greasewood
  - Spinacia
    - Spinach
  - Suaeda
    - Shrubby seablite
    - Sea blite
    - Desert seepweed
- Cistaceae
  - Cistus
    - Rock rose
    - Labdanum
  - Helianthemum
    - Frostweed
- Clethraceae
  - Clethra
    - Sweet pepper bush
- Cneoraceae
  - Cneorum
    - Spurge olive
- Colchicaceae
  - Burchardia
    - Milkmaids
  - Colchicum
    - Autumn crocus
  - Disporum
- Commelinaceae
  - Commelina
    - Blue spider wort
    - Day flower
  - Tradescantia
    - Spiderwort
- Compositae
  - Achillea
    - Mace
    - Musk milfoil
    - Yarrow
    - Sneeze-wort
  - Ageratina

- Ageratum
  - Ageratum
- Agoseris
  - Mountain dandelion
- Ambrosia
  - Roman wormwood
  - Giant ragweed
- Anacyclus
  - Mount Atlas daisy
- Anaphalis
  - Pearly everlasting
- Antennaria
  - Catsfoot
- Anthemis
  - Mayweed
  - Yellow camomile
  - Corn chamomile
- Arctium
  - Great burdock
  - Burdock
- Argyranthemum
- Arnica
  - Mountain tobacco
  - Arnica
- Artemisia
  - Southernwood
  - Wormwood
  - Cina
  - Russian tarragon
  - Tarragon
  - Sand sage
  - White sage
  - Sea wormwood
  - Sage brush
  - Mugwort
  - Sweet wormwood
  - Glacier wormwood
  - Beach wormwood
  - Alpine wormwood
  - Fringed wormwood
  - Field southernwood
  - White mugwort
- Aster
  - Bigleaf aster
  - Michaelmas daisy
  - Sea aster

- Atractylis
- Atractylodes
- Baccharis
    - Bush groundsel
    - Mule fat
    - Dwarf chaparral broom
- Balsamorrhiza
    - Balsam root
    - Oregon sunflower
- Bellis
    - Daisy
- Bidens
    - Beggar ticks
    - Beggar's ticks
    - Burr marigold
- Brachyglottis
    - Bushman's toilet paper
- Cacalia
- Calendula
    - Field marigold
    - Pot marigold
- Carduus
    - Welted thistle
    - Musk thistle
- Carlina
    - Stemless carline thistle
    - Carline thistle
- Carpesium
- Carthamnus
    - Distaff thistle
    - Safflower
- Cassinia
- Centaurea
    - Common star thistle
    - Cornflower
    - Mountain cornflower
    - Black knapweed
    - Greater knapweed
    - St. Barnaby's thistle
- Chaenactis
    - Morning brides
- Chamaemelum
    - Camomile
- Chiliotrichum
- Chondrilla
- Chrysanthemum

  - Chop-suey greens
  - Corn marigold
- Chrysothamnus
- Cicerbita
  - Blue sow thistle
- Cichorium
  - Endive
  - Chicory
- Cirsium
  - Creeping thistle
  - Wooly thistle
  - No-azami
  - Yellow spined thistle
  - Cabbage thistle
  - Marsh thistle
  - Tuberous thistle
  - Wavy-leaved thistle
  - Common thistle
  - Stemless thistle
- Cnicus
  - Blessed thistle
- Conyza
  - Canada fleabane
- Coreopsis
  - Tickseed
  - Coreopsis
- Cosmos
  - Cosmos
- Cotula
  - Brass buttons
- Crepis
- Cynara
  - Cardoon
  - Globe artichoke
- Dahlia
  - Dahlia
- Dendranthema
  - Chrysanthemum
- Dittrichia
- Doronicum
  - Great leopard's bane
- Echinacea
  - Cone flower
  - Purple coneflower
- Echinops
- Eclipta

Emilia
- Tassel flower

Encelia
- Brittle bush

Ericameria

Erigeron
- Beach aster

Eupatorium
- Hemp agrimony
- Joe pye weed
- Thoroughwort
- Gravel root

Farfugium

Gaillardia
- Blanket flower

Galactites

Galinsoga
- Gallant soldier

Gerbera

Gnaphalium
- Marsh cudweed

Grindelia
- Rosin weed

Guizotia
- Ramtil

Gundelia

Gutierrezia
- Broomweed

Haplopappus

Helenium
- Sneezeweed
- Bitter sneezeweed
- Rosilla

Helianthus
- Sunflower
- Giant sunflower
- Showy sunflower
- Wild sunflower
- Prairie sunflower
- Jerusalem artichoke

Helichrysum
- Everlasting flower
- Curry plant

Heteropappus

Hieraceum
- Mouse-ear hawkweed

- Hymenoxis
- Hypochoeris
  - Smooth cat's ear
  - Spotted hawkweed
  - Cat's ear
- Inula
  - Ploughman's spikenard
  - Golden samphire
  - Elecampane
- Ixeris
- Jurinea
- Kalimeris
- Kuhnia
- Lactuca
  - Perennial lettuce
  - Celtuce
  - Lettuce
  - Wild lettuce
- Lapsana
  - Nipplewort
- Lasthenia
- Layia
- Leibnitzia
- Leontodon
  - Rough hawkbit
- Leontopodium
  - Edelweiss
- Leucanthemum
  - Shasta daisy
  - Ox-eye daisy
- Leuzea
- Liatris
  - Gayfeather
  - Snakeroot
- Ligularia
- Lygodesmia
  - Skeleton weed
- Madia
  - Chile tarweed
- Matricaria
  - Pineapple weed
  - German camomile
- Microseris
  - Yam daisy
- Mycelis
  - Wall lettuce

Nabalus
- Lion's foot
- White lettuce

Olearia

Onopordon
- Cotton thistle

Packera
- Golden groundsel

Parthenium
- Guayule
- Wild quinine

Pectis
- Chinchweed

Petasites
- Sweet butterbur
- Butterbur
- Sweet coltsfoot

Picris
- Bristly ox-tongue
- Hawkweed ox-tongue

Podolepis

Polymnia
- Yacon strawberry
- Bearsfoot

Prenanthes

Pseudognaphalium
- White balsam

Pulicaria
- Fleabane

Ratibida
- Prairie coneflower

Reichardia
- French scorzonera

Rudbeckia

Santolina
- Cotton lavender
- Holy flax

Saussurea
- Costus

Scolymus
- Spanish salsify

Scorzonera
- Teke-saghyz
- Scorzonera
- Tau-saghyz

Senecio

- Cineraria
- Ragwort
- Groundsel
- Hoary groundsel
- Mountain groundsel
- Stinking groundsel

Serratula
- Saw-wort

Silphium
- Compass plant
- Cup plant
- Prairie dock

Silybum

Solidago
- Canadian goldenrod
- Sweet goldenrod
- Goldenrod

Sonchus
- Field milk thistle
- Prickly sow thistle
- Sow thistle

Stevia

Synurus

Tagetes
- African marigold
- Mexican tarragon
- Muster-John-Henry
- French marigold
- Irish lace
- Lemon marigold

Tanacetum
- Alecost
- Dalmation pellitory
- Feverfew
- Tansy
- Pyrethrum

Taraxacum
- Rubber dandelion
- Dandelion

Tephroseris

Thelesperma
- Navajo tea

Tragopogon
- Salsify
- Goat's beard

Trilisa

```
                Vanilla plant
        Tussilago
                Coltsfoot
        Urospermum
        Vernonia
                Ironweed
        Viguera
        Wyethia
        Xanthium
                Cocklebur
                Spiny cocklebur
        Youngia
Convallariaceae
        Aspidistra
                Aspidistra
        Clintonia
                Bluebeard
                Speckled wood lily
        Convallaria
                Lily of the valley
        Liriope
        Maianthemum
        Ophiopogon
        Polygonatum
                Small Solomon's seal
                Solomon's seal
                Whorled Solomon's seal
        Reineckia
        Rohdea
        Smilacena
                False spikenard
        Streptopus
                Scootberry
                Wild cucumber
Convolvulaceae
        Calystegia
                Japanese bindweed
                Hedge bindweed
                Sea bindweed
        Convolvulus
                Field bindweed
                Scammony
        Cuscuta
                Japanese dodder
                Lesser dodder
                Chinese dodder
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- Ipomoea
  - Bush moon flower
  - Wild potato vine
  - Moonflower
  - Morning glory
- Coriariaceae
  - Coriaria
    - Redoul
    - Tuhu
- Cornaceae
  - Aucuba
    - Spotted laurel
  - Cornus
    - Green osier
    - Silky dogwood
    - Creeping dogwood
    - Bentham's cornel
    - Giant dogwood
    - Flowering dogwood
    - Large-leaf dogwood
    - Cornelian cherry
    - Mountain dogwood
    - Japanese cornel
    - Round-leaved dogwood
    - Dogwood
    - Red osier dogwood
    - Dwarf cornel
    - Japanese dogwood
  - Corokia
  - Griselinia
  - Helwingia
- Corynocarpaceae
  - Corynocarpus
    - New Zealand laurel
- Crassulaceae
  - Dudleya
    - Mission lettuce
  - Jovibarba
    - Hen and chickens houseleek
  - Rhodiola
    - Rose root
    - Queen's crown
  - Sedum
    - Common stonecrop
    - Small houseleek
    - Loce restorer

    - Stonecrop
    - Crooked yellow stonecrop
    - Ice plant
    - Orpine
  - Sempervivum
    - Cobweb houseleek
    - Houseleek
  - Umbilicus
    - Pennywort
- Cruciferae
  - Alliaria
    - Garlic mustard
  - Arabidopsis
    - Thale cress
  - Arabis
    - Alpine rock cress
    - Rock cress
  - Armoracia
    - Horseradish
  - Aubrietia
    - Aubretia
  - Aurinia
    - Golden alyssum
  - Barbarea
    - Land cress
    - Yellow rocket
  - Brassica
    - Abyssinian cabbage
    - Chinese mustard
    - Pak choi
    - Swede
    - Colza
    - Black mustard
    - Kale
    - Cauliflower
    - Sprouting broccoli
    - Brussel sprout
    - Savoy cabbage
    - Cabbage
    - Couve tronchuda
    - Kohl rabi
    - Calabrese
    - Wild cabbage
    - Chinese cabbage
    - Stubble turnip
    - Turnip

- Wild turnip-rape
- Nine star perennial broccoli
- Rosette pak choi
- Chinese broccoli
- Mustard spinach
- Mizuna
- Large chinese mustard
- Green in the snow
- Swollen-stem mustard
- Root mustard
- Curled mustard

Bunias
- Corn rocket
- Turkish rocket

Cakile
- Sea rocket

Camelina
- Gold of pleasure

Capsella
- Shepherd's purse

Cardamine
- Large bittercress
- Wavy bittercress
- Hairy bittercress
- Cuckoo flower
- American water cress
- Spring cress

Cardaria
- Hoary cress

Chorispora

Cochlearia
- Long leaved scurvy grass
- Danish scurvy grass
- Scurvy grass

Conringia

Coronopus

Crambe
- Seacale
- Tartar bread plant

Dentaria
- Crinkleroot
- Cut-leaved toothwort

Descurainia
- Tansy mustard
- Flixweed

Diplotaxis

- Wall rocket
- White wall rocket
- Perennial wall rocket

Draba
- Wall whitlow grass

Erophila

Eruca
- Rocket

Erysimum
- Coastal wallflower
- Siberian wallflower
- Wallflower
- Wormseed mustard

Fibigia

Heldreichia

Hesperis
- Sweet rocket

Hirschfeldia
- Greek mustard

Iberis
- Rocket candytuft
- Candytuft

Isatis
- Woad

Lepidium
- Pepperwort
- Dittander
- Maca
- Cress
- Wild pepper-grass

Lobularia
- Sweet alyssum

Lunaria
- Honesty

Matthiola
- Stock

Megacarpaea

Nasturtium
- Watercress

Orychophragmus

Pachyphragma

Peltaria
- Garlic cress

Raphanus
- Rat-tail radish
- Radish

- Sea radish
- Wild radish

Rhynchosinapis
- Isle of Man cabbage
- Lundy cabbage

Rorippa
- Great yellow cress
- Yellow marsh-cress

Sinapis
- White mustard
- Charlock

Sisymbrium
- Tumble mustard
- Hedge mustard
- London rocket

Stanleya
- Prince's plume

Thlaspi
- Pennycress

Turritis
- Tower cress

Wasabia
- Japanese horseradish

Cucurbitaceae

- Abobra
- Benincasa
  - Wax gourd
- Bryonia
  - Red bryony
  - White bryony
- Citrullus
  - Water melon
- Coccinia
  - Ivy gourd
- Cucumis
  - Gherkin
  - Melon
  - Horned cucumber
  - Cucumber
- Cucurbita
  - Buffalo gourd
  - Winter squash
  - Cushaw pumpkin
  - Squash
  - Pumpkin
- Cyclanthera

- Achocha
- Ecballium
  - Squirting cucumber
- Echinocystis
  - Wild cucumber
- Gynostemma
  - Sweet tea vine
- Lagenaria
  - Bottle gourd
- Marah
  - Chilicothe
  - Bigroot
- Sicyos
  - Bur cucumber
- Thladiantha
- Trichosanthes
  - Snake gourd
  - Japanese snake gourd

Cunoniaceae
- Weinmannia
  - Kamahi

Cupressaceae
- Athrotaxis
  - King William pine
- Callitris
  - Red cypress-pine
- Calocedrus
  - Incense cedar
- Chamaecyparis
  - Lawson cypress
  - Nootka cypress
  - White cypress
- Cupressocyparis
  - Leyland cypress
- Cupressus
  - Arizona cypress
  - Chinese weeping cypress
  - Monterey cypress
  - Italian cypress
  - Himalayan cypress
- Fitzroya
  - Alerce
- Juniperus
  - Californian juniper
  - Chinese juniper
  - Juniper

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                Shore juniper
                Aligator juniper
                Syrian juniper
                Grecian juniper
                One-seed juniper
                Western juniper
                Desert juniper
                Prickly juniper
                Himalayan juniper
                Temple juniper
                Savine
                Rocky Mountain juniper
                Flaky juniper
                Pencil cedar
                Creeping juniper
                Ashe juniper
                Southern redcedar
        Libocedrus
        Platycladus
                Biota
        Thuja
                American arbor-vitae
                Western red cedar
        Thujopsis
                Hiba
Cyatheaceae
        Cyathea
                Tree fern
                Black tree fern
Cycadaceae
        Cycas
                Sago palm
                Japanese sago palm
Cynocrambaceae
        Theligonum
                Dog's cabbage
Cyperaceae
        Carex
                Swamp sedge
                Tufted sedge
                Sand sedge
        Cladium
                Sedge
        Cyperus
                Tiger nut
                Galingale
```

  - Nut grass
  - Eleocharis
    - Chinese water chestnut
  - Eriophorum
    - Cotton grass
  - Fimbristylis
  - Scirpus
    - Bulrush
    - Seaside bulrush
    - Bayonet grass
    - Wool grass
    - River club-rush
- Cyrillaceae
  - Cliftonia
    - Ironwood
  - Cyrilla
    - Leatherwood
- Daphniphyllaceae
  - Daphniphyllum
- Datiscaceae
  - Datisca
- Diapensiaceae
  - Galax
    - Beetleweed
- Dicksoniaceae
  - Dicksonia
    - Tree fern
- Dioscoreaceae
  - Dioscorea
    - Chinese yam
    - Glutinous yam
  - Tamus
    - Black bryony
- Dipsacaceae
  - Cephalaria
  - Dipsacus
    - Fuller's teasel
    - Teasel
  - Knautia
    - Field scabious
  - Scabiosa
  - Succisa
    - Devil's bit scabious
- Droseraceae
  - Drosera
    - Sundew

- Dryopteridaceae
  - Cyrtomium
  - Cystopteris
    - Berry bladder fern
    - Brittle bladder fern
  - Dryopteris
    - Narrow buckler fern
    - Shield fern
    - Male fern
    - Crested wood fern
    - Mountain male fern
  - Polystichum
    - Christmas fern
    - Hard shield fern
    - Giant holly fern
- Ebenaceae
  - Diospyros
    - Persimmon
    - Date plum
    - American persimmon
- Ehretiaceae
  - Ehretia
    - Koda tree
    - Anaqua
- Elaeagnaceae
  - Elaeagnus
    - Oleaster
    - Silverberry
    - Bastard oleaster
    - Goumi
    - Trebizond date
    - Elaeagnus
    - Autumn olive
  - Hippophae
    - Sea buckthorn
    - Willow-leaved sea buckthorn
    - Tibetan sea buckthorn
    - Chinese sea buckthorn
  - Shepherdia
    - Buffalo berry
- Elaeocarpaceae
  - Aristotelia
    - Macqui
  - Elaeocarpus
    - Blueberry ash
- Empetraceae

- Corema
  - Poverty grass
  - Portuguese crowberry
- Empetrum
  - Mountain crowberry
  - Crowberry
  - Purple crowberry
  - Rockberry

Epacridaceae
- Astroloma
  - Cranberry heath
  - Pine heath
- Cyathodes
  - Cheese berry
  - Pink mountain berry
- Pentachondra
- Styphelia
  - Pink fivecorner
- Trochocarpa
- Wittsteinia
  - Baw-baw berry

Ephedraceae
- Ephedra
  - Sea grape
  - Ma Huang
  - Mormon tea
  - Mexican tea

Equisetaceae
- Equisetum
  - Horsetail
  - Swamp horsetail
  - Dutch rush
  - Wood horsetail

Ericaceae
- Andromeda
  - Bog rosemary
  - Marsh andromeda
- Arbutus
  - Grecian strawberry tree
  - Arizona maderone
  - Madrona
  - Texas madrone
  - Strawberry tree
  - Canary madrona
- Arctostaphylos
  - Alpine bearberry

  - Hairy manzanita
  - Bigberry manzanita
  - Manzanita
  - Pine-mat manzanita
  - Greenleaf manzanita
  - Downy manzanita
  - Bearberry
- Calluna
  - Heather
- Cassiope
- Chamaedaphne
  - Leather leaf
- Epigaea
  - Mayflower
- Erica
  - Cornish heath
- Gaultheria
  - Snowberry
  - Wax berry
  - Mountain snowberry
  - Creeping snowberry
  - Alpine wintergreen
  - Mountain checkerberry
  - Checkerberry
  - Shallon
- Gaylussacia
  - Box huckleberry
  - Dwarf huckleberry
  - Dangleberry
  - Bear huckleberry
- Kalmia
  - Mountain laurel
  - Sheep laurel
  - Swamp laurel
- Ledum
  - Labrador tea
  - Wild rosemary
- Leucothoe
- Lyonia
- Menziesia
  - False huckleberry
- Oxydendrum
  - Sorrel tree
- Pieris
  - Lily of the valley bush
- Rhododendron

- Rosebay
- Alpenrose
- Rhododendron
- Rosebay rhododendron
- Lapland rosebay

- Vaccinium
  - Large-cluster blueberry
  - Low sweet blueberry
  - Farkleberry
  - Caucasian whortleberry
  - Rabbiteye blueberry
  - Black highbush blueberry
  - Dwarf bilberry
  - Canadian blueberry
  - High-bush blueberry
  - Creeping blueberry
  - Alpine blueberry
  - Southern mountain cranberry
  - Mortiño
  - Hairy huckleberry
  - American cranberry
  - Mountain huckleberry
  - Florida evergreen blueberry
  - Bilberry
  - Deerberry
  - Western Blueberry
  - Black huckleberry
  - Evergreen huckleberry
  - Small cranberry
  - Madeiran whortleberry
  - Red bilberry
  - Kamchatka bilberry
  - Grouseberry
  - Georgia blueberry
  - Small-cluster blueberry
  - Bog bilberry
  - Dryland blueberry
  - Rabbit-eye blueberry
  - Cowberry

- Escalloniaceae
  - Escallonia
    - Escallonia
  - Itea
- Eucommiaceae
  - Eucommia
    - Gutta-percha

- Eucryphiaceae
  - Eucryphia
    - Ulmo
    - Leatherwood
    - Stinkwood
- Euphorbiaceae
  - Aleurites
    - Japan wood-oil tree
    - Chinese wood-oil tree
  - Euphorbia
    - Candelilla
    - Asthma weed
    - Caper spurge
    - Mountain snow
    - Naboom
    - Wild spurge
  - Mercurialis
    - Dog's mercury
    - Annual mercury
  - Ricinus
    - Castor-oil plant
  - Sapium
    - Vegetable tallow
  - Securinega
- Eupteleaceae
  - Euptelea
- Euryalaceae
  - Euryale
- Fagaceae
  - Castanea
    - Bush chinkapin
    - Japanese chestnut
    - American sweet chestnut
    - Chinese chestnut
    - Ozark chinkapin
    - Chinquapin
    - Sweet chetsnut
    - Chinese chinquapin
    - Chinknut
    - Chestnut hybrids
  - Castanopsis
    - Japanese chinquapin
  - Chrysolepis
    - Golden chinquapin
    - Dwarf golden chinquapin
  - Fagus

- American beech
- Japanese beech
- Oriental beech
- Beech

Lithocarpus
- Tanbark oak

Nothofagus
- Myrtle beech
- Red beech
- Silver beech
- Roblé
- Rauli
- Lenga
- Mountain beech
- Black beech

Quercus
- Japanese evergreen oak
- Sawthorn oak
- Encina
- White oak
- Oriental white oak
- Swamp white oak
- Turkey oak
- Live oak
- Kermes oak
- Scarlet oak
- Japanese emperor oak
- Blue oak
- California scrub oak
- Northern pin oak
- Black oak
- Evergreen oak
- Southern red oak
- Shin oak
- Oregon white oak
- Holm oak
- Shingle oak
- Californian black oak
- American turkey oak
- Californian white oak
- Overcup oak
- Burr oak
- Valonia oak
- Blackjack oak
- Swamp chestnut oak
- Yellow chestnut oak

- Water oak
- Mexican blue oak
- Pin oak
- Sessile oak
- Willow oak
- Dwarf chinkapin oak
- Rock chestnut oak
- Downy oak
- Sandpaper oak
- Pedunculate oak
- Red oak
- Post oak
- Cork oak
- Wavyleaf oak
- Chinese cork oak
- Aleppo oak
- Boz-pirnal oak
- Lebanon oak
- Hungarian oak

- Family
  - Latin
    - Common name
- Flacourtiaceae
  - Azara
  - Idesia
  - Xylosma
- Fumariaceae
  - Fumaria
    - Fumitory
- Funkiaceae
  - Hosta
    - Kuro-giboshi
    - Nankai-giboshi
  - Leucocrinum
    - Sand lily
- Garryaceae
  - Garrya
    - Coast silk tassel
    - Fever bush
- Gentianaceae
  - Blackstonia
    - Yellow wort
  - Centaurium
    - Centaury
  - Frasera
    - Green gentian

        - American columbo
    - Gentiana
        - Yellow gentian
        - Marsh gentian
        - Spotted gentian
        - Japanese gentian
    - Gentianella
        - Ague weed
        - Felwort
    - Halenia
        - Spurred gentian
    - Sabatia
        - Bitter bloom
    - Sebaea
    - Swertia
- Geraniaceae
    - Erodium
        - Musk storksbill
        - Stork's bill
    - Geranium
        - Cut-leafed cranesbill
        - Spotted cranesbill
        - Herb Robert
        - Wood cranesbill
        - Sticky geranium
        - Native carrot
        - Meadow crane's bill
    - Pelargonium
        - Rose-scented geranium
        - Lemon geranium
        - Pennyroyal geranium
        - Nutmeg geranium
        - Pheasant's foot geranium
        - Rose geranium
        - Apple geranium
        - Ivy-leaved geranium
        - Oak-leaved geranium
        - Peppermint geranium
        - Ivy geranium
- Gesneriaceae
    - Conandron
    - Rehmannia
        - Chinese foxglove
- Ginkgoaceae
    - Ginkgo
        - Maidenhair tree

- Globulariaceae
  - Globularia
- Gramineae
  - Aegilops
  - Agropyron
    - Couch grass
  - Agrostis
    - Upland bent
  - Alopecurus
  - Ammophila
    - Marram grass
    - Beach grass
  - Ampelodesmos
  - Andropogon
    - Broom sedge
  - Anthoxanthum
    - Sweet vernal grass
  - Arundinaria
    - Cane reed
  - Arundo
    - Giant reed
  - Avena
    - Abyssinian oat
    - Slender oat
    - Red oat
    - Wild oats
    - Oats
    - Naked oat
    - Hungarian oat
    - Oat
    - Sterile oats
    - Bristle oats
  - Bambusa
    - Hedge bamboo
    - Ryoku-chiku
  - Beckmannia
  - Borinda
  - Bouteloua
    - Blue grama
  - Bromus
    - Californian brome
    - Mango
  - Chimonobambusa
    - Kan-chiku
    - Thorny bamboo
    - Square bamboo

- Chusquea
  - Culeu
- Cinna
  - Sweet reed grass
- Coix
  - Job's tears
- Cortaderia
  - Pampas grass
- Cynodon
  - Bermuda grass
- Dactylis
  - Cock's foot
- Deschampsia
  - Tussock grass
- Dichelachne
- Digitaria
  - Crab grass
- Drepanostachyum
  - Ringal
- Echinochloa
  - Jungle rice
  - Barnyard millet
  - Japanese millet
- Eleusine
  - Finger millet
  - Wire grass
- Elymus
  - Lyme grass
  - Canadian wild rye
  - Giant wild rye
  - Blue wild rye
  - Squaw grass
  - Volga wild rye
- Eragrostis
  - Soft love grass
  - Tef
- Festuca
  - Sheep's fescue
- Glyceria
  - Eastern mannagrass
  - Floating manna grass
- Hierochloe
  - Holy grass
- Hilaria
  - Galleta
- Himalayacalamus

  - Parang
- Hordeum
  - Two-rowed barley
  - Six-row barley
  - Foxtail barley
  - Egyptian barley
  - Barley
  - Sprat barley
- Imperata
- Indocalamus
- Koeleria
  - Junegrass
- Lolium
  - Italian ryegrass
  - Darnel
  - Perennial ryegrass
- Lygeum
- Millium
  - Wood millet
- Miscanthus
  - Amur silver grass
  - Eulalia
- Oryzopsis
  - Indian millet
- Panicum
  - Old witch grass
  - European millet
  - Vine mesquite
- Pennisetum
  - Chinese fountain grass
  - Pearl millet
- Phalaris
  - Canary grass
- Phragmites
  - Common reed
- Phyllostachys
  - Half-black bamboo
  - Golden bamboo
  - Yellow-groove bamboo
  - Madake
  - Sweetshoot bamboo
  - Moso-chiku
  - Zig-zag bamboo
  - Kei-chiku
  - Big-node bamboo
  - Ha-chiku

- Kurodake
- Black bamboo
- Kou-chiku
- Ougon-kouchiku
- Giant timber bamboo
- Stone bamboo

Pleioblastus
- Dwarf fern-leaf bamboo
- Medake
- Dwarf white-striped bamboo

Poa
- Annual meadow grass
- Mutton grass
- Kentucky blue grass
- Pine bluegrass

Pseudosasa
- Tonkin bamboo
- Metake

Sasa
- Chishima zasa
- Miyako-zasa
- Kuma-zasa
- Azuma-zasa

Sasaella
- Azuma-zasa

Sasamorpha

Secale
- Rye
- Mountain rye

Semiarundinaria
- Narihiradake
- Umbrella bamboo

Setaria
- Yellow bristle grass
- Foxtail millet
- Green bristle grass

Shibataea
- Okame-zasa

Sinarundinaria
- Fountain bamboo

Sorghum
- Sorghum
- Millet grass

Spartina
- Prairie cord grass
- Townsend's cord grass

- Cord grass
- Sporobolus
    - Alkali sakaton
    - Sand dropseed
    - Giant dropseed
- Stipa
    - Chee grass
    - Esparto grass
    - Sleepy grass
    - Green needlegrass
- Thamnocalamus
    - Bergbamboes
- Tripsacum
    - Sesame grass
- Trisetum
- Triticosecale
    - Triticale
- Triticum
    - Bread wheat
    - Persian wheat
    - Club wheat
    - Wild emmer
    - Emmer
    - Durum wheat
    - Makha wheat
    - Einkorn
    - Khurasan wheat
    - Polish wheat
    - Spelt wheat
    - Shot wheat
    - Sanduri
    - Rivet wheat
- Uniola
    - Sea oats
- Yushania
- Zea
    - Sweet corn
- Zizania
    - Wild rice
    - Manchurian wild rice
- Zoysia
    - Korean lawn grass

Grossulariaceae

- Ribes
    - Alpine currant
    - American blackcurrant

- Golden currant
- Stink currant
- Wax currant
- Dogberry
- Skunk currant
- Currant-gooseberry
- Hudson Bay currant
- Prickly blackcurrant
- Gummy gooseberry
- Canyon gooseberry
- Gooseberry-currant
- Blackcurrant
- Slender branched gooseberry
- Buffalo currant
- American mountain gooseberry
- Rock red currant
- Sierra gooseberry
- Red currant
- Flowering currant
- Redcurrant
- Missouri gooseberry
- Nordic currant
- American red currant
- Wild gooseberry
- Jostaberry

- Gunneraceae
  - Gunnera
    - Gunnera
- Haemodoraceae
  - Lachnanthes
    - Red root
- Haloragidaceae
  - Myriophyllum
    - Water milfoil
    - Myriad leaf
- Hamamelidaceae
  - Distylium
    - Isu tree
  - Hamamelis
    - Witch hazel
  - Liquidambar
    - Oriental sweet gum
    - Sweet gum
  - Loropetalum
  - Parrotiopsis
- Hemerocallidaceae

- Hemerocallis
  - Coastal day lily
  - Common day lily
  - Yellow day lily
  - Grassleaf day lily

Hippocastanaceae
- Aesculus
  - Californian buckeye
  - Chinese horse chestnut
  - Sweet buckeye
  - Horse chestnut
  - Indian horse chestnut
  - Red buckeye
  - Japanese horse chestnut
  - Ohio buckeye
  - Red horse chestnut

Hippuridaceae
- Hippuris
  - Common marestail

Hyacinthaceae
- Albuca
- Camassia
  - Wild hyacinth
  - Quamash
- Chlorogalum
  - Soap lily
- Hyacinthus
  - Hyacinth
- Muscari
  - Tassel hyacinth
  - Grape hyacinth
  - Italian grape hyacinth
- Scilla
- Urginea
  - Sea squill

Hydrangeaceae
- Deinanthe
- Deutzia
- Dichroa
- Hydrangea
  - Seven barks
  - Hydrangea
- Philadelphus
  - Mock orange
- Platycrater
- Schizophragma

- Hydrocharitaceae
  - Hydrilla
  - Stratiotes
    - Water soldier
  - Vallisneria
    - Water celery
    - Eel grass
- Hydrophyllaceae
  - Decemium
    - Waterleaf
  - Eriodictyon
    - Yerba santa
  - Hydrophyllum
    - John's cabbage
    - Virginia waterleaf
    - Cat's breeches
  - Phacelia
    - Fiddleneck
  - Romanzoffia
- Hypericaceae
  - Hypericum
    - Tutsan
    - Rose of Sharon
    - St. Andrews cross
    - St. John's wort
- Hypoxidaceae
  - Hypoxis
    - Golden weather glass
- Illiciaceae
  - Illicium
    - Star anise
    - Aniseed tree
    - Chinese anise
- Iridaceae
  - Babiana
    - Baboon root
  - Belamcanda
    - Leopard lily
  - Bobartia
  - Crocosmia
    - Montbretia
  - Crocus
    - Saffron
  - Gladiolus
  - Gynandriris
    - Spanish nut

- Hesperantha
- Iris
    - Crested iris
    - Japanese water iris
    - Stinking gladwin
    - Purple flag
    - Orris
    - Rocky Mountain iris
    - Dalmation iris
    - Yellow flag
    - Roof iris
- Moraea
- Romulea
- Sparaxis
- Tigridia
    - Tiger flower
- Tritonia

Juglandaceae

- Carya
    - Southern shagbark
    - Pecan
    - Coastal pignut hickory
    - Nutmeg hickory
    - Sand hickory
    - Black hickory
    - Chinese hickory
    - Bitternut
    - Pignut
    - Shellbark hickory
    - Sweet pignut
    - Shagbark hickory
    - Mockernut
    - Water hickory
    - Scrub hickory
    - California walnut
- Juglans
    - Heartseed walnut
    - Japanese walnut
    - Chinese walnut
    - Butternut
    - Walnut
    - Arizona walnut
    - Manchurian walnut
    - Texas walnut
    - Black walnut
    - Buartnut

  - Platycarya
  - Pterocarya
    - Caucasian wingnut
    - Japanese wingnut
- Juncaceae
  - Juncus
    - Soft rush
    - Baltic rush
  - Luzula
  - Marsippospermum
- Juncaginaceae
  - Triglochin
    - Sea arrow grass
    - Marsh arrow grass
- Labiatae
  - Acinos
    - Alpine calamint
    - Basil thyme
  - Agastache
    - Hoary balm of gilead
    - Anise hyssop
    - Korean mint
    - Giant hyssop
    - Mexican giant hyssop
  - Ajuga
    - Bugle
    - Ground pine
  - Ballota
    - Black horehound
  - Calamintha
    - Lesser calamint
    - Calamint
    - Large-flowered calamint
  - Cedronella
    - Balm of Gilead
  - Clinopodium
    - Wild basil
  - Coleus
  - Collinsonia
    - Stone root
  - Conradina
    - Cumberland rosemary
  - Cunila
    - Stone mint
  - Dracocephalum
    - Moldavian balm

- Elsholtzia
- Galeopsis
    - Common hemp nettle
    - Downy hemp nettle
- Glechoma
    - Ground ivy
- Hedeoma
    - American pennyroyal
- Hyssopus
    - Hyssop
- Lagochilus
    - Intoxicating mint
- Lallemantia
- Lamium
    - White dead nettle
    - Henbit
    - Yellow archangel
    - Red dead nettle
- Lavandula
    - Lavender
    - Spike lavender
    - French lavender
- Leonurus
    - Motherwort
    - Chinese motherwort
- Lycopus
    - Gypsywort
    - Bugleweed
    - Water horehound
- Marrubium
    - White horehound
- Meehania
- Melissa
    - Lemon balm
- Melittis
    - Bastard balm
- Mentha
    - Water mint
    - American wild mint
    - Corn mint
    - Asian mint
    - Horsemint
    - Pennyroyal
    - Corsican mint
    - Spearmint
    - Round-leaved mint

- Ginger mint
- Eau de Cologne mint
- White peppermint
- Black peppermint
- Apple mint
- Hart's pennyroyal
- Japanese mint
- Red raripila mint

Micromeria
- Yerba buena
- Savory

Monarda
- Lemon bergamot
- Bergamot
- Wild bergamot
- Plains lemon monarda
- Horse mint
- White basil-balm
- Mint-leaved bergamot

Monardella
- Coyote mint
- Mountain pennyroyal

Mosla

Nepeta
- Catmint

Ocimum
- Sweet basil
- Bush basil

Origanum
- Dittany of Crete
- Winter marjoram
- Sweet marjoram
- Pot marjoram
- Greek oregano
- Oregano
- Bible hyssop
- Hardy marjoram

Perilla
- Purple shiso
- Shiso

Perovskia
- Russian sage

Phlomis
- Jerusalem sage
- Lamwick plant

Plectranthus

- Pogogyne
- Prostanthera
  - Mint bush
- Prunella
  - Self-heal
- Pycnanthemum
  - Hoary mountain mint
  - Mountain mint
  - Virginia mountain mint
- Rosmarinus
  - Rosemary
- Salvia
  - White sage
  - Thistle sage
  - Chia
  - Greek sage
  - Chinese sage
  - Sage
  - Clary
  - Wild clary
  - Balsamic sage
  - Spanish sage
  - Apple sage
  - Meadow clary
  - White chia
  - Mexican chia
  - Blue sage
  - Jupiter's distaff
  - Californian black sage
  - Cancer weed
  - Pineapple sage
- Satureia
  - Summer savory
  - Winter savory
  - Thyme-leaved savory
  - Creeping savory
- Scutellaria
  - Common skullcap
  - Virginian skullcap
- Sideritis
- Stachys
  - Chinese artichoke
  - Wood betony
  - Marsh woundwort
  - Hedge woundwort
  - Downy woundwort

- Teucrium
  - Wall germander
  - Cat thyme
  - Water germander
  - Wood sage
  - American germander
- Thymbra
- Thymus
  - Headed savory
  - Wild thyme
  - Common thyme
  - Lemon thyme
  - Mastic thyme
  - Caraway thyme
  - Cretan thyme
  - Broad-leaved thyme
  - Camphor thyme
  - Cilician thyme
  - Woolly thyme

Lardizabalaceae

- Akebia
  - Akebia
- Decaisnea
  - Blue sausage fruit
- Holboellia
  - Sausage vine
- Lardizabala
  - Zabala fruit
- Sinofranchetia
- Stauntonia

Lauraceae

- Cinnamomum
  - Camphor
- Laurus
  - Bay tree
- Lindera
  - Spice bush
- Neolitsea
- Persea
  - Red bay
- Sassafras
  - Sassafras
- Umbellularia
  - California laurel

Leguminosae

- Acacia

- Mulga acacia
- Wiry wattle
- Mimosa
- Green wattle
- Sidney golden wattle
- Blackwood
- Silver wattle
- Golden wattle
- Coastal wattle
- Kangaroo thorn
- Knife-leaf wattle
- Blue-leaved wattle
- Prickly Moses
- Sweet acacia

Adesmia
Albizia
Alhagi
- Manna tree
- Camel thorn

Amorpha
- Lead plant
- False indigo

Amphicarpaea
- Hog peanut

Anthyllis
- Kidney vetch

Apios
- Ground nut

Arachis
- Peanut

Aspalathus
- Rooibos

Astragalus
- Swedish coffee
- Ground plum
- Milk vetch
- Tragacanth

Baptisia
- Wild indigo

Caesalpinia
- Mysore thorn

Calicotome
Caragana
- Siberian pea tree
- Shag-spine

Castanospermum

  - Moreton Bay chestnut
- Ceratonia
  - Carob
- Cercis
  - Redbud
  - Chinese redbud
  - Western redbud
  - Judas tree
- Cicer
  - Chick pea
- Cladrastis
  - Yellow wood
- Colutea
  - Bladder senna
- Coronilla
  - Scorpion senna
  - Crown vetch
  - Annual scorpion vetch
- Cytisus
  - Broom
- Dalea
  - White prairie clover
  - Purple prairie clover
- Desmanthus
  - Prairie mimosa
- Desmodium
- Erythrina
  - Cardinal spear
  - Coral tree
  - Dwarf kafferboom
  - Prickly cardinal
- Galega
  - Goat's rue
- Genista
  - Spanish gorse
  - Dyer's greenweed
- Gleditsia
  - Honey locust
  - Water locust
  - Caspian locust
- Glycine
  - Soya bean
- Glycyrrhiza
  - Wild liquorice
  - Liquorice
  - American liquorice

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        Chinese liquorice
Gymnocladus
        Soap tree
        Kentucky coffee tree
Halimodendron
        Salt tree
Hardenbergia
        Coral pea
Hedysarum
        Liquorice root
        Sweet vetch
Indigofera
        Indigo bush
Kummerowia
Lablab
        Hyacinth bean
Laburnum
        Laburnum
        Scotch laburnum
Lathyrus
        Yellow-flowered pea
        Beach pea
        Perennial sweet pea
        Bitter vetch
        Lord Anson's pea
        Sweet pea
        Meadow vetchling
        Chickling pea
        Earthnut pea
Lens
        Lentil
Lespedeza
Lotus
        Bird's foot trefoil
        Asparagus pea
        Greater bird's foot trefoil
Lupinus
        White lupin
        Blue lupin
        Tree lupin
        Yellow lupin
        Pearl lupin
Maackia
Medicago
        Black medick
        Toothed bur-clover
```

- Alfalfa
- Moon trefoil

Melilotus
- White melilot
- Melilot

Millettia

Onobrychis
- Sainfoin

Ononis
- Rest harrow
- Spiny rest harrow

Oxytropis
- Crazy weed

Pachyrrhizus
- Jicama
- Ahipa

Phaseolus
- Runner bean
- French bean
- Lima bean

Pisum
- Field pea
- Pea

Psophocarpus
- Winged bean

Psoralea
- Breadroot
- Small Indian breadroot
- Culen

Pueraria
- Kudzu vine

Robinia
- Bristly locust
- Black locust
- Clammy locust

Scorpiurus

Senna
- Wild senna

Sophora
- Japanese pagoda tree
- Mescal bean
- Kowhai

Spartium
- Spanish broom

Tephrosia
- Catgut

- Thermopsis
- Trifolium
  - Piñole clover
  - Cup clover
  - Sour clover
  - Pin-point clover
  - Alsike clover
  - Crimson clover
  - Red clover
  - White clover
  - Bighead clover
- Trigonella
  - Fenugreek
  - Sweet trefoil
- Ulex
  - Gorse
- Vicia
  - American vetch
  - Tufted vetch
  - Horsebean
  - Broad bean
  - Hairy tare
  - French vetch
  - Winter tares
  - Bush vetch
  - Fine-leaved vetch
  - Smooth tare
  - Large Russian vetch
- Vigna
  - Jerusalem pea
- Wisteria
  - Japanese wisteria
  - Chinese wisteria
  - Silky wisteria
  - American wisteria

Leitneriaceae
- Leitneria
  - Corkwood

Lemnaceae
- Lemna
  - Duckweed
- Spirodela
  - Great duckweed
- Wolffia
  - Least duckweed

Lentibulariaceae

  - Pinguicula
    - Butterwort
  - Utricularia
    - Bladderwort
- Liliaceae
  - Aletris
    - Unicorn root
  - Caesia
    - Blue grass lily
  - Cardiocrinum
  - Dichopogon
    - Chocolate lily
  - Erythronium
    - White trout-lily
    - Trout lily
    - Dog's-tooth violet
    - Avalanche lily
    - Katakuri
    - Avelanche lily
    - Fawn lily
  - Fritillaria
    - Kamchatka lily
    - Crown imperial
    - Snakehead fritillary
    - Pale-flowered fritillary
    - Yellow fritillary
    - Purple fritillary
  - Gagea
  - Hyacinthoides
    - Bluebell
  - Lilium
    - Golden-rayed lily
    - Fire lily
    - Meadow lily
    - Madonna lily
    - Columbia tiger lily
    - Morning star lily
    - Bamboo lily
    - Tiger lily
    - White trumpet lily
    - Turk's Cap lily
    - Panther lily
    - Wood lily
    - Coral lily
    - Swamp lily
    - Hong Kong lily

- Ornithogalum
    - Bath asparagus
    - Star of Bethlehem
- Tulipa

Limnanthaceae
- Limnanthes
    - Poached egg plant

Linaceae
- Linum
    - Pale flax
    - Purging flax
    - Perennial flax
    - Flax

Loasaceae
- Mentzelia

Loganiaceae
- Desfontainia
- Gelsemium
    - False jasmine
- Spigelia
    - Indian pink

Lomandraceae
- Lomandra
    - Longleaf mat-rush

Lycopodiaceae
- Huperzia
- Lycopodium
    - Fir clubmoss
    - Common club moss
    - Ground pine
    - Club moss

Lythraceae
- Heimia
- Lagerstroemia
    - Crape myrtle
- Lythrum
    - Purple loosestrife
    - Water purslane

Magnoliaceae
- Liriodendron
    - Tulip tree
- Magnolia
    - Cucumber tree
    - Mu-lan
    - Laurel magnolia
    - Star magnolia

    - Lily tree
  - Michelia
    - Banana shrub
- Malvaceae
  - Abelmoschus
    - Aibika
    - Okra
  - Abutilon
    - China jute
    - Trailing abutilon
  - Alcea
    - Hollyhock
  - Althaea
    - Marsh mallow
  - Callirhoe
    - Finger poppy mallow
    - Poppy mallow
  - Gynatrix
    - Hemp bush
  - Hibiscus
    - Kenaf
    - Swamp hibiscus
    - Native rosella
    - Cotton rose
    - Roselle
    - Rose of Sharon
    - Chinese hibiscus
    - Flower of an hour
    - False roselle
    - Swamp rose mallow
  - Hoheria
    - Lacebark
    - Ribbonwood
  - Kosteletzkya
  - Lavatera
    - Lavatera
    - Tree lavatera
    - Tree Mallow
  - Malva
    - Musk mallow
    - Dwarf mallow
    - Cheeseweed
    - Mallow
    - Chinese mallow
  - Plagianthus
  - Sidalcea

        - New Mexico prairie mallow
- Marsileaceae
    - Marsilea
        - Water clover
- Martyniaceae
    - Proboscidea
        - Sweet unicorn plant
        - Unicorn plant
- Melanthiaceae
    - Chamaelirion
        - Blazing star
    - Chionographis
    - Melanthium
        - Bunchflower
    - Veratrum
        - White hellebore
        - Black hellebore
        - Indian poke
    - Xerophyllum
        - Indian basket grass
- Melastomataceae
    - Rhexia
        - Deer grass
- Meliaceae
    - Melia
        - Bead tree
    - Toona
        - Chinese cedar
- Melianthaceae
    - Melianthus
        - Honey flower
- Menispermaceae
    - Cocculus
    - Menispermum
        - Canada moonseed
    - Sinomenium
- Menyanthaceae
    - Menyanthes
        - Bogbean
    - Nymphoides
        - Water fringe
- Monimiaceae
    - Peumus
        - Boldu
- Moraceae
    - Broussonetia

        - Kozo
        - Paper mulberry
    - Cudrania
        - Silkworm thorn
    - Ficus
        - Fig
        - Wild fig
    - Maclura
        - Osage orange
    - Morus
        - Mulberry
        - White mulberry
        - Korean mulberry
        - Kuwa
        - Texas mulberry
        - Mongolian mulberry
        - Black mulberry
        - Red mulberry
        - Himalayan mulberry
- Morinaceae
    - Morina
        - Whorlflower
- Musaceae
    - Ensete
        - Ethiopian banana
    - Musa
        - Japanese banana
- Myoporaceae
    - Myoporum
        - Winter apple
        - Turkey bush
        - Boobyalla
        - Ngaio
- Myricaceae
    - Comptonia
        - Sweet fern
    - Myrica
        - Californian bayberry
        - Wax myrtle
        - Bog myrtle
        - Northern bayberry
        - Chinese bayberry
        - Bayberry
- Myrsinaceae
    - Ardisia
        - Coralberry

- Marlberry
- Myrsine
  - Cape myrtle
- Myrtaceae
  - Angophora
  - Backhousia
  - Baeckea
  - Callistemum
    - Crimson bottlebrush
  - Eucalyptus
    - Gungurru
    - Red river gum
    - Lemon-scented gum
    - Mt. Wellington peppermint
    - Water mallee
    - Tasmanian blue gum
    - Red bloodwood
    - Cider gum
    - Yellow gum
    - Black box
    - Red stringybark
    - Yellow box
    - Tallow wood
    - Messmate
    - Snow gum
    - Cabbage gum
    - Spinning gum
    - Sydney peppermint
    - Blue mallee
    - Snappy gum
    - Mountain ash
    - Red ironbark
    - Manna gum
  - Feijoa
    - Feijoa
  - Leptospermum
    - Coast tea-tree
    - Lemon-scented tea tree
    - Lemon tea-tree
    - Tea-tree
  - Lophomyrtus
  - Luma
    - Arrayan
  - Melaleuca
    - Tea tree
  - Metrosideros

    - Pohutukawa
    - Southern rata
    - Northern rata
  - Myrtus
    - Myrtle
    - Uñi
  - Psidium
    - Yellow strawberry guava
    - Strawberry guava
- Najadaceae
  - Najas
- Nelumbonaceae
  - Nelumbo
    - American water lotus
    - Sacred water lotus
- Nyctaginaceae
  - Abronia
    - Sand verbena
  - Boerhavia
    - Tar vine
  - Mirabilis
    - Marvel of Peru
    - Mauka
- Nymphaeaceae
  - Nuphar
    - Common spatterdock
    - Yellow water lily
    - Spatterdock
  - Nymphaea
    - White water lily
    - Fragrant water lily
    - Tuberous water lily
- Nyssaceae
  - Nyssa
    - Water tupelo
    - Ogeeche lime
    - Black tupelo
- Oleaceae
  - Chionanthus
    - Fringe tree
  - Fontanesia
  - Forestiera
    - Swamp privet
    - Wild olive
  - Forsythia
    - Golden bell

  - Fraxinus
    - White ash
    - Ash
    - Oregon ash
    - Black ash
    - Manna ash
    - Red ash
    - Blue ash
    - Arizona ash
    - Narrow-leaved ash
  - Jasminum
    - Yellow jasmine
    - Winter-flowering jasmin
    - Jessamine
  - Ligustrum
    - Chinese privet
    - Privet
  - Olea
    - Olive
  - Osmanthus
    - Fragrant olive
    - Holly olive
  - Phillyrea
  - Syringa
    - Lilac
    - Hungarian lilac
- Onagraceae
  - Clarkia
  - Epilobium
    - Willow herb
    - River beauty
    - Codlins and cream
  - Fuchsia
    - Konini
    - Fuchsia
  - Ludwigia
    - Water purslane
  - Oenothera
    - Evening primrose
    - Hooker's evening primrose
- Onocleaceae
  - Onoclea
    - Sensitive fern
- Ophioglossaceae
  - Botrychium
    - Parsley fern

    - Rattlesnake fern
    - Common moonwort
  - Ophioglossum
    - Adder's tongue
- Orchidaceae
  - Anacamptis
    - Pyramidal orchid
  - Aplectrum
    - Putty root
  - Bletilla
    - Hyacinth orchid
  - Calypso
    - Fairyslipper
  - Corallorhiza
    - Autumn coralroot
  - Cypripedium
    - Nerve root
  - Dactylorhiza
    - Marsh orchid
    - Spotted orchid
  - Gastrodia
    - Potato orchid
  - Goodyera
  - Gymnadenia
    - Fragrant orchid
  - Habenaria
    - White bog-orchid
  - Liparis
  - Microtis
  - Ophrys
    - Bee orchid
    - Brown bee orchid
    - Late spider orchid
    - Fly orchid
    - Yellow bee orchid
    - Woodcock orchid
    - Early spider orchid
    - Sawfly orchid
  - Orchis
    - Bug orchis
    - Marsh orchis
    - Early purple orchis
    - Military orchis
    - Green-winged orchid
    - Dark-winged orchis
  - Platanthera

    - Butterfly orchid
  - Spiranthes
    - Lady's tresses
- Orobanchaceae
  - Orobanche
    - Cancer root
    - Broom rape
- Osmundaceae
  - Osmunda
    - Interrupted fern
    - Cinnamon fern
    - Royal fern
- Oxalidaceae
  - Oxalis
    - Wood sorrel
    - Yellow sorrel
    - Iron cross plant
    - Scurvy grass
    - Redwood sorrel
    - Bermuda buttercup
    - Yellow wood sorrel
    - Oca
    - Violet wood sorrel
- Paeoniaceae
  - Paeonia
    - Chinese peony
    - Peony
    - Moutan
    - Tree peony
- Palmae
  - Brahea
    - Guadalupe palm
    - Blue hesper palm
  - Butia
    - Jelly palm
  - Ceroxylon
    - Wax palm
  - Chamaerops
    - Dwarf fan palm
  - Jubaea
    - Chilean wine palm
  - Livistona
    - Cabbage palm
  - Nannorrhops
    - Mazari palm
  - Parajubaea

- Quito palm
- Phoenix
    - Senegal date palm
- Sabal
    - Cabbage palmetto
    - Bush palmetto
    - Scrub palmetto
    - Mexican palmetto
- Serenoa
    - Saw tooth palmetto
- Trachycarpus
    - Chusan palm
- Washingtonia
    - Desert fan palm

- Papaveraceae
    - Argemone
        - Prickly poppy
    - Chelidonium
        - Greater celandine
    - Corydalis
        - Fumewort
    - Dicentra
        - Squirrel corn
        - Dutchman's breeches
        - Bleeding heart
    - Eschscholzia
        - Californian poppy
    - Glaucium
        - Horned poppy
    - Macleaya
        - Plume poppy
    - Meconopsis
        - Himalayan poppy
    - Papaver
        - Arctic poppy
        - Oriental poppy
        - Corn poppy
        - Opium poppy
    - Platystemon
        - Creamcups
    - Sanguinaria
        - Blood root
    - Stylophorum
- Parmeliaceae
    - Cetraria
        - Iceland moss

- Parnassiaceae
  - Parnassia
    - Grass of Parnassus
- Passifloraceae
  - Passiflora
    - Passion flower
    - Passion fruit
    - Maypops
    - Banana passion fruit
- Pedaliaceae
  - Sesamum
    - Sesame
- Philesiaceae
  - Eustrephus
    - Wombat berry
  - Geitonoplesium
    - Scrambling lily
  - Lapageria
    - Chilean bellflower
- Phormiaceae
  - Dianella
    - Flax lily
    - Beach flax lily
- Phrymaceae
  - Phryma
    - Lopseed
- Phytolaccaceae
  - Phytolacca
    - Indian poke
    - Pokeweed
    - Bella sombra
- Pinaceae
  - Abies
    - Silver fir
    - Red fir
    - Balsam fir
    - Grecian fir
    - Colorado fir
    - Momi fir
    - Grand fir
    - Nikko fir
    - Subalpine fir
    - Californian red fir
    - Caucasian fir
    - West Himalayan fir
    - Noble fir

- Sacred fir
- Siberian fir
- Flaky fir
- She balsam
- Himalayan fir

Cedrus

- Deodar
- Cedar of Lebanon
- Atlas cedar

Keteleria

Larix

- Larch
- Tamarack
- Western larch
- Dunkeld hybrid larch
- Sub-alpine larch
- Japanese larch
- Siberian larch

Picea

- Chinese spruce
- Sargent spruce
- Weeping spruce
- Mountain spruce
- White spruce
- Sakhalin spruce
- Yezo spruce
- Black spruce
- Blue spruce
- Purple-coned spruce
- Red spruce
- Sitka spruce
- Morinda spruce
- Norway spruce
- Serbian spruce
- Caucasian spruce

Pinus

- White-bark pine
- Bristle-cone pine
- Chinese white pine
- Jack pine
- Lace-bark pine
- Siberian pine
- Swiss stone pine
- Mexican pine nut
- Beach pine
- Big-cone pine

Cerro potosi pinyon
Japanese red pine
Short-leaf pine
Rocky Mountain piñon
Limber pine
Chilghoza pine
Aleppo pine
Korean nut pine
Sugar pine
Smooth-leaf pine
Single leaf piñon
Western white pine
Dwarf mountain pine
Bishop's pine
Austrian pine
Corsican pine
Pitch pine
Maritime pine
Italian stone pine
Ponderosa pine
Dwarf Siberian pine
Prickle pine
Parry piñon
Monterey pine
Paper-shell piñon
Red pine
Northern pitch pine
Chir pine
Digger pine
Pond pine
White pine
Scot's pine
Loblolly pine
Japanese black pine
Soledad pine
Himalayan blue pine
Mexican white pine
Montezuma pine
Twisted leaf pine
Mexican weeping pine
Japanese white pine
Scrub pine
Chinese red pine
Southwestern white pine

Pseudolarix
- Golden larch

- Pseudotsuga
  - Douglas fir
- Tsuga
  - Canadian hemlock
  - Carolina hemlock
  - Chinese hemlock
  - Western hemlock
  - Mountain hemlock

Pistaciaceae
- Pistacia
  - Betoum
  - Pistachio
  - Chinese pistache
  - Mastic tree
  - Terebinth

Pittosporaceae
- Billardiera
  - Sweet appleberry
  - Appleberry
  - Common appleberry
- Bursaria
  - Christmas bush
- Pittosporum
  - Karo
  - Tarata
  - Weeping pittosporum
  - Tawhiwhi
  - Cheesewood
  - Tobira

Plantaginaceae
- Plantago
  - Buck's-horn plantain
  - Ribwort plantain
  - Common plantain
  - Sea plantain
  - Hoary plantain
  - Blond psyllium
  - Fleawort

Platanaceae
- Platanus
  - Oriental plane
  - Buttonwood

Plumbaginaceae
- Armeria
  - Thrift
- Ceratostigma

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                Chinese plumbago
        Limonium
                Sea lavender
        Plumbago
                Plumbago
Podocarpaceae
        Dacrycarpus
                Kahikatea
        Dacrydium
                Rimu
        Lagarostrobus
                Huon pine
        Lepidothamnus
                Yellow silver pine
        Microcachrys
        Nageia
                Nagi
        Phyllocladus
                Alpine celery pine
                Celery top pine
                Tanekaha
        Podocarpus
                Australian plum
                Alpine totara
                Totara
                Kusamaki
                Tasmanian podocarp
                Chilean podocarp
                Willowleaf podocarp
        Prumnopitys
                Plum-fruited Yew
                Miro
                Matai
Podophyllaceae
        Podophyllum
                Himalayan may apple
                American mandrake
Polemoniaceae
        Ipomopsis
                Skyrocket
        Navarretia
                Skunk weed
        Phlox
                Garden phlox
        Polemonium
                Jacob's ladder
```

- Abcess root
- Polygalaceae
  - Polygala
    - Bitter milkwort
    - Senega snake root
- Polygonaceae
  - Atraphaxis
  - Calligonum
  - Eriogonum
    - Antelope sage
  - Fagopyrum
    - Perennial buckwheat
    - Buckwheat
    - Tartarian buckwheat
  - Muehlenbeckia
    - Maidenhair vine
  - Oxyria
    - Mountain sorrel
  - Polygonum
    - Alpine knotweed
    - Willow grass
    - Knotweed
    - Bistort
    - Smartweed
    - Water smartweed
    - Prince's feather
    - Red leg
    - Alpine bistort
    - Japanese knotweed
    - Giant knotweed
    - Himalayan knotweed
    - Black bindweed
    - False buckwheat
  - Rheum
    - Himalayan rhubarb
    - Sikkim rhubarb
    - Turkey rhubarb
    - Rhubarb
    - Tartarian rhubarb
  - Rumex
    - Sorrel
    - Sheeps sorrel
    - Alpine dock
    - Red dock
    - Maiden sorrel
    - Swamp dock

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                Sharp dock
                Curled dock
                Great water dock
                Canaigre
                Round-leaved dock
                Herb Patience
                Red-veined dock
                Buckler-leaved sorrel
                Sour greens
                Bladder dock
                Spinach rhubarb
    Polypodiaceae
            Adiantum
                Maidenhair fern
            Asplenium
                Hen and chicken fern
                Wall rue
                Hart's tongue fern
                Scale fern
                Black spleenwort
                Maidenhair spleenwort
            Athyrium
                Lady fern
                Painted fern
            Matteuccia
                Ostrich fern
            Polypodium
                Polypody
                Licorice fern
            Pteridium
                Bracken
    Polytrichaceae
            Polytrichum
                Hair-cap moss
    Pontederiaceae
            Pontederia
                Pickerel weed
    Portulacaceae
            Calandrinia
                Redmaids
            Claytonia
                Broad-leaved spring beauty
                Alpine spring beauty
                Spring beauty
            Lewisia
                Bitter-root
```

- Montia
    - Water blinks
    - Miner's lettuce
    - Pink purslane
- Portulaca
    - Rose moss
    - Golden purslane
    - Green purslane

Potamogetonaceae
- Potamogeton
    - Curly pondweed
    - Broad-leaved pondweed
    - Fennel-leaved pondweed

Primulaceae
- Anagallis
    - Scarlet pimpernel
- Androsace
    - Rock jasmine
- Cyclamen
    - Cyclamen
- Dodecatheon
    - Sailor-caps
- Glaux
    - Black saltwort
- Hottonia
    - Water violet
- Lysimachia
    - Gooseneck loosestrife
    - Creeping Jenny
    - Yellow loosestrife
- Primula
    - Drumstick primula
    - Oxlip
    - Cowslip
    - Primrose
- Samolus
    - Brookweed
- Soldanella
- Trientalis
    - Chickweed wintergreen

Proteaceae
- Banksia
    - Coast banksia
    - Silver banksia
- Gevuina
    - Chilean hazel

  - Grevillea
    - Silky oak
  - Hakea
  - Knightia
    - Rewarewa
  - Macadamia
    - Macadamia
    - Queensland nut
  - Persoonia
    - Dwarf geebung
    - Broad-leaved geebong
    - Pin-leaf geebung
  - Protea
    - Sugar bush
    - King protea
  - Telopea
    - Waratah
- Pteridaceae
  - Cheilanthes
    - Ressurection fern
- Punicaceae
  - Punica
    - Pomegranate
- Pyrolaceae
  - Chimaphila
    - Pipsissewa
    - Spotted wintergreen
  - Moneses
  - Monotropa
    - Indian pipe
  - Orthilia
  - Pyrola
    - Wintergreen
    - Round-leaved wintergreen
    - Green-flowered wintergreen
    - Bog wintergreen
- Ranunculaceae
  - Aconitum
    - Wolfbane
    - Aconite
    - Wolfsbane
  - Actaea
    - Baneberry
    - Herb Christopher
    - White baneberry
  - Adonis

- Pheasant's eye

Anemone
- Wood anemone
- Rue-anemone
- Wind flower

Anemonella
- Rue-anemone

Aquilegia
- Columbine
- Wild columbine

Caltha
- Western marsh marigold
- Marsh marigold

Cimicifuga
- Foetid bugbane
- Black cohosh

Clematis
- Fragrant virgin's bower
- Traveller's joy
- White clematis

Consolida
- Larkspur

Coptis
- Chinese goldenthread
- Goldthread

Delphinium
- Stavesacre

Helleborus
- Black hellebore
- Green hellebore
- Stinking hellebore

Hepatica
- Hepatica

Hydrastis
- Goldenseal

Nigella
- Wild fennel
- Love-in-a-mist
- Black cumin
- Yellow fennel flower

Pulsatilla
- Pasque flower

Ranunculus
- Crowfoot
- Bulbous buttercup
- Buttercup

- Lesser celandine
- Creeping buttercup
- Celery-leaved buttercup
- Lesser spearwort

Semiaquilegia

Thalictrum

Trollius

- Globeflower

Xanthorhiza

- Yellowroot

Resedaceae

- Reseda
  - Wild mignonette
  - Weld
  - Mignonette

Rhamnaceae

- Berchemia
- Ceanothus
  - New Jersey tea
  - Buckbrush
  - Deer brush
  - Blue brush
  - Smaller red-root
  - Oregon tea tree
  - Sticky laurel
  - Squaw carpet
  - Hollyleaf ceanothus
  - Cropleaf ceanothus
  - Santa Barbara ceanothus
- Colletia
- Hovenia
  - Japanese raisin tree
- Paliuris
  - Christ's thorn
- Rhamnella
- Rhamnus
  - Indian cherry
  - Common buckthorn
  - Red berry
  - Dahurian buckthorn
  - Alder buckthorn
  - Cascara sagrada
  - Dyer's buckthorn
  - Avignon berry
- Ziziphus
  - Jujube

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Rosaceae
        Acaenia
                Pirri-pirri bur
        Adenostoma
                Greasewood
        Agrimonia
                Agrimony
        Alchemilla
                Lady's mantle
                Alpine lady's mantle
        Amelanchier
                Saskatoon
                Downy serviceberry
                Korean juneberry
                Juneberry
                Allegheny shadberry
                Apple serviceberry
                Southern juneberry
                Snowy mespilus
                Quebec berry
        Amelasorbus
        Aphanes
                Parsley piert
        Aronia
                Red chokeberry
                Black chokeberry
                Purple chokeberry
        Aruncus
                Goat's beard
        Cercocarpus
                Mountain mahogany
        Chaenomeles
                Chinese quince
                Dwarf quince
                Japanese quince
        Coluria
        Cotoneaster
                Black-wood
        Cowania
                Cliffrose
        Crataegomespilus
                Bronvaux medlar
        Crataegus
                Azarole
                Kansas hawthorn
                Cockspur thorn
```

- Black hawthorn
- Summer haw
- Midland hawthorn
- Red haw
- Hawthorn
- Hungarian hawthorn
- Mayhaw
- Scarlet haw
- Washington thorn
- Frosted hawthorn
- Manzanilla
- Dotted hawthorn
- Tansy-leaved thorn
- Parsley-leaved hawthorn
- Chinese haw
- River hawthorn
- Altai mountain thorn

Cydonia
- Quince

Docynia

Dryas
- Mountain avens

Duchesnea

Eriobotrya
- Loquat

Fallugia
- Apache plume

Filipendula
- Meadowsweet
- Dropwort
- Queen of the prairie

Fragaria
- Californian strawberry
- Beach strawberry
- Strawberry
- Hautbois strawberry
- Rocky Mountain strawberry
- Alpine strawberry
- Wild strawberry
- Scarlet strawberry
- Green strawberry

Geum
- Yellow avens
- Water avens
- Wood avens
- White avens

Purple avens

Gillenia
- American ipecacuanna
- Indian physic

Heteromeles
- Christmas berry

Holodiscus
- Creambush
- Rock spiraea

Kerria
- Bachelor's button

Malus
- Southern crab
- Chinese crab
- Garland crab
- Oregon crab
- Prairie crab
- Chinese apple
- Crab apple
- Paradise apple
- Apple

Margyricarpus
- Pearl berry

Mespilus
- Medlar

Oemleria
- Oso berry

Osteomeles

Peraphyllum
- Squaw apple

Photinia
- Japanese photinia

Physocarpus
- Ninebark

Potentilla
- Silverweed
- Tormentil
- Shrubby cinquefoil
- Marsh cinquefoil
- Cinquefoil
- Rock cinquefoil
- Rough-fruited cinquefoil
- Old field cinquefoil

Prinsepia

Prunus
- Alabama cherry

Allegheny plum
American plum
Chickasaw plum
Sand plum
Clove cherry
Apricot
Wild cherry
Western sand cherry
Briançon apricot
Greyleaf cherry
American cherry laurel
Cherry plum
Sour cherry
Himalayan bird cherry
Damson
Plum
Almond
Bitter cherry
Mongolian cherry
Sour plum
Japanese bird cherry
Hog plum
Bush cherry
Holly-leaved cherry
Fuji cherry
Korean cherry
Cherry laurel
Portugal laurel
Mahaleb cherry
Manchurian apricot
Beach plum
Miyama cherry
Smoothpit peach
Japanese apricot
Wild goose plum
Canadian plum
Japanese alpine cherry
Bird cherry
Pin cherry
Peach
Nectarine
Mountain cherry
Cambridge cherry
Wild Himalayan cherry
Dwarf American cherry
Himalayan cherry

- Capulin cherry
- Japanese plum
- Rum cherry
- Siberian apricot
- Apricot plum
- Sloe
- Pacific plum
- Rosebud cherry
- Dwarf russian almond
- Nanking cherry
- Western chokecherry
- Rocky Mountain chokecherry
- Chokecherry
- Black apricot
- Chinese wild peach
- Dwarf almond
- Bokhara plum
- Taiwan cherry
- Dawyck cherry
- Desert almond
- Yamazakura
- Catalina Island cherry
- Mexican plum
- Creek plum
- Birch bark cherry
- Flowering almond
- Black sloe
- Duke cherry
- Tokyo cherry
- Morello cherry
- Kentish red cherry
- Bush sour cherry
- Maraschino cherry

Pseudocydonia

Pyracantha

- Pyracanth
- Nepalese white thorn

Pyrocydonia

Pyronia

Pyrus

- Birch-leaved pear
- Callery pear
- Pear
- Wild pear
- Plymouth pear
- Indian wild pear

- Sand pear
- Willow-leaved pear
- Snow pear
- Le Conte pear

Quillaja
- Soap-bark tree

Rhaphiolepis
- Indian hawthorn

Rosa
- Prickly rose
- Low prairie rose
- Banksia rose
- Labrador rose
- Dog rose
- Pasture rose
- Provence rose
- China rose
- French rose
- Manipur wild-tea rose
- Red-leafed rose
- Wood rose
- Cherokee rose
- Cinnamon rose
- Musk rose
- Japanese rose
- Nootka rose
- Burnet rose
- Cluster rose
- Sweet briar
- Ramanas rose
- Apple rose
- Virginia rose
- Western wild rose
- Damask rose
- Tea rose

Rubus
- Alleghany blackberry
- Arctic bramble
- Highbush blackberry
- Dewberry
- American dewberry
- Cloudberry
- Sand blackberry
- Rocky Mountain raspberry
- Himalayan giant blackberry
- Golden evergreen raspberry

- Northern dewberry
- Blackberry
- Swamp dewberry
- American red raspberry
- Raspberry
- Strawberry-raspberry
- Oregon cut-leaf blackberry
- Ceylon raspberry
- Whitebark raspberry
- Loganberry
- Ceylon blackberry
- Nepalese raspberry
- Black raspberry
- Thimbleberry
- Japanese raspberry
- Trailing wild raspberry
- Japanese wineberry
- Mauritius raspberry
- Stone bramble
- Salmonberry
- Nagoon berry
- Creeping bramble
- Elm-leaved bramble
- Pacific dewberry
- Pacific blackberry
- Bush lawyer
- Mayes dewberry
- Southern dewberry
- Mora de castilla
- Giant Colombian blackberry
- Mora comun
- Hybrid berries

Sanguisorba

- Salad burnet
- American great burnet
- Great burnet

Sorbaria

Sorbopyrus

- Bollwyller pear

Sorbus

- Korean mountain ash
- American mountain ash
- Whitebeam
- Mountain ash
- Showy mountain ash
- French hales

```
                Service tree
                Swedish whitebeam
                Western mountain ash
                Sitka mountain ash
                Wild service tree
        Spiraea
                Garland spiraea
                Japanese spiraea
                Bridalwreath spiraea
                Bridewort
                Hardhack
        Stephanandra
Rubiaceae
        Asperula
                Dyer's woodruff
                Squinancy wort
        Cephalanthus
                Button bush
        Coprosma
                Sand coprosma
                Native currant
                Mirror plant
        Cruciata
        Galium
                Goosegrass
                Hedge bedstraw
                Sweet woodruff
                Lady's bedstraw
                Crosswort
        Mitchella
                Partridge berry
        Nertera
                Bead plant
        Oldenlandia
                Snake-needle grass
        Paederia
        Pinckneya
                Bitter bark
        Rubia
                Wild madder
                Madder
                Indian madder
Ruscaceae
        Ruscus
                Butcher's broom
Rutaceae
```

- Boenninghausenia
- Boronia
- Choisya
  - Mexican orange flower
- Citrofortunella
  - Limequat
  - Calamondin orange
- Citroncirus
  - Citrange
- Citrus
  - Bitter orange
  - Lemon
  - Mandarin
  - Sweet orange
  - Ichant papeda
- Correa
  - Cape Barren tea
- Dictamnus
  - Burning bush
- Euodia
- Fortunella
  - Round kumquat
  - Oval kumquat
- Melicope
- Orixa
- Phellodendron
  - Amur cork tree
- Poncirus
- Ptelea
  - Hop tree
- Ruta
  - Rue
  - Egyptian rue
  - Mountain rue
- Skimmia
- Triphasia
  - Lime berry
- Zanthoxylum
  - Winged prickly ash
  - Prickly ash
  - Japanese pepper tree
  - Szechuan pepper
  - Hercules club
- Zieria
  - Sandfly bush

Salicaceae

Populus
- White poplar
- Narrowleaf cottonwood
- Balsam poplar
- Eastern cottonwood
- Cottonwood
- Canadian aspen
- Swamp cottonwood
- Doronoki
- Black poplar
- Japanese aspen
- Tacatricho 32
- Aspen poplar
- American aspen
- Western balsam poplar
- Canadian poplar
- Balm of Gilead
- Grey poplar

Salix
- Cricket bat willow
- White willow
- Weeping willow
- Goat willow
- Violet willow
- Crack willow
- Rosegold pussy willow
- Woolly willow
- Yellow willow
- Black willow
- Bay willow
- Purple osier
- Sitka wilow
- Yew-leaf willow
- Almond-leaved willow
- Osier
- Feltleaf wiillow
- Halberd-leaved willow
- Creeping willow
- Golden willow
- Missouri willow
- Coyote willow
- Common sallow
- Eared sallow
- Pacific willow
- Shining willow
- Peach leaved wilow

- River willow

- Santalaceae
  - Arjona
    - Macachi
  - Comandra
  - Exocarpus
    - Native cherry
  - Geocaulon
  - Pyrularia
    - Oil nut
- Sapindaceae
  - Cardiospermum
    - Heart seed
  - Dodonea
    - Native hops
  - Koelreuteria
    - Golden rain tree
  - Sapindus
    - Western soapberry
  - Xanthoceras
    - Yellowhorn
- Sapotaceae
  - Bumelia
    - Chittamwood
    - Shittamwood
    - Ironwood
- Sargentodoxaceae
  - Sargentodoxa
- Sarraceniaceae
  - Sarracenia
    - Yellow trumpet
    - Pitcher plant
- Saururaceae
  - Anemopsis
    - Yerba mansa
  - Houttuynia
    - Tsi
  - Saururus
    - Swamp lily
- Saxifragaceae
  - Astilbe
  - Bergenia
  - Chrysosplenium
    - Golden saxifrage
    - Water mat
  - Darmera

        - Umbrella plant
    - Heuchera
        - Rock geranium
        - Alum root
    - Mitella
        - Mitrewort
    - Penthorum
        - Virginian stonecrop
    - Rodgersia
    - Saxifraga
        - Mountain lettuce
        - Swamp saxifrage
        - Dotted saxifrage
        - Strawberry saxifrage
    - Tiarella
        - Foamflower
    - Tolmiea
        - Youth on age
- Schisandraceae
    - Kadsura
    - Schisandra
- Sciadoptyaceae
    - Sciadopitys
        - Umbrella pine
- Scrophulariaceae
    - Antirrhinum
        - Snapdragon
    - Chelone
        - Balmony
    - Cymbalaria
        - Kenilworth ivy
    - Digitalis
        - Rusty foxglove
        - Large yellow foxglove
        - Grecian foxglove
        - Yellow foxglove
        - Foxglove
    - Euphrasia
        - Eyebright
    - Gratiola
        - Hedge hyssop
    - Hebe
    - Kickxia
        - Fluellen
    - Linaria
        - Yellow toadflax

- Mazus
- Mimulus
    - Monkey musk
    - Yellow monkey flower
    - Great purple monkey flower
- Paulownia
- Pedicularis
    - Common lousewort
- Penstemon
    - Yellow penstemon
    - Small-flowered penstemon
    - Sand-dune penstemon
- Rhinanthus
    - Yellow rattle
- Scrophularia
    - Carpenter's square
    - Knotted figwort
    - Water betony
- Siphonostegia
- Verbascum
    - Moth mullein
    - Mullein
    - White mullein
    - Dark mullein
    - Wooly mullein
    - Great mullein
    - Hoary mullein
- Veronica
    - American brooklime
    - Water speedwell
    - Brooklime
    - Germander speedwell
    - Common speedwell
    - Marsh speedwell
    - Beaumont's root
- Veronicastrum
    - Beaumont's root

Simaroubaceae

- Ailanthus
    - Tree of heaven
- Picrasma

Smilacaceae

- Ripogonum
    - Supple Jack
- Smilax
    - Sarsaparilla

- Greenbriar
- China root
- Carrion flower
- Hag briar
- False China root
- Horse brier

- Solanaceae
  - Atropa
    - Deadly nightshade
    - Indian belladonna
  - Capsicum
    - Sweet pepper
    - Tabasco pepper
    - Tree pepper
  - Cyphomandra
    - Tree tomato
  - Datura
    - Downy thorn apple
    - Thorn apple
  - Fabiana
    - Pichi
  - Hyoscyamus
    - Henbane
    - White henbane
  - Lycium
    - Box thorn
    - Chinese boxthorn
    - Pale wolfberry
    - Christmas berry
  - Lycopersicon
    - Currant tomato
    - Tomato
  - Mandragora
    - Mandrake
  - Nicandra
    - Shoo fly
  - Nicotiana
    - Tobacco
    - Tree tobacco
    - Wild tobacco
  - Physalis
    - Winter cherry
    - Cutleaf ground cherry
    - Clammy ground cherry
    - Tomatillo
    - Goldenberry

    - Wild tomatillo
    - Strawberry tomato
    - Ground cherry
    - Sticky ground cherry
  - Scopolia
  - Solanum
    - Mock tomato
    - Kangaroo apple
    - Bittersweet
    - Wild potato
    - Colorado wild potato
    - Aubergine
    - Pepino
    - Garden huckleberry
    - Black nightshade
    - Potato
    - Green kangaroo apple
    - Sticky nightshade
    - Pitiquiña
    - Sunberry
    - Mountain kangaroo apple
    - Limeña
    - Horse nettle
  - Withania
- Sparganiaceae
  - Sparganium
    - Bur reed
- Sphagnaceae
  - Sphagnum
    - Sphagnum moss
- Staphyleaceae
  - Euscaphis
  - Staphylea
    - Bladdernut
    - Bladder nut
    - American bladder nut
- Sterculiaceae
  - Brachychiton
    - Kurrajong
  - Firmiana
    - Chinese parasol tree
  - Fremontodendron
    - Flannel flower
- Styracaceae
  - Halesia
    - Silver-bell tree

- Pterostyrax
  - Epaulette tree
- Styrax
  - Storax tree

Symplocaceae
- Symplocos
  - Sweet leaf
  - Asiatic sweetleaf

Tamaricaceae
- Myricaria
- Tamarix
  - English tree
  - Athel tamarisk
  - Tamarisk
  - Chinese tamarisk
  - Manna plant
  - Kashgar tree

Taxaceae
- Taxus
  - Yew
  - Pacific yew
  - Canadian yew
  - Japanese yew

Taxodiaceae
- Cryptomeria
  - Japanese cedar
- Cunninghamia
  - Chinese fir
- Glyptostrobus
  - Chinese swamp cypress
- Metasequoia
  - Dawn redwood
- Sequoia
  - Coastal redwood
  - Big tree
- Sequoiadendron
  - Big tree
- Taxodium
  - Swamp cypress

Tecophilaeaceae
- Conanthera
- Cyanella

Theaceae
- Camellia
  - Camellia
  - Tea plant

- Eurya
- Stewartia
- Ternstroemia

Thelypteridaceae
- Thelypteris
    - Marsh fern

Thymelaeaceae
- Daphne
    - Mezereon
    - Winter daphne
    - Spurge laurel
- Dirca
    - Leather wood
- Edgeworthia
    - Paperbush
- Pimelea
- Stellera

Thymeleaceae
- Daphne
    - Flax-leaved daphne

Tiliaceae
- Corchorus
    - Jew's mallow
    - Jute
- Entelea
    - Corkwood tree
- Grewia
- Tilia
    - American basswood
    - Carolina basswood
    - Small leaved lime
    - White basswood
    - Japanese lime
    - Mongolian lime
    - Large leaved lime
    - Silver lime
    - Common lime

Trapaceae
- Trapa
    - Water chestnut
    - Ling

Tricyrtidaceae
- Tricyrtis
    - Toad lily

Trilliaceae
- Daiswa

- Herb Paris

Kinugasa

- Kinugasaso

Medeola

- Indian cucumber root

Paris

Trillium

- Red trillium
- White trillium
- Toadshade
- Painted trillium
- Wakerobin

Tropaeolaceae

Tropaeolum

- Nasturtium
- Dwarf nasturtium
- Capucine

Turneraceae

Turnera

- Damiana

Typhaceae

Typha

- Small reed mace
- Reedmace

Ulmaceae

Aphananthe

Celtis

- Nettle tree
- Sugarberry
- Hackberry
- Paloblanco
- Small hackberry
- Palo blanco

Hemiptelea

Ulmus

- Winged elm
- American elm
- Wych elm
- Japanese elm
- Chinese elm
- English elm
- Siberian elm
- Slippery elm
- Rock elm
- Cherry bark elm

Zelkova

        - Japanese zelkova
- Umbelliferae
    - Aciphylla
        - Wild Spaniard
        - Speargrass
    - Aegopodium
        - Ground elder
    - Aethusa
        - Fool's parsley
    - Ammi
    - Anethum
        - Dill
    - Angelica
        - Angelica
        - Chinese angelica
        - Wild angelica
    - Anthriscus
        - Chervil
        - Cow parsley
    - Apium
        - Celery
        - Celeriac
        - Wild celery
    - Arracacia
        - Arracacha
    - Astrantia
        - Great masterwort
    - Athamantha
        - Candy carrot
    - Azorella
    - Bolax
    - Bunium
        - Pig nut
    - Bupleurum
        - Thorow-wax
        - Shrubby hare's ear
        - Hare's ear
    - Carum
        - Caraway
    - Caucalis
        - Small bur-parsley
    - Centella
        - Gotu kola
    - Chaerophyllum
        - Turnip-rooted chervil
        - Sham

- Cicuta
  - Cowbane
- Cnidium
- Coelopleurum
- Conium
  - Hemlock
- Conopodium
  - Pignut
- Coriandrum
  - Coriander
- Crithmum
  - Samphire
- Cryptotaenia
  - Honewort
  - Mitsuba
- Cuminum
  - Cumin
- Cymopterus
- Daucus
  - Carrot
  - Wild carrot
- Dorema
  - Ammoniacum
- Erigenia
  - Harbinger of spring
- Eryngium
  - Field eryngo
  - Sea holly
  - Button snakeroot
- Ferula
  - Asafoetida
  - Giant fennel
  - Galbanum
  - Musk root
- Foeniculum
  - Florence fennel
  - Fennel
- Heracleum
  - Cow parsnip
  - Downy cow-parsnip
- Hydrocotyle
  - Water pennywort
  - Pennywort
- Laser
  - Gladich
  - Laserwort

- Laserpitium
  - Laserwort
- Levisticum
  - Lovage
- Ligusticum
  - Mountain lovage
  - Scottish lovage
  - Kao-pau
- Lomatium
  - Biscuitroot
  - Pestle parsnip
- Meum
  - Spignel
- Monizia
  - Carrot tree
- Musineon
- Myrrhis
  - Sweet cicely
- Oenanthe
  - Water dropwort
  - Meadow parsley
- Opopanax
  - Opopanax
- Oreomyrrhis
- Orogenia
  - Indian potato
- Osmorhiza
  - Woolly sweet-cicely
  - Anise-root
  - Western sweet-cicely
- Pastinaca
  - Parsnip
- Perideridia
  - Yampa
- Petroselinum
  - Hamburg parsley
  - Parsley
  - Corn caraway
- Peucedanum
  - Hog's fennel
  - Masterwort
  - Marsh hog's fennel
- Pimpinella
  - Aniseed
  - Greater burnet saxifrage
  - Burnet saxifrage

- Pleurospermum
- Prangos
- Sanicula
  - Wood sanicle
- Scandix
  - Shepherd's needle
- Seseli
- Silaum
  - Pepper saxifrage
- Sison
  - Bastard stone-parsley
- Sium
  - Water parsnip
  - Skirret
- Smyrnium
  - Alexanders
- Sympholoma
- Thapsia
  - Drias plant
- Tilingia
- Tordylium
  - Roman pimpernel
- Torilis
  - Upright hedge parsley
- Trachyspermum
- Zizia
  - Golden alexanders

- Urticaceae
  - Boehmeria
    - Ramie
  - Debregaisea
  - Elatostema
  - Girardiana
  - Laportea
  - Parietaria
    - Pellitory of the wall
  - Urtica
    - Stinging nettle
    - Annual nettle
    - Roman nettle
- Uvulariaceae
  - Uvularia
    - Bellwort
    - Fairybells
- Valerianaceae
  - Centranthus

    - Red valerian
  - Fedia
  - Nardostachys
    - Spikenard
  - Patrinia
  - Valeriana
    - Tobacco root
    - Valerian
    - American valerian
    - Indian valerian
  - Valerianella
    - Italian corn salad
    - Corn salad
- Verbenaceae
  - Aloysia
    - Lemon verbena
  - Callicarpa
    - Beautyberry
  - Clerodendrum
    - Glory flower
  - Phyla
    - Frogfruit
  - Vitex
    - Chaste tree
- Verbenaceae
  - Verbena
    - American blue vervain
    - Vervain
    - Hoary vervain
    - White vervain
- Violaceae
  - Hymenanthera
  - Melicytus
    - Whitey wood
  - Viola
    - Western dog violet
    - Canada violet
    - Dog violet
    - Stream violet
    - Labrador violet
    - Alaska violet
    - Manchurian violet
    - Marsh blue violet
    - Sweet violet
    - Palmate violet
    - Grass pansy

```
                Wood violet
                Redwood violet
                Wooly blue violet
                Heartsease
                Bird's foot violet
                Pansy
                Horned violet
Viscaceae
        Phoradendron
                False mistletoe
        Viscum
                Mistletoe
Vitaceae
        Ampelopsis
                Pepper vine
        Parthenocissus
                Virginia creeper
                Boston ivy
        Vitis
                Bush grape
                Summer grape
                Amur river grape
                Canyon grape
                Grape
                Spanish grape
                California grape
                Sweet winter grape
                Crimson glory vine
                Frost grape
                Spiny vitis
                Northern fox grape
                Post-oak grape
                Sweet mountain grape
                Bird grape
                Mustang grape
                Red grape
                Riverbank grape
                Muscadine
                Sand grape
                Currant grape
Winteraceae
        Drimys
                Mountain pepper
                Winter's bark
        Pseudowintera
                Heropito
```

```
Xanthorrhoeaceae
        Xanthorrhoea
                Grasstree
Xyridaceae
        Xyris
Zannichelliaceae
        Zannichellia
                Horned pondweed
Zingiberaceae
        Hedychium
                Butterfly ginger
Zosteraceae
        Phyllospadix
        Zostera
                Eel grass
Zygophyllaceae
        Larrea
                Creosote bush
        Peganum
                Syrian rue
        Tribulus
                Caltrop
        Zygophyllum
                Syrian bean caper
```

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Index of Common Names: A

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Abcess root
Abutilon
Abyssinian cabbage
Abyssinian kale
Abyssinian oat
Acalbir
Achira
Achoccha
Aconite
Adam's needle
Adder's tongue
Adria bellflower
Adriatic bellflower
Adriatic bellflower
African lily
African marigold
African spider flower
Agave
Ageratum
Agnus castus
Agrimony
Ague weed
Ahipa
Aibika
Ajanhuiri
Akeake
Akebia
Akebia
American blue vervain
American brooklime
American bulrush
American cherry laurel
American columbo
American cranberry
American cranberry
American dewberry
American dragonhead
American elder
American elm
American fireweed
American germander
American ginseng
American great burnet
American green alder
American hazel
American holly
American hornbeam
American ipec
American ipecacuanna
American liquorice
American liverleaf
American liverleaf
American mandrake
American mountain ash
Arrayan
Arrow head
Arrow wood
Arrowleaf sweet coltsfoot
Arum lily
Asafoetida
Asafoetida
Asarabacca
Ash
Ashe juniper
Ashwagandha
Asian mint
Asian pear
Asiatic sweetleaf
Asparagus
Asparagus fern
Asparagus pea
Aspen onion
Aspen poplar
Asphodel
Aspidistra
Asthma weed
Ataco
Atamasco lily
Athel tamarisk
Atlantic camas
Atlas cedar
Hillside arnica
Himalayan may apple
Honeysuckle azalea
Ialian aster
Italian alder
Japanese aconite
Japanese alder
Japanese alpine cherry
Japanese angelica tree
Japanese apricot
Japanese aspen
Jerusalem artichoke
Kaido crab apple
Kangaroo apple
Kangaroo apple
Kneeling angelica
Korean mountain ash
Lord Anson's pea
Manchurian angelica tree
Manchurian apple
Manchurian apricot
Manna ash
Marsh andromeda
Marsh arrow grass
Mat amaranth
Mount Atlas daisy
Mountain alder

Alabama cherry
Alaska blueberry
Alaska violet
Alaska wild rhubarb
Albardine
Alder
Alder buckthorn
Alecost
Aleppo oak
Aleppo pine
Alerce
Alexanders
Alfalfa
Algerian tea
Algerian tea
Aligator juniper
Alkali sakaton
Alkanet
Alkanet
All-seed
Alleghany blackberry
Allegheny barberry
Allegheny plum
Allegheny shadberry
Almond
Almond-leaved willow
Aloe vera
Alpenrose
Alpine French Honeysuckle
Alpine bearberry
Alpine bistort
Alpine blueberry
Alpine calamint
Alpine celery pine
Alpine currant
Alpine dock
Alpine forget-me-not
Alpine heuchera
Alpine knotweed
American mountain gooseberry
American nightshade
American pennyroyal
American persimmon
American pipeweed
American plum
American red currant
American red elder
American red raspberry
American sloughgrass
American spikenard
American sweet chestnut
American turkey oak
American valerian
American vetch
American water cress
American water lotus
American wild mint
American wisteria
American yellowrocket
Ammoniacum
Amur cork tree
Amur maple
Amur river grape
Amur silver grass
Anaqua
Anchusa
Andigena
Angelica
Anise hyssop
Anise-root
Aniseed
Aniseed tree
Annual beardgrass
Annual fleabane
Annual meadow grass
Aubergine
Aubretia
August lily
Australian bindweed
Australian bugle
Australian plum
Austrian pine
Autumn coralroot
Autumn crocus
Autumn olive
Avalanche lily
Avelanche lily
Avelanche lily
Avelanche lily
Avignon berry
Azarole
Azuma-zasa
Bath asparagus
Beach aster
Bigleaf aster
Black apple
Black apricot
Black ash
Blue ash
Blueberry ash
Briançon apricot
Californian allspice
Canadian anemone
Canadian aspen
Candle anemone
Carolina allspice
Chinese angelica tree
Chinese apple
Chinese apple
Chinese arrowhead
Chinese artichoke
Chinese asparagus
Chinese azalea
Chinese flowering apple
Mountain ash
Mountain ash
Mountain avens
Mountain kangaroo apple
Mulga acacia
Narrow-leaved ash
Nepalese alder
New England aster
Oregon ash
Paradise apple
Paradise apple
Powell's amaranth
Prickly ash
Purple amaranth
Purple avens
Purplestem angelica
Purplestem aster
Red alder
Red ash
Rough-barked apple
Rue anemone
Sea arrow grass
Sea aster
Seaside alder
Short-beaked arrow leaf
Showy mountain ash
Siberian apricot
Sitka alder
Sitka mountain ash
Slender amaranth
Smooth alder
Speckled alder
Spiny amaranth
Spleen amaranth
Squaw apple
St. Andrews cross
Star anise
Sweet acacia
Sweet alyssum

Alpine lady's mantle
Alpine leek
Alpine rock cress
Alpine spring beauty
Alpine strawberry
Alpine sweetvetch
Alpine totara
Alpine wintergreen
Alpine wormwood
Alsike clover
Alstroemeria
Altai mountain thorn
Alum root
Alum root
Alum root
Alum root
Ameixa do Peru
American arbor-vitae
American aspen
American basswood
American beautyberry
American beech
American bistort
American blackcurrant
American bladder nut
Annual mercury
Annual nettle
Annual scorpion vetch
Annual yellow sweetclover
Antelope horns
Antelope sage
Anu
Apache plume
Apak palm
Appalachian gooseberry
Apple
Apple geranium
Apple mint
Apple rose
Apple sage
Apple serviceberry
Appleberry
Apricot
Apricot plum
Arctic bramble
Arctic dock
Arctic poppy
Arctic sweet coltsfoot
Arizona ash
Arizona cypress
Arizona dewberry
Arizona maderone
Arizona walnut
Arnica
Arracacha
Codlins and cream
Codlins and cream
Common appleberry
Common blue wood aster
Crab apple
Crab apple
Desert almond
Downy thorn apple
Dwarf American cherry
Dwarf American cherry
Dwarf Russian almond
Dwarf almond
Fern asparagus
Flower of an hour
Flowering almond
Flowering almond
Globe artichoke
Golden alexanders
Golden alyssum
Green arrow arum
Green kangaroo apple
Grey alder
Heartleaf arnica
Hemp agrimony
Hen and chicken fern
Hen and chickens houseleek
Sweet appleberry
Thorn apple
Trailing abutilon
Trailing abutilon
Tree aralia
Water arum
Water avens
Western mountain ash
White Arctic mountain heather
White alder
White arrow arum
White ash
White atractylodes
White avens
White panicle aster
Wild angelica
Winged prickly ash
Winged prickly ash
Winter apple
Wood anemone
Wood avens
Xing an sheng ma
Yellow archangel
Yellow avens
Youth on age

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Index of Common Names: B

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

- Adria bellflower
- Adriatic bellflower
- Adriatic bellflower
- Alaska blueberry
- Alder buckthorn
- Alleghany blackberry
- Allegheny barberry
- Alpine bearberry
- Alpine bistort
- Alpine blueberry
- Alpine spring beauty
- American basswood
- American beautyberry
- American beech
- American bistort
- American blackcurrant
- American bladder nut
- American blue vervain
- American brooklime
- American bulrush
- American great burnet
- Annual beardgrass
- Arctic bramble
- Australian bindweed
- Australian bugle
- Avignon berry
- Black mulberry
- Black mustard
- Black nightshade
- Black oak
- Black oak
- Black peppermint
- Black persimmon
- Black poplar
- Black raspberry
- Black sagebrush
- Black saltwort
- Black sassafras
- Black sloe
- Black snakeroot
- Black spleenwort
- Black spruce
- Black tree fern
- Black tupelo
- Black walnut
- Black wattle
- Black willow
- Black-wood
- Blackberry
- Blackcurrant
- Blackcurrant sage
- Blackjack oak
- Blackseed plantain
- Blackwood
- Bush vetch
- Bush vetchling
- Bushman's toilet paper
- Bushy wallflower
- Butcher's broom
- Butterbur
- Butterbur
- Buttercup
- Butterfly bush
- Butterfly ginger
- Butterfly mariposa lily
- Butterfly orchid
- Butterfly pea
- Butternut
- Butterwort
- Button bush
- Button eryngo
- Button grass
- Button snakeroot
- Buttonwood
- California barberry
- California blackberry
- California broomrape
- California buttercup
- Californian bayberry
- Californian black oak
- Californian black sage
- Californian brome
- Mexican barberry
- Mexican blue oak
- Meyer bamboo
- Milky bellflower
- Mint bush
- Mint-leaved bergamot
- Moldavian balm
- Moreton Bay chestnut
- Moreton Bay fig
- Morning brides
- Mountain beech
- Mountain bell
- Mountain brome
- Mountain brome
- Mouse barley
- Mustang mountain balm
- Myrtle beech
- Nagoon berry
- Narrow buckler fern
- Nepalese crane's bill
- Nevada bulrush
- Nine star perennial broccoli
- Nineleaf biscuitroot
- Northern bayberry
- Northern biscuitroot
- Ohio buckeye
- Orange ball tree

Ba Jiao Hui Xian
Babbington's leek
Baboon root
Baby's breath
Bachelor's button
Bai Tou Weng
Bai Zhi
Bai Zhu
Bai bei feng
Bai wei
Baikal skullcap
Balkan clary
Balloon flower
Balm of Gilead
Balm of Gilead
Balmony
Balsam fir
Balsam poplar
Balsam root
Balsamic sage
Baltic rush
Bamboo fern
Bamboo lily
Bamboo lily
Ban xia
Banana passion fruit
Banana shrub
Banksia rose
Barbed skullcap
Barberry
Barberry
Barilla plant
Barley
Barley Mitchell grass
Barnyard millet
Barrenwort
Basil thyme
Bastard balm
Bastard fig
Bastard oleaster
Bladder campion
Bladder dock
Bladder nut
Bladder pod
Bladder pod
Bladder senna
Bladdernut
Bladderwort
Blanket flower
Blazing star
Bleeding heart
Blessed thistle
Blond psyllium
Blood root
Blue ash
Blue brush
Blue elder
Blue flag
Blue flax lily
Blue grama
Blue grass lily
Blue grass lily
Blue grass lily
Blue hesper palm
Blue lettuce
Blue lupin
Blue lupine
Blue mallee
Blue oak
Blue panic grass
Blue sage
Blue sausage fruit
Blue sow thistle
Blue spider wort
Blue spruce
Blue toadflax
Blue wild rye
Blue-eyed grass
Blue-leaved wattle
Bluebeard
Californian buckeye
Canada beadruby
Canterbury bells
Cape Barren tea
Carolina basswood
Cat's breeches
Celery-leaved buttercup
Ceylon blackberry
Chapman's Blazing Star
Cheese berry
Cherry bark elm
Cherry birch
Chilean bellflower
Chimney bellflower
Chinese bayberry
Chinese boxthorn
Chinese buckthorn
Chinese sea buckthorn
Christmas berry
Christmas berry
Christmas bush
Chuan bei mu
Climbing bittersweet
Closed bottle gentian
Clustered bellflower
Coast banksia
Coastal black gooseberry
Colorado barberry
Columbian bitterroot
Common blue wood aster
Common buckthorn
Corn buttercup
Cornish Bellflower
Creeping bellflower
Creeping blueberry
Creeping bramble
Oregon cut-leaf blackberry
Oriental beech
Oriental bittersweet
Oso berry
Oval heron's bill
Pale ballart
Pale bastard toadflax
Pale spring beauty
Palo blanco
Panicled bulrush
Paper birch
Parry's bellflower
Partridge berry
Pearl berry
Pennsylvania buttercup
Perennial buckwheat
Pigmy bitterroot
Pine bluegrass
Pink mountain berry
Pinnate boronia
Pirri-pirri bur
Porcelain berry
Prickly blackcurrant
Quail bush
Quebec berry
Rabbit-eye blueberry
Rabbiteye blueberry
Red baneberry
Red bay
Red beech
Red berry
Red bilberry
Red bloodwood
Red bryony
Red buckeye
Ripgut brome
River beauty
River birch
River bulrush

- Bastard stone-parsley
- Bastard toad flax
- Bastard toadflax
- Bath asparagus
- Baw-baw berry
- Bay tree
- Bay willow
- Bayberry
- Bayonet grass
- Beach aster
- Beach flax lily
- Beach grass
- Beach pea
- Beach pea
- Beach pine
- Beach plum
- Beach strawberry
- Beach wormwood
- Beachhead iris
- Bead plant
- Bead tree
- Beaded sedge
- Beak willow
- Beaked hazel
- Bear huckleberry
- Bear's breeches
- Bear's ear
- Bearberry
- Bearsfoot
- Beaumont's root
- Beautyberry
- Bedstraw milkweed
- Bee orchid
- Beech
- Beetleweed
- Beetroot
- Beggar ticks
- Beggar's ticks
- Bei chai hu
- Bei sha shen
- Bluebell
- Blueberry ash
- Bluewood
- Bog bilberry
- Bog heather
- Bog myrtle
- Bog rosemary
- Bog wintergreen
- Bogbean
- Bokhara plum
- Bolander's onion
- Boldu
- Bollwyller pear
- Bolwarra
- Boobialla
- Boobyalla
- Borage
- Boston ivy
- Bottle gourd
- Bowltube iris
- Bowstring hemp
- Box
- Box elder
- Box elder
- Box huckleberry
- Box thorn
- Boxleaf honeysuckle
- Boz-pirnal oak
- Bracken
- Bracken
- Bractscale
- Branched Indian clover
- Branched pencil cholla
- Branching bur-reed
- Branching phacelia
- Brass buttons
- Bread wheat
- Breadroot
- Briançon apricot
- Bridalwreath spiraea
- Creeping buttercup
- Creosote bush
- Cricket bat willow
- Crimson bottlebrush
- Crispleaf buckwheat
- Cupid's shaving brush
- Dahurian buckthorn
- Darwin's barberry
- Deer brush
- Deltoid balsamroot
- Desert biscuitroot
- Devil's bit scabious
- Devil's bite
- Dryland blueberry
- Dutchman's breeches
- Dwarf banana
- Dwarf barberry
- Dwarf bilberry
- Dwarf birch
- Dwarf chaparral broom
- Dwarf fern-leaf bamboo
- Dwarf red blackberry
- Dwarf white-striped bamboo
- Dyer's buckthorn
- Egyptian barley
- Elm-leaved bramble
- Ethiopian banana
- False buckwheat
- Fernleaf biscuitroot
- Fever bush
- Field bindweed
- Florida evergreen blueberry
- Foetid bugbane
- Fountain bamboo
- Foxtail barley
- Fragrant bedstraw
- Rocky Mountain beeplant
- Rose balsam
- Rough bugleweed
- Runner bean
- Sacred bamboo
- Sage brush
- Salad burnet
- Salmon barberry
- Sand blackberry
- Sandfly bush
- Santa Barbara ceanothus
- Scrub birch
- Sea beet
- Sea bilberry
- Sea bindweed
- Sea blite
- Sea buckthorn
- Sea buckthorn
- Seaside buckwheat
- Seaside bulrush
- Seven barks
- She balsam
- Silver banksia
- Silver beech
- Silver birch
- Six-row barley
- Skunk bush
- Slender branched gooseberry
- Slender buckwheat
- Small Indian breadroot
- Small bur-parsley
- Small-cluster blueberry
- Smooth brome
- Snake's beard
- Soft brome
- Sourtop blueberry
- Southern black haw

Bei wu tou
Bella sombra
Bellwort
Bellwort
Bentham's cornel
Bergamot
Bergbamboes
Bering Sea spring beauty
Bermuda buttercup
Bermuda grass
Berry bladder fern
Berry-bearing catchfly
Beth root
Betoum
Bible hyssop
Biennial wormwood
Big bluestem
Big tree
Big-cone pine
Big-fruit hawthorn
Big-leaf lupin
Big-node bamboo
Big-tooth maple
Bigberry manzanita
Bigfruit dodder
Bighead clover
Bigleaf aster
Bigleaf magnolia
Bigroot
Bigroot geranium
Bigseed biscuitroot
Bilberry
Biota
Birch bark cherry
Birch-leaved pear
Bird cherry
Bird grape
Bird's foot trefoil
Bird's foot violet
Bridewort
Bristle oats
Bristle-cone pine
Bristly fiddleneck
Bristly greenbrier
Bristly locust
Bristly ox-tongue
Bristly sarsaparilla
Brittle bladder fern
Brittle bush
Broad bean
Broad-leaved geebong
Broad-leaved pondweed
Broad-leaved spring beauty
Broad-leaved thyme
Broadleaf bamboo
Broadleaf hemp nettle
Broadleaf milkweed
Broadleaf stonecrop
Broadstemmed onion
Broccoli
Bronvaux medlar
Brooklime
Brookweed
Broom
Broom rape
Broomsedge bluestem
Broomweed
Brown bee orchid
Brown kapweed
Brown mustard
Brown watercress
Brown's peony
Brush cherry
Brush cherry
Brush kurrajong
Brush pepperbush
Brussels sprouts
Bu Gu Zhi
Fragrant virgin's bower
French bean
Georgia blueberry
Giant Colombian blackberry
Giant timber bamboo
Goat's beard
Goat's beard
Gold birch
Golden bamboo
Graceful buttercup
Great Basin spring beauty
Great blue lobelia
Great burdock
Great burnet
Great leopard's bane
Greater bird's foot trefoil
Greater bird's foot trefoil
Greater burnet saxifrage
Green bristle grass
Grey birch
Grey sage brush
Hag briar
Hairy bittercress
Hairy brome
Half-black bamboo
Hardy begonia
Hedge bamboo
Hedge bedstraw
Hedge bindweed
Hemp bush
High-bush blueberry
Highbush blackberry
Hillside blueberry
Himalayan bird cherry
Soya bean
Spanish bayonet
Spanish bayonet
Spanish bayonet
Spanish broom
Spice bush
Spinach beet
Sprat barley
Spring beauty
Square bamboo
St. Barnaby's thistle
Star of Bethlehem
Star of Bethlehem
Stone bamboo
Stone bramble
Stork's bill
Strawberry blite
Strawberry bush
Sugar beet
Sugar bush
Sugar bush
Sugar bush
Swamp highbush blueberry
Sweet basil
Sweet briar
Sweet buckeye
Sweet butterbur
Sweet pepper bush
Sweetshoot bamboo
Syrian bean caper
Tall blue lettuce
Tartar bread plant
Tartarian buckwheat
Tasmanian blue gum
Thorny bamboo
Threepetal bedstraw
Threetip sage brush
Tibetan sea buckthorn
Tick bean

Birdbill dayflower
Birthwort
Biscuitroot
Biscuitroot
Biscuitroot
Biscuitroot
Biscuitroot
Bishop's pine
Bishop's weed
Bistort
Bitter bark
Bitter bloom
Bitter cherry
Bitter milkwort
Bitter orange
Bitter orange
Bitter sneezeweed
Bitter vetch
Bitter vetch
Bitter-root
Bitternut
Bittersweet
Black apple
Black apricot
Black ash
Black bamboo
Black beech
Black bindweed
Black box
Black bryony
Black caraway
Black chokeberry
Black cohosh
Black cumin
Black elder
Black eyed Susan
Black hawthorn
Black hellebore
Black hellebore
Black hickory
Buartnut
Buck's-horn plantain
Buckbrush
Buckler-leaved sorrel
Buckroot
Buckwheat
Buffalo berry
Buffalo berry
Buffalo currant
Buffalo gourd
Bug orchis
Bugle
Bugleweed
Bugleweed
Bulbous barley
Bulbous bittercress
Bulbous buttercup
Bulbous springparsley
Bull mallow
Bulrush
Bulrush
Bunchberry
Bunchflower
Bunchflower daffodil
Bunny ears
Bunya-bunya
Bur cucumber
Bur reed
Bur-reed
Burnet rose
Burnet saxifrage
Burning bush
Burr marigold
Burr oak
Bush basil
Bush cherry
Bush chinkapin
Bush grape
Bush grape
Bush groundsel
Himalayan blue pine
Himalayan giant blackberry
Hind's black walnut
Hoary balm of gilead
Hoary balsamroot
Horse brier
Hudson Bay currant
Hyacinth bean
Hyacinth brodiaea
Hybrid berries
Indian basket grass
Indian bean tree
Indian belladonna
Indian breadroot
Indian paper birch
Indigo bush
Italian buckthorn
Japanese banana
Japanese barberry
Japanese beech
Japanese beech
Japanese bindweed
Japanese bird cherry
Japanese bird cherry
Japanese black pine
Japanese box
Kamchatka bilberry
Kenai birch
Kentucky blue grass
Kittatinny blackberry
Komarov's bugbane
Korean barberry
Korean bellflower
Lady's bedstraw
Lanceleaf spring beauty
Large beard tongue
Large bittercress
Large-cluster
Tonkin bamboo
Toothed bur-clover
Trailing bellflower
Trailing bellflower
Tuberous spring beauty
Turkey bush
Tussock bellflower
Two-rowed barley
Umbrella bamboo
Umbrella bamboo
Upland bent
Viper's bugloss
Water betony
Water birch
Water blinks
Water bush
Wavy bittercress
Western Blueberry
Western balsam poplar
Western buttercup
Wetern blackcurrant
White balsam
White baneberry
White basil-balm
White basswood
White birch
White bog-orchid
White bryony
Whitestem blazing star
Wild basil
Wild bergamot
Wild soya bean
Willow-leaved sea buckthorn
Winged bean
Winged buckwheat
Winter's bark
Wombat berry
Wood betony
Wooly blue violet

Black highbush blueberry
Black horehound
Black huckleberry
Black huckleberry
Black knapweed
Black locust
Black maple
Black medick

Bush honeysuckle
Bush lawyer
Bush lawyer
Bush moon flower
Bush palmetto
Bush sour cherry

blueberry
Lemon balm
Lemon bergamot
Lemonade berry
Lesser broomrape
Lesser burdock
Lily of the valley bush
Lima bean
Lime berry
Longleaf buckwheat
Love lies bleeding
Low sweet blueberry
Low sweet blueberry
Low-running blackberry
Magellan barberry
Manchurian baby's breath
Marsh blue violet
Meadow buttercup
Meadow crane's bill
Mescal bean
Mexican barberry
Mexican barberry

Yankee blackberry
Yellow bee orchid
Yellow birch
Yellow box
Yellow bristle grass
Yellow-groove bamboo
Yerba buena
Zhe Bei Mu
Zig-zag bamboo

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Name not here? Search for a common name:

Submit

Abyssinian cabbage
Agnus castus
Alabama cherry
Alpine calamint
Alpine celery pine
Alpine currant
Alpine rock cress
Alsike clover
American cherry laurel
American columbo
American cranberry
American cranberry
American red currant
American sweet chestnut
American water cress
Amur cork tree
Arctic sweet coltsfoot
Arizona cypress
Arrowleaf sweet coltsfoot
Atlantic camas
Atlas cedar
Autumn coralroot
Chicken claws
Chickling pea
Chickling vetch
Chickweed
Chickweed
Chickweed wintergreen
Chicory
Chile tarweed
Chilean bellflower
Chilean hazel
Chilean laurel
Chilean podocarp
Chilean wine palm
Chilghoza pine
Chilicothe
Chimney bellflower
China jute
China root
China rose
Chinchweed
Chinese Yellow Wood
Chinese angelica tree
Chinese apple
Chinese apple
Chinese arrowhead
Chinese artichoke
Chinese asparagus
Common stonecrop
Common thistle
Common thyme
Comon spike-rush
Compass plant
Cone flower
Cone flower
Copperwire daisy
Coral lily
Coral pea
Coral plant
Coral root
Coral tree
Coralberry
Coralberry
Cord grass
Coreopsis
Coreopsis
Coriander
Cork oak
Cork oak
Corkwood
Corkwood tree
Corn buttercup
Corn caraway
Corn chamomile
Corn marigold
Corn mint
Japanese chestnut
Japanese chinquapin
Japanese crab
Japanese horse chestnut
Ji Gu Chai
Jin Qian Cao
John's cabbage
Kaido crab apple
Keeled-fruited cornsalad
Kentish red cherry
Kentucky coffee tree
Korean cherry
Korean cherry
Land cress
Large-flowered calamint
Lawson cypress
Le Conte pear
Leaf celery
Lesser calamint
Lesser celandine
Leyland cypress
Ling xiang cao
Little mouse-ear chickweed
Long Dan Cao

Autumn crocus
Balkan clary
Bei chai hu
Bentham's cornel
Berry-bearing catchfly
Bighead clover
Birch bark cherry
Bird cherry
Bitter cherry
Black caraway
Black chokeberry
Black cohosh
Black cumin
Bladder campion
Branched Indian clover
Branched pencil cholla
Brush cherry
Brush cherry
Buffalo currant
Bur cucumber
Bush cherry
Bush chinkapin
Bush sour cherry
Cabbage
Cabbage Lettuce
Cabbage gum
Cabbage palm
Cabbage palmetto
Cabbage thistle
Cabbage tree
Cabbage tree
Calalu
Calamint
Calamondin orange
California barberry
California blackberry
Chinese azalea
Chinese bayberry
Chinese boxthorn
Chinese buckthorn
Chinese cabbage
Chinese catalpa
Chinese cedar
Chinese chestnut
Chinese chinquapin
Chinese chives
Chinese cork oak
Chinese cork tree
Chinese crab
Chinese crab
Chinese cucumber
Chinese dodder
Chinese elder
Chinese elder
Chinese elm
Chinese fir
Chinese flowering apple
Chinese fountain grass
Chinese foxglove
Chinese gall
Chinese haw
Chinese hazel
Chinese hemlock
Chinese hibiscus
Chinese hickory
Chinese horse chestnut
Chinese juniper
Chinese kale
Chinese lantern
Chinese lespedeza
Chinese lespedeza
Chinese mallow
Chinese milk vetch
Chinese motherwort
Chinese nutmeg tree
Corn poppy
Corn rocket
Corn salad
Corn speedwell
Corn spurrey
Corncockle
Cornelian cherry
Cornflower
Cornish Bellflower
Cornish heath
Corsican mint
Corsican pine
Cos lettuce
Cosmos
Costus
Cotton grass
Cotton grass
Cotton lavender
Cotton rose
Cotton thistle
Cottonwood
Couch grass
Couve tronchuda
Cow cockle
Cow parsley
Cow parsnip
Cow parsnip
Cowbane
Cowberry
Cowslip
Coyote mint
Coyote willow
Crab apple
Crab apple
Crab grass
Crack willow
Cranberry heath
Crazy weed
Cream peavine
Creambush
Louisiana canna
Lundy cabbage
Mahaleb cherry
Maraschino cherry
Maritime Ceanothus
Marsh cinquefoil
Marsh cudweed
Meadow clary
Meadow crane's bill
Mexican chia
Miyama cherry
Mongolian cherry
Monterey cypress
Mora comun
Mora de castilla
Morello cherry
Moreton Bay chestnut
Moss campion
Mountain checkerberry
Mountain cherry
Mountain cornflower
Mountain crowberry
Nanking cherry
Narrowleaf cottonwood
Native carrot
Native cherry
Native currant
Native currant
Nepalese crane's bill
Nootka cypress
Nordic currant
Norwegian cinquefoil
Old field cinquefoil
Oregon crab
Oregon cut-leaf blackberry
Oshima cherry
Our Lord's candle

California broomrape
California buttercup
California compass plant
California false hellebore
California goosefoot
California grape
California hazel
California hedgenettle
California laurel
California milkweed
California nutmeg
California peppertree
California scrub oak
California walnut
California walnut
California wild rose
Californian allspice
Californian bayberry
Californian black oak
Californian black sage
Californian brome
Californian buckeye
Californian hyacinth
Californian juniper
Californian poppy
Californian red fir
Californian strawberry
Californian white oak
Callery pear
Caltrop
Cambridge cherry
Chinese parasol tree
Chinese peony
Chinese pink
Chinese pistache
Chinese plum yew
Chinese plum yew
Chinese plumbago
Chinese privet
Chinese quince
Chinese quince
Chinese rampion
Chinese red pine
Chinese red pine
Chinese redbud
Chinese rhubarb
Chinese savoy
Chinese sea buckthorn
Chinese spinach
Chinese spruce
Chinese swamp cypress
Chinese tamarisk
Chinese trazel
Chinese violet
Chinese walnut
Chinese water chestnut
Chinese weeping cypress
Chinese white olive
Chinese white pine
Chinese wild peach
Chinese wild peach
Chinese wisteria
Chinese yam
Chinknut
Chinquapin
Chinquapin
Chir pine
Chiretta
Chishima zasa
Creamcups
Creek plum
Creeping Jenny
Creeping Oregon grape
Creeping bellflower
Creeping blueberry
Creeping bramble
Creeping buttercup
Creeping dogwood
Creeping juniper
Creeping lady's tresses
Creeping savory
Creeping snowberry
Creeping spearwort
Creeping thistle
Creeping willow
Creosote bush
Crepe myrtle
Cress
Crested iris
Crested wood fern
Cretan thyme
Cricket bat willow
Crimson bottlebrush
Crimson clover
Crimson glory vine
Crinkleroot
Crispleaf buckwheat
Crooked yellow stonecrop
Cropleaf ceanothus
Crosswort
Crow garlic
Crowberry
Crowfoot
Crowfoot
Crown imperial
Crown vetch
Crownscale
Cruel plant
Cuckoo flower
Owls claws
Ozark chinkapin
Pak choi
Pencil cedar
Pin cherry
Pin-point clover
Piñole clover
Plains cottonwood
Portuguese crowberry
Prairie coneflower
Prairie cord grass
Prairie crab
Prairie crab
Prickly cardinal
Prickly comfrey
Purple Crab
Purple chokeberry
Purple crowberry
Purple prairie clover
Purple-leaf sand cherry
Queen's crown
Red campion
Red chokeberry
Red clover
Red coast elder
Red currant
Red cypress-pine
Red horse chestnut
Rio Grande cottonwood
River club-rush
Rock chestnut oak
Rock cinquefoil
Rock clematis
Rock cress
Rock red currant
Rocket candytuft
Rocky Mountain Columbine

- Camel thorn
- Camellia
- Camellia
- Camellia
- Camellia
- Camomile
- Camphor
- Camphor thyme
- Canada beadruby
- Canada fleabane
- Canada lettuce
- Canada moonseed
- Canada violet
- Canadian anemone
- Canadian aspen
- Canadian garlic
- Canadian garlic
- Canadian goldenrod
- Canadian goldenrod
- Canadian hemlock
- Canadian licorice root
- Canadian milkvetch
- Canadian plum
- Canadian pondweed
- Canadian poplar
- Canadian wild rye
- Canadian wood nettle
- Canadian yew
- Canaigre
- Canary grass
- Canary grass
- Canary madrona
- Cancer root
- Cancer weed
- Candelilla
- Candle anemone
- Candy carrot
- Candy carrot
- Chitra
- Chittamwood
- Chittamwood
- Chives
- Chocolate lily
- Chocolate lily
- Chocolate lily
- Chokecherry
- Chop-suey greens
- Chop-suey greens
- Chou Wu Tong
- Christ's thorn
- Christmas berry
- Christmas berry
- Christmas bush
- Christmas fern
- Chrysanthemum
- Chrysanthemum
- Chuan Xiong
- Chuan bei mu
- Chuan dang
- Chuang xiong
- Chusan palm
- Cider gum
- Cilician thyme
- Cina
- Cineraria
- Cinnamon fern
- Cinnamon rose
- Cinquefoil
- Citrange
- Citrumelo
- Clammy clover
- Clammy ground cherry
- Clammy locust
- Clary
- Clary
- Cliffrose
- Climbing bittersweet
- Climbing saltbush
- Cuckoo pint
- Cucumber
- Cucumber tree
- Culen
- Culeu
- Cumberland rosemary
- Cumin
- Cup clover
- Cup plant
- Cupid's shaving brush
- Curled dock
- Curled mustard
- Curly kale
- Curly pondweed
- Curlytop knotweed
- Currant grape
- Currant tomato
- Currant-gooseberry
- Curry plant
- Cushaw pumpkin
- Cusick's serviceberry
- Cut-leafed cranesbill
- Cut-leaved toothwort
- Cutleaf ground cherry
- Cutleaf nightshade
- Cutleaf waterparsnip
- Cutting lettuce
- Cyclamen
- Cyprus vetch
- Dan dao zi cai
- Dawyck cherry
- Devil's club
- Dittany of Crete
- Dog's cabbage
- Downy cow-parsnip
- Duke cherry
- Dwarf American cherry
- Dwarf American cherry
- Dwarf chaparral broom
- Dwarf chinkapin oak
- Rocky Mountain chokecherry
- Rosebud cherry
- Rough-fruited cinquefoil
- Rum cherry
- Sand coprosma
- Sand couch
- Santa Barbara ceanothus
- Savoy cabbage
- Sea celery
- Sharp-leaf ground cherry
- She Chuang Zi
- Shining club moss
- Shrubby cinquefoil
- Skunk cabbage
- Skunk currant
- Slender celery
- Slender cyperus
- Small canary grass
- Small cranberry
- Smallhead clover
- Smooth cat's ear
- Sour cherry
- Sour clover
- Southern cattail
- Southern crab
- Southern crabgrass
- Southern mountain cranberry
- Spiny cocklebur
- Spotted cranesbill
- Spreading cotoneaster
- Spring cress
- Springbank clover
- Squaw carpet
- Squirrel corn
- Squirting cucumber

Candytuft
Cane reed
Cang zhu
Cang zhu
Cantaloupe melon
Canterbury bells
Canyon gooseberry
Canyon grape
Cao yu mei
Cape Barren tea
Cape myrtle
Caper
Caper spurge
Capulin cherry
Caraway
Caraway thyme
Cardinal flower
Cardinal spear
Cardoon
Careless weed
Carline thistle
Carnation
Carob
Carolina allspice
Carolina basswood
Carolina false dandelion
Carolina hemlock
Carolina yelloweyed grass
Carpenter's square
Carrion flower
Carrot
Carrot tree
Cascara sagrada
Caspian locust
Cassine
Castor-oil plant
Cat greenbrier
Cat thyme
Closed bottle gentian
Cloudberry
Clove cherry
Club moss
Club wheat
Cluster rose
Clustered bellflower
Coast banksia
Coast goldenrod
Coast silk tassel
Coast tea-tree
Coastal black gooseberry
Coastal day lily
Coastal doghobble
Coastal pignut hickory
Coastal redwood
Coastal saltbush
Coastal tidytips
Coastal wallflower
Coastal wattle
Cobweb houseleek
Cobwebby thistle
Cock's foot
Cocklebur
Cockspur thorn
Codlins and cream
Codlins and cream
Cogongrass
Coleseed
Collards
Colorado River hemp
Colorado barberry
Colorado fir
Colorado wild potato
Coltsfoot
Columbia tiger lily
Columbian bitterroot
Columbian hawthorn
Columbine
Dwarf cornel
Dwarf golden chinquapin
Dyer's croton
Eastern cottonwood
Eau de Cologne mint
False China root
False pak choi
Fan columbine
Fendler's ceanothus
Field mouse-ear chickweed
Fir clubmoss
Fir clubmoss
Flowering currant
Flowering currant
Foothill clover
Friar's cowl
Fuji cherry
Gan Cao
Garland crab
Garlic chives
Garlic cress
German camomile
Giant Colombian blackberry
Giant chives
Gland cinquefoil
Golden cassia
Golden chinquapin
Golden club
Golden currant
Great yellow cress
Greater celandine
Greyleaf cherry
Ground cherry
Ground cherry
Ground cherry
Ground cone
Guang jing qian cao
Hairy clematis
Han Lian Cao
St. Andrews cross
Stemless carline thistle
Sticky currant
Sticky ground cherry
Stiff club moss
Stink currant
Stinking cassia
Subterranean clover
Suckling clover
Summer coralroot
Summer cypress
Swamp chestnut oak
Swamp cottonwood
Swamp cypress
Swedish coffee
Sweet chestnut rose
Sweet chetsnut
Sweet cicely
Sweet coltsfoot
Sweet coltsfoot
Sweet corn
Swiss chard
Syrian bean caper
Taiwan cherry
Thale cress
Tibetan cotoneaster
Tokyo cherry
Tomcat clover
Tower cress
Townsend's cord grass
Tree chola
Tricolor chrysanthemum
Trumpet creeper
Turk's Cap lily
Turnip-rooted chervil
Virginia creeper
Virginia ground cherry

Cat's breeches
Cat's ear
Catalina Island cherry
Catalina Mountain Lilac
Catgut
Catmint
Catsfoot
Caucasian fir
Caucasian spruce
Caucasian stonecrop
Caucasian whortleberry
Caucasian wingnut
Cauliflower
Caustic weed
Cañihua
Cedar of Lebanon
Celeriac
Celery
Celery top pine
Celery-leaved buttercup
Celtuce
Centaury
Century plant
Century plant
Century plant
Cerro potosi pinyon
Ceylon blackberry
Ceylon raspberry
Chain fern
Chapman's Blazing Star
Charlock
Chaucha
Che Qian Zi
Cheat grass
Checkerberry
Columbine
Columbine
Columbine
Columbine
Colza
Comfrey
Comfrey
Common Everlasting Flower
Common appleberry
Common blue wood aster
Common buckthorn
Common club moss
Common cockscomb
Common day lily
Common dunebroom
Common hemp nettle
Common lespedeza
Common lime
Common lomatium
Common lousewort
Common madia
Common marestail
Common milkweed
Common moonwort
Common morning glory
Common nardoo
Common pepperweed
Common plantain
Common reed
Common skullcap
Common spatterdock
Common speedwell
Common star thistle
Hen and chicken fern
Hen and chickens houseleek
Herb Christopher
Hercule's club
Hercules club
Himalayan bird cherry
Himalayan cherry
Himalayan cypress
Hoary cress
Holly-leaved cherry
Hollyleaf ceanothus
Horned cucumber
Horse chestnut
Hudson Bay currant
Incense cedar
Indian cherry
Indian chickweed
Indian colza
Indian cucumber root
Indian horse chestnut
Iron cross plant
Isle of Man cabbage
Italian corn salad
Italian cypress
Japanese alpine cherry
Japanese bird cherry
Japanese bird cherry
Japanese cedar
Japanese chess
Water celery
Water chestnut
Water chickweed
Water clover
Water crowfoot
Wax currant
West Indin chickweed
Western chokecherry
Western columbine
Western red cedar
Western sand cherry
Whisky currant
White campion
White cherry
White clematis
White clover
White cypress
White cypress-pine
White prairie clover
White prairie clover
White-flowered currant
Whitetip clover
Wild Himalayan cherry
Wild cabbage
Wild carrot
Wild celery
Wild cherry
Wild cherry
Wild clary
Wild coffee
Wild columbine
Wild cucumber
Wild cucumber
Winter cherry
Winter cherry
Winter creeper
Wood cranesbill
Woolly cinquefoil

Checkerbloom
Cheddar pink
Chee grass
Cheese berry
Cheeseweed
Cheesewood
Cherokee rose
Cherry bark elm
Cherry birch
Cherry laurel
Cherry plum
Chervil
Chestnut hybrids
Chia
Chick pea
Chickasaw plum

Yellow camomile
Yellow centaury
Yellow chestnut oak
Yellow skunk cabbage
Yin Chen Hao

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Index of Common Names: D

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Alpine dock
Ameixa do Peru
American dewberry
American dragonhead
Arctic dock
Arizona dewberry
Bigfruit dodder
Birdbill dayflower
Bladder dock
Bunchflower daffodil
Carolina false dandelion
Chinese dodder
Chuan dang
Coastal day lily
Coastal doghobble
Common day lily
Common dunebroom
Copperwire daisy
Creeping dogwood
Curled dock
Da Huang
Da Ji
Daffodil garlic
Dahlia
Dahlia
Dahurian buckthorn
Dahurian larch
Desert lily
Desert milkweed
Desert panicgrass
Desert peach
Desert pepperweed
Desert sand verbena
Desert seepweed
Desert sumach
Desert thorn
Desert willow
Devil's Twine
Devil's bit scabious
Devil's bite
Devil's club
Devil's horsewhip
Devil's tobacco
Devil's tongue
Dewberry
Digger pine
Dill
Distaff thistle
Dittander
Dittany of Crete
Dog rose
Dog violet
Dog's cabbage
Dog's mercury
Dog's-tooth violet
Dwarf American cherry
Dwarf Russian almond
Dwarf Siberian pine
Dwarf almond
Dwarf banana
Dwarf barberry
Dwarf bilberry
Dwarf birch
Dwarf chaparral broom
Dwarf chinkapin oak
Dwarf cornel
Dwarf elder
Dwarf fan palm
Dwarf fern-leaf bamboo
Dwarf geebung
Dwarf glasswort
Dwarf golden chinquapin
Dwarf huckleberry
Dwarf indigobush
Dwarf kaffirboom
Dwarf mallow
Dwarf mallow
Dwarf marsh violet
Dwarf mentzelia
Dwarf milkweed
Dwarf morning glory
Mesa dropseed
Mexican dock
Michaelmas daisy
Mora de castilla
Mount Atlas daisy
Mount Diablo globelily
Mountain dandelion
Mountain dandelion
Mountain dogwood
Northern dewberry
Oak leaf datura
Ox-eye daisy
Pacific dewberry
Praire dropseed
Prairie dock
Queen's delight
Red dead nettle
Red dock
Red osier dogwood
Red-seed dandelion
Red-veined dock
Roughleaf dogwood
Round-leaved dock
Round-leaved dogwood
Rubber dandelion
Sand dropseed
Sea daffodil
Senegal date palm

Daisy
Dalmation iris
Dalmation pellitory
Damask rose
Damiana
Damson
Dan Shen
Dan dao zi cai
Dandelion
Dang Gui
Dang Shen
Dangleberry
Danish scurvy grass
Daphne heath
Dark mullein
Dark-winged orchis
Darley Dale heath
Darnel
Darwin's barberry
Date plum
Dawn redwood
Dawyck cherry
Day flower
Deadly nightshade
Deathweed
Deer brush
Deer grass
Deerberry
Deerberry
Deltoid balsamroot
Deodar
Desert almond
Desert biscuitroot
Desert fan palm
Desert goosefoot
Desert hackberry
Desert juniper
Dogberry
Dogwood
Dong dang gui
Doronoki
Dotted hawthorn
Dotted saxifrage
Doublegee
Douglas fir
Douglas' onion
Dovefoot geranium
Downy cow-parsnip
Downy hemp nettle
Downy manzanita
Downy oak
Downy rattlesnake plantain
Downy serviceberry
Downy thorn apple
Downy woundwort
Drias plant
Drooping mistletoe
Dropwort
Drumstick primula
Dryland blueberry
Du Huo
Duck potato
Duckweed
Duke cherry
Dune willow
Dune willow
Dunkeld hybrid larch
Duo zhi zi jin niu
Durum wheat
Dutch rush
Dutchman's breeches
Dutchman's pipe
Dwarf American cherry
Dwarf mountain pine
Dwarf nasturtium
Dwarf quince
Dwarf quince
Dwarf raspberry
Dwarf red blackberry
Dwarf sumach
Dwarf white-striped bamboo
Dyer's buckthorn
Dyer's croton
Dyer's greenweed
Dyer's woodruff
Eau de Cologne mint
Erva de vida
Fewleaved dock
Fiddle dock
Flax-leaved daphne
Flowering dogwood
Gala dinich
Giant dogwood
Giant dropseed
Golden dock
Grassleaf day lily
Great duckweed
Great water dock
Japanese dodder
Japanese dogwood
Japanese dogwood
Jupiter's distaff
Large-leaf dogwood
Least duckweed
Lesser dodder
Lie dang
Lilac daphne
Long Dan Cao
Ma dou ling
Ma dou ling
Mayes dewberry
Sharp dock
Shasta daisy
Silky dogwood
Single delight
Slender day-flower
Southern dewberry
Spanish dagger
Spike dropseed
Spreading dogbane
Star duckweed
Swamp dewberry
Swamp dock
Texas Dutchman's pipe
Trebizond date
Virginia day-flower
Water dropwort
Water dropwort
Water dropwort
Western dock
Western dog violet
Western dogwood
White dead nettle
Whitemouth dayflower
Wild daffodil
Wild date plum
Willow dock
Winter daphne
Xu duan
Yam daisy
Yam daisy
Yam daisy
Yellow day lily

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Index of Common Names: E

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

- American elder
- American elm
- American red elder
- Bear's ear
- Black elder
- Black eyed Susan
- Blue elder
- Box elder
- Box elder
- Bunny ears
- Button eryngo
- Cat's ear
- Cherry bark elm
- Chinese elder
- Chinese elder
- Chinese elm
- Common Everlasting Flower
- Dwarf elder
- Eared sallow
- Earleaf greenbrier
- Early purple orchis
- Early spider orchid
- Earthnut pea
- Eastern cottonwood
- Eastern mannagrass
- Eastern mayhaw
- Eastern poison oak
- Eau de Cologne mint
- Echinacea
- Echinacea
- Edelweiss
- Edible thistle
- Eel grass
- Eel grass
- Egyptian barley
- Egyptian leek
- Egyptian rue
- Einkorn
- Elaeagnus
- Elaeagnus
- Elder
- Elderberry
- Elderberry panax
- Elecampane
- Elegant fairyfan
- Elephant yam
- Elm-leaved bramble
- Elm-leaved sumach
- Emmer
- Enchanter's nightshade
- Encina
- Endive
- English elm
- English tree
- Epaulette tree
- Escallonia
- Escallonia
- Escallonia
- Escallonia
- Escallonia
- Escallonia
- Escallonia
- Esparto grass
- Ethiopian banana
- Eulalia
- European millet
- Evening primrose
- Evergreen huckleberry
- Evergreen oak
- Everlasting flower
- Eyebright
- Field eryngo
- Florida evergreen blueberry
- Golden evergreen raspberry
- Greenleaf five eyes
- Ground elder
- Hare's ear
- Hare's ear mustard
- Hooker's evening primrose
- Japanese elm
- Mexican elder
- Mountain Ebony
- New England aster
- Pearly everlasting
- Pheasant's eye
- Pheasant's eye
- Poached egg plant
- Red coast elder
- Red elder
- Red elder
- Red elder
- Rock elm
- Scrambled eggs
- Shrubby hare's ear
- Siberian elm
- Slippery elm
- Smooth cat's ear
- Spotted emubush
- White elderberry
- Whitest evening primrose
- Wild einkorn
- Wild emmer
- Winged elm
- Wych elm
- Yellow elderberry

Eastern sweetshrub
Eaton's thistle

Erva de vida

Japanese elm
Japanese emperor oak
Japanese evergreen oak
Large-flower evening primrose

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Index of Common Names: F

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

- African spider flower
- Alpine French Honeysuckle
- Alpine forget-me-not
- American fireweed
- Annual fleabane
- Asparagus fern
- Bai bei feng
- Balloon flower
- Balsam fir
- Bamboo fern
- Banana passion fruit
- Bastard fig
- Bastard toad flax
- Beach flax lily
- Berry bladder fern
- Bird's foot trefoil
- Bird's foot violet
- Black tree fern
- Blanket flower
- Blue flag
- Blue flax lily
- Blue sausage fruit
- Bristly fiddleneck
- Brittle bladder fern
- Bush moon flower
- California false hellebore
- Fennel-leaved pondweed
- Fenugreek
- Fern asparagus
- Fernleaf biscuitroot
- Fernleaf licoriceroot
- Fever bush
- Feverfew
- Few-flowered leek
- Fewleaved dock
- Fiddle dock
- Fiddleneck
- Field bindweed
- Field eryngo
- Field garlic
- Field gromwell
- Field horsetail
- Field madder
- Field maple
- Field marigold
- Field milk thistle
- Field mouse-ear chickweed
- Field pea
- Field scabious
- Field southernwood
- Field speedwell
- Fig
- Fragrant bedstraw
- Fragrant olive
- Fragrant orchid
- Fragrant snakeroot
- Fragrant virgin's bower
- Fragrant water lily
- Fragrant woodfern
- French bean
- French hales
- French hales
- French lavender
- French marigold
- French psyllium
- French rose
- French scorzonera
- French vetch
- Friar's cowl
- Fringe tree
- Fringed lily
- Fringed pink
- Fringed wormwood
- Frogfruit
- Frost grape
- Frost grape
- Frosted hawthorn
- Frostweed
- Fuchsia
- Fuji cherry
- Old field cinquefoil
- Ostrich fern
- Ostrich fern
- Painted fern
- Pale flax
- Pale-flowered fritillary
- Parsley fern
- Pasque flower
- Pasque flower
- Pasque flower
- Passion flower
- Passion flower
- Passion flower
- Passion flower
- Passion flower
- Passion flower
- Passion flower
- Passion fruit
- Perennial flax
- Pheasant's foot geranium
- Philadelphia fleabane
- Pig's face
- Pink fawn lily
- Pink fivecorner
- Pretty face
- Prince's feather
- Prince's feather

Californian red fir
Canada fleabane
Cardinal flower
Carolina false dandelion
Carrion flower
Caucasian fir
Chain fern
Chinese fir
Chinese flowering apple
Chinese fountain grass
Chinese foxglove
Christmas fern
Cinnamon fern
Cock's foot
Colorado fir
Common Everlasting Flower
Cone flower
Cone flower
Crested wood fern
Cuckoo flower
Day flower
Desert fan palm
Douglas fir
Dwarf fan palm
Dwarf fern-leaf bamboo
Elegant fairyfan
Everlasting flower
Fairies thimbles
Fairybells
Fairybells
Fairyslipper
False China root
False buckwheat
False huckleberry
False indigo
False jasmine
Fig-leaved goosefoot
Filbert
Fine-leaved vetch
Finger millet
Finger poppy mallow
Fir clubmoss
Fir clubmoss
Fire heath
Fire lily
Fireberry hawthorn
Firethorn
Flaky fir
Flaky juniper
Flannel flower
Flatsedge
Flax
Flax lily
Flax lily
Flax lily
Flax-leaved daphne
Flax-leaved paper-bark
Fleabane
Fleawort
Flixweed
Floating manna grass
Florence fennel
Florida evergreen blueberry
Flower of an hour
Flowering almond
Flowering almond
Flowering currant
Flowering currant
Flowering dogwood
Flowering rush
Fluellen
Fly honeysuckle
Fly orchid
Foamflower
Fodder radish
Fuller's teasel
Fulvous popcornflower
Fumewort
Fumitory
Giant fennel
Giant holly fern
Giant white fawnlily
Glory flower
Grand fir
Great purple monkey flower
Greater bird's foot trefoil
Greater bird's foot trefoil
Grecian fir
Grecian foxglove
Greenleaf five eyes
Hard fern
Hard shield fern
Hart's tongue fern
Hen and chicken fern
Himalayan fir
Hog's fennel
Holly fern
Holy flax
Honey flower
Honey flower
Hottentot fig
Hottentot fig
Indian fig
Interrupted fern
Kiwi fruit
Knotted figwort
Lady fern
Large yellow foxglove
Licorice fern
Lion's foot
Maidenhair fern
Male fern
Purging flax
Purple flag
Purple fritillary
Rattlesnake fern
Red fir
Ressurection fern
Royal fern
Rusty foxglove
Sacred fir
Sandpaper fig
Scale fern
Sea fig
Sensitive fern
Sheep's fescue
Shield fern
Shoo fly
Shortawn foxtail
Siberian filbert
Siberian fir
Silver fir
Slenderleaf false foxglove
Snakehead fritillary
Spiny Wood Fern
Subalpine fir
Sweet fennel
Sweet fern
Sweet fern
Sweet flag
Sweet hottentot fig
Tarweed fiddleneck
Tassel flower
Tiger flower
Trailing fuchsia
Tree fern
Tree fern
Twining fringed lily
Veitch fir
Water forget-me-not
Water fringe

- False mistletoe
- False nettle
- False pak choi
- False roselle
- False spikenard
- False toadflax
- Fan columbine
- Fang feng
- Farkleberry
- Fat hen
- Fawn lily
- Fawnlily
- Feijoa
- Feltleaf wiillow
- Felwort
- Fendler's ceanothus
- Fendler's flatsedge
- Fendler's springparsley
- Fennel
- Foetid bugbane
- Foetid goosefoot
- Fool's parsley
- Foothill clover
- Forest oak
- Formosan gum
- Fountain bamboo
- Four o'clock plant
- Four o'clock plant
- Fourleaf milkweed
- Fowl manna grass
- Foxglove
- Foxglove tree
- Foxnut
- Foxtail barley
- Foxtail millet
- Marsh fern
- Marsh fleawort
- Marsh hog's fennel
- Mexican orange flower
- Momi fir
- Monkey flower
- Moreton Bay fig
- Mountain male fern
- Mule's fat
- Musk monkey flower
- Narrow buckler fern
- Native flax
- New Zealand flax
- Nikko fir
- Noble fir
- Northern fox grape
- West Himalayan fir
- Wild fennel
- Wild fig
- Wind flower
- Xuan Fu Hua
- Xuan fu hua
- Yellow fennel flower
- Yellow flag
- Yellow foxglove
- Yellow fritillary
- Yellow monkey flower
- Zabala fruit

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Name not here? Search for a common name:

Submit

American germander
American ginseng
American great burnet
American green alder
American mountain gooseberry
Amur river grape
Amur silver grass
Annual meadow grass
Appalachian gooseberry
Apple geranium
Balm of Gilead
Balm of Gilead
Barley Mitchell grass
Bayonet grass
Beach grass
Bermuda grass
Bigroot geranium
Bird grape
Blue grama
Blue grass lily
Blue grass lily

Geyer's onion
Gherkin
Giant Colombian blackberry
Giant chives
Giant dogwood
Giant dropseed
Giant fennel
Giant goldenrod
Giant holly fern
Giant horsetail
Giant hyssop
Giant knotweed
Giant larkspur
Giant onion
Giant ragweed
Giant reed
Giant saltbush
Giant sumpweed
Giant sunflower
Giant timber bamboo
Giant trumpets
Giant vetch
Giant white fawnlily
Giant wild rye
Ginger mint
Ginseng
Glacier wormwood
Gladich

Great water dock
Great water plantain
Great yellow cress
Greater bird's foot trefoil
Greater bird's foot trefoil
Greater burnet saxifrage
Greater celandine
Greater knapweed
Greater periwinkle
Grecian fir
Grecian foxglove
Grecian juniper
Grecian strawberry tree
Greek mustard
Greek oregano
Greek sage
Green arrow arum
Green bristle grass
Green gentian
Green hellebore
Green in the snow
Green kangaroo apple
Green milkweed
Green needlegrass
Green osier
Green purslane

Nevada goldenrod
New Mexico giant hyssop
Northern fox grape
Nut grass
Nutmeg geranium
Oak-leaved geranium
Oak-leaved goosefoot
Old witch grass
Orange gooseberry
Oregon grape
Oregon grape
Oriental sweet gum
Pampas grass
Pennyroyal geranium
Peppermint geranium
Pheasant's foot geranium
Pin-leaf geebung
Plume grass
Porcupine grass
Post-oak grape
Poverty grass
Prairie cord grass

- Blue grass lily
- Blue panic grass
- Blue-eyed grass
- Bottle gourd
- Bristly greenbrier
- Broad-leaved geebong
- Bu Gu Zhi
- Buffalo gourd
- Bush grape
- Bush grape
- Bush groundsel
- Butterfly ginger
- Button grass
- Cabbage gum
- California goosefoot
- California grape
- Canadian garlic
- Canadian garlic
- Canadian goldenrod
- Canadian goldenrod
- Canary grass
- Canary grass
- Canyon gooseberry
- Canyon grape
- Carolina yelloweyed grass
- Cat greenbrier
- Cheat grass
- Chee grass
- Chinese fountain grass
- Chinese gall
- Chop-suey greens
- Chop-suey greens
- Cider gum
- Clammy ground cherry
- Closed bottle gentian
- Gland cinquefoil
- Glasswort
- Glasswort
- Glasswort
- Globe artichoke
- Globe springparsley
- Globe thistle
- Globeflower
- Glory flower
- Glutinous yam
- Goat willow
- Goat's beard
- Goat's beard
- Goat's rue
- Goatweed
- Gold birch
- Gold of pleasure
- Golden alexanders
- Golden alyssum
- Golden bamboo
- Golden cassia
- Golden chinquapin
- Golden club
- Golden currant
- Golden dock
- Golden evergreen raspberry
- Golden garlic
- Golden groundsel
- Golden larch
- Golden lily
- Golden purslane
- Golden rain tree
- Golden samphire
- Golden saxifrage
- Golden saxifrage
- Golden spider lily
- Golden stars
- Golden stars
- Golden suncup
- Golden wattle
- Green rabbitbrush
- Green strawberry
- Green wattle
- Green-flowered wintergreen
- Green-winged orchid
- Greenbriar
- Greendragon
- Greenleaf five eyes
- Greenleaf manzanita
- Grey alder
- Grey birch
- Grey gum
- Grey myrtle
- Grey poplar
- Grey sage brush
- Grey willow
- Greyleaf cherry
- Gromwell
- Gromwell
- Ground cherry
- Ground cherry
- Ground cherry
- Ground cone
- Ground elder
- Ground ivy
- Ground nut
- Ground nut
- Ground pine
- Ground pine
- Ground pine
- Ground plum
- Groundsel
- Grouseberry
- Guadalupe palm
- Guang jing qian cao
- Guayule
- Guelder rose
- Gummy gooseberry
- Gumplant
- Prairie goldenrod
- Red glasswort
- Red goosefoot
- Red grape
- Red river gum
- Rio Grande cottonwood
- Riverbank grape
- Rock geranium
- Rose geranium
- Rose-scented geranium
- Rosy garlic
- Saltmarsh morning glory
- Sand grape
- Scurvy grass
- Scurvy grass
- Sea arrow grass
- Sea grape
- Sea grass
- Serpent garlic
- Sesame grass
- Sharp-leaf ground cherry
- Siberian ginseng
- Sidney golden wattle
- Sierra gooseberry
- Sleepy grass
- Slender branched gooseberry
- Small canary grass
- Smut grass
- Snake gourd
- Snake-needle grass
- Snappy gum
- Snow gum
- Society garlic
- Society garlic

Coast goldenrod
Coastal black gooseberry
Common morning glory
Cord grass
Cotton grass
Cotton grass
Couch grass
Crab grass
Creeping Oregon grape
Crimson glory vine
Crow garlic
Currant grape
Cutleaf ground cherry
Daffodil garlic
Dang Gui
Danish scurvy grass
Deer grass
Desert goosefoot
Dong dang gui
Dovefoot geranium
Dwarf geebung
Dwarf glasswort
Dwarf golden chinquapin
Dwarf morning glory
Dyer's greenweed
Earleaf greenbrier
Eel grass
Eel grass
Esparto grass
Field garlic
Field gromwell
Fig-leaved goosefoot
Floating manna
Golden weather glass
Golden weather grass
Golden willow
Golden-rayed lily
Goldenberry
Goldenrod
Goldenseal
Goldthread
Good King Henry
Goodding's willow
Gooseberry
Gooseberry-currant
Goosefoot
Goosegrass
Gooseneck loosestrife
Gorse
Gotu kola
Goumi
Goumi
Graceful buttercup
Grand fir
Grape
Grape
Grape
Grape
Grape hyacinth
Grass of Parnassus
Grass pansy
Grassleaf day lily
Grassnut
Grasstree
Grassy tarweed
Gravel root
Graybark grape
Greasewood
Greasewood
Great Basin spring beauty
Great Saint John's wort
Great blue lobelia
Great burdock
Gungurru
Gunnera
Gutta-percha
Gypsywort
Hairy gumweed
Heath goldenrod
Hillside gooseberry
Himalayan giant blackberry
Hoary balm of gilead
Hoary groundsel
Holy grass
Idaho gooseberry
Indian basket grass
Italian grape hyacinth
Ivy geranium
Ivy gourd
Ivy-leaved geranium
Japanese ginseng
Japanese morning glory
Japanese snake gourd
Ji Gu Chai
Johnson grass
Keeled garlic
Kentucky blue grass
Korean lawn grass
Large gallberry
Laurel greenbrier
Lemon geranium
Lemon-scented gum
Long leaved scurvy grass
Lyme grass
Malabar gourd
Manna gum
Manyflowered gromwell
Mao gen
Marram grass
Marsh arrow grass
Soft love grass
Solander's geranium
Sour greens
Spanish gorse
Spanish grape
Spinning gum
Spotted gentian
Spotted golden thistle
Spurred gentian
Squaw grass
Sticky geranium
Sticky ground cherry
Sticky groundsel
Stiff goldenrod
Stinking gladwin
Stinking goosefoot
Strawberry guava
Summer grape
Summer grape
Surf grass
Sweet goldenrod
Sweet goldenrod
Sweet grass
Sweet gum
Sweet mountain grape
Sweet reed grass
Sweet vernal grass
Sweet winter grape
Tasmanian blue gum
Townsend's cord grass
Trumpet gooseberry
Tussock grass
Twistedleaf garlic
Valley grape
Venus' looking glass

grass
Foetid goosefoot
Formosan gum
Fowl manna grass
Frost grape
Frost grape
Gala dinich
Galbanum
Galingale
Gallant soldier
Galleta
Gan Cao
Garden huckleberry
Garden pea
Garden phlox
Garden spedwell
Garland crab
Garland spiraea
Garlic
Garlic chives
Garlic cress
Garlic mustard
Gayfeather
Georgia blueberry
German camomile
German garlic
Germander speedwell

Great burnet
Great duckweed
Great leopard's bane
Great masterwort
Great mullein
Great purple monkey flower
Great valley gumweed

Marsh gentian
Mealy goosefoot
Mexican giant hyssop
Missouri gooseberry
Missouri gooseberry
Morning glory
Mount Diablo globelily
Mountain groundsel
Mouse garlic
Mustang grape
Mutton grass
Narrow leaved goosefoot
Nettleleaf goosefoot

Virginia glasswort
Virginia ground cherry
Wall germander
Wall whitlow grass
Water germander
Wax gourd
Weeping love grass
Western gromwell
Whitestem gooseberry
Wild garlic
Wild ginger
Wild goose plum
Willow grass
Wire grass
Wool grass
Wooly geranium
Yellow bristle grass
Yellow gentian
Yellow gum
Yellow gum
Yellow strawberry guava
Yellowray goldfields

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Index of Common Names: H

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Name not here? Search for a common name:

☐ Submit

- Alpine French Honeysuckle
- Alpine heuchera
- American hazel
- American holly
- American hornbeam
- Anise hyssop
- Antelope horns
- Arrow head
- Ba Jiao Hui Xian
- Beaked hazel
- Bear huckleberry
- Bei chai hu
- Bible hyssop
- Big-fruit hawthorn
- Black hawthorn
- Black hellebore
- Black hellebore
- Black hickory
- Black highbush blueberry
- Black horehound
- Black huckleberry
- Black huckleberry
- Bleeding heart
- Blue hesper palm
- Bog heather
- Bowstring hemp
- Hairy tare
- Hairy yerba santa
- Halberd-leaved willow
- Half-black bamboo
- Hamburg parsley
- Han Lian Cao
- Harbin pear
- Harbinger of spring
- Hard fern
- Hard rush
- Hard shield fern
- Hard vetch
- Hardhack
- Hardy begonia
- Hardy marjoram
- Hare's ear
- Hare's ear mustard
- Harebell
- Harebell
- Hart's pennyroyal
- Hart's tongue fern
- Harvestbells
- Harvestlice
- Hastate orach
- Hautbois strawberry
- Hawkweed ox-tongue
- Hawthorn
- Hawthorn-leaved maple
- Hobbleberry
- Hog peanut
- Hog peanut
- Hog plum
- Hog's fennel
- Holly
- Holly
- Holly fern
- Holly oak
- Holly olive
- Holly-leaved cherry
- Hollyhock
- Hollyleaf ceanothus
- Holm oak
- Holy flax
- Holy grass
- Honesty
- Honewort
- Honey flower
- Honey flower
- Honey locust
- Honeydew melon
- Honeypots
- Honeysuckle
- Honeysuckle azalea
- Hong Kong lily
- Hooker's evening primrose
- Ma Huang
- Ma Huang
- Ma Huang
- Marsh hog's fennel
- Marsh horsetail
- Meadow horsetail
- Mexican giant hyssop
- Mi meng hua
- Midland hawthorn
- Mountain hemlock
- Mountain holly
- Mountain huckleberry
- Mouse-ear hawkweed
- Muzei ma huang
- Narrow-leaved hawksbeard
- Native hops
- New Mexico giant hyssop
- Nutmeg hickory
- Orange honeysuckle
- Oval heron's bill
- Pacific hemlock-parsley
- Pacific hound's tongue
- Parsley-leaved hawthorn
- Pear hawthorn
- Pine heath
- Pingue hymenoxys
- Qing Hao

- Box huckleberry
- Boxleaf honeysuckle
- Broadleaf hemp nettle
- Bush honeysuckle
- California false hellebore
- California hazel
- California hedgenettle
- Californian hyacinth
- Canadian hemlock
- Carolina hemlock
- Chestnut hybrids
- Chilean hazel
- Chinese haw
- Chinese hazel
- Chinese hemlock
- Chinese hibiscus
- Chinese hickory
- Chinese horse chestnut
- Coastal pignut hickory
- Cobweb houseleek
- Colorado River hemp
- Columbian hawthorn
- Common hemp nettle
- Cornish heath
- Cranberry heath
- Da Huang
- Daphne heath
- Darley Dale heath
- Desert hackberry
- Devil's horsewhip
- Dotted hawthorn
- Hazel
- He Shou Wu
- Head mustard
- Headed savory
- Heart seed
- Heartleaf arnica
- Heartsease
- Heartseed walnut
- Heath goldenrod
- Heather
- Hedge bamboo
- Hedge bedstraw
- Hedge bindweed
- Hedge hyssop
- Hedge mustard
- Hedge woundwort
- Heliotrope
- Hemlock
- Hemp
- Hemp agrimony
- Hemp bush
- Hen and chicken fern
- Hen and chickens houseleek
- Henbane
- Henbit
- Hepatica
- Herb Christopher
- Herb Paris
- Herb Paris
- Herb Patience
- Herb Robert
- Hercule's club
- Hercules club
- Heropito
- Hiba
- High-bush blueberry
- Highbush blackberry
- Hillside arnica
- Hillside blueberry
- Hooker's onion
- Hop
- Hop hornbeam
- Hop tree
- Hop tree
- Hornbeam
- Hornbeam maple
- Horned cucumber
- Horned holly
- Horned pondweed
- Horned poppy
- Horned violet
- Hornwort
- Horse brier
- Horse chestnut
- Horse mint
- Horse nettle
- Horsebean
- Horsemint
- Horseradish
- Hottentot fig
- Hottentot fig
- Hou Po
- Hound's tongue
- Houseleek
- Hua qu liu
- Huang Lian
- Huang Qi
- Huang jing
- Huang ping
- Huauzontle
- Hudson Bay currant
- Hui hui suan
- Huigen
- Hulten's licoriceroot
- Humboldt mulesears
- Hungarian hawthorn
- Hungarian lilac
- Hungarian oak
- Quebec hawthorn
- Rajmahal hemp
- Red hailstone
- Red haw
- Red haw
- Red horse chestnut
- Red hot poker
- Rest harrow
- River hawthorn
- Rough hawkbit
- Sand hickory
- Scarlet haw
- Scarlet haw
- Scrub hickory
- Sea holly
- Shagbark hickory
- Shellbark hickory
- Shrubby hare's ear
- Silky hakea
- Small hackberry
- Small houseleek
- Southern black haw
- Southern huauzontle
- Spiny rest harrow
- Spotted hawkweed
- Stag's horn sumach
- Stinking hellebore
- Summer haw
- Swamp hibiscus
- Swamp highbush blueberry
- Swamp horsetail
- Swamp hosta
- Sweet hakea
- Sweet hottentot fig
- Tassel hyacinth
- Tree of heaven
- Trumpet honeysuckle
- Turkish hazel
- Upright hedge parsley

Downy hemp nettle
Du Huo
Dunkeld hybrid larch
Dwarf huckleberry
Evergreen huckleberry
False huckleberry
Fat hen
Field horsetail
Fire heath
Fireberry hawthorn
Flower of an hour
Fly honeysuckle
French hales
French hales
Frosted hawthorn
Garden huckleberry
Giant holly fern
Giant horsetail
Giant hyssop
Good King Henry
Grape hyacinth
Green hellebore
Ha-chiku
Hackberry
Hag briar
Hair-cap moss
Hairy Solomon's seal
Hairy bittercress
Hairy brome
Hairy clematis
Hairy gumweed
Hairy huckleberry
Hairy manzanita
Hairy puccoon
Hairy rupture wort
Hillside gooseberry
Himalayan bird cherry
Himalayan blue pine
Himalayan cherry
Himalayan cypress
Himalayan fir
Himalayan giant blackberry
Himalayan hazel
Himalayan honeysuckle
Himalayan juniper
Himalayan knotweed
Himalayan may apple
Himalayan mulberry
Himalayan mulberry
Himalayan poppy
Himalayan rhubarb
Hind's black walnut
Hoary balm of gilead
Hoary balsamroot
Hoary cress
Hoary groundsel
Hoary mountain mint
Hoary mullein
Hoary plantain
Hoary vervain
Hungarian oat
Huon pine
Hyacinth
Hyacinth bean
Hyacinth brodiaea
Hyacinth orchid
Hybrid berries
Hydrangea
Hydrilla
Hyssop
Indian hawthorn
Indian hemp
Indian horse chestnut
Indian tree hazel
Italian grape hyacinth
Italian honeysuckle
Japanese hawthorn
Japanese hazel
Japanese holly
Japanese honeysuckle
Japanese hop
Japanese horse chestnut
Japanese horseradish
Kansas hawthorn
Lady's hand
Lady's hand
Utah honeysuckle
Variegated horsetail
Water hawthorn
Water hickory
Water horehound
Water hyacinth
West Himalayan fir
Western hemlock
White Arctic mountain heather
White hellebore
White henbane
White horehound
Wild Himalayan cherry
Wild hyacinth
Wild hyacinth
Wild hyacinth
Willow herb
Witch hazel
Wood horsetail
Xuan Fu Hua
Xuan fu hua
Yan Hu Suo
Yaupon holly
Yin Chen Hao
Zhong ma huang

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Name not here? Search for a common name:

Submit

American ipec
American ipecacuanna
Beachhead iris
Boston ivy
Bowltube iris
Branched Indian clover
Catalina Island cherry
Crested iris
Crown imperial
Dalmation iris
Dwarf indigobush
False indigo
Green in the snow
Ground ivy
Ialian aster
Iberian star thistle
Ice plant
Ice plant
Iceland moss
Ichang papeda
Idaho gooseberry
Incense cedar
Indehiscent pigweed
Indian Tobacco
Indian basket grass
Indian bean tree
Indian belladonna
Indian breadroot
Indian cherry
Indian chickweed
Indian colza
Indian cucumber root
Indian fig
Indian hawthorn
Indian hemp
Indian horse chestnut
Indian lettuce
Indian madder
Indian milkvetch
Indian millet
Indian paper birch
Indian physic
Indian pink
Indian pipe
Indian poke
Indian poke
Indian potato
Indian rape
Indian rush-pea
Indian shot
Indian spinach
Indian thistle
Indian tree hazel
Indian turnip
Indian valerian
Indian wild pear
Indian woodoats
Indigo bush
Inkberry
Interrupted fern
Intoxicating mint
Irish lace
Iron cross plant
Ironweed
Ironwood
Ironwood
Ironwood
Isle of Man cabbage
Isu tree
Italian alder
Italian buckthorn
Italian corn salad
Italian cypress
Italian grape hyacinth
Italian honeysuckle
Italian ryegrass
Italian stone pine
Ivy
Ivy geranium
Ivy gourd
Ivy-leaf speedwell
Ivy-leaved geranium
Jack in the pulpit
Japanese water iris
Kenilworth ivy
Nepal ivy
Paint Indian
Poison ivy
Red ironbark
Rocky Mountain iris
Roof iris
Siberian iris
Small Indian breadroot
West Indin chickweed
Wild indigo
Wild indigo
Wild indigo
Wild indigo
Wyoming Indian paintbrush

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Index of Common Names: J

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Aligator juniper
Ashe juniper
Ba Jiao Hui Xian
Californian juniper
China jute
Chinese juniper
Creeping Jenny
Creeping juniper
Da Ji
Desert juniper
Duo zhi zi jin niu
False jasmine
Flaky juniper
Great Saint John's wort
Grecian juniper
Guang jing qian cao
Himalayan juniper
Huang jing
Jack in the pulpit
Jack pine
Jacob's ladder
Jalap
Jam tarts
Japan wood-oil tree
Japanese aconite
Japanese alder
Japanese alpine cherry
Japanese angelica tree
Japanese cedar
Japanese chess
Japanese chestnut
Japanese chinquapin
Japanese crab
Japanese dodder
Japanese dogwood
Japanese dogwood
Japanese elm
Japanese elm
Japanese emperor oak
Japanese evergreen oak
Japanese ginseng
Japanese hawthorn
Japanese hazel
Japanese holly
Japanese honeysuckle
Japanese hop
Japanese horse chestnut
Japanese horseradish
Japanese knotweed
Japanese larch
Japanese lime
Japanese maple
Japanese millet
Japanese mint
Japanese morning glory
Japanese oak
Japanese red pine
Japanese rose
Japanese sago palm
Japanese snake gourd
Japanese snowball
Japanese spindle tree
Japanese spiraea
Japanese spurge
Japanese storax
Japanese walnut
Japanese water iris
Japanese white pine
Japanese wineberry
Japanese wingnut
Japanese wisteria
Japanese yew
Japanese zelkova
Jeffrey pine
Jelly palm
Jersey kale
Jerusalem artichoke
Jerusalem oak
Jerusalem pea
Jerusalem sage
Jerusalem sage
Jessamine
Jew's mallow
Jewelweed
Jonquil
Joshua tree
Jostaberry
Judas tree
Jujube
Jumpseed
Juneberry
Junegrass
Jungle rice
Juniper
Juniper
Jupiter's distaff
Jute
Korean juneberry
Longleaf jointfir
Matted St. John's wort
New Jersey tea
One-seed juniper
Pale jewelweed
Prickly juniper
Qin Jiao
Rock jasmine
Rocky Mountain juniper
Shore juniper
Southern juneberry
St. John's wort
Star jasmine
Supple Jack

Japanese apricot
Japanese aspen
Japanese banana
Japanese barberry
Japanese beech
Japanese beech
Japanese bindweed
Japanese bird cherry
Japanese bird cherry
Japanese black pine
Japanese box
Japanese pagoda tree
Japanese pepper tree
Japanese photinia
Japanese plum
Japanese plum yew
Japanese plum yew
Japanese plum yew
Japanese privet
Japanese quince
Japanese raisin tree
Japanese raspberry
Jewelweed
Ji Gu Chai
Ji Xue Teng
Jicama
Jimbur
Jin Qian Cao
Jing Jie
Job's tears
Joe pye weed
John's cabbage
Johnson grass
Syrian juniper
Temple juniper
Traveller's joy
Western juniper
Winter-flowering jasmin
Wu Jia Pi
Yellow jasmine

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Index of Common Names: K

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

- Abyssinian kale
- Alpine knotweed
- Black knapweed
- Brown kapweed
- Brush kurrajong
- Chinese kale
- Curly kale
- Curlytop knotweed
- Dwarf kaffirboom
- Giant knotweed
- Good King Henry
- Gotu kola
- Greater knapweed
- Green kangaroo apple
- Himalayan knotweed
- Hong Kong lily
- Japanese knotweed
- Jersey kale
- Kahikatea
- Kaido crab apple
- Kamahi
- Kamchatka bilberry
- Kamchatka lily
- Kan-chiku
- Kangaroo apple
- Kangaroo apple
- Kangaroo thorn
- Kansas hawthorn
- Karo
- Kashgar tree
- Katakuri
- Katsura tree
- Kawaka
- Kaya
- Keeled garlic
- Keeled-fruited cornsalad
- Kei-chiku
- Kenaf
- Kenai birch
- Kenilworth ivy
- Kentish red cherry
- Kentucky blue grass
- Kentucky coffee tree
- Kermes oak
- Khurasan wheat
- Kidney vetch
- King Solomon's seal
- King William pine
- King protea
- King's spear
- Kinugasaso
- Kittatinny blackberry
- Kiwi fruit
- Knawel
- Kneeling angelica
- Knife-leaf wattle
- Knotted figwort
- Knotweed
- Knotweed
- Koda tree
- Kohl rabi
- Komarov's bugbane
- Konini
- Korean barberry
- Korean bellflower
- Korean cherry
- Korean cherry
- Korean juneberry
- Korean lawn grass
- Korean lespedeza
- Korean mint
- Korean mountain ash
- Korean mulberry
- Korean nut pine
- Korean plum yew
- Kou-chiku
- Kowhai
- Kozo
- Ku shen
- Kudzu vine
- Kuma-zasa
- Kuro-giboshi
- Kurodake
- Kurrajong
- Kusamaki
- Kuwa
- Marrow-stem kale
- Mealy kudzu
- Mountain kangaroo apple
- Oval kumquat
- Perpetual kale
- Queensland kauri
- Rape kale
- Red kiwi
- Round kumquat
- Sauer Klee
- Small-leaved knotweed
- Tian kui
- Tropical kudzu

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Index of Common Names: L

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

African lily
Alpine lady's mantle
Alpine leek
American cherry laurel
American liquorice
American liverleaf
American liverleaf
American water lotus
Arum lily
Atamasco lily
August lily
Avalanche lily
Avelanche lily
Avelanche lily
Avelanche lily
Babbington's leek
Bamboo lily
Bamboo lily
Beach flax lily
Big-leaf lupin
Black locust
Blue flax lily
Blue grass lily
Blue grass lily
Blue grass lily
Blue lettuce
Blue lupin

Jacob's ladder
Japanese larch
Japanese lime
Kamchatka lily
Korean lawn grass
Korean lespedeza
Labdanum
Labrador rose
Labrador tea
Labrador tea
Labrador violet
Laburnum
Lace-bark pine
Lacebark
Lacquer tree
Lady fern
Lady's bedstraw
Lady's hand
Lady's hand
Lady's mantle
Lady's tresses
Ladybells
Lamwick plant
Lanceleaf spring beauty
Land cress
Lapland rosebay
Larch
Larch

Lesser dodder
Lesser periwinkle
Lesser spearwort
Lettuce
Leyland cypress
Lian Qiao
Licorice fern
Lie dang
Lilac
Lilac daphne
Lilac oxalis
Lily of the valley
Lily of the valley
Lily of the valley bush
Lily tree
Lily turf
Lima bean
Limber pine
Lime berry
Limequat
Limequat
Limeña
Linden viburnum
Ling
Ling xiang cao
Lion's foot
Liquorice
Liquorice root

Pei lan
Perennial lettuce
Peruvian lily
Peruvian lily
Pink fawn lily
Plains lemon monarda
Porter's licoriceroot
Portugal laurel
Purple loosestrife
Pygmy water lily
Red larkspur
Red leg
Resurrection lily
Round-headed leek
Roundhead lespedeza
Roundleaf leather root
Sacred water lotus
Sagebrush mariposa lily
Sand lily
Scotch laburnum
Scottish lovage
Scrambling lily
Scythian lamb
Sea lavender
Sea lavender
Seashore lupine
Sego lily
Sheep laurel

Blue lupine
Bristly locust
Bush lawyer
Bush lawyer
Butterfly mariposa lily
Cabbage Lettuce
California laurel
Canada lettuce
Canadian licorice root
Caspian locust
Catalina Mountain Lilac
Cedar of Lebanon
Cherry laurel
Chilean laurel
Chinese lantern
Chinese lespedeza
Chinese lespedeza
Chocolate lily
Chocolate lily
Chocolate lily
Clammy locust
Coastal day lily
Columbia tiger lily
Common day lily
Common lespedeza
Common lime
Common lomatium
Common lousewort
Coral lily
Cos lettuce
Cotton lavender
Creeping lady's tresses
Cutting lettuce
Dahurian larch
Desert lily
Dunkeld hybrid larch
Egyptian leek
Large Russian vetch
Large beard tongue
Large bittercress
Large gallberry
Large leather root
Large leaved lime
Large petiole mustard
Large toothwort
Large yellow foxglove
Large-cluster blueberry
Large-flower evening primrose
Large-flowered calamint
Large-leaf dogwood
Largeflower wild onion
Larkspur
Larkspur
Larkspur
Larkspur
Laserwort
Late spider orchid
Laurel greenbrier
Laurel magnolia
Laurustinus
Lavatera
Lavatera
Lavatera
Lavender
Lavender
Lawson cypress
Le Conte pear
Lead plant
Leaf celery
Leaf mustard
Least duckweed
Least yellow sorrel
Leather leaf
Leather wood
Leather wood
Liquorice root
Little mouse-ear chickweed
Littleleaf mock orange
Live oak
Live oak
Live oak
Loblolly pine
Loce restorer
Locoto
Lodgepole pine
Loganberry
London rocket
Long Dan Cao
Long leaved scurvy grass
Long-head poppy
Longleaf buckwheat
Longleaf jointfir
Longleaf mat-rush
Longray tripletlily
Longstalk spring parsley
Lopseed
Loquat
Lord Anson's pea
Louisiana canna
Lousewort
Lousewort
Lousewort
Lousewort
Lovage
Love lies bleeding
Love-in-a-mist
Low milkweed
Low prairie rose
Low sweet blueberry
Low sweet blueberry
Low-running blackberry
Short-beaked arrow leaf
Siberian larch
Silver lime
Single leaf piñon
Small leaved lime
Small vanilla lily
Snake lily
Soap lily
Soft love grass
Speckled wood lily
Spider lily
Spider lily
Spike lavender
Spotted laurel
Spurge laurel
Star-flowered lily of the valley
Sticky laurel
Sub-alpine larch
Sundial lupine
Swamp laurel
Swamp lily
Swamp lily
Swamp lousewort
Sweet leaf
Tall blue lettuce
Three-cornered leek
Tiger lily
Toad lily
Tree lavatera
Tree lupin
Trout lily
Tuberous water lily
Turk's Cap lily
Twining fringed lily
Twisted leaf pine
Umbrella leaf
Venus' looking glass
Wall lettuce
Water locust

Fawn lily
Fernleaf licoriceroot
Few-flowered leek
Fire lily
Flax lily
Flax lily
Flax lily
Fragrant water lily
French lavender
Fringed lily
Giant larkspur
Golden larch
Golden lily
Golden spider lily
Golden-rayed lily
Gooseneck loosestrife
Grassleaf day lily
Great blue lobelia
Great leopard's bane
Han Lian Cao
Honey locust
Hong Kong lily
Hua qu liu
Huang Lian
Hulten's licoriceroot
Hungarian lilac
Indian lettuce
Irish lace
Leatherwood
Leatherwood
Lebanon oak
Leek
Lemon
Lemon
Lemon balm
Lemon bergamot
Lemon geranium
Lemon marigold
Lemon sumach
Lemon tea-tree
Lemon thyme
Lemon verbena
Lemon-scented gum
Lemon-scented tea tree
Lemonade berry
Lenga
Lentil
Leopard lily
Leopard plant
Lespedeza
Lesser broomrape
Lesser burdock
Lesser calamint
Lesser celandine
Lundy cabbage
Lungwort
Lyme grass
Ma dou ling
Ma dou ling
Madonna lily
Mariposa lily
Mariposa lily
Meadow lily
Miner's lettuce
Mission lettuce
Mongolian lime
Morning star lily
Mountain laurel
Mountain lettuce
Mountain lovage
Murray lily
Myriad leaf
Narrow leaved goosefoot
New Mexico locust
New Zealand laurel
Oak leaf datura
Ogeechee lime
Our Lord's candle
Pale vanilla lily
Panther lily
Peach leaved wilow
Pearl lupin
Weeping love grass
Wei ling xian
Western larch
White lettuce
White lupin
White trumpet lily
White water lily
Whorled yellow loosestrife
Wild leek
Wild lettuce
Wild lettuce
Wild lettuce
Wild lily of the valley
Wild liquorice
Wood leek
Wood lily
Xue liu
Yellow day lily
Yellow loosestrife
Yellow lupin
Yellow water lily
Yun lian

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Index of Common Names: M

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Name not here? Search for a common name:

Submit

- African marigold
- Alpine lady's mantle
- Altai mountain thorn
- American mandrake
- American mountain ash
- American mountain gooseberry
- American wild mint
- Amur maple
- Annual meadow grass
- Annual mercury
- Apple mint
- Arizona maderone
- Asian mint
- Barley Mitchell grass
- Barnyard millet
- Bedstraw milkweed
- Big-tooth maple
- Bigberry manzanita
- Bigleaf magnolia
- Bitter milkwort
- Black maple
- Black medick
- Black mulberry
- Black mustard
- Blue mallee
- Bog myrtle
- Broadleaf milkweed
- Ma Huang
- Ma Huang
- Ma Huang
- Ma dou ling
- Ma dou ling
- Maca
- Macachi
- Macadamia
- Mace
- Macqui
- Madake
- Madder
- Madeira vine
- Madeiran whortleberry
- Madonna lily
- Madrona
- Madwoman's milk
- Magellan barberry
- Mahaleb cherry
- Mahonia
- Maiden sorrel
- Maidenhair fern
- Maidenhair spleenwort
- Maidenhair tree
- Maidenhair vine
- Makha wheat
- Mexican tarragon
- Mexican tea
- Mexican tea
- Mexican weeping pine
- Mexican white pine
- Mexican white sagebrush
- Meyer bamboo
- Mezereon
- Mi meng hua
- Michaelmas daisy
- Midland hawthorn
- Mignonette
- Military orchis
- Milk thistle
- Milk vetch
- Milk vine
- Milkmaids
- Milkwort
- Milky bellflower
- Mimosa
- Mimosa
- Miner's lettuce
- Mint bush
- Mint-leaved bergamot
- Mintweed
- Miro
- Mule's fat
- Mulesears wyethia
- Mulga acacia
- Mullein
- Murray lily
- Muscadine
- Musk mallow
- Musk mallow
- Musk milfoil
- Musk monkey flower
- Musk mustard
- Musk root
- Musk rose
- Musk storksbill
- Musk thistle
- Mustang grape
- Mustang mountain balm
- Mustard spinach
- Muster-John-Henry
- Mutton grass
- Muzei ma huang
- Myriad leaf
- Myrtle
- Myrtle beech
- Mysore thorn
- Native millet
- New Mexico giant hyssop
- New Mexico locust

Bronvaux medlar
Brown mustard
Bull mallow
Burr marigold
Bush moon flower
Butterfly mariposa lily
California milkweed
Canada moonseed
Canadian milkvetch
Canary madrona
Cantaloupe melon
Cao yu mei
Cape myrtle
Catalina Mountain Lilac
Chinese mallow
Chinese milk vetch
Chinese motherwort
Chuan bei mu
Club moss
Common club moss
Common madia
Common marestail
Common milkweed
Common moonwort
Common morning glory
Corn marigold
Corn mint
Corsican mint
Coyote mint
Crepe myrtle
Curled mustard
Dark mullein
Desert milkweed
Dog's mercury
Downy manzanita
Drooping mistletoe
Dwarf mallow
Dwarf mallow
Dwarf marsh violet
Makhobeli
Malabar gourd
Male fern
Mallee riceflower
Mallow
Maltese star thistle
Manchurian angelica tree
Manchurian apple
Manchurian apricot
Manchurian baby's breath
Manchurian spikenard
Manchurian violet
Manchurian walnut
Manchurian wild rice
Mandarin
Mandrake
Mango
Manipur wild-tea rose
Manna ash
Manna gum
Manna plant
Manna tree
Manyflowered gromwell
Manyflowered mentzelia
Manystem peavine
Manzanilla
Manzanilla
Manzanita
Mao gen
Maori onion
Maraschino cherry
Marginal woodfern
Mariposa lily
Mirror plant
Mission lettuce
Missouri gooseberry
Missouri gooseberry
Missouri willow
Mistletoe
Mitrewort
Mitsuba
Miyako-zasa
Miyama cherry
Miyama-rakkyo
Mizuna
Mochi tree
Mock orange
Mock orange
Mock tomato
Mockernut
Mojave yucca
Moldavian balm
Momi fir
Mongolian cherry
Mongolian lime
Mongolian mulberry
Monkey flower
Monkey musk
Monkey-puzzle tree
Montbretia
Monterey cypress
Monterey pine
Montezuma pine
Moon trefoil
Moonflower
Mooseberry
Moosewood
Mora comun
Mora de castilla
Mora silvestre
Morello cherry
Moreton Bay chestnut
Moreton Bay fig
New Mexico prairie mallow
Northern Maidenhair
Norway maple
Orange melon
Oregon maple
Painted milkvetch
Paper mulberry
Parry manzanita
Pearl millet
Persian manna
Pickling melon
Pine-mat manzanita
Pink mountain berry
Plains lemon monarda
Pointleaf manzanita
Poppy mallow
Pot marigold
Pot marjoram
Prairie mimosa
Prickly Moses
Purple milkweed
Red maple
Red mulberry
Red raripila mint
Rock maple
Rocky Mountain Columbine
Rocky Mountain beeplant
Rocky Mountain chokecherry
Rocky Mountain iris
Rocky Mountain juniper
Rocky Mountain piñon
Rocky Mountain raspberry
Rocky Mountain strawberry
Root mustard
Rose moss
Rosemary mint

Dwarf mentzelia
Dwarf milkweed
Dwarf morning glory
Dwarf mountain pine
Eastern mannagrass
Eastern mayhaw
Eau de Cologne mint
European millet
False mistletoe
Field madder
Field maple
Field marigold
Field milk thistle
Field mouse-ear chickweed
Finger millet
Finger poppy mallow
Floating manna grass
Fourleaf milkweed
Fowl manna grass
Foxtail millet
French marigold
Garlic mustard
Ginger mint
Great masterwort
Great mullein
Great purple monkey flower
Greek mustard
Green milkweed
Greenleaf manzanita
Grey myrtle
Hair-cap moss
Hairy manzanita
Hardy marjoram
Hare's ear mustard
Hawthorn-leaved maple
Head mustard
Hedge mustard
Himalayan may apple
Mariposa lily
Maritime Ceanothus
Maritime pine
Marlberry
Marram grass
Marrow-stem kale
Marsh andromeda
Marsh arrow grass
Marsh blue violet
Marsh cinquefoil
Marsh cudweed
Marsh fern
Marsh fleawort
Marsh gentian
Marsh hog's fennel
Marsh horsetail
Marsh mallow
Marsh marigold
Marsh orchid
Marsh orchis
Marsh speedwell
Marsh thistle
Marsh woundwort
Marvel of Peru
Maryland sanicle
Masterwort
Mastic thyme
Mastic tree
Mat amaranth
Matai
Matted St. John's wort
Mauka
Mauritius raspberry
Maximillian sunflower
Mayes dewberry
Mayflower
Maypops
Mayten tree
Morinda spruce
Mormon tea
Mormon tea
Morning brides
Morning glory
Morning star lily
Mortiño
Moso-chiku
Moss campion
Moth mullein
Motherwort
Mount Atlas daisy
Mount Diablo globelily
Mountain Ebony
Mountain alder
Mountain ash
Mountain ash
Mountain avens
Mountain beech
Mountain bell
Mountain brome
Mountain brome
Mountain checkerberry
Mountain cherry
Mountain cornflower
Mountain crowberry
Mountain dandelion
Mountain dandelion
Mountain dogwood
Mountain groundsel
Mountain hemlock
Mountain holly
Mountain huckleberry
Mountain kangaroo apple
Mountain laurel
Mountain lettuce
Mountain lovage
Round-leaved mint
Rush milkweed
Sagebrush mariposa lily
Saltmarsh morning glory
Serpent melon
Shining club moss
Showy milkweed
Showy mountain ash
Silver maple
Sitka mountain ash
Small reed mace
Snap melon
Snowy mespilus
Southern mountain cranberry
Specklepod milkvetch
Sphagnum moss
Star magnolia
Stiff club moss
Stone mint
Sugar maple
Swamp milkweed
Swamp rose mallow
Sweet marjoram
Sweet mountain grape
Swollen-stem mustard
Tall melilot
Tansy mustard
Tatarian maple
Texas madrone
Texas mahonia
Texas mulberry
Tien ma
Tree Mallow
Tumble mustard
Vine maple
Vine mesquite
Virginia mountain mint
Water mallee
Water mat

Himalayan mulberry
Himalayan mulberry
Hoary mountain mint
Hoary mullein
Honeydew melon
Hornbeam maple
Horse mint
Humboldt mulesears
Iceland moss
Indian madder
Indian milkvetch
Indian millet
Intoxicating mint
Isle of Man cabbage
Japanese maple
Japanese millet
Japanese mint
Japanese morning glory
Jew's mallow
Korean mint
Korean mountain ash
Korean mulberry
Lady's mantle
Large petiole mustard
Laurel magnolia
Leaf mustard
Lemon marigold
Little mouse-ear chickweed
Littleleaf mock orange
Longleaf mat-rush
Low milkweed
Mayweed
Mazari palm
Meadow buttercup
Meadow clary
Meadow crane's bill
Meadow horsetail
Meadow lily
Meadow parsley
Meadow vetchling
Meadowfoam
Meadowrue
Meadowsweet
Mealy goosefoot
Mealy kudzu
Medake
Medlar
Melilot
Melon
Memorial rosa
Mesa dropseed
Mesamint
Mescal bean
Messmate
Metake
Mexican barberry
Mexican barberry
Mexican barberry
Mexican blue oak
Mexican chia
Mexican dock
Mexican elder
Mexican giant hyssop
Mexican orange flower
Mexican palmetto
Mexican pine nut
Mexican pine nut
Mexican plantain
Mexican plum
Mountain mahogany
Mountain mahogany
Mountain male fern
Mountain maple
Mountain mint
Mountain mint
Mountain mint
Mountain pennyroyal
Mountain pepper
Mountain pepper
Mountain rice
Mountain rue
Mountain rye
Mountain sagewort
Mountain snow
Mountain snowberry
Mountain sorrel
Mountain springparsley
Mountain spruce
Mountain tansy mustard
Mountain tarweed
Mountain tobacco
Mountain valerian
Mountain wood sorrel
Mouse barley
Mouse garlic
Mouse-ear hawkweed
Moutan
Mt. Wellington peppermint
Mu-lan
Mugwort
Mulberry
Water melon
Water milfoil
Water mint
Wax myrtle
Western marsh marigold
Western mayhaw
Western mountain ash
White Arctic mountain heather
White meadowsweet
White melilot
White mugwort
White mulberry
White mulberry
White mullein
White mustard
Whiteleaf mountain mint
Wild madder
Wild melon
Wild mignonette
Wood millet
Woollypod milkweed
Wooly mullein
Wormseed mustard
Xing an sheng ma
Yellow mariposa
Yellow marsh-cress
Yellow monkey flower
Yerba mansa
Zhe Bei Mu
Zhi Mu
Zhong ma huang

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Index of Common Names: N

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Adam's needle
American bladder nut
American nightshade
Annual nettle
Black nightshade
Bladder nut
Broadleaf hemp nettle
California nutmeg
Canadian wood nettle
Chinese nutmeg tree
Common hemp nettle
Common nardoo
Cutleaf nightshade
Deadly nightshade
Downy hemp nettle
Duo zhi zi jin niu
Dwarf nasturtium
Enchanter's nightshade
False nettle
Green needlegrass
Ground nut
Ground nut
Horse nettle
Korean nut pine
Mexican pine nut
Mexican pine nut
Naboom
Nankai-giboshi
Nanking cherry
Nardoo
Narihiradake
Narrow buckler fern
Narrow leaved goosefoot
Narrow-leaved ash
Narrow-leaved hawksbeard
Narrowleaf cottonwood
Narrowleaf pectis
Nasturtium
Native carrot
Native cherry
Native currant
Native currant
Native flax
Native hops
Native millet
Native pennyroyal
Native rosella
Native tamarind
Navajo tea
Necklace weed
Nectarine
Nepal ivy
Nepalese alder
Nepalese crane's bill
Nepalese raspberry
Nettleleaf goosefoot
Nevada bulrush
Nevada goldenrod
New England aster
New Jersey tea
New Mexico giant hyssop
New Mexico locust
New Mexico prairie mallow
New Zealand flax
New Zealand laurel
New Zealand spinach
Ngaio
Nigaki
Niger seed
Nikko fir
Nine star perennial broccoli
Ninebark
Nineleaf biscuitroot
Nipplewort
No-azami
No-biru
Noble fir
Nodding onion
Nootka cypress
Nootka rose
Northern rata
Norway maple
Norway spruce
Norwegian cinquefoil
Nui Xi
Nut grass
Nutmeg geranium
Nutmeg hickory
Nuttall's saltbush
Oil nut
Pig nut
Poet's narcissus
Queensland nut
Red dead nettle
Roman nettle
Scrub nettle
Shepherd's needle
Spanish needles
Spanish nut
Spiny naiad
Sticky nightshade
Stinging nettle
Stinging nettle
Stinging nettle
Stinging nettle
Stinging nettle
Stinging nettle
Tian Nan Xing

Nagi
Nagoon berry
Nailwort
Naked oat
Naked weed
Nan sha shen
Nepalese white thorn
Nerve root
Nerve root
Nerve root
Nettle tree
Nordic currant
Northern Maidenhair
Northern bayberry
Northern biscuitroot
Northern dewberry
Northern fox grape
Northern pin oak
Northern pitch pine
Tian Nan Xing
Tiger nut
White dead nettle
Yunnan nutmeg yew

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Index of Common Names: O

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Abyssinian oat
Aleppo oak
American turkey oak
Aspen onion
Autumn olive
Bastard oleaster
Bee orchid
Bitter orange
Bitter orange
Black oak
Black oak
Blackjack oak
Blue oak
Bolander's onion
Boz-pirnal oak
Bristle oats
Bristly ox-tongue
Broadstemmed onion
Brown bee orchid
Bug orchis
Burr oak
Butterfly orchid
Calamondin orange
California scrub oak
Californian black oak
Californian white oak
Chinese cork oak
Chinese white olive
Holly olive
Holm oak
Hooker's onion
Hungarian oak
Hungarian oat
Hyacinth orchid
Japanese emperor oak
Japanese evergreen oak
Japanese oak
Jerusalem oak
Kermes oak
Largeflower wild onion
Late spider orchid
Lebanon oak
Lilac oxalis
Littleleaf mock orange
Live oak
Live oak
Live oak
Maori onion
Marsh orchid
Marsh orchis
Mexican blue oak
Mexican orange flower
Military orchis
Mock orange
Mock orange
Naked oat
Onionweed
Oondoroo
Opium poppy
Opopanax
Orach
Orange ball tree
Orange gooseberry
Orange honeysuckle
Orange melon
Oregano
Oregon ash
Oregon crab
Oregon cut-leaf blackberry
Oregon grape
Oregon grape
Oregon maple
Oregon sunflower
Oregon tea tree
Oregon white oak
Oriental beech
Oriental bittersweet
Oriental plane
Oriental poppy
Oriental radish
Oriental sweet gum
Oriental white oak
Orpine
Orris
Pyramidal orchid
Red oak
Red oat
Red osier dogwood
Rock chestnut oak
Sandpaper oak
Sawfly orchid
Sawthorn oak
Scarlet oak
Sea oats
Sea orach
Sessile oak
She oak
Shin oak
Shingle oak
Shortstyle onion
Shumard oak
Silky oak
Silvery orach
Slender oat
Small yellow onion
Southern red oak
Spotted orchid
Spreading orach
Spurge olive
Sterile oats
Swamp chestnut oak
Swamp oak

Cork oak
Cork oak
Creeping Oregon grape
Dark-winged orchis
Douglas' onion
Downy oak
Dwarf chinkapin oak
Early purple orchis
Early spider orchid
Eastern poison oak
Evergreen oak
Fly orchid
Forest oak
Four o'clock plant
Four o'clock plant
Fragrant olive
Fragrant orchid
Geyer's onion
Giant onion
Greek oregano
Green osier
Green-winged orchid
Hastate orach
Hawkweed ox-tongue
Holly oak
Nodding onion
Northern pin oak
Oak leaf datura
Oak-leaved geranium
Oak-leaved goosefoot
Oats
Oats
Oca
Odzhar
Ogeechee lime
Ohio buckeye
Oil nut
Okame-zasa
Okra
Old field cinquefoil
Old witch grass
Oleander
Oleaster
Olive
Olluco
One-flower vetch
One-leaved onion
One-seed juniper
Onion
Onion-leaf orchis
Osage orange
Oshima cherry
Osier
Oso berry
Ostrich fern
Ostrich fern
Ougon-kouchiku
Our Lord's candle
Oval heron's bill
Oval kumquat
Overcup oak
Owls claws
Ox-eye daisy
Oxlip
Oyster plant
Ozark chinkapin
Pedunculate oak
Pin oak
Post oak
Potato onion
Potato orchid
Prairie onion
Prairie onion
Purple osier
Purple osier
Swamp onion
Swamp white oak
Sweet orange
Tanbark oak
Textile onion
Tree onion
Turkey oak
Valonia oak
Water oak
Wavyleaf oak
Welsh onion
Western poison oak
White oak
Wild oats
Wild olive
Wild onion
Willow oak
Woodcock orchid
Yellow bee orchid
Yellow chestnut oak
Youth on age

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Index of Common Names: P

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Aleppo pine
Allegheny plum
Alpine celery pine
Ameixa do Peru
American pennyroyal
American persimmon
American pipeweed
American plum
Apache plume
Apak palm
Apricot plum
Arctic poppy
Asian pear
Asparagus pea
Aspen poplar
Australian plum
Austrian pine
Balsam poplar
Banana passion fruit
Barilla plant
Beach pea
Beach pea
Beach pine
Beach plum
Bead plant
Big-cone pine
Birch-leaved pear
Bishop's pine
Herb Paris
Herb Paris
Herb Patience
Himalayan blue pine
Himalayan poppy
Hoary plantain
Hog peanut
Hog peanut
Hog plum
Hooker's evening primrose
Horned pondweed
Horned poppy
Hou Po
Huang ping
Huon pine
Ice plant
Ice plant
Ichang papeda
Indehiscent pigweed
Indian paper birch
Indian physic
Indian pink
Indian pipe
Indian poke
Indian poke
Indian potato
Indian wild pear
Passion flower
Passion fruit
Pasture rose
Pea vetch
Peach
Peach leaved wilow
Peanut
Pear
Pear hawthorn
Pearl berry
Pearl lupin
Pearl millet
Pearly everlasting
Pecan
Pedunculate oak
Pei lan
Pellitory of the wall
Pellitory of the wall
Pencil cedar
Pennsylvania buttercup
Pennsylvania smartweed
Pennycress
Pennycress
Pennyroyal
Pennyroyal geranium
Primrose
Prince's feather
Prince's feather
Prince's plume
Privet
Privet
Prostate pigweed
Provence rose
Psyllium
Puahou
Pukatea
Pumpkin
Purging flax
Purple Crab
Purple amaranth
Purple avens
Purple chokeberry
Purple crowberry
Purple flag
Purple fritillary
Purple loosestrife
Purple milkweed
Purple osier
Purple osier
Purple prairie clover
Purple sage
Purple shiso
Purple silkweed

Black peppermint
Black persimmon
Black poplar
Blackseed plantain
Bladder pod
Bladder pod
Blond psyllium
Blue hesper palm
Blue panic grass
Bokhara plum
Bollwyller pear
Branched pencil cholla
Branching phacelia
Bristle-cone pine
Broad-leaved pondweed
Brown's peony
Brush pepperbush
Buck's-horn plantain
Bush palmetto
Bushman's toilet paper
Butterfly pea
Cabbage palm
Cabbage palmetto
California compass plant
California peppertree
Californian poppy
Callery pear
Canadian plum
Canadian pondweed
Canadian poplar
Castor-oil plant
Celery top pine
Century plant
Century plant
Century plant
Cerro potosi pinyon
Iron cross plant
Italian stone pine
Jack in the pulpit
Jack pine
Japanese black pine
Japanese pagoda tree
Japanese pepper tree
Japanese photinia
Japanese plum
Japanese plum yew
Japanese plum yew
Japanese plum yew
Japanese privet
Japanese red pine
Japanese sago palm
Japanese white pine
Jeffrey pine
Jelly palm
Jerusalem pea
Joe pye weed
King William pine
King protea
Korean nut pine
Korean plum yew
Lace-bark pine
Lamwick plant
Large petiole mustard
Large-flower evening primrose
Le Conte pear
Lead plant
Leopard plant
Lesser periwinkle
Limber pine
Loblolly pine
Lodgepole pine
Long-head poppy
Longstalk spring parsley
Lord Anson's pea
Low prairie rose
Pennywort
Pennywort
Peony
Pepino
Pepper saxifrage
Pepper vine
Peppergrass
Peppermint geranium
Pepperwort
Perennial buckwheat
Perennial flax
Perennial lettuce
Perennial ryegrass
Perennial sweet pea
Perennial wall rocket
Perpetual kale
Persian manna
Persian wheat
Persimmon
Peruvian lily
Peruvian lily
Pestle parsnip
Pheasant's eye
Pheasant's eye
Pheasant's foot geranium
Philadelphia fleabane
Phureja
Pichi
Pickerel weed
Pickling melon
Pig nut
Pig's face
Pigeon's scaboius
Pigface
Pigmy bitterroot
Purple silkweed
Purple vetch
Purple-coned spruce
Purple-leaf sand cherry
Purplestem angelica
Purplestem aster
Putty root
Pygmy water lily
Pyramidal orchid
Pyrethrum
Queen of the prairie
Quito palm
Red hot poker
Red pine
Ribwort plantain
Rice paper plant
Rocky Mountain piñon
Roman pimpernel
Rosegold pussy willow
Rough pigweed
Sago palm
Sand pear
Sand plum
Sand-dune penstemon
Saw palmetto
Scarlet pimpernel
Scot's pine
Scrub palmetto
Scrub pine
Sea plantain
Sea purslane
Sea purslane
Senegal date palm
Shepherd's purse
Shining pepperweed
Short-leaf pine
Siberian pea tree
Siberian pine
Silverleaf scurf pea
Single leaf piñon

Cheddar pink
Cherry plum
Chick pea
Chickasaw plum
Chickling pea
Chilean podocarp
Chilean wine palm
Chilghoza pine
Chinese parasol tree
Chinese peony
Chinese pink
Chinese pistache
Chinese plum yew
Chinese plum yew
Chinese plumbago
Chinese privet
Chinese red pine
Chinese red pine
Chinese white pine
Chinese wild peach
Chinese wild peach
Chir pine
Chusan palm
Coastal pignut hickory
Colorado wild potato
Common pepperweed
Common plantain
Compass plant
Coral pea
Coral plant
Corn poppy
Corsican pine
Cow parsley
Cow parsnip
Cow parsnip
Cream peavine
Creek plum
Cruel plant
Cuckoo pint
Manna plant
Manystem peavine
Maritime pine
Marvel of Peru
Mazari palm
Meadow parsley
Mexican palmetto
Mexican pine nut
Mexican pine nut
Mexican plantain
Mexican plum
Mexican weeping pine
Mexican white pine
Mirror plant
Monterey pine
Montezuma pine
Mountain pennyroyal
Mountain pepper
Mountain pepper
Mt. Wellington peppermint
Narrowleaf pectis
Native pennyroyal
New Mexico prairie mallow
Nine star perennial broccoli
Northern pin oak
Northern pitch pine
Opium poppy
Oriental plane
Oriental poppy
Oyster plant
Pacific dewberry
Pacific hemlock-parsley
Pacific hound's tongue
Pacific plum
Pacific serviceberry
Pacific silverweed
Pacific stonecrop
Pignut
Pigweed
Pin cherry
Pin oak
Pin-leaf geebung
Pin-point clover
Pine bluegrass
Pine heath
Pine-mat manzanita
Pineapple sage
Pineapple weed
Pingue hymenoxys
Pink
Pink fawn lily
Pink fivecorner
Pink mountain berry
Pink purslane
Pink sorrel
Pinnate boronia
Pipevine
Pipsissewa
Pirri-pirri bur
Pistachio
Pitch pine
Pitcher plant
Pitiquiña
Piñole clover
Plains cottonwood
Plains lemon monarda
Plains prickly pear
Plains springparsley
Pleurisy root
Ploughman's spikenard
Plum
Plum-fruited Yew
Plumbago
Plume grass
Plume poppy
Skeleton plant
Slenderstem peavine
Small-flowered penstemon
Smooth-leaf pine
Smoothpit peach
Snow pear
Soledad pine
Sour plum
Southwestern white pine
Spreading pigweed
Squaw potato
Sugar pea
Sugar pine
Swamp privet
Sweet pea
Sweet pepper
Sweet pepper bush
Sweet pignut
Sweet pignut
Sweet unicorn plant
Sweetroot spring parsley
Swiss stone pine
Sydney peppermint
Szechuan pepper
Tabasco pepper
Tartar bread plant
Tasmanian podocarp
Tea plant
Tea-oil plant
Texas Dutchman's pipe
Thunberg's pigweed
Tree peony
Tree peony
Tree peony
Tree peony
Tree peony
Tree pepper
Turkey pea
Twist-spine prickly pear

Cup plant
Curly pondweed
Curry plant
Cushaw pumpkin
Dalmation pellitory
Date plum
Desert fan palm
Desert panicgrass
Desert peach
Desert pepperweed
Digger pine
Downy rattlesnake plantain
Drias plant
Drumstick primula
Duck potato
Dutchman's pipe
Dwarf Siberian pine
Dwarf fan palm
Dwarf mountain pine
Early purple orchis
Earthnut pea
Eastern poison oak
Elderberry panax
Evening primrose
False pak choi
Fennel-leaved pondweed
Field pea
Finger poppy mallow
Flax-leaved paper-bark
Fool's parsley
Four o'clock plant
Four o'clock plant
French psyllium
Fringed pink
Fulvous popcornflower
Garden pea
Pacific waterleaf
Pacific willow
Pacific yew
Padang
Paint Indian
Painted fern
Painted milkvetch
Painted trillium
Pak choi
Pale ballart
Pale bastard toadflax
Pale flax
Pale jewelweed
Pale serviceberry
Pale spike
Pale spring beauty
Pale thistle
Pale vanilla lily
Pale wolfberry
Pale-flowered fritillary
Paleleaf woodland sunflower
Palmate violet
Palo blanco
Paloblanco
Pampas grass
Panicled bulrush
Pansy
Panther lily
Papaw
Paper birch
Paper mulberry
Paper-shell piñon
Paperbush
Papoose root
Papoose root
Paradise apple
Paradise apple
Parry manzanita
Parry piñon
Plymouth pear
Poached egg plant
Poet's narcissus
Pohutukawa
Pointleaf manzanita
Poison ivy
Poison pimelea
Poison sumach
Pokeweed
Polish wheat
Polypody
Pomegranate
Pond pine
Ponderosa pine
Poppy mallow
Porcelain berry
Porcupine grass
Porter's licoriceroot
Portugal laurel
Portuguese crowberry
Post oak
Post-oak grape
Pot marigold
Pot marjoram
Potato
Potato onion
Potato orchid
Poverty grass
Poverty rush
Povertyweed
Powell's amaranth
Powell's saltweed
Praire dropseed
Prairie coneflower
Prairie cord grass
Prairie crab
Prairie crab
Prairie dock
Prairie goldenrod
Twisted leaf pine
Umbrella pine
Umbrella plant
Unicorn plant
Upright hedge parsley
Vanilla plant
Water parsnip
Water parsnip
Water pennywort
Water purslane
Water purslane
Wax palm
Wax palm
Wax palm
Weeping pittosporum
Western balsam poplar
Western poison oak
Western rattlesnake plantain
Western white pine
White Prince's plume
White panicle aster
White peppermint
White pine
White poplar
White prairie clover
White prairie clover
White-bark pine
Whitest evening primrose
Wild date plum
Wild goose plum
Wild parsley
Wild pea
Wild pear
Wild pepper-grass
Wild potato
Wild potato vine
Willow-leaved pear
Willowleaf podocarp
Winged pigweed

Garden phlox
Gold of pleasure
Golden purslane
Grass of Parnassus
Grass pansy
Great purple monkey flower
Great water plantain
Greater periwinkle
Green purslane
Grey poplar
Ground pine
Ground pine
Ground pine
Ground plum
Guadalupe palm
Hairy puccoon
Hamburg parsley
Harbin pear
Hart's pennyroyal
Parry's bellflower
Parsley
Parsley fern
Parsley piert
Parsley-leaved hawthorn
Parsnip
Partridge berry
Pasque flower
Pasque flower
Pasque flower
Passion flower
Passion flower
Passion flower
Passion flower
Passion flower
Passion flower
Prairie mimosa
Prairie onion
Prairie onion
Prairie rose
Prairie sunflower
Pretty face
Prickle pine
Prickly Moses
Prickly Russian thistle
Prickly ash
Prickly blackcurrant
Prickly cardinal
Prickly comfrey
Prickly juniper
Prickly pear
Prickly pear
Prickly pear
Prickly poppy
Prickly poppy
Prickly rose
Prickly sow thistle
Winged prickly ash
Winged prickly ash
Woodland pinedrops
Woolly parosella
Wu Jia Pi
Wyoming Indian paintbrush
Yellow penstemon
Yellow pimpernel
Yellow silver pine
Yellow-flowered pea
Yunnan plum yew

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Index of Common Names: Q

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Che Qian Zi
Chinese quince
Chinese quince
Dwarf quince
Dwarf quince
Guang jing qian cao
Hua qu liu
Huang Qi
Japanese quince
Jin Qian Cao
Lian Qiao
Qin Jiao
Qing Hao
Qing qi.
Quail bush
Quamash
Quandong
Quebec berry
Quebec hawthorn
Quebracho
Queen of the prairie
Queen's crown
Queen's delight
Queensland kauri
Queensland nut
Queensland silver wattle
Quince
Quinoa
Quito palm
San Qi
Wild quinine
Xiao ye qin

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Index of Common Names: R

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Abcess root
Alaska wild rhubarb
Alpine rock cress
Alum root
Alum root
Alum root
Alum root
American red currant
American red elder
American red raspberry
Amur river grape
Apple rose
Baboon root
Balsam root
Baltic rush
Banksia rose
Beaumont's root
Beth root
Black raspberry
Blood root
Blue wild rye
Bog rosemary
Broom rape
Bur reed
Burnet rose
California wild rose
Californian red fir
London rocket
Low prairie rose
Mallee riceflower
Manchurian wild rice
Manipur wild-tea rose
Mauritius raspberry
Memorial rosa
Mountain rice
Mountain rue
Mountain rye
Musk root
Musk rose
Native rosella
Nepalese raspberry
Nerve root
Nerve root
Nerve root
Nootka rose
Northern rata
Oriental radish
Papoose root
Papoose root
Pasture rose
Perennial ryegrass
Perennial wall rocket
Pleurisy root
Poverty rush
Red river gum
Red root
Red silkweed
Red spruce
Red stringybark
Red valerian
Red-leafed rose
Red-seed dandelion
Red-veined dock
Redbud
Redcurrant
Redmaids
Redmaids
Redoul
Redshank
Redwood sorrel
Redwood violet
Reedmace
Ressurection fern
Rest harrow
Resurrection lily
Rewarewa
Rhododendron
Rhododendron
Rhubarb
Rhubarb
Ribbonwood
Ribwort plantain
Rosin weed
Rosy garlic
Rough bugleweed
Rough hawkbit
Rough pigweed
Rough-barked apple
Rough-fruited cinquefoil
Roughleaf dogwood
Round kumquat
Round-headed leek
Round-leaved dock
Round-leaved dogwood
Round-leaved mint
Round-leaved wintergreen
Roundhead lespedeza
Roundheaded rampion
Roundleaf leather root
Roundleaf serviceberry
Royal fern
Rubber dandelion
Rubber rabbitbrush
Rubber rabbitbrush
Ruby saltbush
Rucki
Rucki
Rue
Rue anemone

Canadian licorice root
Canadian wild rye
Cancer root
Cane reed
Ceylon raspberry
Cherokee rose
China root
China rose
Chinese rampion
Chinese red pine
Chinese red pine
Chinese redbud
Chinese rhubarb
Cinnamon rose
Cluster rose
Coastal redwood
Colorado River hemp
Common reed
Coral root
Corn rocket
Cotton rose
Cumberland rosemary
Damask rose
Dawn redwood
Dog rose
Downy rattlesnake plantain
Dutch rush
Dwarf Russian almond
Dwarf raspberry
Dwarf red blackberry
Egyptian rue
False China root
False roselle
Flowering rush
Fodder radish
Prairie rose
Prickly Russian thistle
Prickly rose
Provence rose
Putty root
Rabbit-eye blueberry
Rabbiteye blueberry
Radish
Radish
Ragged Robin
Ragwort
Rajmahal hemp
Rakaf
Rakkyo
Ramanas rose
Ramie
Rampion
Rape
Rape kale
Raspberry
Rat-tail radish
Rattlesnake fern
Rattlesnake root
Rattlesnake weed
Rattlesnake weed
Rauli
Red alder
Red ash
Red baneberry
Red bay
Red beech
Red berry
Red bilberry
Red bloodwood
Red bryony
Red buckeye
Red campion
Red chokeberry
Red clover
Rice paper plant
Rimu
Ringal
Ringal
Rio Grande cottonwood
Ripgut brome
River beauty
River birch
River bulrush
River club-rush
River hawthorn
River she-oak
River willow
Riverbank grape
Rivet wheat
Roblé
Rocambole
Rock chestnut oak
Rock cinquefoil
Rock clematis
Rock cress
Rock elm
Rock geranium
Rock jasmine
Rock maple
Rock red currant
Rock rose
Rock rose
Rock rose
Rock samphire
Rock spiraea
Rockberry
Rockcress
Rocket
Rocket candytuft
Rocky Mountain Columbine
Rocky Mountain beeplant
Rocky Mountain chokecherry
Rue-anemone
Rui ren
Rum cherry
Runner bean
Rupture wort
Rush
Rush milkweed
Russian sage
Russian tarragon
Russian wormwood
Rusty foxglove
Rusty sallow
Rye
Rye
Ryoku-chiku
Sea radish
Sea rocket
Sea rocket
Seaside ragwort
Senega snake root
Sikkim rhubarb
Small reed mace
Smaller red-root
Smooth withe rod
Snake root
Soft rush
Southern rata
Southern red oak
Southern redcedar
Spiked rampion
Spinach rhubarb
Spiny rest harrow
Stone root
Swamp rose mallow
Sweet chestnut rose
Sweet reed grass
Sweet rocket
Syrian rue
Tartarian rhubarb
Tea rose

French rose
Giant ragweed
Giant reed
Giant wild rye
Goat's rue
Golden evergreen raspberry
Golden rain tree
Gravel root
Green rabbitbrush
Guelder rose
Hairy rupture wort
Hard rush
Herb Robert
Himalayan rhubarb
Indian cucumber root
Indian rape
Indian rush-pea
Italian ryegrass
Japanese raisin tree
Japanese raspberry
Japanese red pine
Japanese rose
Jungle rice
Kentish red cherry
Kohl rabi
Labrador rose
Lapland rosebay
Large Russian vetch
Large leather root
Liquorice root
Liquorice root
Loce restorer
Red coast elder
Red currant
Red cypress-pine
Red dead nettle
Red dock
Red elder
Red elder
Red elder
Red fir
Red glasswort
Red goosefoot
Red grape
Red hailstone
Red haw
Red haw
Red horse chestnut
Red hot poker
Red ironbark
Red kiwi
Red larkspur
Red leg
Red maple
Red mulberry
Red oak
Red oat
Red osier dogwood
Red pine
Red raripila mint
Rocky Mountain iris
Rocky Mountain juniper
Rocky Mountain piñon
Rocky Mountain raspberry
Rocky Mountain strawberry
Roman nettle
Roman pimpernel
Roman wormwood
Roof iris
Rooibos
Root mustard
Rose balsam
Rose geranium
Rose moss
Rose of Sharon
Rose of Sharon
Rose of Sharon
Rose root
Rose-scented geranium
Rosebay
Rosebay rhododendron
Rosebud cherry
Rosegold pussy willow
Roselle
Rosemary
Rosemary mint
Rosilla
Rosin weed
Tobacco root
Tobacco root
Trailing wild raspberry
Turkey rhubarb
Turkish rocket
Unicorn root
Virginia rose
Volga wild rye
Wall rocket
Wall rue
Water ribbons
Western rattlesnake plantain
Western red cedar
Western redbud
Western wild rose
White wall rocket
Whitebark raspberry
Wild radish
Wild rice
Wild rosemary
Withe rod
Wood rose
Yellow rattle
Yellow rocket

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Beaworthy, Devon, EX21 5DF, England
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Plants For A Future Database

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Index of Common Names: S

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

African spider flower
Alkali sakaton
Allegheny shadberry
Alpine spring beauty
Alpine strawberry
Alpine sweetvetch
American sloughgrass
American spikenard
American sweet chestnut
Amur silver grass
Annual scorpion vetch
Annual yellow sweetclover
Antelope sage
Apple sage
Apple serviceberry
Arctic sweet coltsfoot
Arrowleaf sweet coltsfoot
Asiatic sweetleaf
Baikal skullcap
Balsamic sage
Banana shrub
Barbed skullcap
Bastard stone-parsley
Beach strawberry
Beaded sedge
Red silkweed
Red spruce
Red stringybark
Redwood sorrel
River she-oak
Rock samphire
Rock spiraea
Rocky Mountain strawberry
Rose of Sharon
Rose of Sharon
Rose of Sharon
Roundleaf serviceberry
Ruby saltbush
Russian sage
Rusty sallow
Sacapellote
Sack saltbush
Sacred bamboo
Sacred fir
Sacred water lotus
Safflower
Saffron
Sage
Sage brush
Sagebrush mariposa lily
Silver birch
Silver fir
Silver lime
Silver maple
Silver vine
Silver-bell tree
Silverberry
Silverleaf scurf pea
Silverscale saltbush
Silverweed
Silvery orach
Single delight
Single leaf piñon
Sitka alder
Sitka mountain ash
Sitka spruce
Sitka wilow
Six-row barley
Skeleton plant
Skeleton weed
Skirret
Skunk bush
Skunk cabbage
Skunk currant
Skunk weed
Skyrocket
Sleepy grass
Slender amaranth
Stevia
Sticky currant
Sticky geranium
Sticky ground cherry
Sticky groundsel
Sticky laurel
Sticky nightshade
Stiff club moss
Stiff goldenrod
Stinging nettle
Stinging nettle
Stinging nettle
Stinging nettle
Stinging nettle
Stinging nettle
Stink currant
Stinking cassia
Stinking gladwin
Stinking goosefoot
Stinking hellebore
Stinkwood
Stock
Stone bamboo
Stone bramble
Stone mint
Stone root
Stonecrop
Storax tree

Bei sha shen
Bella sombra
Bering Sea spring beauty
Bitter sneezeweed
Black eyed Susan
Black sagebrush
Black saltwort
Black sassafras
Black sloe
Black snakeroot
Black spleenwort
Black spruce
Blackcurrant sage
Bladder senna
Blazing star
Blue sage
Blue sausage fruit
Blue sow thistle
Blue spider wort
Blue spruce
Bridalwreath spiraea
Bristly sarsaparilla
Broad-leaved spring beauty
Broadleaf stonecrop
Brussels sprouts
Buckler-leaved sorrel
Bulbous springparsley
Burnet saxifrage
Bush sour cherry
Button snakeroot
California scrub oak
Californian black sage
Californian strawberry
Caper spurge
Cardinal spear
Carpenter's square
Cascara sagrada
Caucasian spruce
Sago palm
Sailor-caps
Sainfoin
Sakhalin spikenard
Sakhalin spruce
Salad burnet
Salmon barberry
Salmonberry
Salsify
Salt tree
Salt tree
Saltmarsh morning glory
Saltwort
San Qi
Sand blackberry
Sand coprosma
Sand couch
Sand dropseed
Sand grape
Sand hickory
Sand lily
Sand pear
Sand plum
Sand sage
Sand sedge
Sand verbena
Sand-dune penstemon
Sandfly bush
Sandpaper fig
Sandpaper oak
Sanduri
Sandwort
Santa Barbara ceanothus
Sanzashi
Sargent spruce
Sarsaparilla
Sarsparilla
Slender branched gooseberry
Slender buckwheat
Slender celery
Slender cyperus
Slender day-flower
Slender oat
Slender willow
Slenderleaf false foxglove
Slenderstem peavine
Slippery elm
Sloe
Sloughgrass
Small Indian breadroot
Small Solomon's seal
Small bur-parsley
Small canary grass
Small cranberry
Small hackberry
Small houseleek
Small leaved lime
Small reed mace
Small vanilla lily
Small yellow onion
Small-cluster blueberry
Small-flowered penstemon
Small-flowered tamarisk
Small-leaved knotweed
Smaller red-root
Smallflower soapplant
Smallhead clover
Smartweed
Smoke tree
Smooth alder
Smooth brome
Stork's bill
Strapwort
Strawberry
Strawberry
Strawberry blite
Strawberry bush
Strawberry guava
Strawberry saxifrage
Strawberry tomato
Strawberry tree
Strawberry-raspberry
Stream violet
Stubble turnip
Sub-alpine larch
Subalpine fir
Subterranean clover
Suckling clover
Sugar beet
Sugar bush
Sugar bush
Sugar bush
Sugar maple
Sugar pea
Sugar pine
Sugarberry
Summer coralroot
Summer cypress
Summer grape
Summer grape
Summer haw
Summer savory
Summer snowflake
Sunberry
Sunberry
Sundew
Sundew
Sundial lupine
Sunflower
Sunflower wyethia
Supple Jack

Caucasian stonecrop
Chapman's Blazing Star
Chinese savoy
Chinese sea buckthorn
Chinese spinach
Chinese spruce
Chinese swamp cypress
Climbing saltbush
Coast silk tassel
Coastal saltbush
Common skullcap
Common spatterdock
Common speedwell
Common star thistle
Common stonecrop
Comon spike-rush
Corn salad
Corn speedwell
Corn spurrey
Creeping savory
Creeping snowberry
Creeping spearwort
Crooked yellow stonecrop
Cupid's shaving brush
Cusick's serviceberry
Dan Shen
Dang Shen
Danish scurvy grass
Desert sand verbena
Desert seepweed
Desert sumach
Devil's bit scabious
Dotted saxifrage
Downy serviceberry
Dwarf Siberian pine
Dwarf sumach
Eared sallow

Saskatoon
Sassafras
Sauer Klee
Sausage vine
Sauwi
Savine
Savory
Savoy cabbage
Saw palmetto
Saw-wort
Sawfly orchid
Sawthorn oak
Scale fern
Scammony
Scarlet haw
Scarlet haw
Scarlet oak
Scarlet pimpernel
Scarlet strawberry
Scootberry
Scopolia
Scorpion senna
Scorzonera
Scot's pine
Scotch laburnum
Scotch thistle
Scottish lovage
Scouler's willow
Scrambled eggs
Scrambling lily
Scrub birch
Scrub hickory
Scrub nettle
Scrub palmetto
Scrub pine
Scurvy grass
Scurvy grass
Scythian lamb
Sea arrow grass
Sea aster

Smooth cat's ear
Smooth sumach
Smooth tare
Smooth withe rod
Smooth-leaf pine
Smoothpit peach
Smut grass
Snake gourd
Snake lily
Snake root
Snake's beard
Snake-needle grass
Snakehead fritillary
Snakeroot
Snakeroot
Snap melon
Snapdragon
Snappy gum
Sneeze-wort
Sneezeweed
Snow gum
Snow pear
Snowball sand verbena
Snowberry
Snowberry
Snowberry
Snowdrop
Snowy mespilus
Soap lily
Soap tree
Soap tree
Soap-bark tree
Soapberry
Soapweed
Soapwort
Society garlic
Society garlic
Soft brome
Soft love grass

Surf grass
Swallow wort
Swamp chestnut oak
Swamp cottonwood
Swamp cypress
Swamp dewberry
Swamp dock
Swamp hibiscus
Swamp highbush blueberry
Swamp horsetail
Swamp hosta
Swamp laurel
Swamp lily
Swamp lily
Swamp lousewort
Swamp milkweed
Swamp oak
Swamp onion
Swamp privet
Swamp rose mallow
Swamp saxifrage
Swamp sedge
Swamp wattle
Swamp white oak
Swede
Swedish coffee
Swedish servicetree
Swedish whitebeam
Sweet William
Sweet acacia
Sweet alyssum
Sweet appleberry
Sweet basil
Sweet briar
Sweet buckeye
Sweet butterbur
Sweet chestnut rose
Sweet chetsnut
Sweet cicely
Sweet coltsfoot

Early spider orchid
Eastern sweetshrub
Elm-leaved sumach
False spikenard
Fendler's springparsley
Field scabious
Field southernwood
Field speedwell
Fragrant snakeroot
French scorzonera
Gallant soldier
Garden spedwell
Garland spiraea
Germander speedwell
Giant saltbush
Giant sumpweed
Giant sunflower
Globe springparsley
Golden samphire
Golden saxifrage
Golden saxifrage
Golden spider lily
Golden stars
Golden stars
Golden suncup
Great Basin spring beauty
Great Saint John's wort
Greater burnet saxifrage
Grecian strawberry tree
Greek sage
Green in the snow
Green strawberry
Grey sage brush
Hairy Solomon's seal
Hairy yerba santa
Sea beet
Sea bilberry
Sea bindweed
Sea blite
Sea buckthorn
Sea buckthorn
Sea celery
Sea daffodil
Sea fig
Sea grape
Sea grass
Sea holly
Sea lavender
Sea lavender
Sea oats
Sea orach
Sea plantain
Sea purslane
Sea purslane
Sea radish
Sea rocket
Sea rocket
Sea sandwort
Sea squill
Sea thrift
Sea wormwood
Seablite
Seacale
Seashore lupine
Seaside alder
Seaside buckwheat
Seaside bulrush
Seaside ragwort
Sedge
Sedge
Sego lily
Self-heal
Senega snake root
Senegal date palm
Sennin-so
Soft rush
Solander's geranium
Soledad pine
Solomon's seal
Solomon's seal
Sorghum
Sorrel
Sorrel tree
Sotol
Sour cherry
Sour clover
Sour greens
Sour plum
Sourtop blueberry
Southern black haw
Southern cattail
Southern crab
Southern crabgrass
Southern dewberry
Southern huauzontle
Southern juneberry
Southern mountain cranberry
Southern rata
Southern red oak
Southern redcedar
Southern shagbark
Southernwood
Southwestern white pine
Sow thistle
Soya bean
Spanish bayonet
Spanish bayonet
Spanish bayonet
Spanish broom
Spanish dagger
Spanish gorse
Spanish grape
Spanish needles
Sweet coltsfoot
Sweet corn
Sweet fennel
Sweet fern
Sweet fern
Sweet flag
Sweet goldenrod
Sweet goldenrod
Sweet grass
Sweet gum
Sweet hakea
Sweet hottentot fig
Sweet leaf
Sweet marjoram
Sweet mountain grape
Sweet orange
Sweet pea
Sweet pepper
Sweet pepper bush
Sweet pignut
Sweet pignut
Sweet reed grass
Sweet rocket
Sweet tea vine
Sweet trefoil
Sweet unicorn plant
Sweet vernal grass
Sweet vetch
Sweet violet
Sweet winter grape
Sweet woodruff
Sweetroot spring parsley
Sweetshoot bamboo
Swiss chard
Swiss stone pine
Swollen-stem mustard
Sycamore
Sydney peppermint
Syrian bean caper
Syrian juniper

Harbinger of spring
Hard shield fern
Hautbois strawberry
He Shou Wu
Headed savory
Heart seed
Hui hui suan
Iberian star thistle
Indian shot
Indian spinach
Italian corn salad
Italian stone pine
Ivy-leaf speedwell
Japanese sago palm
Japanese snake gourd
Japanese snowball
Japanese spindle tree
Japanese spiraea
Japanese spurge
Japanese storax
Jerusalem sage
Jerusalem sage
King Solomon's seal
King's spear
Ku shen
Lanceleaf spring beauty
Late spider orchid
Least yellow sorrel
Lemon sumach
Lesser spearwort
Long leaved scurvy grass
Longstalk spring parsley
Low sweet blueberry
Low sweet blueberry
Maiden sorrel
Maidenhair spleenwort
Sensitive fern
Serbian spruce
Serpent garlic
Serpent melon
Serradella
Service tree
Sesame
Sesame grass
Sessile oak
Seven barks
Sha shen
Shadscale
Shag-spine
Shagbark hickory
Shallon
Shallot
Sham
Shan Zhu Yu
Sharp dock
Sharp-leaf ground cherry
Sharp-leaf willow
Shasta daisy
Shatavari
Shawnee wood
She Chuang Zi
She balsam
She oak
Sheep laurel
Sheep's fescue
Sheepberry
Sheeps sorrel
Shellbark hickory
Shepherd's needle
Shepherd's purse
Shield fern
Shin oak
Shingle oak
Shining club moss
Shining
Spanish nut
Spanish sage
Spanish salsify
Spatterdock
Speargrass
Spearleaf stonecrop
Spearmint
Speckled alder
Speckled wood lily
Specklepod milkvetch
Spelt wheat
Sphagnum moss
Spice bush
Spider lily
Spider lily
Spiderwort
Spignel
Spike dropseed
Spike lavender
Spike trisetum
Spiked rampion
Spiked saxifrage
Spikenard
Spinach
Spinach beet
Spinach rhubarb
Spindle tree
Spinning gum
Spiny Wood Fern
Spiny amaranth
Spiny cocklebur
Spiny naiad
Spiny rest harrow
Spiny vitis
Spleen amaranth
Spoonleaf yucca
Spotted cranesbill
Spotted emubush
Spotted gentian
Spotted golden thistle
Syrian rue
Szechuan pepper
Thistle sage
Thorn skeletonweed
Threetip sage brush
Thyme-leaf sandwort
Thyme-leaved savory
Thymeleaf sandmat
Tibetan sea buckthorn
Tolmie startulip
Transmontane sand verbena
Tree spinach
Tuberous spring beauty
Tufted sedge
Utah serviceberry
Violet wood sorrel
Virginia snakeroot
Virginian skullcap
Virginian stonecrop
Water shield
Water smartweed
Water soldier
Water speedwell
Water starwort
Waxflower shinleaf
Wedgescale saltbush
Weeping spruce
Western sand cherry
Western snakeroot
Western soapberry
Western sweet-cicely
Wheelscale saltbush
White sage
White sage
White sage
White snakeroot
White spruce
Whitestem blazing star
Whorled Solomon's seal
Widewing springparsley

Maltese star thistle
Manchurian spikenard
Marsh speedwell
Maryland sanicle
Matted St. John's wort
Maximillian sunflower
Mexican white sagebrush
Mora silvestre
Morinda spruce
Morning star lily
Mountain sagewort
Mountain snow
Mountain snowberry
Mountain sorrel
Mountain springparsley
Mountain spruce
Mountain wood sorrel
Musk storksbill
Mustard spinach
Nan sha shen
New Zealand spinach
Niger seed
Nine star perennial broccoli
Norway spruce
Nuttall's saltbush
Oregon sunflower
Oriental sweet gum
Pacific serviceberry
Pacific silverweed
Pacific stonecrop
Pale serviceberry
Pale spike
Pale spring beauty
Paleleaf woodland sunflower
Pennsylvania pepperweed
Shining willow
Shiso
Shittamwood
Shoo fly
Shore juniper
Short-beaked arrow leaf
Short-leaf pine
Shortawn foxtail
Shortstyle onion
Shot wheat
Showy milkweed
Showy mountain ash
Showy sunflower
Showy tarweed
Shrubby cinquefoil
Shrubby hare's ear
Shrubby seablite
Shumard oak
Siberian apricot
Siberian elm
Siberian filbert
Siberian fir
Siberian ginseng
Siberian iris
Siberian larch
Siberian pea tree
Siberian pine
Siberian tea
Siberian wallflower
Siberian yarrow
Sidebells wintergreen
Sidney golden wattle
Sierra gooseberry
Sikkim rhubarb
Silk vine
Spotted hawkweed
Spotted laurel
Spotted orchid
Spotted wintergreen
Sprat barley
Spreading cotoneaster
Spreading dogbane
Spreading orach
Spreading pigweed
Spreading sneeze weed
Spring beauty
Spring cress
Spring snowflake
Springbank clover
Spurge laurel
Spurge olive
Spurred gentian
Square bamboo
Squash
Squaw apple
Squaw carpet
Squaw grass
Squaw potato
Squawthorn
Squinancy wort
Squirrel corn
Squirting cucumber
St. Andrews cross
St. Barnaby's thistle
St. John's wort
Stag's horn sumach
Stagberry
Star anise
Star duckweed
Star jasmine
Star magnolia
Star of Bethlehem
Star of Bethlehem
Star tulip
Wild Spaniard
Wild sarsaparilla
Wild senna
Wild service tree
Wild soya bean
Wild spurge
Wild strawberry
Wild sunflower
Willow-leaved sea buckthorn
Winged spindle tree
Winged spindle tree
Winter savory
Winter squash
Winter sweet
Wood sage
Wood sanicle
Wood sorrel
Woodland strawberry
Woolly sweet-cicely
Wormleaf stonecrop
Xing an sheng ma
Yacon strawberry
Yan Hu Suo
Yellow salsify
Yellow silver pine
Yellow skunk cabbage
Yellow sorrel
Yellow spiderflower
Yellow spined thistle
Yellow strawberry guava
Yellow wood sorrel
Yerba santa
Yezo spruce

smartweed
Pepper saxifrage
Perennial sweet pea
Pigeon's scaboius
Pineapple sage
Pink sorrel
Plains springparsley
Ploughman's spikenard
Poison sumach
Powell's saltweed
Prairie sunflower
Prickly sow thistle
Purple sage
Purple shiso
Purple silkweed
Purple silkweed
Purple-coned spruce
Purple-leaf sand cherry
Queensland silver wattle
Silkworm thorn
Silky dogwood
Silky hakea
Silky oak
Silky sophora
Silky wisteria
Silver banksia
Silver beech
Star-flowered lily of the valley
Stavesacre
Steeplebush
Stemless carline thistle
Stemless thistle
Sterile oats

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Index of Common Names: T

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Name not here? Search for a common name:

Submit

Adder's tongue
Algerian tea
Algerian tea
Alpine totara
Altai mountain thorn
American turkey oak
Amur cork tree
Aniseed tree
Athel tamarisk
Bai Tou Weng
Basil thyme
Bastard toad flax
Bastard toadflax
Bay tree
Bead tree
Beggar ticks
Beggar's ticks
Bei wu tou
Big tree
Bird's foot trefoil
Black tree fern
Black tupelo
Blessed thistle
Blue sow thistle
Blue toadflax
Box thorn
Broad-leaved thyme
Bushman's toilet
Isu tree
Jam tarts
Japan wood-oil tree
Japanese angelica tree
Japanese pagoda tree
Japanese pepper tree
Japanese raisin tree
Japanese spindle tree
Ji Xue Teng
Job's tears
Joshua tree
Judas tree
Kangaroo thorn
Kashgar tree
Katsura tree
Kentucky coffee tree
Koda tree
Labrador tea
Labrador tea
Lacquer tree
Lady's tresses
Large beard tongue
Large toothwort
Lemon tea-tree
Lemon thyme
Lemon-scented tea tree
Lily tree
Lily turf
Tall thimbleweed
Tall wheatgrass
Tallow wood
Tamarack
Tamarisk
Tamarisk
Tanbark oak
Tanekaha
Tansy
Tansy mustard
Tansy-leaved thorn
Tar vine
Tara vine
Tarajo
Tarata
Tarragon
Tartar bread plant
Tartarian buckwheat
Tartarian rhubarb
Tarweed
Tarweed fiddleneck
Tasmanian blue gum
Tasmanian podocarp
Tassel flower
Tassel hyacinth
Tatarian maple
Tau-saghyz
Tawa
Trailing bellflower
Trailing fuchsia
Trailing wild raspberry
Transmontane sand verbena
Traveller's joy
Trazel
Trebizond date
Tree Mallow
Tree aralia
Tree chola
Tree fern
Tree fern
Tree lavatera
Tree lupin
Tree of heaven
Tree onion
Tree peony
Tree peony
Tree peony
Tree peony
Tree peony
Tree pepper
Tree spinach
Tree tobacco
Tree tomato
Tree violet
Tricolor chrysanthemum

paper
Cabbage thistle
Cabbage tree
Cabbage tree
Camel thorn
Camphor thyme
Cape Barren tea
Caraway thyme
Carline thistle
Carrot tree
Cat thyme
Celery top pine
Chile tarweed
Chinese angelica tree
Chinese cork tree
Chinese nutmeg tree
Chinese parasol tree
Chinese tamarisk
Chinese trazel
Chou Wu Tong
Christ's thorn
Cilician thyme
Coast silk tassel
Coast tea-tree
Coastal tidytips
Cobwebby thistle
Cockspur thorn
Columbia tiger lily
Common star thistle
Common thistle
Common thyme
Coral tree
Corkwood tree
Cotton thistle
Couve tronchuda
Creeping lady's tresses
Creeping thistle
Cretan thyme
Cucumber tree
Longray tripletlily
Maidenhair tree
Maltese star thistle
Manchurian angelica tree
Manna tree
Marsh thistle
Mastic thyme
Mastic tree
Mayten tree
Mexican tarragon
Mexican tea
Mexican tea
Milk thistle
Mochi tree
Mock tomato
Monkey-puzzle tree
Moon trefoil
Mormon tea
Mormon tea
Mountain tansy mustard
Mountain tarweed
Mountain tobacco
Musk thistle
Mysore thorn
Native tamarind
Navajo tea
Nepalese white thorn
Nettle tree
New Jersey tea
Orange ball tree
Oregon tea tree
Pacific hound's tongue
Painted trillium
Pale bastard toadflax
Pale thistle
Prickly Russian thistle
Prickly sow thistle
Russian tarragon
Salt tree
Tawhiwhi
Tea plant
Tea rose
Tea tree
Tea tree
Tea-leaf viburnum
Tea-oil plant
Tea-tree
Tealeaf willow
Teasel
Tef
Teke-saghyz
Temple juniper
Terebinth
Texas Dutchman's pipe
Texas madrone
Texas mahonia
Texas mulberry
Texas walnut
Textile onion
Thale cress
Thimbleberry
Thimbleberry
Thistle sage
Thorn apple
Thorn skeletonweed
Thornapple
Thorny bamboo
Thoroughwort
Thorow-wax
Three-cornered leek
Threepetal bedstraw
Threetip sage brush
Thrumwort
Thunberg's pigweed
Thyme-leaf sandwort
Thyme-leaved savory
Thymeleaf sandmat
Tian Nan Xing
Tian Nan Xing
Triticale
Tropical kudzu
Trout lily
Trumpet creeper
Trumpet gooseberry
Trumpet honeysuckle
Trumpet vine
Tsi
Tuberose
Tuberous spring beauty
Tuberous thistle
Tuberous water lily
Tufted sedge
Tufted vetch
Tuhu
Tulip
Tulip tree
Tumble mustard
Tumbleweed
Tumbling Ted
Tung tree
Turk's Cap lily
Turkey bush
Turkey oak
Turkey pea
Turkey rhubarb
Turkish hazel
Turkish rocket
Turnip
Turnip-rooted chervil
Turpentine tree
Tussock bellflower
Tussock grass
Tutsan
Twinberry
Twinflower
Twining fringed lily
Twinleaf
Twist-spine prickly pear
Twisted leaf pine

Currant tomato
Cut-leaved toothwort
Desert thorn
Devil's Twine
Devil's tobacco
Devil's tongue
Distaff thistle
Downy thorn apple
Eaton's thistle
Edible thistle
English tree
Epaulette tree
Fairies thimbles
False toadflax
Field milk thistle
Foxglove tree
Fringe tree
Fuller's teasel
Giant timber bamboo
Giant trumpets
Globe thistle
Golden rain tree
Grassy tarweed
Greater bird's foot trefoil
Greater bird's foot trefoil
Grecian strawberry tree
Hairy tare
Hart's tongue fern
Hop tree
Hop tree
Hound's tongue
Iberian star thistle
Indian Tobacco
Indian bean tree
Indian thistle
Indian tree hazel
Indian turnip
Salt tree
Scotch thistle
Sea thrift
Service tree
Showy tarweed
Siberian pea tree
Siberian tea
Silkworm thorn
Silver-bell tree
Small-flowered tamarisk
Smoke tree
Smooth tare
Soap tree
Soap tree
Soap-bark tree
Sorrel tree
Sow thistle
Spike trisetum
Spindle tree
Spotted golden thistle
St. Barnaby's thistle
Star tulip
Stemless carline thistle
Stemless thistle
Storax tree
Strawberry tomato
Strawberry tree
Stubble turnip
Sweet tea vine
Sweet trefoil
Tabasco pepper
Tacatricho 32
Taiwan cherry
Taka-no-tsume
Tall blue lettuce
Tall melilot
Tian kui
Tibetan cotoneaster
Tibetan sea buckthorn
Tick bean
Tickseed
Tickweed
Tien ma
Tiger flower
Tiger lily
Tiger nut
Timothy
Toad lily
Toadshade
Tobacco
Tobacco
Tobacco root
Tobacco root
Tobira
Todok
Tokyo cherry
Tolmie startulip
Tomatillo
Tomato
Tomcat clover
Tonkin bamboo
Toothed bur-clover
Tormentil
Totara
Touch-me-not
Tower cress
Townsend's cord grass
Tragacanth
Trailing abutilon
Trailing abutilon
Trailing bellflower
Twisted-leaf yucca
Twistedleaf garlic
Two-leaf vetch
Two-rowed barley
Twoflower violet
Vegetable tallow
Washington thorn
Water tupelo
Wavy-leaved thistle
Wax tree
Wayfaring tree
Welted thistle
White thistle
White trillium
White trout-lily
White trumpet lily
Whitedaisy tidytips
Wild service tree
Wild thyme
Wild thyme
Wild tobacco
Wild tomatillo
Wild turnip
Wild turnip-rape
Winged spindle tree
Winged spindle tree
Winter tares
Winter tares
Woolly thyme
Wooly thistle
Yellow spined thistle
Yellow toadflax
Yellow trumpet

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Index of Common Names: U

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

- Sweet unicorn plant
- Udo
- Ukogi
- Ulmo
- Umbrella bamboo
- Umbrella bamboo
- Umbrella leaf
- Umbrella pine
- Umbrella plant
- Unicorn plant
- Unicorn root
- Upland bent
- Upright hedge parsley
- Utah honeysuckle
- Utah serviceberry
- Uñi

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

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Index of Common Names: V

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Alaska violet
Aloe vera
American blue vervain
American valerian
American vetch
Annual scorpion vetch
Bird's foot violet
Bitter vetch
Bitter vetch
Bush vetch
Bush vetchling
Canada violet
Chickling vetch
Chinese milk vetch
Chinese violet
Crimson glory vine
Crown vetch
Cyprus vetch
Desert sand verbena
Dog violet
Dog's-tooth violet
Dwarf marsh violet
Erva de vida
Fine-leaved vetch
Fragrant virgin's bower
French vetch
Giant vetch
Hoary vervain
Horned violet
Indian valerian
Kidney vetch
Kudzu vine
Labrador violet
Large Russian vetch
Lemon verbena
Lily of the valley
Lily of the valley
Lily of the valley bush
Linden viburnum
Madeira vine
Maidenhair vine
Manchurian violet
Marsh blue violet
Meadow vetchling
Milk vetch
Milk vine
Mountain valerian
One-flower vetch
Pale vanilla lily
Palmate violet
Pea vetch
Pepper vine
Purple vetch
Red valerian
Redwood violet
Sausage vine
Silk vine
Silver vine
Small vanilla lily
Snowball sand verbena
Spiny vitis
Star-flowered lily of the valley
Stream violet
Sweet tea vine
Sweet vernal grass
Sweet vetch
Sweet violet
Tar vine
Tara vine
Tea-leaf viburnum
Transmontane sand verbena
Tree violet
Trumpet vine
Tufted vetch
Two-leaf vetch
Twoflower violet
Valerian
Valerian
Valley grape
Valonia oak
Vanilla plant
Veitch fir
Venus' looking glass
Vervain
Vetiveria
Vine maple
Vine mesquite
Violet willow
Violet wood sorrel
Viper's bugloss
Virginia creeper
Virginia day-flower
Virginia glasswort
Virginia ground cherry
Virginia mountain mint
Virginia rose
Virginia snakeroot
Virginia waterleaf
Virginian skullcap
Virginian stonecrop
Visnaga
Volga wild rye
Water violet
Western dog violet
White vervain
Wild lily of the valley

Great valley gumweed Hard vetch	Sand verbena	Variegated horsetail Vavilov's wheat Vegetable tallow	Wild potato vine Wood violet Wooly blue violet

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Index of Common Names: W

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

- Ague weed
- Alaska wild rhubarb
- Almond-leaved willow
- Alpine wintergreen
- Alpine wormwood
- American water cress
- American water lotus
- American wild mint
- American wisteria
- Arizona walnut
- Arrow wood
- Asthma weed
- Bai Tou Weng
- Bai wei
- Bay willow
- Beach wormwood
- Beak willow
- Bei wu tou
- Biennial wormwood
- Bishop's weed
- Black walnut
- Black wattle
- Black willow
- Blue spider wort
- Blue wild rye
- Blue-leaved wattle
- Bog wintergreen
- Bread wheat
- Pacific willow
- Pale wolfberry
- Paleleaf woodland sunflower
- Peach leaved wilow
- Pellitory of the wall
- Pellitory of the wall
- Perennial wall rocket
- Persian wheat
- Pickerel weed
- Pineapple weed
- Polish wheat
- Pygmy water lily
- Queensland silver wattle
- Rattlesnake weed
- Rattlesnake weed
- River willow
- Rivet wheat
- Roman wormwood
- Rosegold pussy willow
- Rosin weed
- Rosin weed
- Round-leaved wintergreen
- Rupture wort
- Wax tree
- Waxflower shinleaf
- Wayfaring tree
- Wedgescale saltbush
- Weeping love grass
- Weeping pittosporum
- Weeping spruce
- Weeping willow
- Wei ling xian
- Weld
- Welsh onion
- Welted thistle
- West Himalayan fir
- West Indin chickweed
- Western Blueberry
- Western balsam poplar
- Western buttercup
- Western chokecherry
- Western columbine
- Western dock
- Western dog violet
- Western dogwood
- Western gromwell
- Western hemlock
- Western juniper
- Western larch
- Western marsh marigold
- Wild fig
- Wild garlic
- Wild ginger
- Wild goose plum
- Wild hyacinth
- Wild hyacinth
- Wild hyacinth
- Wild indigo
- Wild indigo
- Wild indigo
- Wild indigo
- Wild leek
- Wild lettuce
- Wild lettuce
- Wild lettuce
- Wild lily of the valley
- Wild liquorice
- Wild madder
- Wild melon
- Wild mignonette
- Wild oats
- Wild olive
- Wild onion
- Wild parsley
- Wild pea
- Wild pear
- Wild pepper-grass
- Wild potato

Brown watercress
Bushy wallflower
California walnut
California walnut
California wild rose
Californian white oak
Canadian wild rye
Canadian wood nettle
Cancer weed
Careless weed
Caucasian whortleberry
Caucasian wingnut
Caustic weed
Chickweed wintergreen
Chilean wine palm
Chinese Yellow Wood
Chinese walnut
Chinese water chestnut
Chinese weeping cypress
Chinese white olive
Chinese white pine
Chinese wild peach
Chinese wild peach
Chinese wisteria
Chou Wu Tong
Club wheat
Coastal wallflower
Coastal wattle
Colorado wild potato
Common blue wood aster
Coyote willow
Crack willow
Crazy weed
Creeping willow
Crested wood fern
Cricket bat willow
Cutleaf waterparsnip
Desert willow
Russian wormwood
Sacred water lotus
Scouler's willow
Sea wormwood
Sharp-leaf willow
Shawnee wood
Shining willow
Shot wheat
Siberian wallflower
Sidebells wintergreen
Sidney golden wattle
Silky wisteria
Sitka wilow
Skeleton weed
Skunk weed
Slender willow
Smooth withe rod
Southwestern white pine
Speckled wood lily
Spelt wheat
Spiny Wood Fern
Spotted wintergreen
Spreading sneeze weed
Squinancy wort
St. John's wort
Sunflower wyethia
Swallow wort
Swamp wattle
Swamp white oak
Swedish whitebeam
Sweet William
Sweet winter grape
Sweet woodruff
Tall wheatgrass
Tallow wood
Tealeaf willow
Texas walnut
Western mayhaw
Western mountain ash
Western poison oak
Western rattlesnake plantain
Western red cedar
Western redbud
Western sand cherry
Western snakeroot
Western soapberry
Western sweet-cicely
Western waterleaf
Western white pine
Western wild rose
Wetern blackcurrant
Wharariki
Wheelscale saltbush
Whisky currant
White Arctic mountain heather
White Prince's plume
White alder
White arrow arum
White ash
White atractylodes
White avens
White balsam
White baneberry
White basil-balm
White basswood
White birch
White bog-orchid
White bryony
White campion
White cherry
White clematis
White clover
White cypress
White cypress-pine
White dead nettle
Wild potato vine
Wild quinine
Wild radish
Wild rice
Wild rosemary
Wild sarsaparilla
Wild senna
Wild service tree
Wild soya bean
Wild spurge
Wild strawberry
Wild sunflower
Wild thyme
Wild thyme
Wild tobacco
Wild tomatillo
Wild turnip
Wild turnip-rape
Wild yam
Willow dock
Willow grass
Willow herb
Willow oak
Willow-leaved pear
Willow-leaved sea buckthorn
Willowleaf podocarp
Wind flower
Winged bean
Winged buckwheat
Winged elm
Winged pigweed
Winged prickly ash
Winged prickly ash
Winged spindle tree
Winged spindle tree
Winter apple
Winter cherry
Winter cherry
Winter creeper

Downy woundwort
Dune willow
Dune willow
Durum wheat
Dwarf white-striped bamboo
Dyer's woodruff
Feltleaf wiillow
Fragrant water lily
Fragrant woodfern
Fringed wormwood
Giant white fawnlily
Giant wild rye
Glacier wormwood
Goat willow
Golden wattle
Golden weather glass
Golden weather grass
Golden willow
Goodding's willow
Great Saint John's wort
Great water dock
Great water plantain
Green wattle
Green-flowered wintergreen
Grey willow
Hairy rupture wort
Halberd-leaved willow
He Shou Wu
Heartseed walnut
Hedge woundwort
Hind's black walnut
Indian wild pear
Indian woodoats
Japan wood-oil tree
Japanese walnut
Japanese water iris
Japanese white pine
Japanese wineberry
Trailing wild raspberry
Tuberous water lily
Vavilov's wheat
Violet willow
Violet wood sorrel
Virginia waterleaf
Volga wild rye
Wahoo
Wakerobin
Wall germander
Wall lettuce
Wall rocket
Wall rue
Wall whitlow grass
Wallflower
Walnut
Walnut
Walnut
Wapato
Waratah
Washington thorn
Water arum
Water avens
Water betony
Water birch
Water blinks
Water bush
Water celery
Water chestnut
Water chickweed
Water clover
Water crowfoot
Water dropwort
Water dropwort
Water dropwort
Water forget-me-not
Water fringe
Water germander
Water hawthorn
White elderberry
White hellebore
White henbane
White horehound
White lettuce
White lupin
White meadowsweet
White melilot
White mugwort
White mulberry
White mulberry
White mullein
White mustard
White oak
White panicle aster
White peppermint
White pine
White poplar
White prairie clover
White prairie clover
White sage
White sage
White sage
White snakeroot
White spruce
White thistle
White trillium
White trout-lily
White trumpet lily
White vervain
White wall rocket
White water lily
White waxberry
White willow
White-bark pine
White-flowered currant
Whitebark raspberry
Whitebeam
Whitedaisy tidytips
Whiteleaf mountain
Winter daphne
Winter savory
Winter squash
Winter sweet
Winter tares
Winter tares
Winter's bark
Winter-flowering jasmin
Winterberry
Wintergreen
Wire grass
Wiry wattle
Witch hazel
Withe rod
Woad
Wolfbane
Wolfberry
Wolfberry
Wolfsbane
Wombat berry
Wood anemone
Wood avens
Wood betony
Wood cranesbill
Wood horsetail
Wood leek
Wood lily
Wood millet
Wood rose
Wood sage
Wood sanicle
Wood sorrel
Wood violet
Woodcock orchid
Woodland pinedrops
Woodland strawberry
Wool grass
Woolly cinquefoil
Woolly parosella
Woolly sweet-cicely

Japanese wingnut
Japanese wisteria
Joe pye weed
Khurasan wheat
King William pine
Knife-leaf wattle
Largeflower wild onion
Leather wood
Leather wood
Madeiran whortleberry
Makha wheat
Manchurian walnut
Manchurian wild rice
Manipur wild-tea rose
Marginal woodfern
Marsh woundwort
Matted St. John's wort
Mexican weeping pine
Mexican white pine
Mexican white sagebrush
Missouri willow
Mountain wood sorrel
Mt. Wellington peppermint
Mulesears wyethia
Naked weed
Necklace weed
Nepalese white thorn
Old witch grass
Oregon white oak
Oriental white oak
Pacific waterleaf
Water hickory
Water horehound
Water hyacinth
Water locust
Water mallee
Water mat
Water melon
Water milfoil
Water mint
Water oak
Water parsnip
Water parsnip
Water pennywort
Water purslane
Water purslane
Water ribbons
Water shield
Water smartweed
Water soldier
Water speedwell
Water starwort
Water tupelo
Water violet
Water whirlgrass
Watercress
Watercress
Waterleaf
Wavy bittercress
Wavy-leaved thistle
Wavyleaf oak
Wax currant
Wax gourd
Wax myrtle
Wax palm
Wax palm
Wax palm
mint
Whitemouth dayflower
Whitest evening primrose
Whitestem blazing star
Whitestem gooseberry
Whitetip clover
Whitey wood
Whorled Solomon's seal
Whorled yellow loosestrife
Whorlflower
Widewing springparsley
Wild Himalayan cherry
Wild Spaniard
Wild angelica
Wild basil
Wild bergamot
Wild cabbage
Wild carrot
Wild celery
Wild cherry
Wild cherry
Wild clary
Wild coffee
Wild columbine
Wild cucumber
Wild cucumber
Wild daffodil
Wild date plum
Wild einkorn
Wild emmer
Wild fennel
Woolly thyme
Woolly willow
Woolly wyethia
Woollypod milkweed
Wooly blue violet
Wooly geranium
Wooly mullein
Wooly thistle
Wormleaf stonecrop
Wormseed
Wormseed mustard
Wormwood
Wormwood
Wu Jia Pi
Wu Wei Zi
Wu Zhu Yu
Wych elm
Wyoming Indian paintbrush
Yellow water lily
Yellow willow
Yellow wood
Yellow wood sorrel
Yellow wort
Yew-leaf willow

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Index of Common Names: X

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Name not here? Search for a common name:

Submit

- Ba Jiao Hui Xian
- Ban xia
- Chuan Xiong
- Chuang xiong
- Ji Xue Teng
- Ling xiang cao
- Nui Xi
- Tian Nan Xing
- Tian Nan Xing
- Wei ling xian
- Xiao ye qin
- Xing an sheng ma
- Xu duan
- Xuan Fu Hua
- Xuan fu hua
- Xue liu

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Index of Common Names: Y

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

- American yellowrocket
- Annual yellow sweetclover
- Canadian yew
- Cao yu mei
- Carolina yelloweyed grass
- Chinese Yellow Wood
- Chinese plum yew
- Chinese plum yew
- Chinese yam
- Crooked yellow stonecrop
- Elephant yam
- Glutinous yam
- Great yellow cress
- Hairy yerba santa
- Japanese plum yew
- Japanese plum yew
- Japanese plum yew
- Japanese yew
- Korean plum yew
- Large yellow foxglove
- Least yellow sorrel
- Mojave yucca
- Spoonleaf yucca
- Twisted-leaf yucca
- Whorled yellow loosestrife
- Wild yam
- Wu Zhu Yu
- Xiao ye qin
- Yacon strawberry
- Yam daisy
- Yam daisy
- Yam daisy
- Yama-shakuyaku
- Yamazakura
- Yamazakura
- Yampa
- Yan Hu Suo
- Yankee blackberry
- Yareta
- Yarrow
- Yatzi
- Yaupon holly
- Yellow archangel
- Yellow avens
- Yellow bee orchid
- Yellow birch
- Yellow box
- Yellow bristle grass
- Yellow camomile
- Yellow centaury
- Yellow chestnut oak
- Yellow day lily
- Yellow elderberry
- Yellow fennel flower
- Yellow flag
- Yellow foxglove
- Yellow fritillary
- Yellow gentian
- Yellow gum
- Yellow gum
- Yellow jasmine
- Yellow loosestrife
- Yellow lupin
- Yellow mariposa
- Yellow marsh-cress
- Yellow monkey flower
- Yellow penstemon
- Yellow pimpernel
- Yellow rattle
- Yellow rocket
- Yellow salsify
- Yellow silver pine
- Yellow skunk cabbage
- Yellow sorrel
- Yellow strawberry guava
- Yellow toadflax
- Yellow trumpet
- Yellow water lily
- Yellow willow
- Yellow wood
- Yellow wood sorrel
- Yellow wort
- Yellow-flowered pea
- Yellow-groove bamboo
- Yellowhorn
- Yellowray goldfields
- Yellowroot
- Yerba buena
- Yerba mansa
- Yerba santa
- Yew
- Yew-leaf willow
- Yezo spruce
- Yin Chen Hao
- Youth on age
- Yuan Zhi
- Yuan zhi
- Yun lian
- Yunnan nutmeg yew
- Yunnan plum yew

Pacific yew
Plum-fruited Yew
Shan Zhu Yu
Siberian yarrow
Small yellow onion

Yellow spiderflower
Yellow spined thistle

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Index of Common Names: Z

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Latin Names

Name not here? Search for a common name:

Submit

Bai Zhi
Bai Zhu
Bu Gu Zhi
Cang zhu
Cang zhu
Che Qian Zi
Chishima zasa
Dan dao zi cai
Duo zhi zi jin niu
Japanese zelkova
New Zealand flax
New Zealand laurel
New Zealand spinach
Shan Zhu Yu
She Chuang Zi
Wu Wei Zi
Wu Zhu Yu
Yuan Zhi
Yuan zhi
Zabala fruit
Zalil
Zenmai
Zhe Bei Mu
Zhi Mu
Zhong ma huang
Zig-zag bamboo

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Index of Latin Names: A

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Common Names

Name not here? Search for a latin name:

Submit

- Abelia triflora
- Abelmoschus esculentus
- Abelmoschus manihot
- Abelmoschus moschatus
- Abies alba
- Abies amabilis
- Abies balsamea
- Abies cephalonica
- Abies concolor
- Abies delavayi
- Abies firma
- Abies fraseri
- Abies grandis
- Abies homolepis
- Abies lasiocarpa
- Abies magnifica
- Abies mariesii
- Abies nordmanniana
- Abies pindrow
- Abies procera
- Abies recurvata
- Abies religiosa
- Abies sachalinensis
- Abies sibirica
- Abies spectabilis
- Agave utahensis discreta
- Agave utahensis eborispina
- Ageratina altissima
- Ageratina aromatica
- Ageratina herbacea
- Ageratina ligustrina
- Ageratina occidentalis
- Ageratina rugosum
- Ageratum conyzoides
- Ageratum houstonianum
- Agoseris aurantiaca
- Agoseris glauca
- Agrimonia eupatoria
- Agrimonia parviflora
- Agrimonia pilosa
- Agrimonia striata
- Agriophyllum gobicum
- Agropyron elongatum
- Agrostemma githago
- Agrostis perennans
- Ailanthus altissima
- Aizoon canariense
- Ajuga australis
- Ajuga bracteosa
- Amphicarpaea pitcheri
- Amsinckia lycopsoides
- Amsinckia tesselata
- Amyema pendulum
- Anacamptis pyramidalis
- Anacyclus pyrethrum
- Anagallis arvensis
- Anaphalis margaritacea
- Anchusa azurea
- Anchusa officinalis
- Andromeda glaucophylla
- Andromeda polifolia
- Andropogon gerardii
- Andropogon virginicus
- Androsace sarmentosa
- Androstephium caeruleum
- Anemarrhena asphodeloides
- Anemone altaica
- Anemone canadensis
- Anemone cylindrica
- Anemone flaccida
- Anemone narcissiflora
- Anemone nemorosa
- Anemone nikoensis
- Artemisia umbelliformis
- Artemisia vulgaris
- Artemisia wrightii
- Arthrocnemum fruticosum
- Arthrocnemum subterminale
- Arthropodium cirrhatum
- Arthropodium milleflorum
- Arthropodium minus
- Arum dioscoridis
- Arum italicum
- Arum maculatum
- Aruncus dioicus
- Arundinaria gigantea
- Arundo donax
- Asarum arifolium
- Asarum blumei
- Asarum canadense
- Asarum caudatum
- Asarum dilatatum
- Asarum europaeum
- Asarum forbesii
- Asarum heterotropoides

Abies squamata
Abies veitchii
Abies veitchii sikokiana
Abobra tenuifolia
Abronia fragrans
Abronia latifolia
Abronia turbinata
Abronia villosa
Abutilon species
Abutilon megapotamicum
Abutilon ochsenii
Abutilon pictum
Abutilon purpurascens
Abutilon theophrasti
Abutilon vitifolium
Abutilon x hybridum
Abutilon x milleri
Abutilon x suntense
Acacia aneura
Acacia coriacea
Acacia cultriformis
Acacia dealbata
Acacia decurrens
Acacia farnesiana
Acacia longifolia
Acacia melanoxylon
Acacia mucronata
Acacia paradoxa
Acacia podalyriifolia
Acacia pycnantha
Acacia retinodes
Acacia saligna
Acacia sophorae
Acacia verticillata
Acaenia anserinifolia
Acalypha australis
Acanthus mollis
Ajuga chamaepitys
Ajuga decumbens
Ajuga iva
Ajuga reptans
Akebia quinata
Akebia trifoliata
Akebia x pentaphylla
Alangium chinense
Alangium platanifolium
Albizia julibrissin
Albuca amboensis
Albuca canadensis
Albuca major
Alcea rosea
Alchemilla alpina
Alchemilla xanthochlora
Aletris farinosa
Aletris spicata
Aleurites cordata
Aleurites fordii
Alhagi mannifera
Alhagi maurorum
Alisma canaliculatum
Alisma plantago-aquatica
Alkanna tinctoria
Alliaria petiolata
Allium acuminatum
Allium aflatunense
Allium akaka
Allium altaicum
Allium ampeloprasum
Allium ampeloprasum babbingtonii
Allium angulare
Allium angulosum
Allium atropurpureum
Allium bisceptrum
Anemone obtusiloba
Anemone quinquefolia
Anemone rivularis
Anemone stolonifera
Anemone virginiana
Anemone vitifolia
Anemonella thalictroides
Anemopsis californica
Anethum graveolens
Angelica acutiloba
Angelica anomala
Angelica archangelica
Angelica atropurpurea
Angelica crucifolia
Angelica dahurica
Angelica decursiva
Angelica edulis
Angelica genuflexa
Angelica gigas
Angelica glauca
Angelica japonica
Angelica keiskei
Angelica koreana
Angelica laxiflora
Angelica megaphylla
Angelica montana
Angelica polymorpha
Angelica pubescens
Angelica sinensis
Angelica sylvestris
Angelica uchiyamanae
Angelica ursina
Angiopteris fokiensis
Angophora cordifolia
Angophora floribunda
Anredera cordifolia
Antennaria dioica
Anthemis arvensis
Anthemis cotula
Asarum maximum
Asarum nipponicum
Asarum reflexum
Asarum shuttleworthii
Asarum sieboldii
Asarum takaoi
Asclepias asperula
Asclepias brachystephana
Asclepias californica
Asclepias decumbens
Asclepias eriocarpa
Asclepias erosa
Asclepias galioides
Asclepias hallii
Asclepias incarnata
Asclepias involucrata
Asclepias lanceolata
Asclepias latifolia
Asclepias mexicana
Asclepias ovalifolia
Asclepias pumila
Asclepias purpurascens
Asclepias quadrifolia
Asclepias rubra
Asclepias speciosa
Asclepias subulata
Asclepias sullivantii
Asclepias syriaca
Asclepias tuberosa
Asclepias viridiflora
Asimina triloba
Aspalathus linearis
Asparagus abyssinicus
Asparagus acutifolius
Asparagus adscendens
Asparagus albus
Asparagus aphyllus
Asparagus cochinchinensis

Acca sellowiana
Acer acuminatum
Acer argutum
Acer caesium
Acer campestre
Acer carpinifolium
Acer circinatum
Acer crataegifolium
Acer distylum
Acer ginnala
Acer glabrum
Acer interius
Acer macrophyllum
Acer mono
Acer negundo
Acer oblongum
Acer palmatum
Acer pensylvanicum
Acer platanoides
Acer pseudoplatanus
Acer rubrum
Acer saccharinum
Acer saccharum
Acer saccharum grandidentatum
Acer saccharum nigrum
Acer spicatum
Acer sterculiaceum
Acer tataricum
Acer truncatum
Acer ukurunduense caudatum
Achillea ageratum
Achillea erba-rotta moschata
Achillea millefolium
Achillea ptarmica
Achillea santolina
Achillea sibirica
Allium bodeanum
Allium bolanderi
Allium brevistylum
Allium canadense
Allium canadense mobilense
Allium carinatum
Allium carolinianum
Allium cepa
Allium cepa aggregatum
Allium cepa ascalonicum
Allium cepa proliferum
Allium cernuum
Allium chinense
Allium condensatum
Allium cupanii
Allium douglasii
Allium dregeanum
Allium drummondii
Allium fistulosum
Allium flavum
Allium galanthum
Allium geyeri
Allium giganteum
Allium grayi
Allium hookeri
Allium kunthii
Allium kurrat
Allium ledebourianum
Allium macleanii
Allium macropetalum
Allium macrostemon
Allium moly
Allium monanthum
Allium mutabile
Allium neapolitanum
Allium obliquum
Allium oleraceum
Anthemis tinctoria
Anthoxanthum odoratum
Anthriscus cerefolium
Anthriscus sylvestris
Anthyllis vulneraria
Antirrhinum majus
Aphananthe aspera
Aphanes arvensis
Apios americana
Apios fortunei
Apios priceana
Apium annuum
Apium australe
Apium filiforme
Apium graveolens
Apium graveolens dulce
Apium graveolens rapaceum
Apium graveolens secalinum
Apium insulare
Apium prostratum
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Asparagus stipularis
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Asparagus verticillatus
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Asperula tinctoria
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Asphodelus albus
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Aspidosperma quebracho-blanco
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Asplenium ceterach
Asplenium ruta-muraria
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Asplenium trichomanes
Astelia alpina
Astelia grandis
Astelia nervosa
Astelia solandri
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Aster cordifolius
Aster diplostephioides
Aster fastigiatus
Aster glehnii
Aster hauptii
Aster kantoensis

Achnatherum hymenoides
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Aconitum gammiei
Aconitum hemsleyanum
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Allium rubellum
Allium rubrum
Allium ruhmerianum
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Arisaema quinatum
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Astragalus piletocladus
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Astragalus shinanensis
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Astroloma serratifolium
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Asyneuma salignum

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Actinidia fulvicoma
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Amaranthus palmeri
Amaranthus polygamus
Amaranthus polystachyus
Amaranthus powellii
Amaranthus quitensis
Amaranthus retroflexus
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Atriplex gmelinii
Atriplex halimus
Atriplex hastata
Atriplex hortensis
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Adenophora triphylla
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Atriplex nuttallii
Atriplex patula
Atriplex powellii
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Atriplex subcordata
Atriplex tatarica
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Begonia palmata
Begonia picta
Beilschmiedia sikkimensis
Beilschmiedia tawa
Belamcanda chinensis
Bellis perennis
Benincasa hispida
Berberidopsis corallina
Berberis aggregata
Berberis amurensis
Berberis angulosa
Berberis aristata
Berberis asiatica
Berberis buxifolia
Berberis calliantha
Berberis canadensis
Berberis capillaris
Berberis chengii
Berberis chinensis
Berberis chitria
Berberis cooperi
Berberis darwinii
Berberis empetrifolia
Berberis fendleri
Berberis flexuosa
Berberis gagnepainii
Berberis georgii
Berberis heterophylla
Berberis jaeschkeana
Berberis koreana
Berberis lycium
Berberis parisepala
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Beta lomatogona
Beta trigyna
Beta vulgaris
Beta vulgaris altissima
Beta vulgaris cicla
Beta vulgaris craca
Beta vulgaris flavescens
Beta vulgaris maritima
Betula alleghaniensis
Betula alnoides
Betula ermanii
Betula glandulosa
Betula kenaica
Betula lenta
Betula nana
Betula nigra
Betula occidentalis
Betula papyrifera
Betula pendula
Betula platyphylla
Betula populifolia
Betula pubescens
Betula schmidtii
Betula utilis
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Bidens bigelovii
Bidens bipinnata
Bidens biternata
Bidens frondosa
Bidens parviflora
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Bidens tripartita
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Billardiera scandens
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Brachyglottis monroi
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Brachyglottis rotundifolia
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Bracyloma depressum
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Brahea dulcis
Brahea edulis
Brasenia schreberi
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Brassica carinata
Brassica cretica
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Brassica juncea
Brassica juncea crispifolia
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Brassica juncea multiceps
Brassica juncea napiformis
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Brassica napus
Brassica napus arvensis
Brassica napus napobrassica
Brassica napus napus
Brassica napus pabularia
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Brassica oleracea
Brassica oleracea alboglabra
Brassica oleracea botrytis
Brassica oleracea botrytis aparagoides
Brassica oleracea capitata
Brassica oleracea costata
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Bromus carinatus
Bromus inermis
Bromus japonicus
Bromus mango
Bromus marginatus
Bromus ramosus
Bromus rigidus
Bromus tectorum
Bromus thominii
Broussonetia kazinoki
Broussonetia papyrifera
Bryonia alba
Bryonia dioica
Buddleia asiatica
Buddleia davidii
Buddleia globosa
Buddleia officinalis
Buddleia paniculata
Buglossoides arvensis
Bulbinella hookeri
Bulbinopsis bulbosa
Bulbophyllum inconspicuum
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Bumelia lycioides
Bumelia tenax
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Bunium persicum
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Blechnum spicant
Bletilla striata
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Bloomeria crocea
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Brassica oleracea gongylodes
Brassica oleracea italica
Brassica oleracea medullosa
Brassica oleracea palmifolia
Brassica oleracea ramosa
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Bupleurum longiradiatum
Bupleurum octoradiatum
Bupleurum rotundifolium
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Bursaria spinosa
Butia capitata
Butomus umbellatus
Buxus balearica
Buxus harlandii
Buxus microphylla
Buxus sempervirens
Buxus wallichiana

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Cacalia atriplicifolia
Cacalia auriculata
Cacalia delphinifolium
Cacalia farfaraefolia
Cacalia firma
Cacalia hastata orientalis
Cacalia hastata tanakae
Cacalia kiusiana
Cacalia nikomontana
Cacalia peltifolia
Cacalia pseudo-taimingasa
Caesalpinia decapetala
Caesia calliantha
Caesia parviflora
Caesia vittata
Cakile edentula
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Calamintha nepeta
Calamintha sylvatica
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Calandrinia ciliata
Calandrinia ciliata menziesii
Calandrinia polyandra
Calandrinia remota
Calceolaria arachnoidea
Calceolaria thyrsiflora
Castilleja linariaefolia
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Casuarina cunninghamiana
Casuarina glauca
Casuarina littoralis
Casuarina torulosa
Casuarina verticillata
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Catalpa bignonioides
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Catalpa ovata
Catalpa speciosa
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Caulophyllum robustum
Caulophyllum thalictroides
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Ceanothus americanus
Ceanothus arboreus
Ceanothus cuneatus
Ceanothus divergens
Ceanothus fendleri
Ceanothus impressus
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Cirsium sieboldii
Cirsium spicatum
Cirsium spinosum
Cirsium suffultum
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Cirsium tuberosum
Cirsium undulatum
Cirsium verutum
Cirsium virginianum
Cirsium vulgare
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Cirsium yezoense
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Cistus ladanifer
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Citrofortunella microcarpa
Citrofortunella
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Corylus fargesii
Corylus ferox
Corylus heterophylla
Corylus jacquemontii
Corylus maxima
Corylus sieboldiana
Corylus sieboldiana mandschurica
Corylus tibetica
Corylus x colurnoides
Corylus x vilmorinii
Corynocarpus laevigatus
Cosmos bipinnatus
Cotinus coggygria
Cotinus obovatus

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Calendula officinalis
Calicotome spinosa
Calicotome villosa
Calla palustris
Callicarpa americana
Callicarpa japonica
Callicarpa macrophylla
Callicarpa mollis
Callicarpa pedunculata
Callicoma serratifolia
Calligonum aphyllum
Callirhoe digitata
Callirhoe involucrata
Callirhoe leiocarpa
Callistemon citrinus
Callitriche hermaphroditica
Callitriche palustris
Callitris columellaris
Callitris endlicheri
Calluna vulgaris
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Calochortus barbatus
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Calochortus luteus
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Calochortus nuttallii
Calochortus nuttallii aureus
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Calochortus tolmiei
Calochortus uniflorus
Calochortus venustus
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Caltha leptosepala
Caltha leptosepala howellii
Caltha natans
Caltha palustris
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Ceanothus maritimus
Ceanothus ovatus
Ceanothus prostratus
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Ceanothus sanguineus
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Ceanothus velutinus
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Cedrus deodara
Cedrus libani
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Celastrus dependens
Celastrus flagellaris
Celastrus orbiculatus
Celastrus scandens
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Celtis bungeana
Celtis caucasica
Celtis glycycarpa
Celtis jessoensis
Celtis koraiensis
Celtis laevigata
Celtis laveillei
Celtis lindheimeri
Celtis occidentalis
Celtis pallida
Celtis reticulata
Celtis sinensis
Celtis tenuifolia
Celtis tetrandra
Celtis tournefortii
Centaurea acaulis
Centaurea calcitrapa
Centaurea chamaerhaponticum
swinglei
Citroncirus
Citroncirus webberi
Citrullus lanatus
Citrus aurantium
Citrus ichangensis
Citrus limon
Citrus reticulata
Citrus sinensis
Citrus x meyeri
Cladium mariscus
Cladrastis lutea
Clarkia biloba
Clarkia pulchella
Clarkia purpurea
Clarkia unguiculata
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Claytonia caroliniana
Claytonia lanceolata
Claytonia megarhiza
Claytonia perfoliata
Claytonia scammaniana
Claytonia sibirica
Claytonia tuberosa
Claytonia umbellata
Claytonia virginica
Clematis apiifolia
Clematis brachyura
Clematis chinensis
Clematis columbiana
Clematis douglasii
Clematis flammula
Clematis ianthina
Clematis ligusticifolia
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Cotoneaster bacillaris
Cotoneaster conspicuus
Cotoneaster divaricatus
Cotoneaster franchetii
Cotoneaster frigidus
Cotoneaster glaucophyllus
Cotoneaster lacteus
Cotoneaster microphyllus
Cotoneaster racemiflorus
Cotoneaster serotinus
Cotoneaster simonsii
Cotoneaster wardii
Cotoneaster x watereri
Cotula coronopifolia
Cousinia thomsoni
Cowania mexicana
Crambe abyssinica
Crambe cordifolia
Crambe kotschyana
Crambe maritima
Crambe orientalis
Crambe tatarica
Crataegomespilus dardarii
Crataegus species
Crataegus acclivis
Crataegus aestivalis
Crataegus altaica
Crataegus anomala

- Calycanthus floridus glaucus
- Calycanthus occidentalis
- Calypso bulbosa
- Calystegia hederacea
- Calystegia pellita
- Calystegia pubescens
- Calystegia sepium
- Calystegia soldanella
- Calystegia subvolubilis
- Camassia leichtlinii
- Camassia quamash
- Camassia scilloides
- Camelina sativa
- Camellia biflora
- Camellia chekiangoleosa
- Camellia gracilis
- Camellia japonica
- Camellia kissi
- Camellia oleifera
- Camellia pitardii
- Camellia polyodonta
- Camellia reticulata
- Camellia sasanqua
- Camellia semiserrata
- Camellia sinensis
- Camellia yunnanensis
- Campanula alliariifolia
- Campanula carpatica
- Campanula carpatica turbinata
- Campanula cochleariifolia
- Campanula edulis
- Campanula fenestrellata
- Campanula garganica
- Campanula glomerata
- Campanula lactiflora
- Campanula lasiocarpa
- Campanula latifolia
- Campanula latiloba
- Campanula medium
- Centaurea cyanus
- Centaurea depressa
- Centaurea iberica
- Centaurea jacea
- Centaurea melitensis
- Centaurea monantha
- Centaurea montana
- Centaurea nigra
- Centaurea raphanina
- Centaurea scabiosa
- Centaurea solstitialis
- Centaurium erythraea
- Centaurium spicatum
- Centella asiatica
- Centipeda minima
- Centranthus macrosiphon
- Centranthus ruber
- Centrosema virginianum
- Cephalanthus occidentalis
- Cephalaria syriaca
- Cephalotaxus fortunei
- Cephalotaxus harringtonia
- Cephalotaxus harringtonia drupacea
- Cephalotaxus harringtonia koreana
- Cephalotaxus harringtonia nana
- Cephalotaxus lanceolata
- Cephalotaxus oliveri
- Cephalotaxus sinensis
- Cephalotaxus wilsoniana
- Cerastium arvense
- Cerastium fontanum
- Clematis microphylla
- Clematis orientalis
- Clematis patens
- Clematis pierotii
- Clematis recta
- Clematis serratifolia
- Clematis terniflora
- Clematis tibetana
- Clematis trichotoma
- Clematis vitalba
- Cleome gynandra
- Cleome lutea
- Cleome monophylla
- Cleome ornithopodioides
- Cleome serrulata
- Cleome viscosa
- Clerodendrum bungei
- Clerodendrum cyrtophyllum
- Clerodendrum japonicum
- Clerodendrum kwangtungense
- Clerodendrum trichotomum
- Clethra alnifolia
- Clethra barbinervis
- Cliftonia monophylla
- Clinopodium chinense
- Clinopodium umbrosum
- Clinopodium
- Crataegus apiifolia
- Crataegus aprica
- Crataegus armena
- Crataegus arnoldiana
- Crataegus atrosanguinea
- Crataegus azarolus
- Crataegus baroussana
- Crataegus caesa
- Crataegus calpodendron
- Crataegus canadensis
- Crataegus canbyi
- Crataegus champlainensis
- Crataegus chlorosarca
- Crataegus chrysocarpa
- Crataegus coccinoides
- Crataegus columbiana
- Crataegus crus-galli
- Crataegus cuneata
- Crataegus dilatata
- Crataegus dispessa
- Crataegus douglasii
- Crataegus durobrivensis
- Crataegus ellwangeriana
- Crataegus elongata
- Crataegus festiva
- Crataegus flabellata
- Crataegus flava
- Crataegus gemosa
- Crataegus

Campanula parryi
Campanula persicifolia
Campanula portenschlagiana
Campanula poscharskyana
Campanula punctata
Campanula pyramidalis
Campanula rapunculoides
Campanula rapunculus
Campanula rotundifolia
Campanula takesimana
Campanula versicolor
Camphorosma monspeliaca
Campsis grandiflora
Campsis radicans
Canarium album
Canna edulis
Canna glauca
Canna indica
Cannabis sativa
Capparis spinosa
Capsella bursa-pastoris
Capsicum annuum
Capsicum baccatum
Capsicum frutescens
Capsicum pubescens
Caragana arborescens
Caragana boisii
Caragana brevispina
Caragana decorticans
Caragana fruticosa
Caragana gerardiana
Caragana jubata
Caragana pygmaea
Caragana sinica
Cardamine amara
Cardamine amaraeformis
Cardamine bonariensis
Cardamine bulbifera
Cardamine bulbosa
Cardamine debilis

Cerastium furcatum
Cerastium holosteoides
Cerastium semidecandrum
Cerastium viscosum
Ceratonia siliqua
Ceratophyllum demersum
Ceratostigma plumbaginoides
Ceratostigma willmottianum
Cercidiphyllum japonicum
Cercis canadensis
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Cercis occidentalis
Cercis siliquastrum
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Cercocarpus montanus
Ceroxylon alpinum
Ceroxylon quindiuense
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Chaenomeles cathayensis
Chaenomeles japonica
Chaenomeles speciosa
Chaenomeles x superba
Chaerophyllum bulbosum
Chaerophyllum tuberosum
Chamaecrista fasciculata
Chamaecyparis lawsoniana
Chamaecyparis nootkatensis

vulgare
Clintonia borealis
Clintonia udensis
Clintonia umbellulata
Cneorum tricoccon
Cnicus benedictus
Cnidium japonicum
Cnidium monnieri
Cnidium officinale
Coccinia grandis
Cocculus orbiculatus
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Cochlearia macrocarpa
Cochlearia oblongifolia
Cochlearia officinalis
Cochlearia scotica
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Codonopsis lanceolata
Codonopsis nervosa
Codonopsis ovata
Codonopsis pilosula
Codonopsis tangshen
Codonopsis tubulosa
Codonopsis ussuriensis
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heterophylla
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Crataegus hupehensis
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Crataegus lobulata
Crataegus macrosperma
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Cardamine fauriei
Cardamine flexuosa
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Cardamine heptaphylla
Cardamine hirsuta
Cardamine impatiens
Cardamine kitaibelii
Cardamine komarovii
Cardamine leucantha
Cardamine lyrata
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Cardamine pennsylvanica
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Cardamine yezoensis
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Crataegus subvillosa
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Crocus nudiflorus
Crocus sativus
Crocus serotinus

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Carex riparia
Carex rostrata
Carex utriculata
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Carlina acaulis
Carlina vulgaris
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Carpesium divaricatum
Carpesium glossophyllum
Carpesium triste
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Carpobrotus virescens
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Chenopodium gigantospermum
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Chenopodium graveolens
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Chenopodium incanum
Chenopodium leptophyllum
Chenopodium murale
Chenopodium nuttalliae
Chenopodium opulifolium
Chenopodium overi
Chenopodium pallidicaule
Chenopodium polyspermum
Chenopodium pratericola
Chenopodium quinoa
Chenopodium rubrum
Chenopodium schraderianum
Chenopodium stenophyllum
Chenopodium suecicum
Chenopodium urbicum
Chenopodium virgatum
Chenopodium viride
Chenopodium vulvaria
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Chilopsis linearis
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asplenifolia
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Conanthera campanulata
Condalia hookeri
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Conioselinum univittatum
Conium maculatum
Conopodium majus
Conradina verticillata
Conringia orientalis
Consolida ambigua
Consolida regalis
Convallaria keiskei
Convallaria majalis
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Convolvulus erubescens
Convolvulus scammonia
Convolvulus tricolor
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Coprosma areolata
Coprosma atropurpurea
Coprosma billardieri
Coprosma brunnea
Coprosma
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Cruciata laevipes
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Cryptotaenia canadensis
Cryptotaenia japonica
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Cucumis melo agrestis
Cucumis melo cantalupensis
Cucumis melo chito
Cucumis melo conomon
Cucumis melo flexuosus
Cucumis melo inodorus
Cucumis melo momordica
Cucumis metuliferus
Cucumis sativus
Cucurbita argyrosperma
Cucurbita ficifolia
Cucurbita foetidissima
Cucurbita maxima
Cucurbita moschata
Cucurbita pepo
Cudrania tricuspidata
Cuminum cyminum
Cunila origanoides
Cunninghamia

Carya glabra megacarpa
Carya illinoinensis
Carya laciniosa
Carya myristiciformis
Carya ovalis
Carya ovata
Carya pallida
Carya texana
Carya tomentosa
Carya x laneyi
Cassinia fulvida
Cassiope tetragona
Cassythia glabella
Castanea species
Castanea alnifolia
Castanea crenata
Castanea dentata
Castanea henryi
Castanea mollissima
Castanea ozarkensis
Castanea pumila
Castanea pumila ashei
Castanea sativa
Castanea seguinii
Castanea x neglecta
Castanopsis cuspidata
Castanopsis delavayi
Castanopsis hystrix
Castanopsis orthacantha
Castanopsis sclerophylla
Castanopsis tibetana
Castanopsis tribuloides
Castanospermum australe
Chimaphila umbellata
Chimonanthus praecox
Chimonobambusa marmorea
Chimonobambusa pachystachys
Chimonobambusa purpurea
Chimonobambusa quadrangularis
Chimonobambusa szechuanensis
Chionanthus virginicus
Chionographis japonica
Chlorogalum parviflorum
Chlorogalum pomeridianum
Choisya ternata
Chondrilla chondrilloides
Chondrilla juncea
Chorispora sabulosa
Chorispora tenella
Chrozophora obliqua
Chrozophora tinctoria
Chrysanthemum carinatum
Chrysanthemum coronarium
Chrysanthemum coronarium spatiosum
Chrysanthemum marshallii
Chrysanthemum segetum
Chrysolepis chrysophylla
Chrysolepis sempervirens
foetidissima
Coprosma grandifolia
Coprosma hirtella
Coprosma lucida
Coprosma moorei
Coprosma nitida
Coprosma petriei
Coprosma propinqua
Coprosma pumila
Coprosma repens
Coprosma rhamnoides
Coprosma robusta
Coprosma rotundifolia
Coprosma rugosa
Coprosma serrulata
Coprosma virescens
Coptis brachypetala
Coptis chinensis
Coptis deltoidea
Coptis japonica
Coptis occidentalis
Coptis teeta
Coptis teetoides
Coptis trifolia
Corallorhiza maculata
Corallorhiza odontorhiza
Corchorus capsularis
Corchorus olitorius
Cordyline australis
Cordyline indivisa
Corema album
Corema conradii
Coreopsis lanceolata
Cuphea viscosissima
Cupressocyparis leylandii
Cupressus arizonica
Cupressus funebris
Cupressus macrocarpa
Cupressus sempervirens
Cupressus torulosa
Cuscuta chinensis
Cuscuta epythymum
Cuscuta europaea
Cuscuta japonica
Cuscuta megalocarpa
Cuscuta reflexa
Cuscuta umbellata
Cyananthus lobatus
Cyanella amboensis
Cyanella capensis
Cyanella hyacinthoides
Cyanella lutea
Cyanella orchidiformis
Cyathea dealbata
Cyathea medullaris
Cyathodes colensoi
Cyathodes fasciculata
Cyathodes fraseri
Cyathodes glauca
Cyathodes juniperina
Cyathodes oxycedrus
Cyathodes parviflora
Cyathodes straminea
Cycas circinalis

Chrysosplenium alternifolium
Chrysosplenium americanum
Chrysosplenium carnosum
Chrysosplenium oppositifolium
Chrysothamnus graveolens
Chrysothamnus nauseosus
Chrysothamnus viscidiflorus
Chusquea culeou
Chusquea quila
Cibotium barometz
Cicer arietinum
Cicer microphyllum
Cicerbita alpina
Cichorium endiva
Cichorium intybus
Cichorium spinosum
Ciclospermum leptophyllum
Cicuta virosa
Cimicifuga dahurica
Cimicifuga foetida
Cimicifuga heracleifolia
Cimicifuga racemosa
Cimicifuga simplex
Cinna latifolia
Cinnamomum camphora
Circaea lutetiana
Cirsium acaulon
Cirsium amplexifolium
Cirsium arvense
Cirsium boreale
auriculata
Coreopsis calliopsidea
Coreopsis gigantea
Coreopsis tinctoria
Coreopsis tinctoria atkinsoniana
Coriandrum sativum
Coriaria microphylla
Coriaria myrtifolia
Coriaria nepalensis
Coriaria ruscifolia
Coriaria sarmentosa
Coriaria sinica
Coriaria terminalis
Cornus alternifolia
Cornus amomum
Cornus asperifolia drummondii
Cornus australis
Cornus canadensis
Cornus capitata
Cornus chinensis
Cornus controversa
Cornus coreana
Cornus florida
Cornus hongkongensis
Cornus iberica
Cornus kousa
Cornus kousa chinensis
Cornus macrophylla
Cornus mas
Cornus monbeigii
Cornus nuttallii
Cornus occidentalis
Cycas revoluta
Cyclamen hederifolium
Cyclanthera brachystachya
Cyclanthera pedata
Cyclea hypoglauca
Cycloloma atriplicifolium
Cydonia oblonga
Cymbalaria muralis
Cymbonotus lawsonianus
Cymopterus acaulis
Cymopterus bulbosus
Cymopterus fendleri
Cymopterus globosus
Cymopterus longipes
Cymopterus montanus
Cymopterus newberryi
Cymopterus purpurescens
Cymopterus purpureus
Cynanchum acutum
Cynanchum amplexicaule
Cynanchum arnottianum
Cynanchum atratum
Cynanchum caudatum
Cynanchum glaucescens
Cynanchum japonicum

Cirsium brevicaule
Cirsium brevistylum
Cirsium buergeri
Cirsium chinense
Cirsium coreanum
Cirsium dipsacolepis
Cirsium eatoni
Cirsium edule
Cirsium eriophorum
Cirsium foliosum
Cirsium hookerianum
Cirsium japonicum
Cirsium japonicum ussuriense
Cirsium kamtschaticum
Cirsium laushanense
Cirsium lepskyle
Cirsium lineare
Cirsium maritimum
Cirsium nipponicum
Cirsium occidentale
Cirsium ochrocentrum
Cirsium oleraceum
Cirsium pallidum
Cirsium palustre
Cirsium pectinellum
Cirsium pendulum
Cirsium purpuratum
Cirsium schantarense
Cornus officinalis
Cornus paucinervis
Cornus poliophylla
Cornus rugosa
Cornus sanguinea
Cornus sericea
Cornus sessilis
Cornus suecica
Cornus x unalaschkensis
Corokia x virgata
Coronilla emerus
Coronilla scorpioides
Coronilla varia
Coronopus didymus
Coronopus squamatus
Correa alba
Corrigiola littoralis
Cortaderia selloana
Corydalis ambigua
Corydalis aurea
Corydalis cava
Corydalis edulis
Corydalis falconeri
Corydalis govaniana
Corydalis incisa
Corydalis intermedia
Corydalis juncea
Corydalis ochotensis
Corydalis pallida
Corydalis solida
Corydalis ternata
Corydalis vaginans
Corydalis yanhusuo
Cynanchum paniculatum
Cynanchum sibiricum
Cynanchum stauntonii
Cynara cardunculus
Cynara scolymus
Cynodon dactylon
Cynoglossum grande
Cynoglossum officinale
Cyperus aristatus
Cyperus distans
Cyperus esculentus
Cyperus fendlerianus
Cyperus longus
Cyperus rotundus
Cyperus schweinitzii
Cyperus setigerus
Cyperus tegetiformis
Cyperus ustulatus
Cyphomandra betacea
Cyphomandra casana
Cyphomandra fragrans
Cyphomandra hartwegii
Cypripedium acaule
Cypripedium calceolus parviflorum
Cypripedium calceolus pubescens
Cyrilla racemiflora
Cyrtanthus breviflorus
Cyrtomium falcatum

			Cyrtomium fortunei Cystopteris bulbifera Cystopteris fragilis Cystopteris montana Cytinus hypocistus Cytisus scoparius

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- Dacrycarpus dacrydioides
- Dacrydium cupressinum
- Dactylis glomerata
- Dactyloctenium radulans
- Dactylorhiza incarnata
- Dactylorhiza maculata
- Dahlia pinnata
- Dahlia rosea
- Dalbergia hupeana
- Dalea candida
- Dalea candida oligophylla
- Dalea gattingeri
- Dalea purpurea
- Damasonium alisma
- Daphne bholua
- Daphne genkwa
- Daphne gnidium
- Daphne involucrata
- Daphne laureola
- Daphne mezereum
- Daphne odora
- Daphne oleoides
- Daphne papyracea
- Delphinium cashmerianum
- Delphinium denudatum
- Delphinium elatum
- Delphinium glaucum
- Delphinium menziesii
- Delphinium nudicaule
- Delphinium nuttallianum
- Delphinium semibarbatum
- Delphinium staphisagria
- Dendranthema boreale
- Dendranthema indicum
- Dendranthema x grandiflorum
- Dendrobium nobile
- Dendrostellera arenaria
- Dentaria diphylla
- Dentaria laciniata
- Dentaria maxima
- Deschampsia caespitosa
- Descurainia antarctica
- Descurainia incana
- Descurainia pinnata
- Dichelostemma pulchellum
- Dichelostemma volubile
- Dichondra micrantha
- Dichopogon fimbriatus
- Dichopogon strictus
- Dichroa febrifuga
- Dicksonia antarctica
- Dicliptera japonica
- Dicoria brandegei
- Dictamnus albus
- Diervilla lonicera
- Digitalis ferruginea
- Digitalis grandiflora
- Digitalis laevigata
- Digitalis lanata
- Digitalis lutea
- Digitalis purpurea
- Digitaria ciliaris
- Digitaria sanguinalis
- Dioscorea batatas
- Dioscorea deltoidea
- Dioscorea japonica
- Dioscorea kamoonensis
- Dittrichia viscosa
- Docynia delavayi
- Docynia hookeriana
- Docynia indica
- Dodecatheon hendersonii
- Dodonaea viscosa
- Dolichos coniflorus
- Dorema ammoniacum
- Doronicum falconeri
- Doronicum pardalianches
- Doronicum roylei
- Draba muralis
- Draba nemerosa
- Dracocephalum heterophyllum
- Dracocephalum moldavica
- Dracocephalum parviflorum
- Drepanostachyum falcatum
- Drepanostachyum falconeri
- Drimys insipida
- Drimys lanceolata

Daphne pseudomezereum
Daphniphyllum himalense
Daphniphyllum macropodum
Darmera peltata
Dasylirion simplex
Dasylirion texanum
Dasylirion wheeleri
Datisca cannabina
Datura inoxia
Datura metel
Datura quercifolia
Datura stramonium
Daucus carota
Daucus carota sativus
Daucus pusillus
Daviesia horrida
Debregeasia edulis
Debregeasia hypoleuca
Debregeasia longifolia
Debregeasia wallichiana
Decaisnea fargesii
Decaisnea insignis
Decemium appendiculatum
Deinanthe bifida
Delphinium brachycentrum
Delphinium brunonianum
Delphinium caeruleum
Descurainia sophia
Desfontainia spinosa
Desmanthus illinoensis
Desmodium caudatum
Desmodium dunnii
Desmodium elegans
Desmodium fallax
Desmodium oldhami
Desmodium oxyphyllum
Desmodium podocarpum
Desmodium styracifolium
Desmoschoenus spiralis
Deutzia scabra
Dianella caerulea
Dianella congesta
Dianella laevis
Dianella revoluta
Dianella tasmanica
Dianthus anatolicus
Dianthus barbatus
Dianthus caryophyllus
Dianthus chinensis
Dianthus gratianopolitanus
Dianthus plumarius
Dianthus superbus
Dicentra canadensis
Dicentra cucullaria
Dicentra spectabilis
Dichelachne crinita
Dioscorea tokoro
Dioscorea villosa
Diospyros kaki
Diospyros lotus
Diospyros texanum
Diospyros virginiana
Dipcadi erythaeum
Diphylleia cymosa
Diphylleia grayi
Diphylleia sinensis
Diplotaxis erucoides
Diplotaxis muralis
Diplotaxis tenuifolia
Diploterigium glaucum
Dipploglottis australis
Dipsacus fullonum
Dipsacus japonicus
Dipsacus mitis
Dipsacus sativus
Dirca occidentalis
Dirca palustris
Disphyma australe
Disporum sessile
Disporum smilacinum
Disporum trachycarpum
Disporum viridescens
Distylium racemosum
Drimys winteri
Drosera peltata
Drosera rotundifolia
Dryas octopetala
Drymaria cordata
Dryopteris barbigera
Dryopteris blandfordii
Dryopteris carthusiana
Dryopteris crassirhizoma
Dryopteris cristata
Dryopteris dilatata
Dryopteris expansa
Dryopteris filix-mas
Dryopteris fragrans
Dryopteris marginalis
Dryopteris odontoloma
Dryopteris oreades
Dryopteris schimperiana
Dryopteris sieboldii
Duchesnea chrysantha
Duchesnea filipendula
Duchesnea indica
Dudleya edulis
Dudleya lanceolata
Dudleya pulverulenta
Dysosma auranticocaulis
Dysoxylum spectabile

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Name not here? Search for a latin name:

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Ecballium elaterium
Echinacea angustifolia
Echinacea pallida
Echinacea purpurea
Echinochloa colona
Echinochloa crus-galli
Echinochloa frumentacea
Echinocystis lobata
Echinophora spinosa
Echinops latifolius
Echinops ritro
Echinops setifer
Echinops spinosissimus
Echium vulgare
Eclipta prostrata
Edgeworthia chrysantha
Edgeworthia gardneri
Edgeworthia papyrifera
Ehretia acuminata
Ehretia anacua
Ehretia dicksonii
Ehretia ovalifolia
Eichhornia crassipes
Elaeagnus angustifolia
Elaeagnus commutata
Encelia farinosa
Enchylaena tomentosa
Ensete ventricosum
Entelea arborescens
Ephedra altissima
Ephedra americana andina
Ephedra distachya
Ephedra equisetina
Ephedra foliata
Ephedra fragilis
Ephedra gerardiana
Ephedra intermedia
Ephedra major
Ephedra nevadensis
Ephedra pachyclada
Ephedra sinica
Ephedra torreyana
Ephedra triandra
Ephedra trifurca
Ephedra viridis
Epifagus virginiana
Epigaea asiatica
Epigaea repens
Epilobium angustifolium
Epilobium coloratum
Eriophyton wallichianum
Erodium cicutarium
Erodium cicutarium bipinnatum
Erodium crinitum
Erodium hirtum
Erodium jacquinianum
Erodium malacoides
Erodium moschatum
Erodium stephanianum
Erophila verna
Eruca vesicaria sativa
Erucaria hispanica
Eryngium aquaticum
Eryngium campestre
Eryngium caucasicum
Eryngium creticum
Eryngium graecum
Eryngium maritimum
Eryngium pandanifolium
Eryngium planum
Eryngium ternatum
Eryngium viride
Eryngium yuccifolium
Erysimum capitatum
Eucalyptus sideroxylon
Eucalyptus viminalis
Eucalyptus youmanii
Euchresta japonica
Eucommia ulmoides
Eucryphia cordifolia
Eucryphia lucida
Eucryphia moorei
Eucryphia x nymansensis
Euodia daniellii
Euodia fraxinifolia
Euodia lepta
Euodia officinalis
Euodia ruticarpa
Euonymus alatus
Euonymus alatus apterus
Euonymus americanus
Euonymus atropurpureus
Euonymus crenulatus
Euonymus europaeus
Euonymus fimbriatus
Euonymus fortunei
Euonymus hamiltonianus

Elaeagnus cordifolia
Elaeagnus formosana
Elaeagnus fragrans
Elaeagnus glabra
Elaeagnus gonuanthes
Elaeagnus latifolia
Elaeagnus macrophylla
Elaeagnus maritima
Elaeagnus montana
Elaeagnus multiflora
Elaeagnus multiflora ovata
Elaeagnus oldhamii
Elaeagnus orientalis
Elaeagnus parvifolia
Elaeagnus pungens
Elaeagnus pyriformis
Elaeagnus thunbergii
Elaeagnus umbellata
Elaeagnus x ebbingei
Elaeagnus x reflexa
Elaeagnus yoshinoi
Elaeocarpus cyaneus
Elaeocarpus dentatus
Elaeocarpus hookerianus
Elaeocarpus lanceaefolius
Elatostema densiflorum
Elatostema dissectum
Elatostema laetevirens
Eleocharis dulcis
Eleocharis palustris
Eleusine coracana
Eleusine indica
Eleusine tocussa
Eleutherococcus chiisanensis
Eleutherococcus divaricatus
Epilobium glabellum
Epilobium hirsutum
Epilobium latifolium
Epilobium macranthum
Epilobium palustre
Epilobium parviflorum
Epilobium pyrricholophum
Epilobium tetragonum
Epimedium grandiflorum
Epimedium sagittatum
Equisetum arvense
Equisetum fluviatile
Equisetum hyemale
Equisetum palustre
Equisetum pratense
Equisetum sylvaticum
Equisetum telmateia
Equisetum variegatum
Eragrostis caroliniana
Eragrostis curvula
Eragrostis pilosa
Eragrostis tef
Erechtites hieraciifolia
Eremophila longifolia
Eremophila maculata
Eremurus anisopterus
Eremurus aucherianus
Eremurus olgae
Eremurus regelii
Eremurus robustus
Eremurus spectabilis
Eremurus stenophyllus aurantiacus
Erica cerinthoides
Erica tetralix
Erica vagans
Erysimum cheiranthoides
Erysimum cheiri
Erysimum diffusum
Erysimum repandum
Erysimum x allionii
Erythrina acanthocarpa
Erythrina crista-galli
Erythrina herbacea
Erythrina humeana
Erythrina x bidwillii
Erythrina zeyheri
Erythronium albidum
Erythronium albidum mesochoreum
Erythronium americanum
Erythronium californicum
Erythronium citrinum
Erythronium dens-canis
Erythronium grandiflorum
Erythronium helenae
Erythronium hendersonii
Erythronium howellii
Erythronium japonicum
Erythronium montanum
Erythronium multiscapoideum
Erythronium oregonum
Erythronium parviflorum
Erythronium purpurascens
Erythronium revolutum
Erythronium tuolumnense
Escallonia species
Euonymus hamiltonianus maackii
Euonymus hamiltonianus sieboldianus
Euonymus japonicus
Euonymus latifolius
Euonymus lucidus
Euonymus macropterus
Euonymus miyakei
Euonymus oxyphyllus
Euonymus sachalinensis
Euonymus tanakae
Euonymus thunbergiana
Euonymus tingens
Euonymus verrucosus
Eupatorium cannabinum
Eupatorium capillifolium
Eupatorium chinense
Eupatorium chinense simplicifolium
Eupatorium compositifolium
Eupatorium fortunei
Eupatorium hyssopifolium
Eupatorium lindleyanum
Eupatorium maculatum
Eupatorium perfoliatum
Eupatorium purpureum
Euphorbia antisyphilitica
Euphorbia corollata

Eleutherococcus gracylistylus
Eleutherococcus japonicus
Eleutherococcus senticosus
Eleutherococcus seoulensis
Eleutherococcus sessiliflorus
Eleutherococcus sieboldianus
Eleutherococcus spinosus
Eleutherococcus trifoliatus
Elodea canadensis
Elsholtzia ciliata
Elsholtzia fruticosa
Elymus canadensis
Elymus glauca
Elytrigia juncea
Elytrigia repens
Emex australis
Emilia coccinea
Emilia sonchifolia
Eminium spiculatum
Empetrum atropurpureum
Empetrum eamesii
Empetrum eamesii hermaphroditum
Empetrum nigrum
Empetrum rubrum
Erica x darleyensis
Erica x veitchii
Ericameria parishii
Erigenia bulbosa
Erigeron acer
Erigeron affinis
Erigeron annuus
Erigeron bulbosa
Erigeron glaucus
Erigeron philadelphicus
Eriobotrya japonica
Eriocaulon cinereum
Eriodictyon californicum
Eriodictyon trichocalyx
Eriogonum alatum
Eriogonum atrorubens
Eriogonum corymbosum
Eriogonum inflatum
Eriogonum jamesii
Eriogonum latifolium
Eriogonum longifolium
Eriogonum microthecum
Eriophorum angustifolium
Eriophorum gracile
Escallonia laevis
Escallonia pulverulenta
Escallonia rosea
Escallonia rubra
Escallonia rubra macrantha
Escallonia x exoniensis
Eschscholzia californica
Eucalyptus caesia
Eucalyptus camaldulensis
Eucalyptus citriodora
Eucalyptus coccifera
Eucalyptus dumosa
Eucalyptus globulus
Eucalyptus gummifera
Eucalyptus gunnii
Eucalyptus johnstonii
Eucalyptus largiflorens
Eucalyptus leucoxylon
Eucalyptus macrorhyncha
Eucalyptus melliodora
Eucalyptus microcorys
Eucalyptus obliqua
Eucalyptus pauciflora
Eucalyptus pauciflora niphophila
Eucalyptus perriniana
Eucalyptus piperita
Eucalyptus polybractea
Eucalyptus punctata
Eucalyptus racemosa
Eucalyptus regnans
Euphorbia drummondii
Euphorbia helioscopia
Euphorbia hirta
Euphorbia humifusa
Euphorbia ipecacuanhae
Euphorbia lathyris
Euphorbia marginata
Euphorbia pekinensis
Euphorbia serpyllifolia
Euphorbia sieboldiana
Euphorbia tetragona
Euphorbia thomsoniana
Euphrasia officinalis
Eupomatia laurina
Euptelea pleiosperma
Euptelea polyandra
Eurya acuminata
Eurya chinensis
Eurya japonica
Eurya symplocina
Euryale ferox
Euscaphis japonica
Eustrephus latifolius
Exocarpus aphyllus
Exocarpus bidwillii
Exocarpus cupressiformis
Exocarpus latifolius
Exocarpus nanus
Exocarpus odoratus
Exocarpus sparteus
Exocarpus strictus
Exocarpus syrticola

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Fabiana imbricata
Fagopyrum dibotrys
Fagopyrum emarginatum
Fagopyrum esculentum
Fagopyrum tataricum
Fagus crenata
Fagus grandifolia
Fagus japonica
Fagus longipetiolata
Fagus lucida
Fagus orientalis
Fagus sylvatica
Fallugia paradoxa
Farfugium japonicum
Fargesia nitida
Fedia cornucopiae
Ferula assa-foetida
Ferula caspica
Ferula communis
Ferula conocaula
Ferula foetida
Ferula gummosa
Ferula karelinii
Ferula longifolia
Festuca conferta
Festuca ovina
Fibigia clypeata
Ficus carica
Ficus coronata
Ficus macrophylla
Ficus palmata
Filipendula kamtschatica
Filipendula multijuga
Filipendula rubra
Filipendula ulmaria
Filipendula vestita
Filipendula vulgaris
Fimbristylis sub-bispicata
Firmiana simplex
Fitzroya cupressoides
Foeniculum vulgare
Foeniculum vulgare azoricum
Foeniculum vulgare dulce
Fontanesia phillyreoides
Fragaria iinumae
Fragaria moschata
Fragaria nilgerrensis
Fragaria nipponica
Fragaria orientalis
Fragaria ovalis
Fragaria vesca
Fragaria vesca 'Semperflorens'
Fragaria virginiana
Fragaria viridis
Fragaria x ananassa
Frasera caroliniensis
Frasera speciosa
Fraxinus americana
Fraxinus angustifolia
Fraxinus bungeana
Fraxinus chinensis rhyncophylla
Fraxinus excelsior
Fraxinus floribunda
Fraxinus hookeri
Fraxinus latifolia
Fraxinus longicuspis
Fraxinus nigra
Fraxinus ornus
Fraxinus pennsylvanica
Fremontodendron californicum
Fritillaria affinis
Fritillaria atropurpurea
Fritillaria camschatcensis
Fritillaria cirrhosa
Fritillaria imperialis
Fritillaria meleagris
Fritillaria pallidiflora
Fritillaria pudica
Fritillaria roylei
Fritillaria sewerzowii
Fritillaria thunbergii
Fritillaria verticillata
Fuchsia species
Fuchsia alpestris
Fuchsia boliviana
Fuchsia coccinea
Fuchsia colensoi
Fuchsia corymbiflora
Fuchsia denticulata
Fuchsia excorticata
Fuchsia fulgens
Fuchsia hemsleyana
Fuchsia magellanica
Fuchsia microphylla
Fuchsia paniculata

Ferula marmarica
Ferula moschata
Ferula narthex
Ferula persica
Ferula schair
Ferula szowitziana
Ferula tingitana
fortunei
Forestiera acuminata
Forestiera neomexicana
Forsythia suspensa
Forsythia x intermedia
Fortunella japonica
Fortunella margarita
Fragaria
Fragaria bracteata
Fragaria californica
Fragaria chiloensis
Fragaria daltoniana
Fraxinus quadrangulata
Fraxinus sieboldiana
Fraxinus sinensis
Fraxinus texensis
Fraxinus velutina
Fraxinus xanthoxyloides
Fuchsia procumbens
Fuchsia splendens
Fumaria officinalis

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Index of Latin Names: G

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Name not here? Search for a latin name:

Submit

- Gagea lutea
- Gaillardia pinnatifida
- Galactites tomentosa
- Galanthus nivalis
- Galax urceolata
- Galega officinalis
- Galeopsis bifida
- Galeopsis ladanum
- Galeopsis segetum
- Galeopsis speciosa
- Galeopsis tetrahit
- Galinsoga parviflora
- Galium aparine
- Galium boreale
- Galium gracile
- Galium mollugo
- Galium odoratum
- Galium spurium
- Galium tinctorium
- Galium triflorum
- Galium verum
- Gamblea innovans
- Garrya elliptica
- Garrya fremontii
- Gastrodia cunninghamii
- Gastrodia elata
- Gastrodia sesamoides
- Gaylussacia brachycera
- Gaylussacia dumosa
- Gaylussacia frondosa
- Gaylussacia ursina
- Geijera parviflora
- Geitonoplesium cymosum
- Gelsemium sempervirens
- Genista germanica
- Genista hispanica
- Genista tinctoria
- Gentiana acaulis
- Gentiana andrewsii
- Gentiana crassicaulis
- Gentiana cruciata
- Gentiana dahurica
- Gentiana decumbens
- Gentiana kurroo
- Gentiana lutea
- Gentiana macrophylla
- Gentiana manshurica
- Gentiana pannonica
- Gentiana pneumonanthe
- Gentiana puberulenta
- Gentiana punctata
- Gentiana purpurea
- Geranium solanderi
- Geranium sylvaticum
- Geranium thunbergii
- Geranium tuberosum
- Geranium viscosissimum
- Geranium wallichianum
- Geranium wilfordii
- Gerbera lanuginosa
- Geum aleppicum
- Geum canadense
- Geum japonicum
- Geum pentapetalum
- Geum rivale
- Geum triflorum
- Geum urbanum
- Gevuina avellana
- Gillenia stipulata
- Gillenia trifoliata
- Gingidia harveyana
- Ginkgo biloba
- Girardiana platyphylla
- Gladiolus cruentus
- Gladiolus dalenii
- Gladiolus permeabilis edulis
- Glycyrrhiza echinata
- Glycyrrhiza glabra
- Glycyrrhiza lepidota
- Glycyrrhiza malensis
- Glycyrrhiza uralensis
- Glyptostrobus pensilis
- Gnaphalium affine
- Gnaphalium hypoleucum
- Gnaphalium indicum
- Gnaphalium japonicum
- Gnaphalium keriense
- Gnaphalium luteoalbum
- Gnaphalium uliginosum
- Goodenia ovata
- Goodenia varia
- Goodyera oblongifolia
- Goodyera pubescens
- Goodyera repens
- Gratiola officinalis
- Gratiola pedunculata
- Greigia sphacelata

Gaultheria adenothrix
Gaultheria antipoda
Gaultheria appressa
Gaultheria cumingiana
Gaultheria depressa
Gaultheria fragrantissima
Gaultheria hispida
Gaultheria hispidula
Gaultheria humifusa
Gaultheria insana
Gaultheria macrostigma
Gaultheria miqueliana
Gaultheria mucronata
Gaultheria myrsinoides
Gaultheria nummularioides
Gaultheria ovatifolia
Gaultheria procumbens
Gaultheria pumila
Gaultheria pumila leucocarpa
Gaultheria pyroloides
Gaultheria rigida
Gaultheria sclelophylla
Gaultheria shallon
Gaultheria trichophylla
Gaultheria x wisleyensis
Gaylussacia baccata
Gentiana saponaria
Gentiana scabra
Gentiana scabra buergeri
Gentiana straminea
Gentiana thunbergii
Gentiana triflora
Gentiana tubiflora
Gentianella amarella
Gentianella diemensis
Gentianella quinquefolia
Geocaulon lividum
Geranium bicknellii
Geranium dissectum
Geranium erianthum
Geranium incanum
Geranium lucidum
Geranium macrorrhizum
Geranium maculatum
Geranium molle
Geranium nepalense
Geranium ocellatum
Geranium pilosum
Geranium potentilloides
Geranium pratense
Geranium pusillum
Geranium robertianum
Geranium rotundifolium
Geranium sibiricum
Gladiolus quartinianus
Gladiolus spicatus
Gladiolus unguiculatus
Gladiolus zambesiacus
Glaucium flavum
Glaux maritima
Glechoma hederacea
Gleditsia aquatica
Gleditsia caspica
Gleditsia japonica
Gleditsia koraiensis
Gleditsia macracantha
Gleditsia sinensis
Gleditsia triacanthos
Glehnia littoralis
Globularia vulgaris
Glochidion eriocarpum
Glochidion puberum
Glyceria acutiflora
Glyceria borealis
Glyceria fluitans
Glyceria occidentalis
Glyceria plicata
Glyceria septentrionalis
Glyceria striata
Glycine max
Glycine soja
Glycine tabacina
Glycyrrhiza aspera
Grevillea robusta
Grewia biloba parviflora
Grewia oppositifolia
Grindelia camporum
Grindelia humilis
Grindelia lanceolata
Grindelia robusta
Grindelia squarrosa
Griselinia littoralis
Guizotia abyssinica
Gundelia tournefortii
Gunnera magellanica
Gunnera perpensa
Gunnera tinctoria
Gutierrezia sarothrae
Gymnadenia conopsea
Gymnocladus chinensis
Gymnocladus dioica
Gynandriris sisyrinchium
Gynatrix pulchella
Gynostemma pentaphyllum
Gynura segetum
Gypsophila arrostii
Gypsophila davurica
Gypsophila licentiana
Gypsophila oldhamiana
Gypsophila paniculata
Gypsophila struthium

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Name not here? Search for a latin name:

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Habenaria sparsiflora
Hackelia uncinatum
Hakea sericea
Hakea suaveolens
Hakea suberea
Halenia elliptica
Halerpestes sarmentosa
Halesia carolina
Halimione portulacoides
Halimodendron halodendron
Haloxylon ammodendron
Haloxylon aphyllum
Haloxylon persicum
Hamamelis virginiana
Haplopappus nuttallii
Haplopappus spinulosus
Hardenbergia violacea
Hebe 'Great Orme'
Hebe brachysiphon
Hebe dieffenbachii
Hebe rakaiensis
Helleborus foetidus
Helleborus niger
Helleborus viridis
Helwingia chinensis
Helwingia himalaica
Helwingia japonica
Helwingia liukivensis
Hemerocallis species
Hemerocallis altissima
Hemerocallis aurantiaca
Hemerocallis bulbiferum
Hemerocallis citrina
Hemerocallis coreana
Hemerocallis darrowiana
Hemerocallis dumortieri
Hemerocallis exaltata
Hemerocallis forrestii
Hemerocallis fulva
Hemerocallis fulva longituba
Hemerocallis graminea
Hemerocallis hakunensis
Hemerocallis lilioasphodelus
Hibiscus cannabinus
Hibiscus diversifolius
Hibiscus heterophyllus
Hibiscus moscheutos
Hibiscus mutabilis
Hibiscus rosa-sinensis
Hibiscus sabdariffa
Hibiscus sinosyriacus
Hibiscus syriacus
Hibiscus trionum
Hieracium albertinum
Hieracium umbellatum
Hieracium venosum
Hierochloe odorata
Hilaria jamesii
Himalayacalamus asper
Himalayacalamus brevinodus
Himalayacalamus cupreus
Himalayacalamus fimbriatus
Himalayacalamus hookerianus
Hippophae goniocarpa
Hippophae gyantsensis
Hippophae neurocarpa
Hosta sieboldiana
Hosta sieboldii
Hosta tardiva
Hosta undulata
Hosta ventricosa
Hottonia palustris
Houttuynia cordata
Hovenia dulcis
Humulus japonicus
Humulus lupulus
Huperzia selago
Hyacinthoides nonscripta
Hyacinthus orientalis
Hydrangea anomala
Hydrangea arborescens
Hydrangea aspera
Hydrangea hirta
Hydrangea macrophylla
Hydrangea paniculata
Hydrangea serrata
Hydrangea serrata amagiana
Hydrangea serrata thunbergii

Hebe salicifolia
Hebe speciosa
Hebe x franciscana
Hedeoma pulegioides
Hedera helix
Hedera nepalensis
Hedychium coronarium
Hedychium gracile
Hedychium spicatum
Hedysarum alpinum
Hedysarum arcticum
Hedysarum boreale
Hedysarum boreale mackenzii
Hedysarum hedysaroides
Hedysarum occidentale
Hedysarum sachalinense
Hedysarum vicioides
Heimia myrtifolia
Heimia salicifolia
Heldreichia rotundifolia
Helenium amarum
Helenium autumnale
Helenium hoopesii
Helenium puberulum
Helianthemum canadense
Helianthemum nummularium
Helianthus annuus
Helianthus doronicoides
Helianthus giganteus
Helianthus laetiflorus
Helianthus
Hemerocallis littorea
Hemerocallis micrantha
Hemerocallis middendorffii
Hemerocallis middendorffii esculenta
Hemerocallis minor
Hemerocallis multiflora
Hemerocallis pedicellata
Hemerocallis plicata
Hemerocallis thunbergii
Hemerocallis yezoensis
Hemiptelea davidii
Hemizonia fascicuata
Hemizonia luzulifolia
Hepatica acutiloba
Hepatica americana
Hepatica nobilis
Heracleum lallii
Heracleum moellendorfii
Heracleum pubescens
Heracleum sphondylium
Heracleum sphondylium montanum
Heracleum sphondylium sibiricum
Heracleum tuberosum
Heracleum wallichii
Herniaria glabra
Herniaria hirsuta
Herpetospermum penduculosum
Hesperaloe funifera
Hesperaloe nocturna
Hesperantha baurii
Hesperis matronalis
Hesperocallis undulata
Heteropappus hispidus
Heuchera americana
Hippophae rhamnoides
Hippophae rhamnoides turkestanica
Hippophae salicifolia
Hippophae sinensis
Hippophae tibetana
Hippuris vulgaris
Hirschfeldia incana
Hoffmannseggia densiflora
Hoheria populnea
Hoheria sexstylosa
Holboellia angustifolia
Holboellia coriacea
Holboellia grandiflora
Holboellia latifolia
Holodiscus discolor
Holodiscus dumosus
Hololeion krameri
Hololeion maximowiczii
Homoranthus flavescens
Honckenya peploides
Hordeum bulbosum
Hordeum deficiens
Hordeum distichon
Hordeum hexastichon
Hordeum intermedium
Hordeum jubatum
Hordeum murinum
Hordeum trifurcatum
Hordeum vulgare
Hordeum zeocriton
Hosta species
Hosta clausa
Hosta clavata
Hosta crispula
Hosta longipes
Hosta longissima
Hosta montana
Hosta nigrescens
Hydrastis canadensis
Hydrilla verticillata
Hydrocotyle sibthorpioides
Hydrocotyle vulgaris
Hydrophyllum canadense
Hydrophyllum capitatum
Hydrophyllum occidentale
Hydrophyllum tenuipes
Hydrophyllum virginianum
Hymenanthera dentata
Hymenopappus lugens
Hymenoxys richardsonii
Hyoscyamus albus
Hyoscyamus aureus
Hyoscyamus niger
Hypericum androsaemum
Hypericum ascyron
Hypericum attenuatum
Hypericum bellum
Hypericum calycinum
Hypericum erectum
Hypericum forrestii
Hypericum hypericoides
Hypericum japonicum
Hypericum kamtschaticum
Hypericum

lenticularis
Helianthus maximilianii
Helianthus petiolaris
Helianthus strumosus
Helianthus tuberosus
Helichrysum apiculatum
Helichrysum arenarium
Helichrysum italicum
Helichrysum orientale
Helichrysum stoechas
Heliotropium arborescens
Heliotropium ellipticum

Heuchera cylindrica
Heuchera diversifolia
Heuchera glabra
Heuchera micrantha
Heuchera sanguinea
Heuchera versicolor
Hibiscus acetosella

Hosta plantaginae
Hosta rectifolia

monogynum
Hypericum patulum
Hypericum perforatum
Hypericum sampsonii
Hypochoeris apargioides
Hypochoeris glabra
Hypochoeris incana
Hypochoeris maculata
Hypochoeris radicata
Hypochoeris scorzonerae
Hypoxis hygrometrica
Hypoxis pratensis
Hyssopus officinalis

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Iberis amara
Iberis umbellata
Idesia polycarpa
Ilex aculeolata
Ilex aquifolium
Ilex asprolla
Ilex cassine
Ilex chapaensis
Ilex coriacea
Ilex cornuta
Ilex crenata
Ilex glabra
Ilex integra
Ilex latifolia
Ilex macropoda
Ilex opaca
Ilex pedunculosa
Ilex pubescens
Ilex purpurea
Ilex rotunda
Ilex verticillata
Ilex vomitoria
Ilex x altaclerensis
Ilex yunnanensis
Illicium anisatum
Illicium floridanum
Illicium verum
Impatiens balsamina
Impatiens capensis
Impatiens ecalcarata
Impatiens edgeworthii
Impatiens glandulifera
Impatiens noli-tangere
Impatiens occidentalis
Impatiens pallida
Impatiens parviflora
Impatiens sulcata
Impatiens textori
Impatiens tingens
Imperata cylindrica
Incarvillea delavayi
Incarvillea sinensis
Indigofera cassioides
Indigofera decora
Indigofera hebepetala
Indigofera heterantha
Indigofera kirilowii
Indigofera pseudotinctoria
Indocalamus latifolius
Inula britannica
Inula britannica chinensis
Inula cappa
Inula conyza
Inula crithmoides
Inula racemosa
Inula royleana
Ipomoea alba
Ipomoea jalapa
Ipomoea leptophylla
Ipomoea nil
Ipomoea pandurata
Ipomoea purpurea
Ipomoea sagittata
Ipomoea tricolor
Ipomopsis aggregata
Ipomopsis congesta
Iris cristata
Iris decora
Iris douglasiana
Iris ensata
Iris filifolia
Iris foetidissima
Iris germanica
Iris germanica florentina
Iris japonica
Iris kemaonensis
Iris macrosiphon
Iris missouriensis
Iris pallida
Iris pseudacorus
Iris purdyi
Iris setosa
Iris sibirica
Iris tectorum
Iris tenax
Iris versicolor
Isatis glauca
Isatis japonica
Isatis lusitanica
Isatis tinctoria
Isodon inflexus
Isodon japonicus
Isodon longitubus
Isodon rugosus
Isopogon ceratophyllus
Itea japonica
Iva axillaris
Iva xanthifolia
Ixeris chinensis
Ixeris dentata
Ixeris japonica
Ixeris lanceolata
Ixeris polycephala
Ixeris repens
Ixeris sonchfolia
Ixeris stolonifera

Impatiens aurella	Inula helenium	Iris sanguinea	

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Name not here? Search for a latin name:

Submit

- Jasminum humile
- Jasminum nudiflorum
- Jasminum odoratissimum
- Jasminum officinale
- Jeffersonia diphylla
- Jeffersonia dubia
- Jovibarba sobolifera
- Jubaea chilensis
- Juglans ailanthifolia
- Juglans ailanthifolia cordiformis
- Juglans californica
- Juglans cathayensis
- Juglans cinerea
- Juglans hindsii
- Juglans intermedia
- Juglans major
- Juglans mandschurica
- Juglans microcarpa
- Juglans nigra
- Juglans regia
- Juglans regia fallax
- Juglans regia kamaonia
- Juglans sinensis
- Juglans x bisbyi
- Juncus acutus
- Juncus balticus
- Juncus conglomeratus
- Juncus dudleyi
- Juncus effusus
- Juncus inflexus
- Juncus procerus
- Juncus tenuis
- Juniperus ashei
- Juniperus californica
- Juniperus chinensis
- Juniperus communis
- Juniperus communis nana
- Juniperus conferta
- Juniperus deppeana
- Juniperus drupacea
- Juniperus excelsa
- Juniperus horizontalis
- Juniperus monosperma
- Juniperus occidentalis
- Juniperus osteosperma
- Juniperus oxycedrus
- Juniperus recurva
- Juniperus rigida
- Juniperus sabina
- Juniperus scopulorum
- Juniperus silicicola
- Juniperus squamata
- Juniperus tetragona
- Juniperus virginiana
- Jurinea macrocephala
- Jussieva repens
- Justicia gendarussa
- Justicia procumbens

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Name not here? Search for a latin name:

Submit

- Kadsura coccinea
- Kadsura heteroclita
- Kadsura japonica
- Kadsura longepedunculata
- Kadsura oblongifolia
- Kalimeris incisa
- Kalimeris laureana
- Kalimeris pinnatifida
- Kalmia angustifolia
- Kalmia latifolia
- Kalmia polifolia
- Kalopanax sciadophylloides
- Kalopanax septemlobus
- Kerria japonica
- Keteleeria davidiana
- Kickxia elatine
- Kinugasa japonica
- Kirkophytum lyallii
- Knautia arvensis
- Knightia excelsa
- Kniphofia uvaria
- Koeleria macrantha
- Koelreuteria paniculata
- Kosteletzkya pentacarpos
- Kuhnia eupatorioides
- Kummerowia stipulacea
- Kummerowia striata
- Kunzea muelleri
- Kunzea pomifera

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Name not here? Search for a latin name:

Submit

Lablab purpureus
Laburnum alpinum
Laburnum anagyroides
Lachnanthes carolina
Lactuca biennis
Lactuca canadensis
Lactuca capensis
Lactuca debilis
Lactuca formosana
Lactuca indica
Lactuca indica dracoglossa
Lactuca indica laciniata
Lactuca ludoviciana
Lactuca perennis
Lactuca pulchella
Lactuca quercina
Lactuca raddeana
Lactuca sativa
Lactuca sativa angustana
Lactuca sativa capitata
Lactuca sativa crispa
Lactuca sativa longifolia
Lactuca serriola
Lactuca sibirica
Lactuca triangulata
Leonurus cardiaca
Leonurus japonicus
Leonurus macranthus
Leonurus sibiricus
Lepidium apetalum
Lepidium campestre
Lepidium chilense
Lepidium densiflorum
Lepidium diffusum
Lepidium fremontii
Lepidium graminifolium
Lepidium hyssopifolium
Lepidium iberis
Lepidium incisum
Lepidium intermedium
Lepidium latifolium
Lepidium meyenii
Lepidium nitidum
Lepidium oleraceum
Lepidium perfoliatum
Lepidium rotundum
Lepidium ruderale
Lepidium sativum
Lepidium virginicum
Lepidogrammitis
Lilium canadense
Lilium canadense editorum
Lilium canadense flavum
Lilium candidum
Lilium cernuum
Lilium columbianum
Lilium concolor
Lilium dauricum
Lilium davidii
Lilium distichum
Lilium formosanum
Lilium formosanum pricei
Lilium hansonii
Lilium henryi
Lilium japonicum
Lilium japonicum platyfolium
Lilium kelleyanum
Lilium lancifolium
Lilium leichtlinii
Lilium leichtlinii maximowiczii
Lilium longiflorum
Lilium maculatum
Lomatium grayi
Lomatium macrocarpum
Lomatium nudicaule
Lomatium triternatum
Lomatium utriculatum
Lonicera affinis
Lonicera angustifolia
Lonicera caerulea
Lonicera canadensis
Lonicera caprifolium
Lonicera chrysantha
Lonicera ciliosa
Lonicera gracilipes
Lonicera gracilipes glabra
Lonicera henryi
Lonicera involucrata
Lonicera japonica
Lonicera morrowii
Lonicera nitida
Lonicera periclymenum
Lonicera pileata
Lonicera quinquelocularis
Lonicera sempervirens
Lonicera utahensis

Lactuca virosa
Lagarostrobus colensoi
Lagarostrobus franklinii
Lagenaria siceraria
Lagerstroemia indica
Lagochilus inebrians
Lagoecia cuminoides
Lallemantia iberica
Lamium album
Lamium amplexicaule
Lamium galeobdolon
Lamium purpureum
Lancea tibetica
Lapageria rosea
Laportea bulbifera
Laportea canadensis
Laportea macrostachya
Lapsana apogonoides
Lapsana communis
Lapsana humilis
Lardizabala biternata
Laretia acaulis
Larix decidua
Larix gmelinii
Larix kaempferi
Larix laricina
Larix lyallii
Larix occidentalis
Larix potaninii
Larix sibirica
Larix x marschlinsii
Larrea tridentata
Laser trilobum
Laserpitium latifolium
Laserpitium prutenicum
Laserpitium siler
Lasthenia glabrata
Lathyrus alatus
Lathyrus aphaca
Lathyrus cicera
drymoglossoides
Lepidosperma gladiatum
Lepidothamnus intermedius
Leptocarpus similis
Leptomeria acida
Leptomeria aphylla
Leptomeria drupacea
Leptospermum ericoides
Leptospermum laevigatum
Leptospermum lanigerum
Leptospermum liversidgei
Leptospermum petersonii
Leptospermum polygalifolium
Leptospermum scoparium
Lespedeza bicolor
Lespedeza buergeri
Lespedeza capitata
Lespedeza cyrtobotrya
Lespedeza floribunda
Lespedeza juncea
Lespedeza maximowiczii
Lespedeza pilosa
Lespedeza sericea
Lespedeza thunbergii
Lespedeza tomentosa
Lesquerella fendleri
Lesquerella intermedia
Leucanthemum maximum
Leucanthemum vulgare
Lilium martagon
Lilium medeoloides
Lilium monanthum
Lilium nanum
Lilium nepalense
Lilium nobilissimum
Lilium pardalinum
Lilium philadelphicum
Lilium pomponium
Lilium pumilum
Lilium rubellum
Lilium sargentiae
Lilium speciosum
Lilium superbum
Lilium tsingtauense
Lilium wallichianum
Limnanthes alba
Limnanthes douglasii
Limonium carolinianum
Limonium ornatum
Limonium tetragonum
Limonium thouinii
Limonium vulgare
Linaria canadensis
Linaria vulgaris
Lindera assamica
Lindera benzoin
Lindera glauca
Lindera megaphylla
Lindera obtusiloba
Lindera praecox
Lindera pulcherrima
Lindera strychnifolia
Lindera umbellata
Linnaea borealis
Linum bienne
Linum catharticum
Lonicera venulosa
Lonicera villosa
Lonicera villosa solonis
Lophomyrtus bullata
Loropetalum chinense
Lotus corniculatus
Lotus edulis
Lotus halophilus
Lotus tetragonolobus
Lotus uliginosus
Ludwigia palustris
Luma apiculata
Lunaria annua
Lupinus albus
Lupinus albus graecus
Lupinus angustifolius
Lupinus arboreus
Lupinus hirsutus
Lupinus littoralis
Lupinus luteus
Lupinus mutabilis
Lupinus nootkatensis
Lupinus perennis
Lupinus polyphyllus
Lupinus tauris
Lupinus termis
Luzula capitata
Lychnis flos-cuculi
Lychnis fulgens
Lycium afrum
Lycium andersonii
Lycium arabicum
Lycium australe
Lycium barbarum
Lycium berlandieri
Lycium carolinianum
Lycium chinense
Lycium europaeum
Lycium fremontii
Lycium pallidum

Lathyrus davidii
Lathyrus japonicus
Lathyrus japonicus maritimus
Lathyrus latifolius
Lathyrus linifolius montanus
Lathyrus nervosus
Lathyrus ochroleucas
Lathyrus ochrus
Lathyrus odoratus
Lathyrus ornatus
Lathyrus palustris
Lathyrus polymorphus
Lathyrus pratensis
Lathyrus quinquenervius
Lathyrus sativus
Lathyrus tuberosus
Laurelia novae-zealandiae
Laurelia sempervirens
Laurus nobilis
Lavandula angustifolia
Lavandula dentata
Lavandula latifolia
Lavandula stoechas
Lavandula x intermedia
Lavatera arborea
Lavatera cachemiriana
Lavatera plebeia
Lavatera species
Lavatera thuringiaca
Lavatera trimestris
Layia glandulosa
Layia platyglossa
Ledebouriella seseloides
Ledum columbianum
Ledum glandulosum
Ledum groenlandicum
Leucas cephalotes
Leucas lanata
Leucocrinum montanum
Leucojum aestivum
Leucojum vernum
Leucopogon lanceolatus
Leucopogon leptospermoides
Leucopogon montanus
Leucopogon suaveolens
Leucothoe axillaris
Leucothoe grayana
Leuzea rhapontica
Levisticum officinale
Lewisia brachycalyx
Lewisia columbiana
Lewisia pygmaea
Lewisia rediviva
Leycesteria formosa
Leymus arenarius
Leymus condensatus
Leymus racemosus
Leymus triticoides
Liatris chapmanii
Liatris punctata
Liatris scariosa
Liatris spicata
Liatris squarrosa
Libocedrus bidwillii
Libocedrus plumosa
Libocedrus uvifera
Ligularia amplexicaulis
Ligularia hiberniflorum
Ligularia hodgsonii
Ligularia intermedia
Ligularia japonica
Ligularia sibirica
Ligusticum
Linum crepitans
Linum humile
Linum marginale
Linum monogynum
Linum perenne
Linum strictum
Linum usitatissimum
Liparis japonica
Liquidambar formosana
Liquidambar orientalis
Liquidambar styraciflua
Liriodendron tulipifera
Liriope graminifolia
Liriope minor
Liriope muscari
Liriope spicata
Lissanthe sapida
Lissanthe strigosa
Lithocarpus corneus
Lithocarpus densiflorus
Lithocarpus edulis
Lithocarpus glaber
Lithocarpus pachyphyllus
Lithospermum canescens
Lithospermum caroliniense
Lithospermum erythrorhizon
Lithospermum incisum
Lithospermum multiflorum
Lithospermum
Lycium ruthenicum
Lycium schweinfurthii
Lycium torreyi
Lycopersicon esculentum
Lycopersicon peruvianum
Lycopersicon pimpinellifolium
Lycopodium annotinum
Lycopodium campanulatum
Lycopodium clavatum
Lycopodium complanatum
Lycopodium lucidulum
Lycopodium obscurum
Lycopodium selago
Lycopodium serratum
Lycopus americanus
Lycopus amplectens
Lycopus asper
Lycopus europaeus
Lycopus lucidus
Lycopus maackianus
Lycopus uniflorus
Lycopus virginicus
Lycoris aurea
Lycoris radiata
Lycoris sanguinea
Lycoris squamigera
Lygeum spartum
Lygodesmia grandiflora
Lygodesmia juncea
Lyonia ovalifolia
Lyonsia straminea
Lysichiton americanus
Lysichiton

- Ledum palustre
- Legousia pentagonia
- Legousia speculum-veneris
- Leibnitzia anandria
- Leichhardtia leptophylla
- Leitneria floridana
- Lemna minor
- Lemna trisulca
- Lens culinaris
- Lens ervoides
- Leontice leontopetalum
- Leontodon hispidus
- Leontopodium alpinum
- Leontopodium discolor
- brachylobum
- Ligusticum canadense
- Ligusticum filicinum
- Ligusticum hultenii
- Ligusticum jeholense
- Ligusticum monnieri
- Ligusticum mutellina
- Ligusticum porteri
- Ligusticum scoticum
- Ligusticum sinense
- Ligusticum wallichii
- Ligustrum delavayanum
- Ligustrum indicum
- Ligustrum japonicum
- Ligustrum lucidum
- Ligustrum obtusifolium
- Ligustrum ovalifolium
- Ligustrum sinense
- Ligustrum vulgare
- Lilaea subulata
- Lilium species
- Lilium amabile
- Lilium auratum
- Lilium brownii
- Lilium bulbiferum
- Lilium callosum
- officinale
- Lithospermum ruderale
- Litsea citrata
- Litsea cubeba
- Litsea umbrosa
- Livistona australis
- Lobelia cardinalis
- Lobelia dortmanna
- Lobelia inflata
- Lobelia radicans
- Lobelia sessilifolia
- Lobelia siphilitica
- Lobelia spicata
- Lobelia tupa
- Lobularia maritima
- Lolium multiflorum
- Lolium perenne
- Lolium temulentum
- Lomandra longifolia
- Lomatium ambiguum
- Lomatium canbyi
- Lomatium cous
- Lomatium dissectum
- Lomatium eurycarpum
- Lomatium farinosum
- Lomatium foeniculaceum
- Lomatium gayeri
- Lomatium gormanii
- camtschatcense
- Lysimachia barystachys
- Lysimachia christinae
- Lysimachia clethroides
- Lysimachia eleutheroides
- Lysimachia foenum-graecum
- Lysimachia fortunei
- Lysimachia nemorum
- Lysimachia nummularia
- Lysimachia paridiformis
- Lysimachia quadrifolia
- Lysimachia sikokiana
- Lysimachia vulgaris
- Lythrum portula
- Lythrum salicaria

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Name not here? Search for a latin name:

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Maackia amurensis
Macadamia integrifolia
Macadamia tetraphylla
Macleaya cordata
Maclura pomifera
Macromeria viridiflora
Madia densifolia
Madia dissitiflora
Madia elegans
Madia glomerata
Madia sativa
Magnolia acuminata
Magnolia campbellii
Magnolia denudata
Magnolia grandiflora
Magnolia hypoleuca
Magnolia kobus
Magnolia liliiflora
Magnolia macrophylla
Malus trilobata
Malus tschonoskii
Malus x adstringens
Malus x astracanica
Malus x micromalus
Malus x purpurea
Malus x robusta
Malus x soulardii
Malus yunnanensis
Malva alcea
Malva excisa
Malva meluca
Malva mohileviensis
Malva moschata
Malva neglecta
Malva nicaeensis
Malva parviflora
Malva pusilla
Malva sylvestris
Malva verticillata
Mandragora officinarum
Marah fabaceus
Marah macrocarpus
Margyricarpus pinnatus
Marrubium vulgare
Marsdenia roylei
Marsdenia tenacissima
Mentha aquatica
Mentha arvensis
Mentha arvensis piperascens
Mentha arvensis villosa
Mentha asiatica
Mentha australis
Mentha cervina
Mentha cunninghamia
Mentha diemenica
Mentha longifolia
Mentha pulegium
Mentha requienii
Mentha satureioides
Mentha spicata
Mentha suaveolens
Mentha x gracilis
Mentha x piperita citrata
Mentha x piperita officinalis
Mentha x piperita vulgaris
Mentha x smithiana
Mentha x villosa alopecuroides
Mentzelia albicaulis
Mentzelia multiflora
Mentzelia pumila
Menyanthes trifoliata
Menziesia ferruginea
Monarda pectinata
Monarda punctata
Monardella lanceolata
Monardella odoratissima
Monardella odoratissima parvifolia
Monardella villosa
Moneses uniflora
Monizia edulis
Monolepis nuttalliana
Monotoca elliptica
Monotoca scoparia
Monotropa uniflora
Montia fontana
Montia spathulata
Moraea fugax
Morina coulteriana
Morina longifolia
Morus species
Morus alba
Morus alba multicaulis
Morus australis

Magnolia officinalis
Magnolia stellata
Magnolia virginiana
Mahoberberis aquisargentii
Mahonia aquifolium
Mahonia bealei
Mahonia confusa
Mahonia flavida
Mahonia fortunei
Mahonia fremontii
Mahonia ganpinensis
Mahonia gracilipes
Mahonia gracilis
Mahonia haematocarpa
Mahonia japonica
Mahonia lomariifolia
Mahonia napaulensis
Mahonia nervosa
Mahonia nevinii
Mahonia pinnata
Mahonia pumila
Mahonia repens
Mahonia swaseyi
Mahonia trifoliolata
Mahonia x media
Maianthemum canadense
Maianthemum dilatatum
Malus angustifolia
Malus baccata
Marsilea drummondii
Marsilea mutica
Marsilea quadrifolia
Marsippospermum grandiflorum
Matricaria matricarioides
Matricaria recutita
Matteuccia orientalis
Matteuccia pensylvanica
Matteuccia struthiopteris
Matthiola incana
Maytenus boaria
Mazus japonicus
Mazus miquelii
Mazus stachydifolius
Meconopsis aculeata
Meconopsis napaulensis
Medeola virginiana
Medicago arborea
Medicago lupulina
Medicago polymorpha
Medicago sativa
Meehania urticifolia
Megacarpaea delavayi
Megacarpaea gigantea
Megacarpaea megalocarpa
Megacarpaea polyandra
Melaleuca alternifolia
Melaleuca bracteata
Melaleuca hypericifolia
Melaleuca linariifolia
Melaleuca thymifolia
Melaleuca uncinata
Melanthium virginicum
Melastoma dodecandrum
Melia azederach
Melianthus major
Melianthus minor
Melichrus procumbens
Mercurialis annua
Mercurialis leiocarpa
Mercurialis perennis
Mertensia bella
Mertensia ciliata
Mertensia longiflora
Mertensia maritima
Mertensia oblongifolia
Mertensia paniculata
Mesembryanthemum crystallinum
Mespilus germanica
Metaplexis japonica
Metasequoia glyptostroboides
Metrosideros excelsa
Metrosideros robusta
Metrosideros umbellata
Meum athamanticum
Michelia figo
Microcachrys tetragona
Micromeria chamissonis
Micromeria juliana
Microseris nutans
Microseris procera
Microseris scapigera
Microtis unifolia
Milium effusum
Millettia dielsiana
Millettia reticulata
Mimulus geyeri
Mimulus guttatus
Mimulus lewisii
Mimulus luteus
Mimulus moschatus
Mirabilis expansa
Mirabilis jalapa
Mirabilis multiflora
Mirabilis nyctaginea
Miscanthus floridulus
Morus bombycis
Morus cathayana
Morus macroura
Morus microphylla
Morus mongolica
Morus nigra
Morus rubra
Morus serrata
Morus tiliaefolia
Mosla chinensis
Mosla dianthera
Mosla scabra
Muehlenbeckia adpressa
Muehlenbeckia astonii
Muehlenbeckia australis
Muehlenbeckia axillaris
Muehlenbeckia chilensis
Muehlenbeckia complexa
Muhlenbergia pungens
Musa acuminata
Musa basjoo
Muscari botryoides
Muscari comosum
Muscari neglectum
Musineon divaricatum
Mycelis muralis
Myoporum debile
Myoporum deserti
Myoporum ellipticum
Myoporum insulare
Myoporum laetum

Malus baccata mandschurica
Malus bracteata
Malus brevipes
Malus coronaria
Malus domestica
Malus florentina
Malus floribunda
Malus fusca
Malus glabrata
Malus glaucescens
Malus halliana
Malus halliana spontanea
Malus hupehensis
Malus ioensis
Malus ioensis palmeri
Malus kansuensis
Malus lancifolia
Malus praecox
Malus prattii
Malus prunifolia
Malus prunifolia rinki
Malus pumila
Malus pumila nervosa
Malus pumila paradisiaca
Malus sargentii
Malus sieversii
Malus sikkimensis
Malus spectabilis
Malus sylvestris
Malus toringo
Malus toringoides
Malus transitoria
Melichrus urceolatus
Melicope ternata
Melicytus ramiflorus
Melilotus albus
Melilotus altissimus
Melilotus elegans
Melilotus indicus
Melilotus officinalis
Melilotus suaveolens
Melilotus wolgicus
Melissa officinalis
Melittis melissophyllum
Menispermum canadense
Menispermum davuricum
Mentha species
Miscanthus sacchariflorus
Miscanthus sinensis
Misodendrum brachystachyum
Misodendrum linearifolium
Misodendrum punctulatum
Misodendrum quadriflorum
Mitchella repens
Mitchella undulata
Mitella diphylla
Mollugo verticillata
Momorialis hirta
Monarda citriodora
Monarda clinopodia
Monarda didyma
Monarda fistulosa
Monarda menthifolia
Myoporum montanum
Myoporum platycarpum
Myoporum tetrandrum
Myosotis alpestris
Myosotis scorpioides
Myosoton aquaticum
Myriactis wallichii
Myrica californica
Myrica cerifera
Myrica gale
Myrica heterophylla
Myrica nagi
Myrica pensylvanica
Myrica rubra
Myricaria elegans
Myricaria germanica
Myricaria squamosa
Myriophyllum spicatum
Myriophyllum verticillatum
Myrrhis odorata
Myrsine africana
Myrsine semiserrata
Myrteola nummularia
Myrtus communis

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Nabalus albus
Nabalus serpentarius
Nageia nagi
Najas flexilis
Najas graminea
Najas marina
Nandina domestica
Nannorrhops ritchiana
Narcissus jonquilla
Narcissus poeticus
Narcissus pseudonarcissus
Narcissus tazetta
Nardostachys grandiflora
Nasturtium microphyllum
Nasturtium officinale
Nasturtium x sterile
Navarretia squarrosa
Nelumbo lutea
Nelumbo nucifera
Nemopanthus mucronatus
Neolitsea sericea
Neomyrtus pedunculata
Nepeta cataria
Nepeta raphanorrhiza
Nepeta tenuifolia
Nepeta tenuifolia japonica
Nerium oleander
Nertera balfouriana
Nertera ciliata
Nertera cunninghamii
Nertera granadensis
Nicandra physaloides
Nicotiana alata
Nicotiana glauca
Nicotiana rustica
Nicotiana tabacum
Nigella arvensis
Nigella damascena
Nigella orientalis
Nigella sativa
Nitraria schoberi
Nothofagus betuloides
Nothofagus cunninghamii
Nothofagus fusca
Nothofagus menziesii
Nothofagus obliqua
Nothofagus procera
Nothofagus pumilio
Nothofagus solanderi
Nothofagus solanderi cliffortioides
Nothoscordum gracile
Nuphar advena
Nuphar japonicum
Nuphar lutea
Nuphar polysepala
Nuphar pumila
Nymphaea alba
Nymphaea candida
Nymphaea odorata
Nymphaea tetragona
Nymphaea tuberosa
Nymphoides peltata
Nyssa aquatica
Nyssa ogeche
Nyssa sylvatica

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Name not here? Search for a latin name:

Submit

Ocimum basilicum
Ocimum minimum
Oemleria cerasiformis
Oenanthe aquatica
Oenanthe javanica
Oenanthe peucidanifolia
Oenanthe pimpinelloides
Oenanthe sarmentosa
Oenothera albicaulis
Oenothera biennis
Oenothera brevipes
Oenothera elata hookeri
Oenothera glazioviana
Oenothera lamarckiana
Oenothera odorata
Oldenlandia diffusa
Olea europaea
Olearia avicenniifolia
Olearia ilicifolia
Olearia macrodonta
Olearia paniculata
Olearia solandri
Olearia traversii
Olearia virgata
Ophrys araneola
Ophrys bertolonii
Ophrys bombyliflora
Ophrys fusca
Ophrys holoserica
Ophrys insectifera
Ophrys iricolor
Ophrys lutea
Ophrys scolopax
Ophrys sphegodes
Ophrys tenthredinifera
Ophrys vernixia
Oplopanax horridus
Oplopanax japonicus
Opopanax chironium
Opuntia compressa
Opuntia erinacea
Opuntia ficus-indica
Opuntia fragilis
Opuntia howeyi
Opuntia imbricata
Opuntia littoralis
Opuntia macrorhiza
Opuntia microdasys
Opuntia phaeacantha
Opuntia polyacantha
Opuntia ramosissima
Origanum majorana
Origanum onites
Origanum syriacum
Origanum virens
Origanum vulgare
Origanum vulgare hirtum
Origanum x hybridum
Origanum x majoricum
Orixa japonica
Ornithogalum narbonense
Ornithogalum pyrenaicum
Ornithogalum umbellatum
Ornithopus sativus
Orobanche ammophyla
Orobanche californica
Orobanche cernua
Orobanche fasciculata
Orobanche grayana
Orobanche ludoviciana
Orobanche minor
Orobanche pinorum
Orobanche tuberosa
Orobanche uniflora
Orogenia linearifolia
Orontium aquaticum
Orthilia secunda
Orychophragmus violaceus
Osmorhiza obtusa
Osmorhiza occidentalis
Osmunda asiatica
Osmunda cinnamomea
Osmunda claytoniana
Osmunda japonica
Osmunda regalis
Osteomeles obtusifolia
Osteomeles schwerinae
Osteomeles subrotunda
Ostrya carpinifolia
Ostrya virginiana
Oxalis acetosella
Oxalis adenophylla
Oxalis articulata
Oxalis barrelieri
Oxalis bifida
Oxalis corniculata
Oxalis corymbosa
Oxalis deppei
Oxalis enneaphylla

Olearia x haastii
Olneya tesota
Onobrychis viciifolia
Onoclea sensibilis
Ononis repens
Ononis spinosa
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Onopordum illyricum
Onosma bracteatum
Onosma echioides
Onosma frutescens
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Ophrys apifera
Orchis coriophora
Orchis italica
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Oreomyrrhis hookeri
Origanum compactum
Origanum dictamnus
Origanum glandulosum
Origanum isthmicum
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Oxalis frutescens
Oxalis lasiandra
Oxalis magellanica
Oxalis montana
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Oxalis pes-caprae
Oxalis stricta
Oxalis tetraphylla
Oxalis triangularis
Oxalis tuberosa
Oxalis violacea
Oxydendrum arboreum
Oxyria digyna
Oxytropis lambertii

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Pachysandra terminalis
Packera aurea
Paederia scandens
Paeonia anomala
Paeonia brownii
Paeonia caucasica
Paeonia delavayi
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Paeonia japonica
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Phyllostachys dulcis
Phyllostachys edulis
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Pelargonium graveolens
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Pelargonium odoratissimum
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Polygonum bistortoides
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Philadelphus purpurascens
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Primula reticulata
Primula sieboldii
Primula veris
Primula vulgaris
Pringlea antiscorbutica
Prinsepia sinensis
Prinsepia uniflora
Prinsepia utilis
Proboscidea fragrans
Proboscidea louisianica
Prostanthera cineolifera
Prostanthera rotundifolia
Protea cynaroides
Protea mellifera
Protea repens
Prumnopitys andina

Prumnopitys ferruginea
Prumnopitys taxifolia
Prunella grandiflora
Prunella vulgaris
Prunus alabamensis
Prunus alleghaniensis
Prunus americana
Prunus americana lanata
Prunus andersonii
Prunus angustifolia
Prunus angustifolia watsonii
Prunus apetala
Prunus arabica
Prunus armeniaca
Prunus avium
Prunus besseriana
Prunus besseyi
Prunus bifrons
Prunus bokharensis

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Index of Latin Names: Q

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Name not here? Search for a latin name:

Submit

- Quercus species
- Quercus acuta
- Quercus acutissima
- Quercus agrifolia
- Quercus alba
- Quercus aliena
- Quercus aucheri
- Quercus bicolor
- Quercus cerris
- Quercus chrysolepis
- Quercus coccifera
- Quercus coccinea
- Quercus dentata
- Quercus dilatata
- Quercus douglasii
- Quercus dumosa revoluta
- Quercus ellipsoidalis
- Quercus emoryi
- Quercus engelmannii
- Quercus falcata
- Quercus frainetto
- Quercus fruticosa
- Quercus gambelii
- Quercus garryana
- Quercus glauca
- Quercus hispanica
- Quercus ilex
- Quercus ilex ballota
- Quercus imbricaria
- Quercus infectoria
- Quercus ithaburensis macrolepis
- Quercus kelloggii
- Quercus laevis
- Quercus lamellosa
- Quercus leucotrichophora
- Quercus libani
- Quercus lineata
- Quercus lobata
- Quercus lyrata
- Quercus macrocarpa
- Quercus marilandica
- Quercus michauxii
- Quercus mongolica
- Quercus mongolica grosseserrata
- Quercus muehlenbergii
- Quercus myrsinaefolia
- Quercus nigra
- Quercus oblongifolia
- Quercus palustris
- Quercus petraea
- Quercus phellos
- Quercus phillyreoides
- Quercus prinoides
- Quercus prinus
- Quercus pubescens
- Quercus pungens
- Quercus robur
- Quercus rubra
- Quercus semecarpifolia
- Quercus serrata
- Quercus shumardii
- Quercus stellata
- Quercus suber
- Quercus suber occidentalis
- Quercus undulata
- Quercus variabilis
- Quercus velutina
- Quercus virginiana
- Quercus wislizenii
- Quercus x bebbiana
- Quillaja saponaria

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Index of Latin Names: R

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Common Names

Name not here? Search for a latin name:

Submit

- Ranunculus acris
- Ranunculus aquatilis
- Ranunculus arvensis
- Ranunculus bulbosus
- Ranunculus californicus
- Ranunculus chinensis
- Ranunculus eisenii
- Ranunculus ficaria
- Ranunculus flammula
- Ranunculus hirtus
- Ranunculus inamoeus
- Ranunculus japonicus
- Ranunculus kochii
- Ranunculus muricatus
- Ranunculus nipponicus
- Ranunculus pallasii
- Ranunculus
- Rhus wallichii
- Rhus x pulvinata
- Rhynchosinapis monensis
- Rhynchosinapis wrightii
- Ribes aciculare
- Ribes alpinum
- Ribes altissimum
- Ribes ambiguum
- Ribes americanum
- Ribes aureum
- Ribes bracteosum
- Ribes burejense
- Ribes californicum
- Ribes cereum
- Ribes curvatum
- Ribes cynosbati
- Ribes diacanthum
- Ribes distans
- Ribes divaricatum
- Ribes fasciculatum
- Ribes fragrans
- Ribes gayanum
- Ribes glaciale
- Ribes glandulosum
- Ribes griffithii
- Rosa laevigata
- Rosa laxa
- Rosa macrophylla
- Rosa majalis
- Rosa manca
- Rosa maracandica
- Rosa micrantha
- Rosa moschata
- Rosa moyesii
- Rosa multiflora
- Rosa nutkana
- Rosa obtusifolia
- Rosa pimpinellifolia
- Rosa pisocarpa
- Rosa roxburghii
- Rosa rubiginosa
- Rosa rugosa
- Rosa sericea
- Rosa sericea pteracantha
- Rosa setipoda
- Rosa sherardii
- Rosa sweginzowii
- Rosa tomentosa
- Rosa villosa
- Rosa virginiana
- Rosa webbiana
- Rosa wichuraiana
- Rubus louisianus
- Rubus macilentus
- Rubus macropetalus
- Rubus magnificus
- Rubus mesogaeus
- Rubus michiganensis
- Rubus microphyllus
- Rubus minusculus
- Rubus moluccanus
- Rubus moorei
- Rubus nemerosus
- Rubus nepalensis
- Rubus nessensis
- Rubus nigricans
- Rubus nitidioides
- Rubus niveus
- Rubus nubigenus
- Rubus occidentalis
- Rubus odoratus
- Rubus oldhamii
- Rubus ostryfolius
- Rubus palmatus
- Rubus paniculatus
- Rubus parcifrondifer
- Rubus parviflorus
- Rubus parvifolius
- Rubus parvus

pennsylvanicus
Ranunculus quelpaertensis
Ranunculus repens
Ranunculus reptans
Ranunculus rivularis
Ranunculus sceleratus
Ranunculus tachreoi
Ranunculus ternatus
Raphanus landra
Raphanus maritima
Raphanus raphanistrum
Raphanus sativus
Raphanus sativus caudatus
Raphanus sativus niger
Raphanus sativus oleiformis
Ratibida columnifera
Reaumuria hypericoides
Rehmannia glutinosa
Reichardia picroides
Reineckia carnea
Reseda lutea
Reseda luteola
Reseda odorata
Reseda phyteuma
Rhagodia candolleana
Rhagodia nutans
Ribes himalayense
Ribes hirtellum
Ribes horridum
Ribes hudsonianum
Ribes inebrians
Ribes inerme
Ribes irriguum
Ribes janczewskii
Ribes japonicum
Ribes lacustre
Ribes latifolium
Ribes laurifolium
Ribes laxiflorum
Ribes leptanthum
Ribes lobbii
Ribes longeracemosum
Ribes luridum
Ribes magellanicum
Ribes mandschuricum
Ribes maximowiczii
Ribes maximowiczii floribundum
Ribes menziesii
Ribes meyeri
Ribes missouriense
Ribes montigenum
Ribes multiflorum
Ribes nigrum
Ribes niveum
Ribes odoratum
Ribes orientale
Ribes oxyacanthoides
Ribes palczewskii
Ribes pauciflorum
Ribes petiolare
Ribes petraeum
Ribes petraeum biebersteinii
Ribes pinetorum
Rosa woodsii
Rosa x beanii
Rosa x damascena
Rosa x odorata
Rosmarinus officinalis
Rubia akane
Rubia chinensis
Rubia cordifolia
Rubia hexaphylla
Rubia jesoensis
Rubia khasiana
Rubia manjith
Rubia peregrina
Rubia sikkimensis
Rubia tinctorum
Rubus species
Rubus abbrevians
Rubus acaulis
Rubus acer
Rubus adenophorus
Rubus adenotrichus
Rubus affinis
Rubus alexeteterius
Rubus allegheniensis
Rubus almus
Rubus amabilis
Rubus ampelinus
Rubus arcticus
Rubus argutus
Rubus arizonicus
Rubus australis
Rubus avipes
Rubus baileyanus
Rubus barbatus
Rubus bellobatus
Rubus biflorus
Rubus bifrons
Rubus bloxamii
Rubus buergeri
Rubus caesius
Rubus pascuus
Rubus pectinellus
Rubus pedatus
Rubus peltatus
Rubus pensylvanicus
Rubus pergratus
Rubus permixtus
Rubus philadelphicus
Rubus phoenicolasius
Rubus platyphyllus
Rubus platysepalus
Rubus procerus
Rubus pseudo-acer
Rubus pubescens
Rubus racemosus
Rubus radicans
Rubus reticulatus
Rubus rhamnifolius
Rubus rosa
Rubus rosaefolius
Rubus roseus
Rubus rubiginosus
Rubus sachalinensis
Rubus salteri
Rubus sanguineus
Rubus saxatilis
Rubus schmidelioides
Rubus serissimus
Rubus setchuensis
Rubus sieboldii
Rubus simplex
Rubus spectabilis
Rubus squarrosus
Rubus stans
Rubus stellatus
Rubus strigosus
Rubus sulcatus
Rubus tephordes
Rubus thibetanus
Rubus thyrsanthus

Rhagodia parabolica
Rhagodia spinescens
Rhamnella franguloides
Rhamnus alaternus
Rhamnus carolinianus
Rhamnus cathartica
Rhamnus croceus
Rhamnus dahurica
Rhamnus frangula
Rhamnus globosus
Rhamnus grandiflorus
Rhamnus japonica
Rhamnus leptophyllus
Rhamnus lycioides
Rhamnus nipalensis
Rhamnus persicus
Rhamnus purpureus
Rhamnus purshianus
Rhamnus saxatilis
Rhamnus saxatilis tinctorius
Rhamnus triquetra
Rhamnus utilis
Rhamnus virgatus
Rhaphiolepis indica
Rhaphiolepis umbellata
Rheum australe
Rheum compactum
Rheum coreanum
Rheum nobile
Rheum officinale
Rheum palmatum
Ribes procumbens
Ribes punctatum
Ribes roezlii
Ribes rotundifolium
Ribes rubrum
Ribes sachalinense
Ribes sanguineum
Ribes sanguineum glutinosum
Ribes sativum
Ribes setosum
Ribes sinanense
Ribes spicatum
Ribes stenocarpum
Ribes triste
Ribes ussuriense
Ribes uva-crispa
Ribes valdivianum
Ribes viburnifolium
Ribes viscosissimum
Ribes warszewiczii
Ribes x culverwellii
Ribes x holosericeum
Ribes x houghtonianum
Ribes x robustum
Ricinus communis
Ripogonum scandens
Robinia fertilis
Robinia flava
Robinia luxurians
Robinia neomexicana
Robinia pseudoacacia
Robinia viscosa
Rodgersia podophylla
Rohdea japonica
Romanzoffia suksdorfii
Romanzoffia unalaschkensis
Rubus calycinoides
Rubus calycinus
Rubus canadensis
Rubus candicans
Rubus caucasicus
Rubus caudatus
Rubus chamaemorus
Rubus chroosepalus
Rubus cissoides
Rubus cockburnianus
Rubus corchorifolius
Rubus coreanus
Rubus corylifolius
Rubus crataegifolius
Rubus croceanthus
Rubus cuneifolius
Rubus deliciosus
Rubus divergens
Rubus ellipticus
Rubus enslenii
Rubus flagellaris
Rubus flagelliflorus
Rubus floribundo-paniculatus
Rubus floridus
Rubus flosculosus
Rubus frondosus
Rubus fruticosus
Rubus geoides
Rubus geophilus
Rubus glandicaulis
Rubus glaucus
Rubus grayanus
Rubus gunnianus
Rubus henryi
Rubus hirsutus
Rubus hispidus
Rubus humilifolius
Rubus hypargyrus niveus
Rubus ichangensis
Rubus idaeus
Rubus tricolor
Rubus trifidus
Rubus trivialis
Rubus tsangorum
Rubus ulmifolius
Rubus ursinus
Rubus vernus
Rubus vestervicensis
Rubus villosus
Rubus x neglectus
Rubus xanthocarpus
Rudbeckia hirta
Rudbeckia laciniata
Rulingia dasyphylla
Rumex abyssinicus
Rumex acetosa
Rumex acetosella
Rumex alpinus
Rumex angiocarpus
Rumex aquaticus
Rumex arcticus
Rumex arifolius
Rumex berlandieri
Rumex brownii
Rumex bucephalophorus
Rumex conglomeratus
Rumex crispus
Rumex daiwoo
Rumex dentatus
Rumex gmelini
Rumex graminifolius
Rumex hastatus
Rumex hydrolapathum
Rumex hymenosepalus
Rumex japonicus
Rumex longifolius

Rheum palmatum tanguticum
Rheum rhaponticum
Rheum ribes
Rheum spiciforme
Rheum tataricum
Rheum x cultorum
Rhexia virginica
Rhinanthus minor
Rhodiola rhodantha
Rhodiola rosea
Rhodiola tibetica
Rhododendron 'PJM'
Rhododendron anthopogon
Rhododendron arboreum
Rhododendron aureum
Rhododendron campanulatum
Rhododendron ferrugineum
Rhododendron griersonianum
Rhododendron indicum
Rhododendron japonicum
Rhododendron kaempferi
Rhododendron lapponicum
Rhododendron lutescens
Rhododendron luteum
Rhododendron
Romulea bulbocodium
Rorippa amphibia
Rorippa globosa
Rorippa indica
Rorippa palustris
Rosa acicularis
Rosa arkansana
Rosa arkansana suffulta
Rosa banksiae
Rosa blanda
Rosa californica
Rosa canina
Rosa carolina
Rosa centifolia
Rosa chinensis
Rosa coriifolia
Rosa corymbifera
Rosa cymosa
Rosa davurica
Rosa dumalis
Rosa fedtschenkoana
Rosa fraxinellaefolia
Rosa gallica
Rosa gigantea
Rosa glauca
Rosa gymnocarpa
Rosa hemsleyana
Rubus ikenoensis
Rubus illecebrosus
Rubus innominatus
Rubus invisus
Rubus jacens
Rubus kuntzeanus
Rubus laciniatus
Rubus lambertianus
Rubus lanatus
Rubus lasiostylus
Rubus laudatus
Rubus lemurum
Rubus lentiginosus
Rubus leucodermis
Rubus leucostachys
Rubus lineatus
Rubus linkianus
Rubus loganobaccus
Rumex maritimus
Rumex mexicanus
Rumex nepalensis
Rumex obtusifolius
Rumex occidentalis
Rumex patienta
Rumex paucifolius
Rumex pulcher
Rumex salicifolius
Rumex sanguineus
Rumex scutatus
Rumex simpliciflorus
Rumex tenuifolius
Rumex tingitanus
Rumex venosus
Rumex vesicarius
Ruscus aculeatus
Ruta chalepensis
Ruta graveolens
Ruta montana

maximum
Rhododendron molle
Rhododendron mucronulatum
Rhododendron ponticum
Rhododendron x praecox
Rhus ambigua
Rhus aromatica
Rhus chinensis
Rhus copallina
Rhus coriaria
Rhus diversiloba
Rhus glabra
Rhus integrifolia
Rhus microphylla
Rhus ovata
Rhus potaninii
Rhus punjabensis
Rhus punjabensis sinica
Rhus radicans
Rhus sempervirens
Rhus succedanea
Rhus sylvestris
Rhus toxicodendron
Rhus trichocarpa
Rhus trilobata
Rhus typhina
Rhus verniciflua
Rhus vernix

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Index of Latin Names: S

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Submit

- Sabal etonia
- Sabal mexicana
- Sabal minor
- Sabal palmetto
- Sabatia angularis
- Sabatia campestris
- Sabatia elliotii
- Sagina japonica
- Sagina maxima
- Sagittaria aginashi
- Sagittaria brevirosta
- Sagittaria chapmanii
- Sagittaria cuneata
- Sagittaria graminea
- Sagittaria latifolia
- Sagittaria rigida
- Sagittaria sagittifolia
- Sagittaria sagittifolia leucopetala
- Salicornia ambigua
- Salicornia bigelovii
- Salicornia europaea
- Salicornia quinqueflora
- Salicornia rubra
- Salicornia utahensis
- Salicornia virginica
- Salix 'Americana'
- Santolina rosmarinifolia
- Sapindus drummondii
- Sapindus marginatus
- Sapium japonicum
- Sapium sebiferum
- Saponaria ocymoides
- Saponaria officinalis
- Sarcobatus vermiculatus
- Sargentodoxa cuneata
- Sarracenia flava
- Sarracenia purpurea
- Sasa cernua
- Sasa chimakisasa
- Sasa kurilensis
- Sasa nipponica
- Sasa palmata
- Sasa senanensis
- Sasa veitchii
- Sasaella ramosa
- Sasamorpha borealis
- Sassafras albidum
- Satureja hortensis
- Satureja montana
- Satureja spicigera
- Satureja thymbra
- Senecio nemorensis
- Senecio nemorensis fuchsii
- Senecio nikoensis
- Senecio pierottii
- Senecio pseudo-arnica
- Senecio scandens
- Senecio sylvaticus
- Senecio viscosus
- Senecio vulgaris
- Senna marilandica
- Senna tora
- Sequoia sempervirens
- Sequoiadendron giganteum
- Serenoa repens
- Serratula coronata
- Serratula tinctoria
- Sesamum indicum
- Sesbania macrocarpa
- Seseli gummiferum
- Seseli libanotis
- Sesuvium portulacastrum
- Setaria italica
- Setaria pumila
- Setaria pycnocoma
- Sorbaria sorbifolia
- Sorbopyrus species
- Sorbopyrus auricularis
- Sorbus species
- Sorbus alnifolia
- Sorbus americana
- Sorbus aria
- Sorbus aucuparia
- Sorbus austriaca
- Sorbus commixta
- Sorbus decora
- Sorbus devoniensis
- Sorbus domestica
- Sorbus gracilis
- Sorbus hybrida
- Sorbus intermedia
- Sorbus japonica
- Sorbus lanata
- Sorbus latifolia
- Sorbus mougeotii
- Sorbus pohuashanensis
- Sorbus sambucifolia
- Sorbus scopulina
- Sorbus sitchensis
- Sorbus thibetica
- Sorbus torminalis
- Sorbus vestita

Salix 'Bowles hybrid'
Salix 'Forbiana'
Salix acutifolia
Salix aegyptiaca
Salix alaxensis
Salix alba
Salix alba caerulea
Salix alba vitellina
Salix amygdaloides
Salix appendiculata
Salix arenaria
Salix atrocinerea
Salix aurita
Salix babylonica
Salix bakko
Salix bebbiana
Salix brachycarpa
Salix caprea
Salix chaenomeloides
Salix cinerea
Salix commutata
Salix daphnoides
Salix decipiens
Salix eriocephala
Salix exigua
Salix fluviatilis
Salix fragilis
Salix gilgiana
Salix gooddingii
Salix gracilistyla
Salix hastata
Salix hookeriana
Salix japonica
Salix koriyanagi
Salix lanata
Salix lasiandra
Salix lasiolepis
Salix lucida
Salix miyabeana
Salix nigra
Saururus cernuus
Saururus chinensis
Saussurea affinis
Saussurea costus
Saussurea diamantica
Saussurea gracilis
Saussurea graminifolia
Saussurea grandifolia
Saussurea lyrata
Saussurea maximowiczii
Saussurea obvallata
Saussurea pulchella
Saussurea roylei
Saussurea serrata
Saussurea serrata amurensis
Saussurea ussuriensis
Saxifraga cortusifolia
Saxifraga fortunei
Saxifraga fusca
Saxifraga japonica
Saxifraga ligulata
Saxifraga mertensiana
Saxifraga micranthidifolia
Saxifraga oblongifolia
Saxifraga pensylvanica
Saxifraga punctata
Saxifraga spicata
Saxifraga stolonifera
Scabiosa columbaria
Scabiosa fischeri
Scabiosa japonica
Scaevola spinescens
Scandix grandiflora
Scandix
Setaria viridis
Shepherdia argentea
Shepherdia canadensis
Sherardia arvensis
Shibataea kumasasa
Sicyos angulatus
Sidalcea acuta
Sidalcea malviflora
Sidalcea neomexicana
Sideritis syriaca
Sideritis theezans
Siegesbeckia orientalis pubescens
Silaum silaus
Silene acaulis
Silene conoidea
Silene dioica
Silene firma
Silene gallica
Silene latifolia
Silene nigrescens
Silene vulgaris
Silphium laciniatum
Silphium laeve
Silphium perfoliatum
Silphium terebinthinaceum
Silybum marianum
Sinapis alba
Sinapis arvensis
Sinofranchetia chinensis
Sinomenium acutum
Siphonostegia chinensis
Sison amomum
Sisymbrium altissimum
Sisymbrium
Sorghum bicolor
Sorghum halepense
Sparaxis bulbifera
Sparganium americanum
Sparganium androcladum
Sparganium erectum
Sparganium longifolium
Sparganium stoloniferum
Spartina anglica
Spartina pectinata
Spartina x townsendii
Spartium junceum
Spergula arvensis
Spergularia rubra
Sphagnum cymbilifolium
Spigelia marilandica
Spinacia oleracea
Spiraea alba
Spiraea betulifolia aemiliana
Spiraea blumei
Spiraea canescens
Spiraea douglasii
Spiraea henryi
Spiraea hirsuta
Spiraea japonica
Spiraea nervosa angustifolia
Spiraea prunifolia
Spiraea pyramidata
Spiraea salicifolia
Spiraea thunbergii
Spiraea tomentosa
Spiraea x arguta
Spiranthes spiralis
Spirodela polyrhiza
Sporobolus airoides
Sporobolus asperifolius
Sporobolus caroli
Sporobolus contractus

Salix nipponica
Salix pentandra
Salix petiolaris
Salix piperi
Salix pseudo-matsudana
Salix pulchra
Salix purpurea
Salix purpurea lambertiana
Salix repens
Salix schwerinii
Salix scouleriana
Salix sitchensis
Salix sungkianica
Salix taxifolia
Salix triandra
Salix viminalis
Salix wallichiana
Salix x mollisima hippophaeifolia
Salix x mollisima undulata
Salix x rubra
Salix x smithiana
Salsola asparagoides
Salsola collina
Salsola kali
Salsola kali ruthenica
Salsola komarovi
Salsola soda
Salvia apiana
Salvia ballotaeflora
Salvia carduacea
Salvia carnosa
Salvia clevelandii
Salvia columbariae
Salvia elegans
Salvia fruticosa
Salvia glabrescens
pecten-veneris
Schinus molle
Schinus polygamus
Schisandra chinensis
Schisandra grandiflora
Schisandra henryi
Schisandra repanda
Schisandra rubriflora
Schisandra sphenanthera
Schizomeria ovata
Schizophragma hydrangeoides
Schizophragma integrifolium
Sciadopitys verticillata
Scilla scilloides
Scirpus acutus
Scirpus affinis
Scirpus americanus
Scirpus caldwellii
Scirpus cyperinus
Scirpus fluviatilis
Scirpus lacustris
Scirpus litoralis
Scirpus maritimus
Scirpus medianus
Scirpus microcarpus
Scirpus nevadensis
Scirpus paludosus
Scirpus subterminalis
Scirpus ternatus
Scirpus validus
Scirpus validus creber
Scleranthus annuus
Scolymus grandiflorus
Scolymus hispanicus
crassifolium
Sisymbrium irio
Sisymbrium loeselii
Sisymbrium matritense
Sisymbrium officinale
Sisyrinchium angustifolium
Sium helenianum
Sium latifolium
Sium serra
Sium sisarum
Sium suave
Skimmia japonica
Skimmia laureola
Smilacena japonica
Smilacena purpurea
Smilacena racemosa
Smilacena stellata
Smilax aspera
Smilax auriculata
Smilax beyrichii
Smilax bona-nox
Smilax china
Smilax cordifolia
Smilax discotis
Smilax glabra
Smilax glauca
Smilax glycophylla
Smilax herbacea
Smilax hispida
Smilax lancaefolia
Smilax lanceolata
Smilax laurifolia
Smilax nipponica
Smilax pseudo-china
Smilax riparia
Smilax rotundifolia
Smilax sieboldii
Smilax tamnoides
Sporobolus cryptandrus
Sporobolus flexuosus
Sporobolus giganteus
Sporobolus indicus
Sporobolus pallidus
Stachys affinis
Stachys baicalensis
Stachys bullata
Stachys germanica
Stachys hyssopifolia
Stachys hyssopifolia ambigua
Stachys officinalis
Stachys palustris
Stachys sylvatica
Stanleya albescens
Stanleya elata
Stanleya pinnata
Stanleya wrightii
Staphylea bumalda
Staphylea colchica
Staphylea emodi
Staphylea pinnata
Staphylea trifolia
Stauntonia hexaphylla
Stellaria alsine
Stellaria dichotoma
Stellaria diversifolia
Stellaria jamesiana
Stellaria media
Stellaria neglecta
Stellaria nipponica
Stellaria radians
Stellaria sessiliflora
Stellera chamaejasme
Stephanandra incisa
Stephanandra tanakae
Stephanomeria spinosa
Stevia rebaudiana
Stewartia pseudocamellia

Salvia glutinosa
Salvia hispanica
Salvia japonica
Salvia lanata
Salvia lanigera
Salvia lavandulifolia
Salvia lyrata
Salvia mellifera
Salvia microphylla
Salvia moorcroftiana
Salvia multicaulis
Salvia multiorrhiza
Salvia officinalis
Salvia plebia
Salvia pomifera
Salvia pratensis
Salvia reflexa
Salvia sclarea
Salvia stachyoides
Salvia sylvestris
Salvia tiliifolia
Salvia tomentosa
Salvia verbenaca
Salvia viridis
Sambucus australiasica
Sambucus caerulea
Sambucus callicarpa
Sambucus canadensis
Sambucus chinensis
Sambucus ebulus
Sambucus gaudichaudiana
Sambucus javanica
Sambucus latipinna
Sambucus melanocarpa
Sambucus mexicana
Sambucus microbotrys
Sambucus nigra
Sambucus pubens
Sambucus racemosa
Scolymus maculatus
Scopolia carniolica
Scopolia japonica
Scorpiurus muricatus
Scorpiurus vermiculatus
Scorzonera acanthoclada
Scorzonera albicaulis
Scorzonera austriaca
Scorzonera crocifolia
Scorzonera divaricata
Scorzonera hispanica
Scorzonera hissaricata
Scorzonera mollis
Scorzonera mongolica
Scorzonera papposa
Scorzonera parviflora
Scorzonera ptilophora
Scorzonera racemosa
Scorzonera schweinfurthii
Scorzonera tau-saghyz
Scorzonera tragapogonoides
Scorzonera tuberosa
Scorzonera turkestania
Scorzonera undulata
Scorzonera undulata deliciosa
Scorzonera virgata
Scrophularia marilandica
Scrophularia ningpoensis
Scrophularia nodosa
Smilax trinervula
Smyrnium olusatrum
Smyrnium perfoliatum
Solanum aethiopicum
Solanum ajanhuiri
Solanum americanum
Solanum andigenum
Solanum aviculare
Solanum boreale
Solanum boyacence
Solanum cari
Solanum carolinense
Solanum chaucha
Solanum curtilobum
Solanum dulcamara
Solanum fendleri
Solanum jamesii
Solanum juzepczukii
Solanum kurzii
Solanum laciniatum
Solanum linearifolium
Solanum liximitante
Solanum luteum
Solanum lyratum
Solanum maglia
Solanum mamilliferum
Solanum melongena
Solanum muricatum
Solanum nigrum
Solanum phureja
Solanum piliferum
Solanum retroflexum
Solanum rybinii
Solanum scabrum
Solanum septemlobum
Solanum simile
Solanum
Stilbocarpa polaris
Stillingia sylvatica
Stipa splendens
Stipa tenacissima
Stipa vaseyi
Stipa viridula
Stratiotes aloides
Streptopus amplexifolius
Streptopus roseus
Streptopus streptopoides
Strobilanthes cusia
Stylophorum lasiocarpum
Styphelia adscendens
Styphelia triflora
Styphelia viridis
Styrax japonica
Styrax officinalis
Styrax serrulatum
Suaeda australis
Suaeda californica
Suaeda corniculata
Suaeda depressa
Suaeda fruticosa
Suaeda glauca
Suaeda heterotropa
Suaeda japonica
Suaeda linearis
Suaeda maritima
Suaeda occidentalis
Suaeda palmeri
Suaeda ramosissima
Suaeda salsa
Suaeda suffrutescens
Succisa pratensis
Swertia bimaculata
Swertia chirayita
Swertia japonica
Swertia petiolata
Sympholoma graveolens
Symphoricarpos albus

Sambucus racemosa kamtschatica
Sambucus sieboldiana
Sambucus wightiana
Sambucus williamsii
Samolus parviflorus
Samolus valerandi
Sanguinaria canadensis
Sanguisorba canadensis
Sanguisorba menziesii
Sanguisorba minor
Sanguisorba obtusa
Sanguisorba occidentalis
Sanguisorba officinalis
Sanguisorba stipulata
Sanguisorba tenuifolia
Sanicula canadensis
Sanicula chinensis
Sanicula europaea
Sanicula marylandica
Sanicula rubriflora
Sanicula tuberculata
Sanicula tuberosa
Sanseviera aethiopica
Santalum acuminatum
Santalum lanceolatum
Santalum murrayanum
Santolina chamaecyparissus
Santolina pinnata neopolitana
Scrophularia umbrosa
Scutellaria baicalensis
Scutellaria barbata
Scutellaria galericulata
Scutellaria indica
Scutellaria lateriflora
Sebaea ovata
Secale cereale
Secale cereale ancestrale
Secale strictum
Secale strictum kuprijanovii
Secale sylvestre
Secale vavilovii
Securidaca longipedunculata
Securinega suffruticosa
Sedum acre
Sedum aizoon
Sedum album
Sedum anacampseros
Sedum arboroseum
Sedum divergens
Sedum forsterianum
Sedum japonicum
Sedum kamtschaticum
Sedum lanceolatum
Sedum lineare
Sedum makinoi
Sedum oreganum
Sedum rupestre
Sedum sarmentosum
Sedum sediforme
Sedum spathulifolium
Sedum spectabile
Sedum spurium
sisymbriifolium
Solanum stenotomum
Solanum stenotomum goniocalyx
Solanum triflorum
Solanum tuberosum
Solanum vescum
Soldanella alpina
Solidago canadensis
Solidago canadensis scabra
Solidago fistulosa
Solidago gigantea
Solidago graminifolia
Solidago japonica
Solidago leavenworthii
Solidago missouriensis
Solidago nana
Solidago odora
Solidago radiata
Solidago rigida
Solidago spathulata
Solidago spectabilis
Solidago suaveolens
Solidago virgaurea
Sonchus arvensis
Sonchus asper
Sonchus brachyotus
Sonchus kirkii
Sonchus oleraceus
Sonchus tenerrimus
Sophora davidii
Sophora flavescens
Sophora japonica
Sophora mollis
Sophora moorcroftiana
Sophora secundiflora
laevigatus
Symphoricarpos occidentalis
Symphoricarpos orbiculatus
Symphytum asperum
Symphytum grandiflorum
Symphytum officinale
Symphytum tuberosum
Symphytum uplandicum
Symplocarpus foetidus
Symplocarpus renifolius
Symplocos caudata
Symplocos crataegoides
Symplocos microcalyx
Symplocos paniculata
Symplocos tinctoria
Syncarpia glomulifera
Synurus deltoides
Synurus excelsus
Synurus palmatopinnatifidus
Synurus pungens
Syringa josikaea
Syringa vulgaris
Syzygium australe
Syzygium paniculatum

Sedum stenopetalum
Sedum stoloniferum
Sedum telephium
Selaginella tamariscina
Semiaquilegia adoxoides
Semiarundinaria fastuosa
Semiarundinaria murielae
Sempervivum arachnoideum
Sempervivum caucasicum
Sempervivum tectorum
Senecio cannabifolius
Senecio cineraria
Senecio erucifolius
Senecio jacobaea
Sophora sericea
Sophora subprostrata
Sophora tetraptera

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Name not here? Search for a latin name:

Submit

Tagetes erecta
Tagetes filifolia
Tagetes lucida
Tagetes micrantha
Tagetes minuta
Tagetes patula
Tagetes tenuifolia
Talinum aurantiacum
Tamarix africana
Tamarix anglica
Tamarix aphylla
Tamarix canariensis
Tamarix chinensis
Tamarix gallica
Tamarix hispida
Tamarix juniperina
Tamarix parviflora
Tamarix ramosissima
Tamus communis
Tanacetum balsamita
Tanacetum cinerariifolium
Tanacetum coccineum
Tanacetum parthenium
Tanacetum vulgare
Thalictrum polycarpum
Thalictrum simplex galioides
Thalictrum thalictroides
Thamnocalamus aristatus
Thamnocalamus spathaceus
Thamnocalamus spathiflorus
Thamnocalamus tessalatus
Thapsia garganica
Thelesperma gracile
Thelesperma megapotanicum
Thelesperma trifidum
Theligonum cynocrambe
Thelymitra longifolia
Thelymitra pulchella
Thelypteris palustris
Thermopsis lanceolata
Thladiantha dubia
Thlaspi arvense
Thlaspi perfoliatum
Thuja occidentalis
Thuja orientalis
Thuja plicata
Torreya yunnanensis
Trachelospermum asiaticum
Trachelospermum jasminoides
Trachycarpus fortunei
Trachycarpus martianus
Trachymene glaucifolia
Trachymene incisa
Trachyspermum ammi
Trachystemon orientalis
Trachystemon orientalis
Tradescantia virginiana
Tragopogon coloratus
Tragopogon crocifolius
Tragopogon cupani
Tragopogon dubius
Tragopogon gracilis
Tragopogon hispanica
Tragopogon porrifolius
Tragopogon pratensis
Trapa bicornis
Trapa incisa
Trapa japonica
Trapa natans
Tribulus terrestris
Trichosanthes
Trillium undulatum
Triodia irritans
Triosteum perfoliatum
Triphasia trifolia
Tripsacum dactyloides
Tripterygium wilfordii
Trisetum spicatum
Triteleia grandiflora
Triteleia hyacintha
Triteleia ixioides
Triteleia laxa
Triteleia peduncularis
Triticosecale spp
Triticum aestivum
Triticum aestivum compactum
Triticum aestivum macha
Triticum aestivum spelta
Triticum aestivum sphaerococcum
Triticum bicorne

Taraxacum albidum
Taraxacum bessarabicum
Taraxacum brassicaefolium
Taraxacum erythropodium
Taraxacum formosanum
Taraxacum heterolepis
Taraxacum hondoense
Taraxacum hybernum
Taraxacum japonicum
Taraxacum kok-saghyz
Taraxacum laevigatum
Taraxacum magellanicum
Taraxacum megalorrhizon
Taraxacum mongolicum
Taraxacum obovatum
Taraxacum officinale
Taraxacum platycarpum
Taraxacum pseudo-album
Taraxacum sinicum
Taraxacum tibeticum
Taraxacum variegatum
Taxodium distichum
Taxus baccata
Taxus brevifolia
Thujopsis dolobrata
Thymbra spicata
Thymus caespititius
Thymus camphoratus
Thymus capitatus
Thymus cilicicus
Thymus herba-barona
Thymus hirtus
Thymus mastichina
Thymus pannonicus
Thymus praecox
Thymus praecox arcticus
Thymus pseudolanuginosus
Thymus pulegioides
Thymus quinquecostatus
Thymus serpyllum
Thymus vulgaris
Thymus x citriodorus
Thymus zygis
Thysanotus baueri
Thysanotus exiflorus
Thysanotus patersonii
Thysanotus tuberosus
Tiarella cordifolia
Tigridia pavonia
Tilia americana
Tilia amurensis
Tilia caroliniana
Tilia chinensis
Tilia cordata
Tilia heterophylla
Tilia japonica
Tilia mongolica
Tilia oliveri
Tilia platyphyllos
Tilia tomentosa
Tilia tuan
Tilia x europaea
Tilingia ajanensis
cucumerina anguina
Trichosanthes kirilowii
Trichosanthes kirilowii japonica
Trichosanthes multiloba
Trichosanthes ovigera
Tricyrtis hirta
Tricyrtis latifolia
Tricyrtis macropoda
Trientalis europaea
Trifolium bifidum
Trifolium ciliatum
Trifolium cyathiferum
Trifolium dichotomum
Trifolium dubium
Trifolium fimbriatum
Trifolium fucatum
Trifolium fucatum virescens
Trifolium gracilentum
Trifolium hybridum
Trifolium incarnatum
Trifolium lupinaster
Trifolium macrocephalum
Trifolium microcephalum
Trifolium obtusifolium
Trifolium ornithopodioides
Trifolium pratense
Trifolium repens
Trifolium subterraneum
Trifolium tridentatum
Trifolium variegatum
Triglochin maritima
Triglochin palustris
Triglochin procera
Trigonella caerulea
Trigonella corniculata
Triticum georgicum
Triticum monococcum
Triticum monococcum aegilopoides
Triticum sovieticum
Triticum timopheevii
Triticum turgidum
Triticum turgidum carthlicum
Triticum turgidum dicoccoides
Triticum turgidum dicoccon
Triticum turgidum durum
Triticum turgidum polonicum
Triticum turgidum turanicum
Triticum vavilovi
Tritonia crocata
Trochocarpa clarkei
Trochocarpa cunninghamii
Trollius europaeus
Tropaeolum brachyceras
Tropaeolum leptophyllum
Tropaeolum majus
Tropaeolum minus
Tropaeolum patagonicum
Tropaeolum sessilifolium
Tropaeolum tricolorum
Tropaeolum

- Taxus canadensis
- Taxus cuspidata
- Taxus x media
- Tellima grandiflora
- Telopea speciosissima
- Tephroseris integrifolia
- Tephroseris palustris
- Tephrosia virginiana
- Ternstroemia japonica
- Tetragonia implexicoma
- Tetragonia tetragonoides
- Tetrapanax papyrifer
- Tetrastigma hemsleyanum
- Teucrium canadense
- Teucrium chamaedrys
- Teucrium marum
- Teucrium massiliense
- Teucrium polium
- Teucrium scordium
- Teucrium scorodonia
- Thalictrum actaeifolium
- Thalictrum aquilegiifolium
- Thalictrum collinum
- Thalictrum foliolosum
- Thalictrum minus
- Tilingia holopetala
- Tinospora capillipes
- Tinospora cordifolia
- Tolmiea menziesii
- Toona sinensis
- Tordylium apulum
- Torilis japonica
- Torreya californica
- Torreya fargesii
- Torreya grandis
- Torreya jackii
- Torreya nucifera
- Trigonella foenum-graecum
- Trigonella suavissima
- Trigonotis icumae
- Trigonotis peduncularis
- Trigonotis radicans
- Trilisa odoratissima
- Trillium erectum
- Trillium grandiflorum
- Trillium kamtschaticum
- Trillium ovatum
- Trillium pendulum
- Trillium sessile
- Trillium smallii
- Trillium tschonoskii
- tuberosum
- Tsuga canadensis
- Tsuga caroliniana
- Tsuga chinensis
- Tsuga heterophylla
- Tsuga mertensiana
- Tulbaghia alliacea
- Tulbaghia violacea
- Tulipa clusiana stellata
- Tulipa edulis
- Tulipa gesneriana
- Tulipa montana
- Tulipa sylvestris
- Tupeia antarctica
- Turnera diffusa aphrodisiaca
- Turritis glabra
- Tussilago farfara
- Tylophora ovata
- Typha angustifolia
- Typha bungeana
- Typha davidiana
- Typha domingensis
- Typha glauca
- Typha latifolia
- Typha laxmannii
- Typha minima
- Typha orientalis

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Ugni molinae
Ulex europaeus
Ulex parviflorus
Ullucus tuberosus
Ulmus alata
Ulmus americana
Ulmus davidiana
Ulmus glabra
Ulmus japonica
Ulmus laciniata
Ulmus macrocarpa
Ulmus parvifolia
Ulmus procera
Ulmus pumila
Ulmus rubra
Ulmus thomasii
Ulmus villosa
Ulmus wallichiana
Umbellularia californica
Umbilicus rupestris
Uncaria rhynchophylla
Uniola paniculata
Urceola micrantha
Urginea maritima
Urospermum dalechampii
Urtica angustifolia
Urtica breweri
Urtica californica
Urtica cannabina
Urtica dioica
Urtica gracilis
Urtica holosericea
Urtica hyperborea
Urtica incisa
Urtica laetivirens
Urtica lyallii
Urtica parviflora
Urtica pilulifera
Urtica platyphylla
Urtica procera
Urtica serra
Urtica thunbergiana
Urtica urens
Utricularia vulgaris
Uvularia grandiflora
Uvularia perfoliata
Uvularia sessilifolia

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Index of Latin Names: V

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Name not here? Search for a latin name:

Submit

Vaccaria hispanica
Vaccinium alaskensis
Vaccinium amoenum
Vaccinium angustifolium
Vaccinium angustifolium laevifolium
Vaccinium arboreum
Vaccinium arbuscula
Vaccinium arctostaphylos
Vaccinium ashei
Vaccinium bracteatum
Vaccinium brittonii
Vaccinium caesariense
Vaccinium caespitosum
Vaccinium ciliatum
Vaccinium constablaei
Vaccinium corymbosum
Vaccinium crassifolium
Vaccinium cylindraceum
Vaccinium darrowi
Valeriana jatamansii
Valeriana obovata
Valeriana occidentalis
Valeriana officinalis
Valeriana phu
Valeriana sambucifolia
Valeriana sitchensis
Valeriana toluccana
Valeriana uliginosa
Valerianella carinata
Valerianella chenopodifolia
Valerianella eriocarpa
Valerianella locusta
Valerianella radiata
Vallisneria americana
Vallisneria spiralis
Veratrum album
Veratrum californicum
Veratrum maackii parviflorum
Veratrum nigrum
Veratrum viride
Verbascum blattaria
Verbascum densiflorum
Verbascum lychnitis
Verbascum nigrum
Viburnum lantana
Viburnum lantanoides
Viburnum lentago
Viburnum mongolicum
Viburnum mullaha
Viburnum nudum
Viburnum odoratissimum
Viburnum opulus
Viburnum phlebotrichum
Viburnum plicatum
Viburnum prunifolium
Viburnum rufidulum
Viburnum sempervirens
Viburnum setigerum
Viburnum sieboldii
Viburnum suspensum
Viburnum tinus
Viburnum trilobum
Viburnum veitchii
Viburnum wrightii
Viola epipsela
Viola esculenta
Viola glabella
Viola grypoceras
Viola japonica
Viola keiskei
Viola labradorica
Viola langsdorffii
Viola mandschurica
Viola mirabilis
Viola obtusa
Viola odorata
Viola palmata
Viola patrinii
Viola pedata
Viola pedunculata
Viola pinnata
Viola prionantha
Viola reichanbachiana
Viola riviniana
Viola sempervirens
Viola sororia
Viola tokubuchiana
Viola tricolor
Viola vaginata
Viola variegata
Viola verecunda

Vaccinium deliciosum
Vaccinium duclouxii
Vaccinium elliottii
Vaccinium erythrocarpum
Vaccinium formosum
Vaccinium fuscatum
Vaccinium griffithianum
Vaccinium hirsutum
Vaccinium hirtum
Vaccinium japonicum
Vaccinium koreanum
Vaccinium leucanthum
Vaccinium macrocarpon
Vaccinium melanocarpum
Vaccinium membranaceum
Vaccinium modestum
Vaccinium mortinia
Vaccinium myrsinites
Vaccinium myrtilloides
Vaccinium myrtillus
Vaccinium neglectum
Vaccinium nummularia
Vaccinium occidentalis
Vaccinium oldhamii
Vaccinium ovalifolium
Vaccinium ovatum
Vaccinium oxycoccos
Vaccinium padifolium
Vaccinium parvifolium
Vaccinium praestans
Vaccinium salicinum
Verbascum phlomoides
Verbascum pulverulentum
Verbascum thapsus
Verbena hastata
Verbena officinalis
Verbena stricta
Verbena urticifolia
Vernonia glauca
Veronica agrestis
Veronica americana
Veronica anagallis-aquatica
Veronica arvensis
Veronica beccabunga
Veronica catenata
Veronica chamaedrys
Veronica didyma
Veronica hederifolia
Veronica longifolia
Veronica officinalis
Veronica peregrina
Veronica scutellata
Veronica spuria
Veronica undulata
Veronicastrum axillare
Veronicastrum virginicum
Vetiveria zizanioides
Viburnum betulifolium
Viburnum cassinoides
Viburnum cordifolium
Viburnum corylifolium
Viburnum cotinifolium
Viburnum cylindricum
Viburnum dentatum
Viburnum dilatatum
Viburnum edule
Viburnum erosum
Viburnum erubescens
Viburnum wrightii hessei
Viburnum x bodnantense
Viburnum x juddii
Vicia americana
Vicia amoena
Vicia amurensis
Vicia articulata
Vicia benghalensis
Vicia cracca
Vicia ervilia
Vicia faba equina
Vicia faba major
Vicia faba minuta
Vicia gigantea
Vicia grandiflora kitaibeliana
Vicia heptajuga
Vicia hirsuta
Vicia hirticalycina
Vicia japonica
Vicia monantha
Vicia narbonensis
Vicia nipponica
Vicia noeana
Vicia pisiformis
Vicia pseudo-orobus
Vicia sativa
Vicia sativa leucosperma
Vicia sepium
Vicia tenuifolia
Vicia tetrasperma
Vicia tridentata
Vicia unijuga
Vicia venosa
Vicia villosa
Vigna unguiculata cylindrica
Viola violacea
Viola x wittrockiana
Viola yezoensis
Viscum album
Vitex agnus-castus
Vitex cannabifolia
Vitex negundo
Vitis acerifolia
Vitis aestivalis
Vitis aestivalis argentifolia
Vitis amurensis
Vitis arizonica
Vitis baileyana
Vitis belaii
Vitis berlandieri
Vitis californica
Vitis cinerea
Vitis cinerea floridana
Vitis coignetiae
Vitis cordifolia
Vitis davidii
Vitis doaniana
Vitis flexuosa
Vitis girdiana
Vitis labrusca
Vitis labruscana
Vitis lanata
Vitis linecumii
Vitis monticola
Vitis munsoniana
Vitis mustangensis
Vitis palmata
Vitis parvifolia
Vitis riparia
Vitis romanetii
Vitis rotundifolia
Vitis rupestris
Vitis saccharifera
Vitis thunbergii

Vaccinium scoparium
Vaccinium serratum
Vaccinium simulatum
Vaccinium smallii
Vaccinium sprengelii
Vaccinium stamineum
Vaccinium tallapausae
Vaccinium tenellum
Vaccinium uliginosum
Vaccinium vaccillans
Vaccinium virgatum
Vaccinium vitis-idaea
Valeriana amurensis
Valeriana capitata
Valeriana celtica
Valeriana ciliata
Valeriana dioica
Valeriana fauriei
Valeriana hardwickii
Viburnum erubescens gracilipes
Viburnum farreri
Viburnum foetens
Viburnum fordiae
Viburnum furcatum
Viburnum grandiflorum
Viburnum japonicum
Viguiera multiflora
Vinca major
Vinca minor
Vincetoxicum hirundinaria
Viola acuminata
Viola adunca
Viola biflora
Viola brevistipulata
Viola canadensis
Viola canina
Viola collina
Viola cornuta
Viola cucullata
Viola diffusa
Vitis vinifera
Vitis vulpina

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Index of Latin Names: W

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Common Names

Name not here? Search for a latin name:

Submit

- Wasabia japonica
- Washingtonia filifera
- Weigela coraeensis
- Weigela decora
- Weigela floribunda
- Weigela florida
- Weigela hortensis
- Weigela japonica
- Weinmannia racemosa
- Wikstroemia japonica
- Wikstroemia sikokiana
- Wisteria floribunda
- Wisteria frutescens
- Wisteria japonica
- Wisteria sinensis
- Wisteria venusta
- Wisteria villosa
- Withania somnifera
- Wittsteinia vacciniacea
- Wolffia arrhiza
- Woodwardia radicans
- Wyethia amplexicaulis
- Wyethia angustifolia
- Wyethia helianthoides
- Wyethia longicaulis
- Wyethia mollis
- Wyethia robusta

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Index of Latin Names: X

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Common Names

Name not here? Search for a latin name:

[ ] Submit

Xanthium commune	Xanthoceras sorbifolium	Xerophyllum tenax
Xanthium spinosum	Xanthorhiza simplicissima	Xylosma japonica
Xanthium strumarium	Xanthorrhoea australis	Xyris caroliniana

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Common Names

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Index of Latin Names: Y

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Common Names

Name not here? Search for a latin name:

Submit

- Youngia chelidoniifolia
- Youngia denticulata
- Youngia japonica
- Yucca aloifolia
- Yucca angustissima
- Yucca baccata
- Yucca brevifolia
- Yucca constricta
- Yucca elata
- Yucca filamentosa
- Yucca filifera
- Yucca glauca
- Yucca gloriosa
- Yucca harrimaniae
- Yucca recurvifolia
- Yucca rupicola
- Yucca schidigera
- Yucca smalliana
- Yucca whipplei
- Yushania anceps
- Yushania maling

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Index of Latin Names: Z

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Common Names

Name not here? Search for a latin name:

Submit

- Zannichellia palustris
- Zantedeschia aethiopica
- Zanthoxylum ailanthoides
- Zanthoxylum alatum
- Zanthoxylum americanum
- Zanthoxylum beecheyanum
- Zanthoxylum bungeanum
- Zanthoxylum clava-herculis
- Zanthoxylum coreanum
- Zanthoxylum nitidum
- Zanthoxylum piperitum
- Zanthoxylum planispinum
- Zanthoxylum schinifolium
- Zanthoxylum simulans
- Zea mays
- Zelkova serrata
- Zephyranthes atamasca
- Zieria smithii
- Zizania aquatica
- Zizania latifolia
- Zizia aurea
- Ziziphus jujuba
- Zostera marina
- Zoysia japonica
- Zygophyllum fabago

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Index of Common Names

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Zannichellia palustris

Common name:	Horned pondweed	Family:	Zannichelliaceae
Author:	L.	Botanical references:	17, 200
Synonyms:	Zannichellia aschersoniana (Graebn.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Still or slow-flowing fresh water, or in brackish water[200].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. major[B,P] Z. palustris var. major[B,P] Z. palustris var. stenophylla[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Horned Pondweed [L,P], Horned-pondweed [B],
Epithets:	From a Dictionary of Botanical Epithets
	palustris = in bogs;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Horned pondweed family

Physical Characteristics

Perennial. It is hardy to zone 2. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Water. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Pollution; Soil stabilization.

This plant has proved to be valuable for stabilizing muddy banks and in the purification of polluted water[200].

Cultivation details

A submerged water plant, it is a useful oxygenator for cool water ponds[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed as soon as it is ripe in a pot submerged in water. The seed is likely to have a short viability if allowed to become dry. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division is easy at almost any time in the growing season[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Zannichelliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Zannichellia+palustris`

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Plants For A Future: Database Search Results

Zannichellia palustris

Common name:	Horned pondweed	Family:	Zannichelliaceae
Author:	L.	Botanical references:	17, 200
Synonyms:	Zannichellia aschersoniana (Graebn.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Still or slow-flowing fresh water, or in brackish water[200].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. major[B,P] Z. palustris var. major[B,P] Z. palustris var. stenophylla[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	palustris = in bogs;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Horned pondweed family

Physical Characteristics

Perennial. It is hardy to zone 2. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Water. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Pollution; Soil stabilization.

This plant has proved to be valuable for stabilizing muddy banks and in the purification of polluted water[200].

Cultivation details

A submerged water plant, it is a useful oxygenator for cool water ponds[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed as soon as it is ripe in a pot submerged in water. The seed is likely to have a short viability if allowed to become dry. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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	Z. major[B,P] Z. palustris var. major[B,P] Z. palustris var. stenophylla[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Horned Pondweed [L,P], Horned-pondweed [B],
Epithets:	From a Dictionary of Botanical Epithets
	palustris = in bogs;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Horned pondweed family

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Edible Uses

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Medicinal Uses

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This page (US)
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zannichellia palustris*

Subject:

Zannichellia palustris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zannichellia palustris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:36:50 2004

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Zantedeschia aethiopica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Arum lily	Family:	Araceae
Author:	(L.) Spreng.	Botanical references:	73, 200
Synonyms:			
Known Hazards:	Many plants in this family are poisonous raw, due to the presence of calcium oxylate crystals. If eaten raw, this toxin gives you a sensation as if hundreds of tiny needles are sticking into the mouth, tongue etc. However, it is easily destroyed by thoroughly cooking or drying the plant. Although no specific mention has been seen for this plant it is wise to assume that it is poisonous in its raw state.		
Range:	S. Africa. Locally naturalized in S. and W. Europe[50].		
Habitat:	Wet marshy places[73, 90].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Calla aethiopica[B,G,P] Z. aethiopica var. minor[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arum Lily [H], Calla Lily [P], Calla-lily [B], Common Calla Lily [H],
Epithets:	From a Dictionary of Botanical Epithets
	aethiopica = African (esp So. African), ebony black;

Systematics:	From a UDSA Plants Database Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database Africa; Mexico
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Western Australia.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen perennial growing to 1m by 0.6m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from July to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Leaves.

Young leaves - cooked[105, 177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a very rich soil in full sun or shade[1, 200]. Best when growing in full sun[90]. Succeeds in wet soils or water up to 30cm deep[1, 200].

This species is only hardy to between -5 and -10°c[200], although some selected forms, such as 'Crowborough' and 'Green Spathe', are hardy in most parts of Britain if they are planted deeply in shallow water to about 30 cm deep[1, 90, 200]. It is best to cover plants with bracken in the winter in order to protect against exceptional frosts[90].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - best sown as soon as it is ripe in a greenhouse[K]. Pre-soak stored seed for 24 hours in warm water and sow in moist soil in spring in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division, preferably in the spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Cultivars

'Green Spathe'

> This form is hardy in most parts of Britain as long as it planted deeply in shallow water to about 30 cm deep[1, 90, 200].

'Crowborough'

> This form is hardy in most parts of Britain as long as it planted deeply in shallow water to about 30 cm deep[1, 90, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Araceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[73] **Adamson. and Salter.** *Flora of the Cape Peninsula.*
A good flora but rather short on details of habitat. Not for the casual reader.

[90] **Phillips. R. and Rix. M.** *Bulbs* Pan Books 1989 ISBN 0-330-30253-1

Superbly illustrated, it gives brief details on cultivation and native habitat.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Plants For A Future: Database Search Results

Zantedeschia aethiopica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Arum lily	Family:	Araceae
Author:	(L.) Spreng.	Botanical references:	73, 200
Synonyms:			
Known Hazards:	Many plants in this family are poisonous raw, due to the presence of calcium oxylate crystals. If eaten raw, this toxin gives you a sensation as if hundreds of tiny needles are sticking into the mouth, tongue etc. However, it is easily destroyed by thoroughly cooking or drying the plant. Although no specific mention has been seen for this plant it is wise to assume that it is poisonous in its raw state.		
Range:	S. Africa. Locally naturalized in S. and W. Europe[50].		
Habitat:	Wet marshy places[73, 90].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Calla aethiopica[B,G,P] Z. aethiopica var. minor[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arum Lily [H], Calla Lily [P], Calla-lily [B], Common Calla Lily [H],
Epithets:	From a Dictionary of Botanical Epithets
	aethiopica = African (esp So. African), ebony black;
Systematics:	From a UDSA Plants Database
	Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database
	Africa; Mexico

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Western Australia.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen perennial growing to 1m by 0.6m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from July to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Leaves.

Young leaves - cooked[105, 177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a very rich soil in full sun or shade[1, 200]. Best when growing in full sun[90]. Succeeds in wet soils or water up to 30cm deep[1, 200].

This species is only hardy to between -5 and -10°c[200], although some selected forms, such as 'Crowborough' and 'Green Spathe', are hardy in most parts of Britain if they are planted deeply in shallow water to about 30 cm deep[1, 90, 200]. It is best to cover plants with bracken in the winter in order to protect against exceptional frosts[90].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - best sown as soon as it is ripe in a greenhouse[K]. Pre-soak stored seed for 24 hours in warm water and sow in moist soil in spring in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division, preferably in the spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Cultivars

'Green Spathe'

> This form is hardy in most parts of Britain as long as it planted deeply in shallow water to about 30 cm deep[1, 90, 200].

'Crowborough'

> This form is hardy in most parts of Britain as long as it planted deeply in shallow water to about 30 cm deep[1, 90, 200].

Suppliers

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Web References

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References

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The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Plants For A Future: Database Search Results

Zantedeschia aethiopica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Arum lily	Family:	Araceae
Author:	(L.) Spreng.	Botanical references:	73, 200
Synonyms:			
Known Hazards:	Many plants in this family are poisonous raw, due to the presence of calcium oxylate crystals. If eaten raw, this toxin gives you a sensation as if hundreds of tiny needles are sticking into the mouth, tongue etc. However, it is easily destroyed by thoroughly cooking or drying the plant. Although no specific mention has been seen for this plant it is wise to assume that it is poisonous in its raw state.		
Range:	S. Africa. Locally naturalized in S. and W. Europe[50].		
Habitat:	Wet marshy places[73, 90].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Calla aethiopica[B,G,P] Z. aethiopica var. minor[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arum Lily [H], Calla Lily [P], Calla-lily [B], Common Calla Lily [H],
Epithets:	From a Dictionary of Botanical Epithets
	aethiopica = African (esp So. African), ebony black;
Systematics:	From a UDSA Plants Database
	Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database
	Africa; Mexico

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Western Australia.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen perennial growing to 1m by 0.6m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from July to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Leaves.

Young leaves - cooked[105, 177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a very rich soil in full sun or shade[1, 200]. Best when growing in full sun[90]. Succeeds in wet soils or water up to 30cm deep[1, 200].

This species is only hardy to between -5 and -10°c[200], although some selected forms, such as 'Crowborough' and 'Green Spathe', are hardy in most parts of Britain if they are planted deeply in shallow water to about 30 cm deep[1, 90, 200]. It is best to cover plants with bracken in the winter in order to protect against exceptional frosts[90].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - best sown as soon as it is ripe in a greenhouse[K]. Pre-soak stored seed for 24 hours in warm water and sow in moist soil in spring in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division, preferably in the spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Cultivars

'Green Spathe'

> This form is hardy in most parts of Britain as long as it planted deeply in shallow water to about 30 cm deep[1, 90, 200].

'Crowborough'

> This form is hardy in most parts of Britain as long as it planted deeply in shallow water to about 30 cm deep[1, 90, 200].

Suppliers

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Zantedeschia aethiopica

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Plant Information

Comment:

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Plant names you would like this comment to be added to:

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Zanthoxylum ailanthoides

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rutaceae
Author:	Sieb. & Zucc.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China, Japan.		
Habitat:	Mountains, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Fagara ailanthoides[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Karasu-Zansho [E], La Tzu [E], Shih Chu Yu [E], Tang Tzu [E], Yueh Chiao [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 18m. It is hardy to zone 9. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge.

Edible Uses

Condiment; Leaves.

Seed - cooked. A pungent flavour, it is used as a condiment[178]. A red pepper substitute[178]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

Young leaves[105]. No more details are given.

Medicinal Uses

Disclaimer

Antitussive; Carminative; Stimulant.

The resin contained in the bark, and especially in that of the roots, is antitussive, carminative, and powerfully stimulant[82, 178].

Other Uses

None known

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A rather frost-tender species, it is not hardy in most of Britain[182, 200] but succeeds outdoors in the mildest areas of the country[1].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

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Common name:		Family:	Rutaceae
Author:	Sieb. & Zucc.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China, Japan.		
Habitat:	Mountains, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Fagara ailanthoides[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Karasu-Zansho [E], La Tzu [E], Shih Chu Yu [E], Tang Tzu [E], Yueh Chiao [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 18m. It is hardy to zone 9. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge.

Edible Uses

Condiment; Leaves.

Seed - cooked. A pungent flavour, it is used as a condiment[178]. A red pepper substitute[178]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

Young leaves[105]. No more details are given.

Medicinal Uses

Disclaimer

Antitussive; Carminative; Stimulant.

The resin contained in the bark, and especially in that of the roots, is antitussive, carminative, and powerfully stimulant[82, 178].

Other Uses

None known

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A rather frost-tender species, it is not hardy in most of Britain[182, 200] but succeeds outdoors in the mildest areas of the country[1].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might

take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948

A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Zanthoxylum ailanthoides

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rutaceae
Author:	Sieb. & Zucc.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China, Japan.		
Habitat:	Mountains, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Fagara ailanthoides[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Karasu-Zansho [E], La Tzu [E], Shih Chu Yu [E], Tang Tzu [E], Yueh Chiao [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 18m. It is hardy to zone 9. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge.

Edible Uses

Condiment; Leaves.

Seed - cooked. A pungent flavour, it is used as a condiment[178]. A red pepper substitute[178]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

Young leaves[105]. No more details are given.

Medicinal Uses

Disclaimer

Antitussive; Carminative; Stimulant.

The resin contained in the bark, and especially in that of the roots, is antitussive, carminative, and powerfully stimulant[82, 178].

Other Uses

None known

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A rather frost-tender species, it is not hardy in most of Britain[182, 200] but succeeds outdoors in the mildest areas of the country[1].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might

take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zanthoxylum ailanthoides*

Subject:

Zanthoxylum ailanthoides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum ailanthoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Zanthoxylum alatum

Common name:	Winged prickly ash	Family:	Rutaceae
Author:	Roxb.	Botanical references:	200
Synonyms:	Zanthoxylum armatum		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Forest undergrowth and hot valleys to 1800 metres in the Himalayas.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Z. alatum var. planispinum[G] Z. planispinum[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Pricklyash,Wingleaf [E],
Epithets:	From a Dictionary of Botanical Epithets alatum = winged;
Systematics:	From a UDSA Plants Database Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database China; India; Nepal; Pakistan

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The seed is ground into a powder and used as a condiment[183]. A pepper substitute, it is widely used in the Orient[105, 132, 158, 183]. A light roasting brings out more of the flavour[206]. The seed is an ingredient of the famous Chinese 'five spice' mixture[206]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

Young leaves are used as a condiment[105, 158, 183].

Medicinal Uses

Disclaimer

Odontalgic; Stimulant; Stomachic; Tonic.

The seeds and the bark are used as an aromatic tonic in the treatment of fevers, dyspepsia and cholera[240].

The fruits, branches and thorns are considered to be carminative and stomachic[46, 61, 146, 158, 240]. They are used as a remedy for toothache[240].

Other Uses

Miscellany; Teeth; Wood.

The fruit contains 1.5% essential oil[240].

The fruit is used to purify water[146, 158].

Toothbrushes are made from the branches[146, 158].

Wood - heavy, hard, close grained. Used for walking sticks[146, 158].

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

This species is closely related to Z. planispinum[200].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Zanthoxylum armatum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each

species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur*. Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Zanthoxylum alatum

Common name:	Winged prickly ash	Family:	Rutaceae
Author:	Roxb.	Botanical references:	200
Synonyms:	Zanthoxylum armatum		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Forest undergrowth and hot valleys to 1800 metres in the Himalayas.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. alatum var. planispinum[G] Z. planispinum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pricklyash,Wingleaf [E],
Epithets:	From a Dictionary of Botanical Epithets
	alatum = winged;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China; India; Nepal; Pakistan

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The seed is ground into a powder and used as a condiment[183]. A pepper substitute, it is widely used in the Orient[105, 132, 158, 183]. A light roasting brings out more of the flavour[206]. The seed is an ingredient of the famous Chinese 'five spice' mixture[206]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

Young leaves are used as a condiment[105, 158, 183].

Medicinal Uses

Disclaimer

Odontalgic; Stimulant; Stomachic; Tonic.

The seeds and the bark are used as an aromatic tonic in the treatment of fevers, dyspepsia and cholera[240].

The fruits, branches and thorns are considered to be carminative and stomachic[46, 61, 146, 158, 240]. They are used as a remedy for toothache[240].

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Miscellany; Teeth; Wood.

The fruit contains 1.5% essential oil[240].

The fruit is used to purify water[146, 158].

Toothbrushes are made from the branches[146, 158].

Wood - heavy, hard, close grained. Used for walking sticks[146, 158].

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

This species is closely related to Z. planispinum[200].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

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A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*

Lovely pictures, a very readable book.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Zanthoxylum+alatum`

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Plants For A Future: Database Search Results

Zanthoxylum alatum

Common name:	Winged prickly ash	Family:	Rutaceae
Author:	Roxb.	Botanical references:	200
Synonyms:	Zanthoxylum armatum		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Forest undergrowth and hot valleys to 1800 metres in the Himalayas.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. alatum var. planispinum[G] Z. planispinum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pricklyash,Wingleaf [E],
Epithets:	From a Dictionary of Botanical Epithets
	alatum = winged;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China; India; Nepal; Pakistan

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The seed is ground into a powder and used as a condiment[183]. A pepper substitute, it is widely used in the Orient[105, 132, 158, 183]. A light roasting brings out more of the flavour[206]. The seed is an ingredient of the famous Chinese 'five spice' mixture[206]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

Young leaves are used as a condiment[105, 158, 183].

Medicinal Uses

Disclaimer

Odontalgic; Stimulant; Stomachic; Tonic.

The seeds and the bark are used as an aromatic tonic in the treatment of fevers, dyspepsia and cholera[240].

The fruits, branches and thorns are considered to be carminative and stomachic[46, 61, 146, 158, 240]. They are used as a remedy for toothache[240].

Other Uses

Miscellany; Teeth; Wood.

The fruit contains 1.5% essential oil[240].

The fruit is used to purify water[146, 158].

Toothbrushes are made from the branches[146, 158].

Wood - heavy, hard, close grained. Used for walking sticks[146, 158].

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

This species is closely related to Z. planispinum[200].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zanthoxylum alatum*

Subject:

Zanthoxylum alatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum alatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:37:15 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Zanthoxylum americanum

Common name:	Prickly ash	Family:	Rutaceae
Author:	Mill.	Botanical references:	11, 43, 200
Synonyms:	Zanthoxylum fraxineum (Willd.)		
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Florida, west to Minnesota and Oklahoma.		
Habitat:	Found on upland rocky hillsides and on moist low-lying sites, in open woods, on bluffs or in thickets[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Xanthoxylum americanum[H] Xanthoxylum carolinianum[H] Xanthoxylum fraxineum[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ache Tree [E], Angelica Tree Of America [H], Common Pricklyash [P], Northern Prickly Ash [L], Prickly Ash [H,E], Suterberry [H], Toothache Tree [H], Toothache-tree [L], Toothachetree [B], Yellow Wood [H],
Epithets:	From a Dictionary of Botanical Epithets
	canum = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database

	Mexico; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 4m by 4m . It is hardy to zone 3. It is in flower from May to June, and the seeds ripen from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

Seed - cooked. It is used as a condiment. A pepper substitute[106]. The fruit is rather small, about 4 - 5m in diameter[229], but is produced in dense clusters which makes harvesting easy[K]. Each fruit contains a single seed[229].

Medicinal Uses

Disclaimer

Anodyne; Antirheumatic; Antispasmodic; Carminative; Diaphoretic; Diuretic; Irritant; Odontalgic; Sialagogue; Skin; Stimulant.

Prickly ash is a warming, stimulating herb that is beneficial for the circulation. It was highly regarded by the native North American Indians who used it especially to alleviate rheumatism and toothache[254]. All parts of the plant, but especially the bark and roots, contain the aromatic bitter oil xanthoxylin[229]. This has a number of applications in medicine, especially in the treatment of arthritic and rheumatic conditions, digestive problems and leg ulcers[229, 254]. The fruit has a similar medicinal action to the bark[4].

The bark and roots are irritant, odontalgic and antirheumatic[213]. Along with the fruit they are diaphoretic, stimulant and a useful tonic in debilitated conditions of the stomach and digestive organs[4]. They produce arterial excitement and are of use in the treatment of fevers, ague, poor circulation etc[4].

The fruits are considered more active than the bark, they are also antispasmodic, carminative, diuretic and antirheumatic[4, 213, 222].

The pulverized root and bark are used to ease the pain of toothache[213, 222]. One report says that it is very efficacious, but the sensation of the acrid bark is fully as unpleasant as the toothache[213]. Chewing the bark induces copious salivation[222]. Rubbing the fruit against the skin, especially on the lips or in the mouth, produces a numbing effect[K].

A tea or tincture of the bark has been used in the treatment of rheumatism, dyspepsia, dysentery, heart and kidney troubles etc[222].

A tea made from the inner bark has been used to treat itchy skin[213, 257].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

The fruits have been used by young men as a perfume[257].

Wood - soft. It weighs 35lb per cubic foot[235]. Of little use[229].

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A relatively fast-growing plant in the wild, it often forms thickets by means of root suckers[229].

All parts of the plant are fragrant. The bruised foliage has a delicious resinous orange-like perfume[245].

Dioecious. Male and female plants must be grown if seed is required.

Flowers are formed on the old wood[206].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Scent

Plant: Crushed

> All parts of the plant are fragrant. The bruised foliage has a delicious resinous orange-like perfume[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4

Well written and very informative.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Zanthoxylum americanum

Klaus Dichtel Thu May 22 20:31:52 2003

A gardener I visited last month guessed his bearing zanthoxylum doesn´t have a male pollinator and this, too, is confirmed by a "Joachim" in a forum at www.planten.de who says in 'The Plant-Book'/D.J.Mabberley zanthoxylum isn´t doecious and neither are normaly all the members of the rutaceae.

Here the hardiness is rated with 3. In "agroforesty news"/October´92 it is rated with 4.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

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Author:	Mill.	Botanical references:	11, 43, 200
Synonyms:	Zanthoxylum fraxineum (Willd.)		
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Florida, west to Minnesota and Oklahoma.		
Habitat:	Found on upland rocky hillsides and on moist low-lying sites, in open woods, on bluffs or in thickets[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	canum = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 4m by 4m . It is hardy to zone 3. It is in flower from May to June, and the seeds ripen from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

Seed - cooked. It is used as a condiment. A pepper substitute[106]. The fruit is rather small, about 4 - 5m in diameter[229], but is produced in dense clusters which makes harvesting easy[K]. Each fruit contains a single seed[229].

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Disclaimer

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A tea made from the inner bark has been used to treat itchy skin[213, 257].

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Other Uses

Essential.

The fruits have been used by young men as a perfume[257].

Wood - soft. It weighs 35lb per cubic foot[235]. Of little use[229].

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A relatively fast-growing plant in the wild, it often forms thickets by means of root suckers[229].

All parts of the plant are fragrant. The bruised foliage has a delicious resinous orange-like perfume[245].

Dioecious. Male and female plants must be grown if seed is required.

Flowers are formed on the old wood[206].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might

take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Scent

Plant: Crushed

All parts of the plant are fragrant. The bruised foliage has a delicious resinous orange-like perfume[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

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[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Zanthoxylum americanum

Klaus Dichtel Thu May 22 20:31:52 2003

A gardener I visited last month guessed his bearing zanthoxylum doesn´t have a male pollinator and this, too, is confirmed by a "Joachim" in a forum at www.planten.de who says in 'The Plant-Book'/D.J.Mabberley zanthoxylum isn´t doecious and neither are normaly all the members of the rutaceae.

Here the hardiness is rated with 3. In "agroforesty news"/October´92 it is rated with 4.

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Plants For A Future: Database Search Results

Zanthoxylum americanum

Common name:	Prickly ash	Family:	Rutaceae
Author:	Mill.	Botanical references:	11, 43, 200
Synonyms:	Zanthoxylum fraxineum (Willd.)		
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Florida, west to Minnesota and Oklahoma.		
Habitat:	Found on upland rocky hillsides and on moist low-lying sites, in open woods, on bluffs or in thickets[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Xanthoxylum americanum[H] Xanthoxylum carolinianum[H] Xanthoxylum fraxineum[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ache Tree [E], Angelica Tree Of America [H], Common Pricklyash [P], Northern Prickly Ash [L], Prickly Ash [H,E], Suterberry [H], Toothache Tree [H], Toothache-tree [L], Toothachetree [B], Yellow Wood [H],
Epithets:	From a Dictionary of Botanical Epithets
	canum = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 4m by 4m . It is hardy to zone 3. It is in flower from May to June, and the seeds ripen from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

Seed - cooked. It is used as a condiment. A pepper substitute[106]. The fruit is rather small, about 4 - 5m in diameter[229], but is produced in dense clusters which makes harvesting easy[K]. Each fruit contains a single seed[229].

Medicinal Uses

Disclaimer

Anodyne; Antirheumatic; Antispasmodic; Carminative; Diaphoretic; Diuretic; Irritant; Odontalgic; Sialagogue; Skin; Stimulant.

Prickly ash is a warming, stimulating herb that is beneficial for the circulation. It was highly regarded by the native North American Indians who used it especially to alleviate rheumatism and toothache[254]. All parts of the plant, but especially the bark and roots, contain the aromatic bitter oil xanthoxylin[229]. This has a number of applications in medicine, especially in the treatment of arthritic and rheumatic conditions, digestive problems and leg ulcers[229, 254]. The fruit has a similar medicinal action to the bark[4].

The bark and roots are irritant, odontalgic and antirheumatic[213]. Along with the fruit they are diaphoretic, stimulant and a useful tonic in debilitated conditions of the stomach and digestive organs[4]. They produce arterial excitement and are of use in the treatment of fevers, ague, poor circulation etc[4].

The fruits are considered more active than the bark, they are also antispasmodic, carminative, diuretic and antirheumatic[4, 213, 222].

The pulverized root and bark are used to ease the pain of toothache[213, 222]. One report says that it is very efficacious, but the sensation of the acrid bark is fully as unpleasant as the toothache[213]. Chewing the bark induces copious salivation[222]. Rubbing the fruit against the skin, especially on the lips or in the mouth, produces a numbing effect[K].

A tea or tincture of the bark has been used in the treatment of rheumatism, dyspepsia, dysentery, heart and kidney troubles etc[222].

A tea made from the inner bark has been used to treat itchy skin[213, 257].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

The fruits have been used by young men as a perfume[257].

Wood - soft. It weighs 35lb per cubic foot[235]. Of little use[229].

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A relatively fast-growing plant in the wild, it often forms thickets by means of root suckers[229].

All parts of the plant are fragrant. The bruised foliage has a delicious resinous orange-like perfume[245].

Dioecious. Male and female plants must be grown if seed is required.

Flowers are formed on the old wood[206].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might

take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Scent

Plant: Crushed

> All parts of the plant are fragrant. The bruised foliage has a delicious resinous orange-like perfume[245].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zanthoxylum americanum*

Subject:

Zanthoxylum americanum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum americanum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Zanthoxylum beecheyanum

Common name:		Family:	Rutaceae
Author:	K. Koch.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Physical Characteristics

A decidious shrub. . The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The fruit and bark are used as a condiment, a pepper substitute[177]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

Medicinal Uses

Disclaimer

Stimulant; Tonic.

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

Dioecious. Male and female plants must be grown if seed is required.

Flowers are formed on the old wood[206].

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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Well written and very informative.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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Details:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Zanthoxylum beecheyanum

Common name:		Family:	Rutaceae
Author:	K. Koch.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Physical Characteristics

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	Order: Sapindales . Rue family

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A decidious shrub. . The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The fruit and bark are used as a condiment, a pepper substitute[177]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

Medicinal Uses

Disclaimer

Stimulant; Tonic.

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

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Add a comment on: *Zanthoxylum beecheyanum*

Subject:

Zanthoxylum beecheyanum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site: http://

Details:

Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Zanthoxylum beecheyanum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:37:31 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

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Zanthoxylum bungeanum

Common name:		Family:	Rutaceae
Author:	Max.	Botanical references:	109
Synonyms:			
Known Hazards:	The plant is toxic[147]. No more details.		
Range:	E. Asia - China.		
Habitat:	Waysides and thickets to 2000 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

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Condiment.

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Medicinal Uses

Disclaimer

Anaesthetic; Anthelmintic; Aromatic; Astringent; Carminative; Diaphoretic; Diuretic; Emmenagogue; Stimulant; Vasodilator; Vermifuge.

The fruit is anaesthetic, anthelmintic, aromatic, astringent, carminative, diuretic, emmenagogue, stimulant, sudorific, vasodilator and vermifuge[147, 218]. It is pulverised then mixed with water for internal application in the treatment of chills and pains in the abdomen, vomiting, cold-damp diarrhoea and dysentery, ascariasis-caused abdominal pain and moist sores on the skin[147].

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The pericarp contains geraniol. This lowers the blood pressure, is mildly diuretic in small doses but in large doses inhibits the excretion of urine, and also increases peristalsis of the abdomen at low doses though inhibits it at large doses[176].

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Other Uses

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Cultivation details

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Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Add a longer comment

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Plants For A Future: Database Search Results

Zanthoxylum bungeanum

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Author:	Max.	Botanical references:	109
Synonyms:			
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Range:	E. Asia - China.		
Habitat:	Waysides and thickets to 2000 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 6m. . The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

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Seed - used as a condiment, a pepper substitute[109]. Highly prized[109]. The fruit is rather small but is produced in clusters which makes harvesting easy[K]. Each fruit contains a single seed.

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Disclaimer

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Other Uses

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder areas of the country. It is said to be often cultivated for its edible fruit, especially in hot dry river valleys in China[109]. There is some doubt over the correct name for this species, it might be no more than a synonym of Z. simulans. The following notes are based on the general needs of the genus.

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Add a comment on: *Zanthoxylum bungeanum*

Subject:

Zanthoxylum bungeanum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum bungeanum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:37:39 2004

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Zanthoxylum clava-herculis

Common name:	Hercules club	Family:	Rutaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida, west to Texas and Arkansas.		
Habitat:	Usually found as scattered trees near the coast in light sandy soils, often on bluffs of islands, river banks or dunes[229]. Best growth is from plants in most rich soils with good drainage[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. macrophyllum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Hercules Club [E], Hercules' Club [P], Hercules'-club [B], Pine Blanc [E], Prickly Ash [H,E], Southern Prickly Ash [L],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	Haiti; Mexico; Us; Us(Amerindian); Us(Colonial)

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 6. It is in leaf from March to January, in flower from May to June, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

The following report is for Z. americanum, it is probably also applicable to this species[K].

Seed - used as a condiment. A pepper substitute[106]. The fruit is rather small, about 4 - 5m in diameter[229], but is produced in dense clusters which makes harvesting easy[K]. Each fruit contains a single seed[229].

Medicinal Uses

Disclaimer

Antirheumatic; Antispasmodic; Diuretic; Irritant; Odontalgic; Stimulant.

This species is quite widely used in herbal medicine, it has the same properties as Z. americanum, but is said to be more active[4].

All parts of the plant, but especially the bark and roots, contain the aromatic bitter oil xanthoxylin[4]. This has a number of applications in medicine[4]. The fruit has a similar medicinal action to the bark[4].

The bark and roots are irritant, odontalgic and antirheumatic[213]. Along with the fruit they are diaphoretic, stimulant and a useful tonic in debilitated conditions of the stomach and digestive organs[4]. They produce arterial excitement and are of use in the treatment of fevers, ague, poor circulation etc[4].

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A tea or tincture of the bark has been used in the treatment of rheumatism, dyspepsia, dysentery, heart and kidney troubles etc[222].

A tea made from the inner bark has been used to treat itchy skin[213].

Other Uses

Wood - light, soft, weak and close-grained[82, 229]. It weighs 31lb per cubic foot[227]. Too small for commercial use[229].

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

Plants are hardy to at least -15°c[200].

The leaves are often persistent until the following spring when the new leaves are produced[82].

Dioecious. Male and female plants must be grown if seed is required.

Flowers are formed on the old wood[206].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

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References for the family Rutaceae.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zanthoxylum clava-herculis*

Subject:

Zanthoxylum clava-herculis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum clava-herculis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Zanthoxylum coreanum

Common name:		Family:	Rutaceae
Author:	Nak.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Korea		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Physical Characteristics

A decidious shrub. . The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Leaves - raw[177].

Medicinal Uses

Disclaimer

Stimulant; Tonic.

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

Dioecious. Male and female plants must be grown if seed is required.

Flowers are formed on the old wood[206].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Well written and very informative.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Habitat:	Not known		
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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Leaves - raw[177].

Medicinal Uses

Disclaimer

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The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

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Zanthoxylum coreanum

Group:
Plant Information

Comment:

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Optional web-link:

Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Zanthoxylum coreanum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Zanthoxylum nitidum

Common name:		Family:	Rutaceae
Author:	(Lam.) DC.	Botanical references:	
Synonyms:			
Known Hazards:	Plants are slightly toxic[147].		
Range:	E. Asia - China.		
Habitat:	Shrubby thickets[147].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen climber. . It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anodyne; Antiphlogistic; Antirheumatic; Carminative; Depurative; Stimulant; Tonic.

The root is anodyne, antiphlogistic, carminative, depurative[147, 218].

The plant is analgesic and antirheumatic[218].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

Insecticide.

The plant is used as an insecticide, it is also toxic to fish[218].

Cultivation details

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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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A very detailed book on propagating trees. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese

methods.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Zanthoxylum+nitidum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Zanthoxylum+nitidum`

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Plants For A Future: Database Search Results

Zanthoxylum nitidum

Common name:		Family:	Rutaceae
Author:	(Lam.) DC.	Botanical references:	
Synonyms:			
Known Hazards:	Plants are slightly toxic[147].		
Range:	E. Asia - China.		
Habitat:	Shrubby thickets[147].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen climber. . It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anodyne; Antiphlogistic; Antirheumatic; Carminative; Depurative; Stimulant; Tonic.

The root is anodyne, antiphlogistic, carminative, depurative[147, 218].

The plant is analgesic and antirheumatic[218].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

Insecticide.

The plant is used as an insecticide, it is also toxic to fish[218].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

Dioecious. Male and female plants must be grown if seed is required.

Flowers are formed on the old wood[206].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zanthoxylum nitidum*

Subject:

Zanthoxylum nitidum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum nitidum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:38:02 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Zanthoxylum piperitum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Japanese pepper tree	Family:	Rutaceae
Author:	(L.) DC.	Botanical references:	11, 58, 200
Synonyms:	Fagara piperita (L.)		
Known Hazards:	None known		
Range:	E. Asia - N. China, Japan, Korea.		
Habitat:	Scrub and hedges in hills and mountains in Japan[58, 184].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Xanthoxylum piperitum[G] Z. piperita[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Anise Pepper [H], Ch'Uan Chiao [E], Chiao Mu [E], Fagara [H], Japan Pepper [H], Japanese Pepper [H], Nan Chiao [E], Shu Chiao [E], Sichuan Pepper [H], Szechuan Pepper [H],
Epithets:	From a Dictionary of Botanical Epithets
	piperitum = pepper like;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 2m by 2m . It is hardy to zone 6. It is in flower from April to June. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves.

Seed - cooked. It is ground into a powder and used as a condiment, a pepper substitute[1, 2, 11, 34, 183]. The fruit can also be used[116]. It is often heated in order to bring out its full flavour and can be mixed with salt for use as a table condiment[183]. The ground and dry-roasted fruit is an ingredient of the Chinese 'five spice powder'[238].

The bark and leaves are used as a spice[2, 105, 238].

Young leaves - raw or cooked. They are used in soups or as a flavouring in salads[177, 179, 183].

Medicinal Uses

Disclaimer

Antiperiodic; Antitussive; Carminative; Diuretic; Parasiticide; Stimulant.

Antiperiodic, antitussive, carminative, diuretic, parasiticide, stimulant[178].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Easily grown in loamy soils in most positions, but prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A very ornamental plant[1], it is hardy to about -15°c[184].

Flowers are formed on the old wood[206].

The bruised leaves are amongst the most powerfully aromatic of all leaves[245].

Dioecious. Male and female plants must be grown if seed is required. Self-sown seedlings have occasionally been observed growing in bare soil under the parent plant[K].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Scent

Leaves: Crushed

> The bruised leaves are amongst the most powerfully aromatic of all leaves[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Zanthoxylum piperita* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *zanthoxylum piperitum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

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[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Zanthoxylum piperitum

Thomas (kukurikiu@hotmail.com) Tue Feb 10 09:44:39 2004

I've found in french literature (cf biblio at the end) the following info : - the powdered dried fruit is named shichimi in Japan and used on food. - Young leaves are used in soups, accompany the miso paste (japanese paste of soja beans) - The flower buds are kept in the soja sauce and rice wine.

Bibliog : - Lesley Bremnes, Les plantes aromatiques et médicinales, Bordas Nature, 1996 - B. Boullard, Les plantes médicinales du monde, Ed. Estem, 2001

Any other details about the plant is welcome! Thank you for the incredible site! Thomas

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Zanthoxylum+piperitum`
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Plants For A Future: Database Search Results

Zanthoxylum piperitum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Japanese pepper tree	Family:	Rutaceae
Author:	(L.) DC.	Botanical references:	11, 58, 200
Synonyms:	Fagara piperita (L.)		
Known Hazards:	None known		
Range:	E. Asia - N. China, Japan, Korea.		
Habitat:	Scrub and hedges in hills and mountains in Japan[58, 184].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Xanthoxylum piperitum[G] Z. piperita[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Anise Pepper [H], Ch'Uan Chiao [E], Chiao Mu [E], Fagara [H], Japan Pepper [H], Japanese Pepper [H], Nan Chiao [E], Shu Chiao [E], Sichuan Pepper [H], Szechuan Pepper [H],
Epithets:	From a Dictionary of Botanical Epithets
	piperitum = pepper like;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 2m by 2m . It is hardy to zone 6. It is in flower from April to June. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves.

Seed - cooked. It is ground into a powder and used as a condiment, a pepper substitute[1, 2, 11, 34, 183]. The fruit can also be used[116]. It is often heated in order to bring out its full flavour and can be mixed with salt for use as a table condiment[183]. The ground and dry-roasted fruit is an ingredient of the Chinese 'five spice powder'[238].

The bark and leaves are used as a spice[2, 105, 238].

Young leaves - raw or cooked. They are used in soups or as a flavouring in salads[177, 179, 183].

Medicinal Uses

Disclaimer

Antiperiodic; Antitussive; Carminative; Diuretic; Parasiticide; Stimulant.

Antiperiodic, antitussive, carminative, diuretic, parasiticide, stimulant[178].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Easily grown in loamy soils in most positions, but prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A very ornamental plant[1], it is hardy to about -15°c[184].

Flowers are formed on the old wood[206].

The bruised leaves are amongst the most powerfully aromatic of all leaves[245].

Dioecious. Male and female plants must be grown if seed is required. Self-sown seedlings have occasionally been observed growing in bare soil under the parent plant[K].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Scent

Leaves: Crushed

> The bruised leaves are amongst the most powerfully aromatic of all leaves[245].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Zanthoxylum piperita* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *zanthoxylum piperitum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures

References for the family Rutaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Zanthoxylum piperitum

Thomas (kukurikiu@hotmail.com) Tue Feb 10 09:44:39 2004

I've found in french literature (cf biblio at the end) the following info : - the powdered dried fruit is named shichimi in Japan and used on food. - Young leaves are used in soups, accompany the miso paste (japanese paste of soja beans) - The flower buds are kept in the soja sauce and rice wine.

Bibliog : - Lesley Bremnes, Les plantes aromatiques et médicinales, Bordas Nature, 1996 - B. Boullard, Les plantes médicinales du monde, Ed. Estem, 2001

Any other details about the plant is welcome! Thank you for the incredible site! Thomas

---

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Zanthoxylum+piperitum`

This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Zanthoxylum+piperitum`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Zanthoxylum piperitum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Japanese pepper tree	Family:	Rutaceae
Author:	(L.) DC.	Botanical references:	11, 58, 200
Synonyms:	Fagara piperita (L.)		
Known Hazards:	None known		
Range:	E. Asia - N. China, Japan, Korea.		
Habitat:	Scrub and hedges in hills and mountains in Japan[58, 184].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Xanthoxylum piperitum[G] Z. piperita[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Anise Pepper [H], Ch'Uan Chiao [E], Chiao Mu [E], Fagara [H], Japan Pepper [H], Japanese Pepper [H], Nan Chiao [E], Shu Chiao [E], Sichuan Pepper [H], Szechuan Pepper [H],
Epithets:	From a Dictionary of Botanical Epithets
	piperitum = pepper like;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 2m by 2m . It is hardy to zone 6. It is in flower from April to June. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves.

Seed - cooked. It is ground into a powder and used as a condiment, a pepper substitute[1, 2, 11, 34, 183]. The fruit can also be used[116]. It is often heated in order to bring out its full flavour and can be mixed with salt for use as a table condiment[183]. The ground and dry-roasted fruit is an ingredient of the Chinese 'five spice powder'[238].

The bark and leaves are used as a spice[2, 105, 238].

Young leaves - raw or cooked. They are used in soups or as a flavouring in salads[177, 179, 183].

Medicinal Uses

Disclaimer

Antiperiodic; Antitussive; Carminative; Diuretic; Parasiticide; Stimulant.

Antiperiodic, antitussive, carminative, diuretic, parasiticide, stimulant[178].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Easily grown in loamy soils in most positions, but prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A very ornamental plant[1], it is hardy to about -15°c[184].

Flowers are formed on the old wood[206].

The bruised leaves are amongst the most powerfully aromatic of all leaves[245].

Dioecious. Male and female plants must be grown if seed is required. Self-sown seedlings have occasionally been observed growing in bare soil under the parent plant[K].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Scent

Leaves: Crushed

> The bruised leaves are amongst the most powerfully aromatic of all leaves[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zanthoxylum piperitum*

Subject:

Zanthoxylum piperitum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site: ☐

URL for Site: http://

Details: ☐

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum piperitum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:38:11 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Zanthoxylum planispinum

Common name:	Winged prickly ash	Family:	Rutaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Zanthoxylum armatum (DC.), Zanthoxylum alatum subtrifoliolatum (Franch.), Zanthoxylum alatum planispinum ((Siebold.&Zucc.)Rehder.&E.H.Wilson.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low mountains in Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. alatum[G] Z. alatum var. planispinum[G]
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China; India; Nepal; Pakistan

Physical Characteristics

A decidious shrub growing to 3.5m. It is hardy to zone 6. It is in flower in May, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves.

Seed - cooked. It can be ground into a powder and used as a condiment[183], a pepper substitute[2, 46, 177]. A light roasting brings out more of the flavour[206]. The seed is an ingredient of the famous Chinese 'five spice' mixture[206]. The peel is also used[105].

Young leaves are eaten[105, 177, 183]. No further details are given.

Medicinal Uses

Disclaimer

Stimulant; Stomachic; Tonic; Vermifuge.

The seeds and roots are stomachic and vermifuge[46, 61, 147]. A decoction of 7 - 14 seeds is used in the treatment of abscesses, arthritis, bruises, gastritis, swellings etc[218].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A very ornamental plant[1], it is usually hardy in most parts of Britain but can be damaged in severe winters[11].

Fruits are freely produced after a hot summer[11]. The flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Zanthoxylum armatum* (a possible synonym).

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References for the family Rutaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
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Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low mountains in Japan[58].		
Plants For A Future Rating (1-5):	4		

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Woodland, Sunny Edge, Dappled Shade.

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Other Uses

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References

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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Readers Comments

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Plants For A Future: Database Search Results

Zanthoxylum planispinum

Common name:	Winged prickly ash	Family:	Rutaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Zanthoxylum armatum (DC.), Zanthoxylum alatum subtrifoliolatum (Franch.), Zanthoxylum alatum planispinum ((Siebold.&Zucc.)Rehder.&E.H.Wilson.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low mountains in Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. alatum[G] Z. alatum var. planispinum[G]
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China; India; Nepal; Pakistan

Physical Characteristics

A decidious shrub growing to 3.5m. It is hardy to zone 6. It is in flower in May, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves.

Seed - cooked. It can be ground into a powder and used as a condiment[183], a pepper substitute[2, 46, 177]. A light roasting brings out more of the flavour[206]. The seed is an ingredient of the famous Chinese 'five spice' mixture[206]. The peel is also used[105].

Young leaves are eaten[105, 177, 183]. No further details are given.

Medicinal Uses

Disclaimer

Stimulant; Stomachic; Tonic; Vermifuge.

The seeds and roots are stomachic and vermifuge[46, 61, 147]. A decoction of 7 - 14 seeds is used in the treatment of abscesses, arthritis, bruises, gastritis, swellings etc[218].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

A very ornamental plant[1], it is usually hardy in most parts of Britain but can be damaged in severe winters[11].

Fruits are freely produced after a hot summer[11]. The flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zanthoxylum planispinum*

Subject:

Zanthoxylum planispinum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum planispinum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Zanthoxylum schinifolium

Common name:		Family:	Rutaceae
Author:	Sieb. & Zucc.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low mountains, C. and S. Japan[58]. Roadsides in Korea[151].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. schinnifolium[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Inu-Zansho [E], Yai Chiao [E], Yeh Chiao [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6. It is in flower in August, and the seeds ripen in November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves.

Seed - cooked. It is used as a condiment, a pepper substitute[151].

Young leaves[105]. No more details are given.

Medicinal Uses

Disclaimer

Anaesthetic; Diuretic; Parasiticide; Stimulant; Tonic; Vasodilator.

The pericarp is anaesthetic, diuretic, parasiticide and vasodilator[176]. It is used in the treatment of gastralgia and dyspepsia due to cold with vomiting, diarrhoea, abdominal pain, ascariasis and dermal diseases[176]. It has a local anaesthetic action and is parasiticide against the pork tapeworm (Taenia solium)[176].

The pericarp contains geraniol. In small doses this has a mild diuretic action, though large doses will inhibit the excretion of urine[176]. There is a persistent increase in peristalsis at low concentration, but inhibition at high concentration[176].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required. Self-sown seedlings have occasionally been observed growing in bare soil in the shade of the parent plant[K].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Zanthoxylum schinnifolium* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

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[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4

Well written and very informative.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Zanthoxylum schinifolium

Common name:		Family:	Rutaceae
Author:	Sieb. & Zucc.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low mountains, C. and S. Japan[58]. Roadsides in Korea[151].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. schinnifolium[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Inu-Zansho [E], Yai Chiao [E], Yeh Chiao [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6. It is in flower in August, and the seeds ripen in November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves.

Seed - cooked. It is used as a condiment, a pepper substitute[151].

Young leaves[105]. No more details are given.

Medicinal Uses

Disclaimer

Anaesthetic; Diuretic; Parasiticide; Stimulant; Tonic; Vasodilator.

The pericarp is anaesthetic, diuretic, parasiticide and vasodilator[176]. It is used in the treatment of gastralgia and dyspepsia due to cold with vomiting, diarrhoea, abdominal pain, ascariasis and dermal diseases[176]. It has a local anaesthetic action and is parasiticide against the pork tapeworm (Taenia solium)[176].

The pericarp contains geraniol. In small doses this has a mild diuretic action, though large doses will inhibit the excretion of urine[176]. There is a persistent increase in peristalsis at low concentration, but inhibition at high concentration[176].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required. Self-sown seedlings have occasionally been observed growing in bare soil in the shade of the parent plant[K].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

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Common name:		Family:	Rutaceae
Author:	Sieb. & Zucc.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low mountains, C. and S. Japan[58]. Roadsides in Korea[151].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. schinnifolium[E]
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	Inu-Zansho [E], Yai Chiao [E], Yeh Chiao [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 6. It is in flower in August, and the seeds ripen in November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves.

Seed - cooked. It is used as a condiment, a pepper substitute[151].

Young leaves[105]. No more details are given.

Medicinal Uses

Disclaimer

Anaesthetic; Diuretic; Parasiticide; Stimulant; Tonic; Vasodilator.

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The pericarp contains geraniol. In small doses this has a mild diuretic action, though large doses will inhibit the excretion of urine[176]. There is a persistent increase in peristalsis at low concentration, but inhibition at high concentration[176].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

Prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200].

Flowers are formed on the old wood[206].

Dioecious. Male and female plants must be grown if seed is required. Self-sown seedlings have occasionally been observed growing in bare soil in the shade of the parent plant[K].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Zanthoxylum+schinifolium
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zanthoxylum schinifolium*

Subject:

Zanthoxylum schinifolium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum schinifolium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Zanthoxylum simulans

Common name:	Szechuan pepper	Family:	Rutaceae
Author:	Hance.	Botanical references:	11, 200
Synonyms:	Zanthoxylum bungei (Planch.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Virgin wilds, hillsides and open woods[147].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Xanthoxylum bungei[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Ch'In Chiao [E], Hua Chiao [E], Ta Chiao [E],
Epithets:	From a Dictionary of Botanical Epithets simulans = imitating;
Systematics:	From a UDSA Plants Database Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database China

Physical Characteristics

A decidious shrub growing to 4m by 6m at a medium rate. It is hardy to zone 6. It is in flower in June, and the seeds ripen in October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment.

The fruit is dried and used as a condiment[46, 61, 105, 177]. A pepper flavour, it is stronger and more pungent than black pepper[183]. It can be used whole or ground into a powder and used as a table seasoning[183]. A light roasting brings out more of the flavour[206]. It is an ingredient of the famous Chinese 'five spice' mixture[206].

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Antidote; Antiphlogistic; Astringent; Carminative; Diaphoretic; Digestive; Diuretic; Emmenagogue; Stimulant; Stomachic; Tonic; Vasodilator.

Astringent, diaphoretic, emmenagogue[116, 178].

The pericarp is anaesthetic, diuretic, parasiticide and vasodilator[176]. It is used in the treatment of gastralgia and dyspepsia due to cold with vomiting, diarrhoea, abdominal pain, ascariasis and dermal diseases[176]. It has a local anaesthetic action and is parasiticide against the pork tapeworm (Taenia solium)[176].

The pericarp contains geraniol. In small doses this has a mild diuretic action, though large doses will inhibit the excretion of urine[176]. There is a persistent increase in peristalsis at low concentration, but inhibition at high concentration[176].

The leaves are carminative, stimulant and sudorific[147, 218].

The fruit is carminative, diuretic, stimulant, stomachic and tonic[147, 218].

The seed is antiphlogistic and diuretic[218].

A decoction of the root is digestive and also used in the treatment of snakebites[218].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

Easily grown in loamy soils in most positions, but prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200]. A plant has been growing well for many years in deep woodland shade at Cambridge Botanical gardens, it was fruiting heavily in autumn 1996[K].

Cultivated for its seed, which is used as a condiment in China[46, 61].

Flowers are formed on the old wood[206].

The bruised leaves are strongly aromatic[245].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Scent

Leaves: Crushed

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Suppliers

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PFAF Web Pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

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References for *Zanthoxylum bungei* (a possible synonym).

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References for the family Rutaceae.

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Readers Comments

Zanthoxylum simulans

Klaus Dichtel Sun Jan 19 18:20:13 2003

In spring `01 we planted 3, each about 50cm high. Only one survived the first winter (lowest temperature -17°), though it is said here that it is hardy in zone 6 and we`ve got 8. This is why I presume zanthoxylum s. needs more continental climate than we`ve got here (maybe 3-4).

Details of Growing Condition: - Sandy heathland, pH about 6.2 - 6-700 mm rainfall/ year - Sum of warmth by sunlight on a horizontal area in medium clouding until september 46600 gcal/qcm - 1324 hours of sun during the vegetation period - in some years the lowest temperature is .

Zanthoxylum simulans

Ken Fern Thu Jan 30 11:34:20 2003

Dear Klaus

Thanks for the note about Zanthoxylum simulans. I'm surprised that you say you are in climatic zone 8 if you get winter temperatures down to -20 ºC - according to the climatic zones chart we use zone 8 denotes areas with mild winters where temperatures rarely drop below about -5ºC. Your winter temperatures denote climatic zone 6. Could you possibly let me know which guide to the climatic zones you are using since there does seem to be some confusion here!

As regards the winter hardiness of Zanthoxylum simulans - like most plants, it gets hardier as it gets older. In its first few years of life it is much more likely to be damaged by cold temperatures that go down near to its climatic tolerance. As you also pointed out, it does prefer a more continental climate with its hotter summers which ripens the wood of the plant better and thus allows it to tolerate colder conditions.

Even here in mild Cornwall, where it is unusual to get temperatures lower than -5ºC, we often get a lot of winter damage to the young shoots of trees and shrubs due to a lack of ripening of the wood. In fact in our first few years here, before our wind-protection hedges could get established, even the new plantings of supposedly hardy native plants such as the oak suffered severe damage to their shoots during the winter. They generally recovered well in the spring, only to suffer severe die back the following winter. It was 5 years before they really managed to get going!

Thanks also for the notes about the other plants - such comments are of great help to us. Happy gardening

Love and Peace

Ken

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Zanthoxylum simulans

Common name:	Szechuan pepper	Family:	Rutaceae
Author:	Hance.	Botanical references:	11, 200
Synonyms:	Zanthoxylum bungei (Planch.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Virgin wilds, hillsides and open woods[147].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	simulans = imitating;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 4m by 6m at a medium rate. It is hardy to zone 6. It is in flower in June, and the seeds ripen in October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

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Edible Uses

Condiment.

The fruit is dried and used as a condiment[46, 61, 105, 177]. A pepper flavour, it is stronger and more pungent than black pepper[183]. It can be used whole or ground into a powder and used as a table seasoning[183]. A light roasting brings out more of the flavour[206]. It is an ingredient of the famous Chinese 'five spice' mixture[206].

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Other Uses

None known

Cultivation details

Easily grown in loamy soils in most positions, but prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200]. A plant has been growing well for many years in deep woodland shade at Cambridge Botanical gardens, it was fruiting heavily in autumn 1996[K].

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Flowers are formed on the old wood[206].

The bruised leaves are strongly aromatic[245].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

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Scent

Leaves: Crushed

> The bruised leaves are strongly aromatic[245].

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Zanthoxylum+simulans`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Zanthoxylum+simulans`

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Plants For A Future: Database Search Results

Zanthoxylum simulans

Common name:	Szechuan pepper	Family:	Rutaceae
Author:	Hance.	Botanical references:	11, 200
Synonyms:	Zanthoxylum bungei (Planch.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Virgin wilds, hillsides and open woods[147].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Xanthoxylum bungei[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'In Chiao [E], Hua Chiao [E], Ta Chiao [E],
Epithets:	From a Dictionary of Botanical Epithets
	simulans = imitating;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 4m by 6m at a medium rate. It is hardy to zone 6. It is in flower in June, and the seeds ripen in October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment.

The fruit is dried and used as a condiment[46, 61, 105, 177]. A pepper flavour, it is stronger and more pungent than black pepper[183]. It can be used whole or ground into a powder and used as a table seasoning[183]. A light roasting brings out more of the flavour[206]. It is an ingredient of the famous Chinese 'five spice' mixture[206].

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Antidote; Antiphlogistic; Astringent; Carminative; Diaphoretic; Digestive; Diuretic; Emmenagogue; Stimulant; Stomachic; Tonic; Vasodilator.

Astringent, diaphoretic, emmenagogue[116, 178].

The pericarp is anaesthetic, diuretic, parasiticide and vasodilator[176]. It is used in the treatment of gastralgia and dyspepsia due to cold with vomiting, diarrhoea, abdominal pain, ascariasis and dermal diseases[176]. It has a local anaesthetic action and is parasiticide against the pork tapeworm (Taenia solium)[176].

The pericarp contains geraniol. In small doses this has a mild diuretic action, though large doses will inhibit the excretion of urine[176]. There is a persistent increase in peristalsis at low concentration, but inhibition at high concentration[176].

The leaves are carminative, stimulant and sudorific[147, 218].

The fruit is carminative, diuretic, stimulant, stomachic and tonic[147, 218].

The seed is antiphlogistic and diuretic[218].

A decoction of the root is digestive and also used in the treatment of snakebites[218].

The resin contained in the bark, and especially in that of the roots, is powerfully stimulant and tonic[82].

Other Uses

None known

Cultivation details

Easily grown in loamy soils in most positions, but prefers a good deep well-drained moisture retentive soil in full sun or semi-shade[1, 11, 200]. A plant has been growing well for many years in deep woodland shade at Cambridge Botanical gardens, it was fruiting heavily in autumn 1996[K].

Cultivated for its seed, which is used as a condiment in China[46, 61].

Flowers are formed on the old wood[206].

The bruised leaves are strongly aromatic[245].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn. Stored seed may requires up to 3 months cold stratification, though scarification may also help[113]. Sow stored seed in a cold frame as early in the year as possible. Germination should take place in late spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in early summer.

Cuttings of half-ripe wood, July/August in a frame.

Root cuttings, 3cm long, planted horizontally in pots in a greenhouse. Good percentage[78].

Suckers, removed in late winter and planted into their permanent positions[113].

Scent

Leaves: Crushed

> The bruised leaves are strongly aromatic[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Add a comment on: *Zanthoxylum simulans*

Subject:

Zanthoxylum simulans

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zanthoxylum simulans

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:38:37 2004

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Add Comment Reset

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Zea mays

Common name:	Sweet corn	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Original habitat is obscure, probably S. America or Mexico.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ble De Turquie [E], Corn [P,B,E,L], Corn Silk [H], Dari [E], Ganma Sham [E], Indian Corn [H], Jagong [E], Jagung [E], Mais [E], Mais Vert [E], Maiz [E], Maize [H], Misir [E], Oswego Arrowroot [H], Thurah Safrah [E], Yu Kao Liang [E], Yu Shu Shu [E],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; India(Santal); Iraq; Japan; Java; Kurdistan; Malaya; Peru; Spain; Trinidad; Turkey; Us; Us(Rappahannock); Venezuela

Physical Characteristics

Annual growing to 2m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to October, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and

are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Pollen; Seed; Stem.

Seed - raw or cooked. Corn is one of the most commonly grown foods in the world. The seed can be eaten raw or cooked before it is fully ripe[1, 2, 33, 34] and there are varieties especially developed for this purpose (the sweet corns) that have very sweet seeds and are delicious[183, K]. The mature seed can be dried and used whole or ground into a flour. It has a very mild flavour and is used especially as a thickening agent in foods such as custards[183]. The starch is often extracted from the grain and used in making confectionery, noodles etc[183]. The dried seed of certain varieties can be heated in an oven when they burst to make 'Popcorn'[183]. The seed can also be sprouted and used in making uncooked breads and cereals[183]. A nutritional analysis is available[218].

The fresh succulent 'silks' (the flowering parts of the cob) can also be eaten[55, 183].

An edible oil is obtained from the seed, it is an all-purpose culinary oil that is frequently used as a food in salads and for cooking purposes[13, 46, 183, 238].

The pollen is used as an ingredient of soups[183]. Rich in protein, it is harvested by tapping the flowering heads over a flat surface such as a bowl. Harvesting the pollen will actually help to improve fertilisation of the seeds[K].

The roasted seed is a coffee substitute[183].

The pith of the stem is chewed like sugar cane and is sometimes made into a syrup[183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 10.6 Calories: 361 Protein: 9.4 Fat: 4.3 Carbohydrate: 74.4 Fibre: 1.8 Ash: 1.3
In milligrammes per 100g weight of food:
Calcium: 9 Phosphorus: 290 Iron: 2.5 VitaminA: 140 Thiamine: 0.43 Riboflavin: 0.1
Niacin: 1.9 VitaminC: 0

Source: [218]

Medicinal Uses

Disclaimer

Cancer; Cholagogue; Demulcent; Diuretic; Hypoglycaemic; Hypotensive; Lithontripic; Stimulant; Vasodilator; Warts.

A decoction of the leaves and roots is used in the treatment of strangury, dysuria and gravel[218].

The corn silks are cholagogue, demulcent, diuretic, lithontripic, mildly stimulant and vasodilator[4, 9, 165, 176, 218]. They also act to reduce blood sugar levels and so are used in the treatment of diabetes mellitus[9, 218] as well as cystitis, gonorrhoea, gout etc[222]. The silks are harvested before pollination occurs and are best used when fresh because they tend to lose their diuretic effect when stored and also become purgative[9].

A decoction of the cob is used in the treatment of nose bleeds and menorrhagia[218].

The seed is diuretic and a mild stimulant[4]. It is a good emollient poultice for ulcers, swellings and rheumatic pains[4], and is widely used in the treatment of cancer, tumours and warts[218]. It contains the cell-proliferant and wound-healing substance allantoin, which is widely used in herbal medicine (especially from the herb comfrey, Symphytum officinale) to speed the healing process[222].

The plant is said to have anticancer properties and is experimentally hypoglycaemic and hypotensive[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Adhesive; Fuel; Oil; Packing; Paper.

A glue is made from the starch in the seed[13]. This starch is also used in cosmetics and the manufacture of glucose[61].

A semi-drying oil is obtained from the seed[57]. It has many industrial uses, in the manufacture of linoleum, paints, varnishes, soaps etc[21, 61].

The corn spathes are used in the production of paper, straw hats and small articles such as little baskets[74, 171].

A fibre obtained from the stems and seed husks is used for making paper[189]. They are harvested in late summer after the seed has been harvested, they are cut into usable pieces and soaked in clear water for 24 hours. They are then cooked for 2 hours in soda ash and then beaten in a ball mill for 1½ hours in a ball mill. The fibres make a light greenish cream paper[189]. Be careful not to overcook the fibre otherwise it will produce a sticky pulp that is very hard to form into paper[189].

The dried cobs are used as a fuel[171].

The pith of the stems is used as a packing material[171].

Cultivation details

Requires a warm position a well drained soil and ample moisture in the growing season[16, 33]. Prefers a pH in the range 5.5 to 6.8[200]. Requires a rich soil if it is to do well[201].

Corn is widely cultivated for its edible seed, especially in tropical and warm temperate zones of the world[200], there are many named varieties[132]. Unfortunately, the plant is not frost tolerant and so needs to be started off under glass in Britain if a reasonable crop is to be grown. There are five main types:-

Sweetcorn is of fairly recent development. It has very sweet, soft-skinned grains that can be eaten raw or cooked before they are fully ripe. Cultivars have been developed that can produce a worthwhile crop even in the more northerly latitudes of Britain if a suitable warm sunny sheltered site is chosen[238, K.

Popcorn is a primitive form with hard-skinned grains. When roasted, these grains 'explode' to form the popular snack 'popcorn'[238].

Waxy corn is used mainly in the Far East. It has a tapioca-like starch[238].

Flint corn, which shrinks on drying, can have white, yellow, purple, red or blue-black grains[238]. It is not so sweet and also takes longer to mature so is a problematic crop in Britain. There are many other uses for this plant as detailed below.

Dent corn has mostly white to yellow grains. This and Flint corn are widely grown for oils, cornflour, cereals and silage crops.

Corn grows well with early potatoes, legumes, dill, cucurbits and sunflowers[18, 20, 201], it dislikes growing with tomatoes[20].

Propagation

Seed - sow April in individual pots in a greenhouse. Grow on quickly and plant out after the last expected frosts. A direct outdoor sowing, especially of some of the less sweet varieties, can be tried in May.

Cultivars

"

> There are many named varieties of this annual vegetable and cereal, with new forms being developed each year. At present there is not time to enter these in the database and, for sweet corn varieties, it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *zea mays* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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If you know of another site which has good information about this plant fill in the following the details here.

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Details:

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Plants For A Future: Database Search Results

Zea mays

Common name:	Sweet corn	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Original habitat is obscure, probably S. America or Mexico.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ble De Turquie [E], Corn [P,B,E,L], Corn Silk [H], Dari [E], Ganma Sham [E], Indian Corn [H], Jagong [E], Jagung [E], Mais [E], Mais Vert [E], Maiz [E], Maize [H], Misir [E], Oswego Arrowroot [H], Thurah Safrah [E], Yu Kao Liang [E], Yu Shu Shu [E],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; India(Santal); Iraq; Japan; Java; Kurdistan; Malaya; Peru; Spain; Trinidad; Turkey; Us; Us(Rappahannock); Venezuela

Physical Characteristics

Annual growing to 2m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to October, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Pollen; Seed; Stem.

Seed - raw or cooked. Corn is one of the most commonly grown foods in the world. The seed can be eaten raw or cooked before it is fully ripe[1, 2, 33, 34] and there are varieties especially developed for this purpose (the sweet corns) that have very sweet seeds and are delicious[183, K]. The mature seed can be dried and used whole or ground into a flour. It has a very mild flavour and is used especially as a thickening agent in foods such as custards[183]. The starch is often extracted from the grain and used in making confectionery, noodles etc[183]. The dried seed of certain varieties can be heated in an oven when they burst to make 'Popcorn'[183]. The seed can also be sprouted and used in making uncooked breads and cereals[183]. A nutritional analysis is available[218].

The fresh succulent 'silks' (the flowering parts of the cob) can also be eaten[55, 183].

An edible oil is obtained from the seed, it is an all-purpose culinary oil that is frequently used as a food in salads and for cooking purposes[13, 46, 183, 238].

The pollen is used as an ingredient of soups[183]. Rich in protein, it is harvested by tapping the flowering heads over a flat surface such as a bowl. Harvesting the pollen will actually help to improve fertilisation of the seeds[K].

The roasted seed is a coffee substitute[183].

The pith of the stem is chewed like sugar cane and is sometimes made into a syrup[183].

Composition

Seed (Fresh weight)

> In grammes per 100g weight of food:
> Water: 10.6 Calories: 361 Protein: 9.4 Fat: 4.3 Carbohydrate: 74.4 Fibre: 1.8 Ash: 1.3
> In milligrammes per 100g weight of food:
> Calcium: 9 Phosphorus: 290 Iron: 2.5 VitaminA: 140 Thiamine: 0.43 Riboflavin: 0.1
> Niacin: 1.9 VitaminC: 0
> Source: [218]

Medicinal Uses

Disclaimer

Cancer; Cholagogue; Demulcent; Diuretic; Hypoglycaemic; Hypotensive; Lithontripic; Stimulant; Vasodilator; Warts.

A decoction of the leaves and roots is used in the treatment of strangury, dysuria and gravel[218].

The corn silks are cholagogue, demulcent, diuretic, lithontripic, mildly stimulant and vasodilator[4, 9, 165, 176, 218]. They also act to reduce blood sugar levels and so are used in the treatment of diabetes mellitus[9, 218] as well as cystitis, gonorrhoea, gout etc[222]. The silks are harvested before pollination occurs and are best used when fresh because they tend to lose their diuretic effect when stored and also become purgative[9].

A decoction of the cob is used in the treatment of nose bleeds and menorrhagia[218].

The seed is diuretic and a mild stimulant[4]. It is a good emollient poultice for ulcers, swellings and rheumatic pains[4], and is widely used in the treatment of cancer, tumours and warts[218]. It contains the cell-proliferant and wound-healing substance allantoin, which is widely used in herbal medicine (especially from the herb comfrey, Symphytum officinale) to speed the healing process[222].

The plant is said to have anticancer properties and is experimentally hypoglycaemic and hypotensive[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Adhesive; Fuel; Oil; Packing; Paper.

A glue is made from the starch in the seed[13]. This starch is also used in cosmetics and the manufacture of glucose[61].

A semi-drying oil is obtained from the seed[57]. It has many industrial uses, in the manufacture of linoleum, paints, varnishes, soaps etc[21, 61].

The corn spathes are used in the production of paper, straw hats and small articles such as little baskets[74, 171].

A fibre obtained from the stems and seed husks is used for making paper[189]. They are harvested in late summer after the seed has been harvested, they are cut into usable pieces and soaked in clear water for 24 hours. They are then cooked for 2 hours in soda ash and then beaten in a ball mill for 1½ hours in a ball mill. The fibres make a light greenish cream paper[189]. Be careful not to overcook the fibre otherwise it will produce a sticky pulp that is very hard to form into paper[189].

The dried cobs are used as a fuel[171].

The pith of the stems is used as a packing material[171].

Cultivation details

Requires a warm position a well drained soil and ample moisture in the growing season[16, 33]. Prefers a pH in the range 5.5 to 6.8[200]. Requires a rich soil if it is to do well[201].

Corn is widely cultivated for its edible seed, especially in tropical and warm temperate zones of the world[200], there are many named varieties[132]. Unfortunately, the plant is not frost tolerant and so needs to be started off under glass in Britain if a reasonable crop is to be grown. There are five main types:-

Sweetcorn is of fairly recent development. It has very sweet, soft-skinned grains that can be eaten raw or cooked before they are fully ripe. Cultivars have been developed that can produce a worthwhile crop even in the more northerly latitudes of Britain if a suitable warm sunny sheltered site is chosen[238, K.

Popcorn is a primitive form with hard-skinned grains. When roasted, these grains 'explode' to form the popular snack 'popcorn'[238].

Waxy corn is used mainly in the Far East. It has a tapioca-like starch[238].

Flint corn, which shrinks on drying, can have white, yellow, purple, red or blue-black grains[238]. It is not so sweet and also takes longer to mature so is a problematic crop in Britain. There are many other uses for this plant as detailed below.

Dent corn has mostly white to yellow grains. This and Flint corn are widely grown for oils, cornflour, cereals and silage crops.

Corn grows well with early potatoes, legumes, dill, cucurbits and sunflowers[18, 20, 201], it dislikes growing with tomatoes[20].

Propagation

Seed - sow April in individual pots in a greenhouse. Grow on quickly and plant out after the last expected frosts. A direct outdoor sowing, especially of some of the less sweet varieties, can be tried in May.

Cultivars

"

> There are many named varieties of this annual vegetable and cereal, with new forms being developed each year. At present there is not time to enter these in the database and, for sweet corn varieties, it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *zea mays* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

Readers Comments

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Zea+mays`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Zea+mays`

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Plants For A Future: Database Search Results

Zea mays

Common name:	Sweet corn	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Original habitat is obscure, probably S. America or Mexico.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ble De Turquie [E], Corn [P,B,E,L], Corn Silk [H], Dari [E], Ganma Sham [E], Indian Corn [H], Jagong [E], Jagung [E], Mais [E], Mais Vert [E], Maiz [E], Maize [H], Misir [E], Oswego Arrowroot [H], Thurah Safrah [E], Yu Kao Liang [E], Yu Shu Shu [E],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; India(Santal); Iraq; Japan; Java; Kurdistan; Malaya; Peru; Spain; Trinidad; Turkey; Us; Us(Rappahannock); Venezuela

Physical Characteristics

Annual growing to 2m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to October, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Pollen; Seed; Stem.

Seed - raw or cooked. Corn is one of the most commonly grown foods in the world. The seed can be eaten raw or cooked before it is fully ripe[1, 2, 33, 34] and there are varieties especially developed for this purpose (the sweet corns) that have very sweet seeds and are delicious[183, K]. The mature seed can be dried and used whole or ground into a flour. It has a very mild flavour and is used especially as a thickening agent in foods such as custards[183]. The starch is often extracted from the grain and used in making confectionery, noodles etc[183]. The dried seed of certain varieties can be heated in an oven when they burst to make 'Popcorn'[183]. The seed can also be sprouted and used in making uncooked breads and cereals[183]. A nutritional analysis is available[218].

The fresh succulent 'silks' (the flowering parts of the cob) can also be eaten[55, 183].

An edible oil is obtained from the seed, it is an all-purpose culinary oil that is frequently used as a food in salads and for cooking purposes[13, 46, 183, 238].

The pollen is used as an ingredient of soups[183]. Rich in protein, it is harvested by tapping the flowering heads over a flat surface such as a bowl. Harvesting the pollen will actually help to improve fertilisation of the seeds[K].

The roasted seed is a coffee substitute[183].

The pith of the stem is chewed like sugar cane and is sometimes made into a syrup[183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 10.6 Calories: 361 Protein: 9.4 Fat: 4.3 Carbohydrate: 74.4 Fibre: 1.8 Ash: 1.3
In milligrammes per 100g weight of food:
Calcium: 9 Phosphorus: 290 Iron: 2.5 VitaminA: 140 Thiamine: 0.43 Riboflavin: 0.1
Niacin: 1.9 VitaminC: 0
Source: [218]

Medicinal Uses

Disclaimer

Cancer; Cholagogue; Demulcent; Diuretic; Hypoglycaemic; Hypotensive; Lithontripic; Stimulant; Vasodilator; Warts.

A decoction of the leaves and roots is used in the treatment of strangury, dysuria and gravel[218].

The corn silks are cholagogue, demulcent, diuretic, lithontripic, mildly stimulant and vasodilator[4, 9, 165, 176, 218]. They also act to reduce blood sugar levels and so are used in the treatment of diabetes mellitus[9, 218] as well as cystitis, gonorrhoea, gout etc[222]. The silks are harvested before pollination occurs and are best used when fresh because they tend to lose their diuretic effect when stored and also become purgative[9].

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Other Uses

Adhesive; Fuel; Oil; Packing; Paper.

A glue is made from the starch in the seed[13]. This starch is also used in cosmetics and the manufacture of glucose[61].

A semi-drying oil is obtained from the seed[57]. It has many industrial uses, in the manufacture of linoleum, paints, varnishes, soaps etc[21, 61].

The corn spathes are used in the production of paper, straw hats and small articles such as little baskets[74, 171].

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The dried cobs are used as a fuel[171].

The pith of the stems is used as a packing material[171].

Cultivation details

Requires a warm position a well drained soil and ample moisture in the growing season[16, 33]. Prefers a pH in the range 5.5 to 6.8[200]. Requires a rich soil if it is to do well[201].

Corn is widely cultivated for its edible seed, especially in tropical and warm temperate zones of the world[200], there are many named varieties[132]. Unfortunately, the plant is not frost tolerant and so needs to be started off under glass in Britain if a reasonable crop is to be grown. There are five main types:-

Sweetcorn is of fairly recent development. It has very sweet, soft-skinned grains that can be eaten raw or cooked before they are fully ripe. Cultivars have been developed that can produce a worthwhile crop even in the more northerly latitudes of Britain if a suitable warm sunny sheltered site is chosen[238, K.

Popcorn is a primitive form with hard-skinned grains. When roasted, these grains 'explode' to form the popular snack 'popcorn'[238].

Waxy corn is used mainly in the Far East. It has a tapioca-like starch[238].

Flint corn, which shrinks on drying, can have white, yellow, purple, red or blue-black grains[238]. It is not so sweet and also takes longer to mature so is a problematic crop in Britain. There are many other uses for this plant as detailed below.

Dent corn has mostly white to yellow grains. This and Flint corn are widely grown for oils, cornflour, cereals and silage crops.

Corn grows well with early potatoes, legumes, dill, cucurbits and sunflowers[18, 20, 201], it dislikes growing with tomatoes[20].

Propagation

Seed - sow April in individual pots in a greenhouse. Grow on quickly and plant out after the last expected frosts. A direct outdoor sowing, especially of some of the less sweet varieties, can be tried in May.

Cultivars

"

> There are many named varieties of this annual vegetable and cereal, with new forms being developed each year. At present there is not time to enter these in the database and, for sweet corn varieties, it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Zea+mays`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Zea+mays`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zea mays*

Subject:

Zea mays

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zea mays

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Zelkova serrata

Common name:	Japanese zelkova	Family:	Ulmaceae
Author:	(Thunb.) Mak.	Botanical references:	11, 58, 200
Synonyms:	Zelkova keaki ((Siebold.)Maxim.), Zelkova hirta ((Thunb.)Schneid.), Zelkova formosana (Hayata.), Zelkova acuminata ((Lindl.)Planch.), Corchorus hirtus (non L.), Abelicea hirta ((Thunb.)Schneid.)		
Known Hazards:	None known		
Range:	E. Asia - E. China, Japan.		
Habitat:	Lowlands and mountains of C. and S. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Corchorus hirtus var. glabellus[B] Corchorus hirtus var. orinocensis[B] Corchorus orinocensis[B,G] Corchorus pilolobus[G] Corchorus serratus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Zelkova [B,H,DEN1,P], Orinoco Jute [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	serra = toothed; serrata = saw toothed;
Systematics:	From a UDSA Plants Database
	Order: Urticales . Elm family

Physical Characteristics

A decidious tree growing to 25m by 10m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Leaves.

Young leaves - cooked[105, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - tough, hard, beautifully grained. Used for tool handles, construction, furniture etc[46, 61, 151].

Cultivation details

An easily grown plant, it succeeds in almost any good soil, acid or alkaline, preferring a deep well-drained moist loam[11, 200]. Prefers a moderately sheltered position[11]. Relatively shade tolerant[200]. A fast growing tree[200].

Dormant plants are very cold-tolerant, but they are sometimes damaged by late spring frosts when they are young[11].

Plants are susceptible to Dutch Elm Disease, but the beetle that is the vector of this disease rarely feeds on Zelkova so infestation is rare[11, 200]. Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires stratification and should be sown as early in the year as possible[78, 200]. Germination rates are variable[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Corchorus hirtus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ulmaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[151] **Wilson. E. H. and Trollope. M. N.** *Corean Flora.* Royal Asiatic Society 1918
A very small handbook, it does give a little bit of information on Korean plants.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Zelkova serrata

Common name:	Japanese zelkova	Family:	Ulmaceae
Author:	(Thunb.) Mak.	Botanical references:	11, 58, 200
Synonyms:	Zelkova keaki ((Siebold.)Maxim.), Zelkova hirta ((Thunb.)Schneid.), Zelkova formosana (Hayata.), Zelkova acuminata ((Lindl.)Planch.), Corchorus hirtus (non L.), Abelicea hirta ((Thunb.)Schneid.)		
Known Hazards:	None known		
Range:	E. Asia - E. China, Japan.		
Habitat:	Lowlands and mountains of C. and S. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Corchorus hirtus var. glabellus[B] Corchorus hirtus var. orinocensis[B] Corchorus orinocensis[B,G] Corchorus pilolobus[G] Corchorus serratus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Zelkova [B,H,DEN1,P], Orinoco Jute [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	serra = toothed; serrata = saw toothed;
Systematics:	From a UDSA Plants Database
	Order: Urticales . Elm family

Physical Characteristics

A decidious tree growing to 25m by 10m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Leaves.

Young leaves - cooked[105, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - tough, hard, beautifully grained. Used for tool handles, construction, furniture etc[46, 61, 151].

Cultivation details

An easily grown plant, it succeeds in almost any good soil, acid or alkaline, preferring a deep well-drained moist loam[11, 200]. Prefers a moderately sheltered position[11]. Relatively shade tolerant[200]. A fast growing tree[200].

Dormant plants are very cold-tolerant, but they are sometimes damaged by late spring frosts when they are young[11].

Plants are susceptible to Dutch Elm Disease, but the beetle that is the vector of this disease rarely feeds on Zelkova so infestation is rare[11, 200]. Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires stratification and should be sown as early in the year as possible[78, 200]. Germination rates are variable[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Corchorus hirtus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ulmaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[151] **Wilson. E. H. and Trollope. M. N.** *Corean Flora.* Royal Asiatic Society 1918
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[171] **Hill. A. F.** *Economic Botany*. The Maple Press 1952
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Zelkova serrata

Common name:	Japanese zelkova	Family:	Ulmaceae
Author:	(Thunb.) Mak.	Botanical references:	11, 58, 200
Synonyms:	Zelkova keaki ((Siebold.)Maxim.), Zelkova hirta ((Thunb.)Schneid.), Zelkova formosana (Hayata.), Zelkova acuminata ((Lindl.)Planch.), Corchorus hirtus (non L.), Abelicea hirta ((Thunb.)Schneid.)		
Known Hazards:	None known		
Range:	E. Asia - E. China, Japan.		
Habitat:	Lowlands and mountains of C. and S. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Corchorus hirtus var. glabellus[B] Corchorus hirtus var. orinocensis[B] Corchorus orinocensis[B,G] Corchorus pilolobus[G] Corchorus serratus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Zelkova [B,H,DEN1,P], Orinoco Jute [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	serra = toothed; serrata = saw toothed;
Systematics:	From a UDSA Plants Database
	Order: Urticales . Elm family

Physical Characteristics

A decidious tree growing to 25m by 10m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Leaves.

Young leaves - cooked[105, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - tough, hard, beautifully grained. Used for tool handles, construction, furniture etc[46, 61, 151].

Cultivation details

An easily grown plant, it succeeds in almost any good soil, acid or alkaline, preferring a deep well-drained moist loam[11, 200]. Prefers a moderately sheltered position[11]. Relatively shade tolerant[200]. A fast growing tree[200].

Dormant plants are very cold-tolerant, but they are sometimes damaged by late spring frosts when they are young[11].

Plants are susceptible to Dutch Elm Disease, but the beetle that is the vector of this disease rarely feeds on Zelkova so infestation is rare[11, 200]. Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires stratification and should be sown as early in the year as possible[78, 200]. Germination rates are variable[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Zephyranthes atamasca

Common name:	Atamasco lily	Family:	Amaryllidaceae
Author:	(L.) Herb.	Botanical references:	43, 200
Synonyms:	Amaryllis atamasca (L.)		
Known Hazards:	The bulb contains toxic compounds[62]. Horses are said to get the staggers (a cerebrospinal disease) from eating the leaves and bulbs[207].		
Range:	Southern N. America - Missouri and Virginia to Florida.		
Habitat:	Damp woods[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Atamosco atamasca[B,P] Z. atamasca var. atamasca[B,P] Z. atamasco[E,HORTIPLEX,L]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Atamasco Lily [P,L], Atamasco-lily [B], Rainlily [E],
Epithets:	From a Dictionary of Botanical Epithets
	mas = male, robust;
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Bulb growing to 0.3m by 0.1m . It is hardy to zone 8. It is in flower from May to July, and the seeds ripen from April to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall.

Edible Uses

Root.

Bulb - cooked[2, 22, 46, 61]. It is used as an emergency food when better foods are in short supply[61, 161]. The bulb is up to 3cm long[235]. Caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a position in full sun when grown outdoors in Britain and a well-drained moisture retentive soil[1, 42, 200]. It strongly dislikes excessive wet, especially in the winter[200]. Plants require a definite dry resting period in late summer, if they receive water at this time they are excited into growth and can then be killed in cold weather[120].

A very ornamental plant[1], it is hardy to about -5°c and can succeed outdoors in the milder areas of Britain[200]. However, because it is in growth during the winter, it is generally best grown in a cold greenhouse or special bulb frame[K].

Bulbs should be planted about 10cm deep[200].

Propagation

Seed - sow spring in a greenhouse. Sow the seed thinly so that the seedlings can be left undisturbed in the pot for their first year of growth. Give them an occasional liquid feed in the growing season to ensure they do not become nutrient deficient. When the plants become dormant in the summer, pot up the small bulbs placing 2 - 3 bulbs in each pot. Grow them on for another one or two years in the greenhouse before planting them out when they are dormant in late summer.

Division of offsets after the plant dies down in late spring or early summer. Larger bulbs can be planted out direct into their permanent positions whilst it is best to pot up the smaller bulbs and grow them on in the greenhouse for a year before planting them out.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Zephyranthes atamasca var. atamasca* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Zephyranthes atamasco* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Amaryllidaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[42] **Grey. C. H.** *Hardy Bulbs.* Williams & Norgate. 1938
Rather dated now, but an immense work on bulbs for temperate zones and how to grow them. Three large volumes.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[120] **?** *The Plantsman. Vol. 2. 1980 - 1981.* Royal Horticultural Society 1980
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Billardiera spp, Calochortus spp, Drimys spp.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Zephyranthes atamasca

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Author:	(L.) Herb.	Botanical references:	43, 200
Synonyms:	Amaryllis atamasca (L.)		
Known Hazards:	The bulb contains toxic compounds[62]. Horses are said to get the staggers (a cerebrospinal disease) from eating the leaves and bulbs[207].		
Range:	Southern N. America - Missouri and Virginia to Florida.		
Habitat:	Damp woods[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Atamosco atamasca[B,P] Z. atamasca var. atamasca[B,P] Z. atamasco[E,HORTIPLEX,L]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Atamasco Lily [P,L], Atamasco-lily [B], Rainlily [E],
Epithets:	From a Dictionary of Botanical Epithets
	mas = male, robust;
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Bulb growing to 0.3m by 0.1m . It is hardy to zone 8. It is in flower from May to July, and the seeds ripen from April to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall.

Edible Uses

Root.

Bulb - cooked[2, 22, 46, 61]. It is used as an emergency food when better foods are in short supply[61, 161]. The bulb is up to 3cm long[235]. Caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a position in full sun when grown outdoors in Britain and a well-drained moisture retentive soil[1, 42, 200]. It strongly dislikes excessive wet, especially in the winter[200]. Plants require a definite dry resting period in late summer, if they receive water at this time they are excited into growth and can then be killed in cold weather[120].

A very ornamental plant[1], it is hardy to about -5°c and can succeed outdoors in the milder areas of Britain[200]. However, because it is in growth during the winter, it is generally best grown in a cold greenhouse or special bulb frame[K].

Bulbs should be planted about 10cm deep[200].

Propagation

Seed - sow spring in a greenhouse. Sow the seed thinly so that the seedlings can be left undisturbed in the pot for their first year of growth. Give them an occasional liquid feed in the growing season to ensure they do not become nutrient deficient. When the plants become dormant in the summer, pot up the small bulbs placing 2 - 3 bulbs in each pot. Grow them on for another one or two years in the greenhouse before planting them out when they are dormant in late

summer.

Division of offsets after the plant dies down in late spring or early summer. Larger bulbs can be planted out direct into their permanent positions whilst it is best to pot up the smaller bulbs and grow them on in the greenhouse for a year before planting them out.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Zephyranthes atamasca var. atamasca* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Zephyranthes atamasco* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Amaryllidaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces

in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[42] **Grey. C. H.** *Hardy Bulbs.* Williams & Norgate. 1938
Rather dated now, but an immense work on bulbs for temperate zones and how to grow them. Three large volumes.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[120] **?** *The Plantsman. Vol. 2. 1980 - 1981.* Royal Horticultural Society 1980
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Billardiera spp, Calochortus spp, Drimys spp.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

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Plants For A Future: Database Search Results

Zephyranthes atamasca

Common name:	Atamasco lily	Family:	Amaryllidaceae
Author:	(L.) Herb.	Botanical references:	43, 200
Synonyms:	Amaryllis atamasca (L.)		
Known Hazards:	The bulb contains toxic compounds[62]. Horses are said to get the staggers (a cerebrospinal disease) from eating the leaves and bulbs[207].		
Range:	Southern N. America - Missouri and Virginia to Florida.		
Habitat:	Damp woods[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Atamosco atamasca[B,P] Z. atamasca var. atamasca[B,P] Z. atamasco[E,HORTIPLEX,L]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Atamasco Lily [P,L], Atamasco-lily [B], Rainlily [E],
Epithets:	From a Dictionary of Botanical Epithets
	mas = male, robust;
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Bulb growing to 0.3m by 0.1m . It is hardy to zone 8. It is in flower from May to July, and the seeds ripen from April to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall.

Edible Uses

Root.

Bulb - cooked[2, 22, 46, 61]. It is used as an emergency food when better foods are in short supply[61, 161]. The bulb is up to 3cm long[235]. Caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a position in full sun when grown outdoors in Britain and a well-drained moisture retentive soil[1, 42, 200]. It strongly dislikes excessive wet, especially in the winter[200]. Plants require a definite dry resting period in late summer, if they receive water at this time they are excited into growth and can then be killed in cold weather[120].

A very ornamental plant[1], it is hardy to about -5°c and can succeed outdoors in the milder areas of Britain[200]. However, because it is in growth during the winter, it is generally best grown in a cold greenhouse or special bulb frame[K].

Bulbs should be planted about 10cm deep[200].

Propagation

Seed - sow spring in a greenhouse. Sow the seed thinly so that the seedlings can be left undisturbed in the pot for their first year of growth. Give them an occasional liquid feed in the growing season to ensure they do not become nutrient deficient. When the plants become dormant in the summer, pot up the small bulbs placing 2 - 3 bulbs in each pot. Grow them on for another one or two years in the greenhouse before planting them out when they are dormant in late

summer.

Division of offsets after the plant dies down in late spring or early summer. Larger bulbs can be planted out direct into their permanent positions whilst it is best to pot up the smaller bulbs and grow them on in the greenhouse for a year before planting them out.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zephyranthes atamasca*

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Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zephyranthes atamasca

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Zieria smithii

Common name:	Sandfly bush	Family:	Rutaceae
Author:	Andrews.	Botanical references:	1, 154, 265
Synonyms:	Zieria lanceolata, Zieria arborescens (Sims.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland, Tasmania, Victoria.		
Habitat:	Sandy forests or cleared areas near the coast[152], also in humid forest valleys to elevated mountain ravines[154].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Physical Characteristics

An evergreen shrub growing to 1.8m. . It is in leaf all year, in flower in April. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Relieves headaches, though in concentration it can cause headaches[152].

Other Uses

Dye; Essential; Wood.

An essential oil obtained from the leaves has similar properties to rue, Ruta graveolens[154]. The yield is about 0.4%[154]. The essential oil from rue is used in perfumery and as a food flavouring[61]. Rue was also formerly used as a strewing herb[148].

A yellow dye is obtained from the bark[154].

Wood - tough, yellow[154].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in the milder areas of the country, especially if plants are obtained from the colder provenances of its range.

See the plants native habitat for ideas on its cultivation needs.

Propagation

Seed - we have no information on this species but suggest sowing the seed in a warm greenhouse in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving the plants some protection from the cold for their first winter outdoors.

Cuttings. We have no information but suggest trying cuttings of almost ripe wood, August in a frame.

Scent

Leaves:

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Plants For A Future: Database Search Results

Zieria smithii

Common name:	Sandfly bush	Family:	Rutaceae
Author:	Andrews.	Botanical references:	1, 154, 265
Synonyms:	Zieria lanceolata, Zieria arborescens (Sims.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland, Tasmania, Victoria.		
Habitat:	Sandy forests or cleared areas near the coast[152], also in humid forest valleys to elevated mountain ravines[154].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Physical Characteristics

An evergreen shrub growing to 1.8m. . It is in leaf all year, in flower in April. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Relieves headaches, though in concentration it can cause headaches[152].

Other Uses

Dye; Essential; Wood.

An essential oil obtained from the leaves has similar properties to rue, Ruta graveolens[154]. The yield is about 0.4%[154]. The essential oil from rue is used in perfumery and as a food flavouring[61]. Rue was also formerly used as a strewing herb[148].

A yellow dye is obtained from the bark[154].

Wood - tough, yellow[154].

Cultivation details

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See the plants native habitat for ideas on its cultivation needs.

Propagation

Seed - we have no information on this species but suggest sowing the seed in a warm greenhouse in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving the plants some protection from the cold for their first winter outdoors.

Cuttings. We have no information but suggest trying cuttings of almost ripe wood, August in a frame.

Scent

Leaves:

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Range:	Australia - New South Wales, Queensland, Tasmania, Victoria.		
Habitat:	Sandy forests or cleared areas near the coast[152], also in humid forest valleys to elevated mountain ravines[154].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Physical Characteristics

An evergreen shrub growing to 1.8m. . It is in leaf all year, in flower in April. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

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Habitats and Possible Locations

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Edible Uses

None known

Medicinal Uses

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Cuttings. We have no information but suggest trying cuttings of almost ripe wood, August in a frame.

Scent

Leaves:

No details on scent.

Suppliers

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Add a comment on: *Zieria smithii*

Subject:

Zieria smithii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zieria smithii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Zizania aquatica

Common name:	Wild rice	Family:	Gramineae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New Brunswick to Manitoba, south to Florida and Texas.		
Habitat:	Shallow waters of rivers and lakes, preferring a slow moving current[20, 43].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Annual Wildrice [P,L], Chiang Ts'Ao [E], Chiao Mi [E], Chiao Pai [E], Chiao Ts'Ao [E], Indian Wild Rice [B], Ku [E], Ku Mi [E], Ku Sun [E], Wild Rice [H],
Epithets:	From a Dictionary of Botanical Epithets
	aquatica = in water;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Annual growing to 3.5m by 0.2m at a fast rate. It is hardy to zone 6. It is in flower from July to September, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Seed; Stem.

Seed - cooked[257]. It can be used as a cereal. A staple food of the native North American Indians[95, 159], the long black delicious grain is eaten as an expensive gourmet meal[183]. It is used in the same ways that rice is used and is sometimes added to rice dishes to impart its subtle flavour. The seed can also be ground into a meal and used in making bread, thickening soups etc[183]. It is a very rich source of riboflavin and is also rich in niacin[160].

The base of the culms is used as a vegetable[74].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in water up to 60cm deep, it tolerates water up to 1 metre deep though it prefers growing in water 10 - 20cm deep[136]. It dislikes stagnant water[20].

A very ornamental plant[1], it grows, flowers and fruits well in the lake and lily pond at Kew[136]. Plants can self-sow in Britain, but the seed tends to germinate too late to mature a fresh crop of seed in this country, so the plant gradually dies out[136]. It would possibly maintain itself in areas such as the Isle of Wight, Cambridgeshire and Norfolk[136]. It is a very hardy plant, the seed survives being frozen in ice[136]. Plants grown at a 30cm square spacing can produce 20 or more flowering shoots[136].

Often collected from the wild, this plant is now being cultivated commercially for its edible seed[183]. It is considered a gourmet's delicacy and is sold in many parts of the world, usually in health food shops and usually at a very high price[136].

Plants require protection from wild fowl otherwise they will devour the young growth[136]. Plants are occasionally sown by lakes and rivers in Europe to attract wild fowl[50].

Propagation

Seed - it must not be allowed to dry out or it will quickly lose its viability, usually within 4 weeks[136]. Store collected seed in jars of water in a cool place such as the salad compartment of a fridge. Sow the seed in spring. Immerse the pots so that they are covered by about 5cm of water. It is best to sow 2 seeds per 7cm pot in a greenhouse in order to get early germination and a better chance of a crop[136]. Pot on as required and plant out about 30cm square in May, by which time the plants should be 20 - 30cm tall[136]. Larger quantities can be sown in shallow boxes and plunged into the pond etc in May.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Species Database Bibliography
- The Edible Pond and Bog Garden

Web References

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See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Plants For A Future: Database Search Results

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A resource centre for edible and other useful plants

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The Edible Pond and Bog Garden

The following list contains many plants, most of them either natives of Britain or naturalized here, that can be grown in ponds or boggy ground. They are all perennials and, unless stated otherwise, can be easily propagated by seed or by division in spring or autumn. Since we have only recently put in a pond and set up a bog garden we have little practical knowledge of many of the plants included here. The list is made up of some of the plants we intend to grow and, we hope you will agree, they show that there is a tremendous potential for food production from ponds and boggy areas.

Many gardens already have ponds in them and, indeed, will probably contain several of the plants mentioned below. In other gardens ponds can be very easily set up (as long as you don't mind a bit of digging) by using plastic pond liners, pre-formed glass-fibre ponds, or concrete. Even a very small pond has great potential for food production and any pond adds significantly to the ability of a garden to support a wide range of wildlife. It is not intended to go into details of making ponds and establishing a water garden in this leaflet - contact us if you want details. However, most of the plants listed here are very easy to cultivate, indeed, with some of them the problem will be more one of trying to contain them as they are very vigorous, and you should find that your pond, once established, will require very little attention.

Just a couple of points that may be worth mentioning are:

1. Ensure that your pond has at least one shallow side to enable creatures, especially amphibians, to get in and out easily;
2. Ensure that it has several different levels (with at least one area more than two feet deep) to enable you to grow a variety of plants and to make sure that even in severe weather some of the water at the bottom of the pool is not frozen.

If your garden already contains an area of very wet soil that you've never been able to do much with then hopefully this leaflet will give you some ideas. It is fairly easy to create an area of boggy soil and perhaps the simplest methods are:

1. If you have an old garden pond that keeps leaking then just fill it up with earth and use it as a bog garden.
2. Excavate an area of soil to about one and a half feet, line it with plastic, puncture it in a few places and then replace the soil.
3. Fill in the shallow edges of your pond with earth.

Acorus calamus - Sweet Flag: A native of Europe, naturalized in Britain, growing on the shallow edges of ponds and in most soils. The rhizomes, harvested in autumn or spring, are edible and can be used as a substitute for ginger, cinnamon or nutmeg - in the past the rhizomes were candied and used as a sweetmeat. The inner portion of young stems can be eaten raw and young leaves can be eaten cooked. Other virtues of this plant include its mature leaves, which are insect repellant, the lower stem and rhizome, which can be dried and used to scent clothes, cupboards etc, and an essential oil which can be extracted from the rhizome.

Aponogeton distachyos - Cape Pondweed: Native of South Africa, this plant is often grown in ornamental ponds and is occasionally found naturalized in Britain. It does best in water from six inches to two feet deep and prefers a rich soil. The tubers are edible, as are the flowering spikes which can be used as a spinach substitute.

Beckmannia eruciformis: Native of Europe and Asia, this grass grows in wet meadows, swamps, marshes and very shallow water. The seed is edible, ground and used as a flour.

Butomus umbellatus - Flowering Rush: Native of Britain, it grows in moist soil or water up to one foot deep. The tubers, which contain over 50% starch, are edible when cooked. The seed is also edible.

Chrysosplenium alternifolium and C. oppositifolium - Golden Saxifrages: Natives of Britain, they grow in wet meadows, swamps etc, and prefer a shady position. The leaves are edible raw or cooked.

Cornus canadensis - Creeping Dogwood: Native of North America, this is a low-growing creeping plant. It does well on the drier edges of the bog garden, but it strongly dislikes chalky soils. The fruit is edible - it is said to have a pleasant though not very strong flavour.

Cyperus longus - Galingale: Native of Britain, it grows in ditches and marshy soils. The root is edible and it can be used as a spice.

Glyceria fluitans - Float Grass: Native of Britain, it grows in shallow pond margins. The seed is sweet and is used in puddings or as a gruel.

Gunnera tinctoria: Native of Chile, this plant looks like an overgrown rhubarb and, in sheltered positions and moist soils, the stem can be five feet tall and the leaf a yard or more across. Although they don't look tremendously appetizing, the leaf stalks are said to be edible. Probably best when young.

Nasturtium officinale - Watercress: Native of Britain, this is the familiar salad plant for sale in greengrocers etc. It prefers growing in very shallow water (about two inches deep) but can also be found in marshy soils. It should be propagated by seed or by cuttings which will root easily and quickly in a container of water at any time of the growing season. As well as its leaves being edible, its seeds may be used as a mustard substitute.

Nuphar lutea - Yellow Water Lily: Native of Britain, it grows in water between one and two feet deep, preferring a sunny position. The roots are edible either raw or cooked, the leaf stalks may also be eaten, and a drink can be made from the flowers. Two allied species from North America, N. advena and N. polysepala, are often grown in ornamental ponds and they can be used in similar ways. In addition the seeds are edible, being ground up and used as thickeners in soups etc. This would suggest that the seeds of N. lutea could also be used in this way, but we have not found any references to this.

Nymphaea alba - White Water Lily: Native of Britain, it grows in the deeper parts of the pond - about four feet of water should suit it well. It prefers a sunny position and a rich soil. Rootstocks that are several years old may be eaten - they contain about 40% starch. Roasted seeds may be used as a coffee substitute. A related species from North America, N. odorata, can also be found in ornamental ponds. Its young leaves and flower buds can be eaten cooked and young flowers can be eaten raw.

Peltandra alba and P. virginica - White Arrow Arum and Green Arrow Arum: Natives of North America, they grow in shallow water near the pond edges. Their rhizomes are edible but they must be well cooked, since they are both poisonous raw.

Phragmites communis - Common Reed: Native of Britain, growing in shallow waters and wet soils, this member of the grass family can grow up to 12 feet tall so it's not really one for the smaller garden, particularly as it is very invasive. However, it more than makes up for its antisocial tendencies with its quite impressive list of uses. The roots, which contain 5% sugar, are edible and can be dried, ground coarsely and used as a porridge. The young shoots can be eaten raw or cooked and the seed is also edible. If the stem is wounded it exudes a sugary substance which hardens upon exposure to the air. This can be eaten raw or roasted - indeed, the dried and ground inner stem can be moistened and then roasted to make a marshmallow substitute. Other virtues of this plant include the stems for thatching, basket making etc, and a light green dye that can be obtained from the stems.

Pontederia cordata: Native of North America and occasionally naturalised in Britain, it grows in pond margins and marshy soils, though it is happiest in water about six inches to one foot deep. The seeds can be eaten raw or ground up and used as a flour substitute. Young leafstalks can be eaten raw or cooked.

Sagittaria sagittifolia - Arrow Head: Native of Britain, it grows in water up to one and a half feet deep. Its tuber can be cooked and eaten and is much cultivated in China for this purpose.

Samolus valerandi - Brookweed: Native of Britain, it grows in wet soil and shallow water. The young leaves can be eaten raw or cooked.

Scirpus lacustris - Bulrush: Native of Britain, it grows in bogs or shallow pond margins. The roots are edible and can be eaten raw or dried, ground and used as a flour. The young shoots in spring are also edible. The leaves can be used in weaving for making mats, chair seats etc.

Sparganium erectum - Bur-Reed: Native of Britain, it grows in marshes, ditches and shallow edges of ponds, requiring a rich soil if it is to do well. The tuber is edible.

Trapa natans - Water Chestnut: Native of Asia and the Mediterranean, this plant is hardy in all but the coldest parts of Britain and it grows in water up to two feet deep. Its seed, which is about 50% starch, can be eaten raw, cooked, or dried and ground into flour. It is often cultivated for its seed in Asia. Propagation is by seed only.

Typha angustifolia and T. latifolia - Small Reed Mace and Reed Mace: Natives of Britain, growing in pond margins, these plants are an absolute must for any self-respecting vegan 'self-sufficientist'. Make sure that you've got the room for them though because they are very invasive (especially T. latifolia) and will soon overrun most of your other plants if you don't keep an eye on them. Their catalogue of uses is most impressive and just why they are not used commercially is beyond us. Their rhizome is edible raw, cooked, or dried and ground into flour. Young shoots can be eaten raw or used as an asparagus substitute. The base of more mature stems can be eaten raw or cooked (but remove the outer covering). The seeds are edible and, when roasted, are said to have a pleasant, nutty flavour. An edible oil can be extracted from the seed. The pollen, which is a good source of protein, can be added to flour, and the young flowering spikes can be cooked and eaten. As if all that was not enough, the leaves can be used in weaving to make hats, mats etc, the hairs on the fruits can be used as a stuffing material for pillows etc, the stems are used in paper making and the dried flowers make a good insulating material. It's quite wonderful, isn't it?!

Vaccinium palustre - Small Cranberry: Native of Britain, this is a prostrate shrub that grows on acid, boggy soils and strongly dislikes chalky soils. Propagation is by seed or by layering the stems in spring. The fruit is edible and is held by some to be the most delicious of our native wild fruits. A tea can be made from the dried leaves, a red dye is obtained from the fruits, and the juice of the fruit is a very effective cleaner for your family silver. A closely related shrub, V. macrocarpon, is native of North America where it is widely cultivated for its fruit. It too can be grown in the bog garden.

Zizania latifolia: Native of East Asia, this plant is much grown in Britain on the shallow margins of lakes. It is often cultivated as a food plant in Asia, it has edible rhizomes, young shoots and stem bases. The seed is also edible but, unfortunately, although it is perfectly hardy in Britain, it does not flower here, spreading instead by vegetative means. A close relative of this plant, Zizania aquatica, is the wild rice plant whose horrendously expensive seeds can be seen for sale in health food shops. The plant is an annual, native of North America, and, although it should be perfectly hardy here, we know of no source of viable seed in this country (seed in the shops has been heat-treated and does not germinate). If you can get hold of some viable seed then (apart from letting us have some!) you could give it a try in the shallow pond margins. It dislikes stagnant water and does best in a very slow- moving current.

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Readers Comments:

The Edible Pond and Bog Garden

Ruth Verville (rverville@voyager.net) Tue Jun 06 21:18:51 2000

Dear Rich Morris: I have started reading inf. on your site.

My question is this, why do you not recommend using pete bogs for enriching the soil?

We have a pond behind our house where yellow lilies and duck weed and other natural grasses grow. It is getting very shallow due to the vegetation, including tree leaves, accumulating over the years. Is it best to let this happen, or to clean out a section so the water can flow better. We have a natural spring that feeds this area? It is full of turtles and frogs, but it is getting too shallow for the geese. I read the inf on The Edible Pond and Bog Garden and wonder if it is possible to do this there, and perhaps cleaning the area would destroy a natural planting area.

This spring I have started to wonder about the purpose of ants in my garden and surrounding yard. I have never heard of not plowing your garden. This concept is very foreign to me. Are ants good for the soil in the garden?

Your site has gotten me to start thinking in a totally different way about my environment. Thanks for your assistance.

This comment has been added to the web pages: Vegan-Organics - The Basic Principles..

Add a Follow up to this comment

The Edible Pond and Bog Garden

Unknown Mon Jul 23 21:29:38 2001

I see you have mentioned Phragmites communis - Common Reed as a marshmallow substitute. Are there any other marshmallow substitutes that you know of?

Add a Follow up to this comment

The Edible Pond and Bog Garden

Roy Barton (roy.barton@virgin.net) Mon Aug 13 18:11:00 2001

I read your web site with interest. I am interested in sustainable growing of food plants and have studied and grown aquatic plants for many years. I have been cultivating half a dozen ponds with most of the plants that you mention.

There is a snag, the cost of purchasing plants in the first place was very high. It has taken 8 years for the ponds to mature and the batle to overcome inedible rushes and other weeds is tremendous.

How do you weed a pond?

I have to protect the plants from all the wildlife, particularly ducks, deer and and other wildlife who get up before dawn,

Having extablished a small stock of plants. I find that if I crop them they are have a resale value far in excess of their food value. People will pay a few pounds that for a pond plant that will yield only an ounce or so of carbohydrate. Your article was interesting though.

I think I would do better to eat the ducks and deer.

I find that deer love to eat my walnut trees whole when they are of a manageable size.

If you have a rich growing medium then rushes and other weeds outstrip useful plants and there is no way of controlling the same.

Details of Growing Condition: Dorset in Southern England on good permeable clay..

Add a Follow up to this comment

The Edible Pond and Bog Garden

Ilyan Thomas (ac.thomas@ntlworld.com) Tue Aug 21 08:42:20 2001

I am astounded that there was so little UK interest in Zizania Aquatica (North American Wild rice, not a rice, a grass) that the 1997 grower who had it setting seed in a Suffolk greenhouse, gave up growing it. If anyone knows of a source of viable seed(must not dry out) let me know. And who gave the grower those plants he had? Ilyan Thomas. ac.thomas@ntlworld.com 137 Priory Street, Carmarthen, SA31 1LR, Wales. UK.

Add a Follow up to this comment

The Edible Pond and Bog Garden

aly Mon Nov 19 01:18:24 2001

i think that this is a great page and want to note you guys about one thing i think you should have some pictures of bogs so we can tell what your saying

Add a Follow up to this comment

The Edible Pond and Bog Garden

() Mon Feb 3 21:36:50 2003

In North America we actually have a plant called the Marsh Mallow which was used at one time to make marshmallows.

Add a Follow up to this comment

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page.

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Last modified: Oct 29, 1999

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Add a comment on: *The Edible Pond and Bog Garden*

Subject:

The Edible Pond and Bog Garden

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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edibpond.html vegorg.html

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Your Name:

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Plants For A Future: Database Search Results

Zizania aquatica

Common name:	Wild rice	Family:	Gramineae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New Brunswick to Manitoba, south to Florida and Texas.		
Habitat:	Shallow waters of rivers and lakes, preferring a slow moving current[20, 43].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Annual Wildrice [P,L], Chiang Ts'Ao [E], Chiao Mi [E], Chiao Pai [E], Chiao Ts'Ao [E], Indian Wild Rice [B], Ku [E], Ku Mi [E], Ku Sun [E], Wild Rice [H],
Epithets:	From a Dictionary of Botanical Epithets
	aquatica = in water;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Annual growing to 3.5m by 0.2m at a fast rate. It is hardy to zone 6. It is in flower from July to September, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Seed; Stem.

Seed - cooked[257]. It can be used as a cereal. A staple food of the native North American Indians[95, 159], the long black delicious grain is eaten as an expensive gourmet meal[183]. It is used in the same ways that rice is used and is sometimes added to rice dishes to impart its subtle flavour. The seed can also be ground into a meal and used in making bread, thickening soups etc[183]. It is a very rich source of riboflavin and is also rich in niacin[160].

The base of the culms is used as a vegetable[74].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in water up to 60cm deep, it tolerates water up to 1 metre deep though it prefers growing in water 10 - 20cm deep[136]. It dislikes stagnant water[20].

A very ornamental plant[1], it grows, flowers and fruits well in the lake and lily pond at Kew[136]. Plants can self-sow in Britain, but the seed tends to germinate too late to mature a fresh crop of seed in this country, so the plant gradually dies out[136]. It would possibly maintain itself in areas such as the Isle of Wight, Cambridgeshire and Norfolk[136]. It is a very hardy plant, the seed survives being frozen in ice[136]. Plants grown at a 30cm square spacing can produce 20 or more flowering shoots[136].

Often collected from the wild, this plant is now being cultivated commercially for its edible seed[183]. It is considered a gourmet's delicacy and is sold in many parts of the world, usually in health food shops and usually at a very high price[136].

Plants require protection from wild fowl otherwise they will devour the young growth[136]. Plants are occasionally sown by lakes and rivers in Europe to attract wild fowl[50].

Propagation

Seed - it must not be allowed to dry out or it will quickly lose its viability, usually within 4 weeks[136]. Store collected seed in jars of water in a cool place such as the salad compartment of a fridge. Sow the seed in spring. Immerse the pots so that they are covered by about 5cm of water. It is best to sow 2 seeds per 7cm pot in a greenhouse in order to get early germination and a better chance of a crop[136]. Pot on as required and plant out about 30cm square in May, by which time the plants should be 20 - 30cm tall[136]. Larger quantities can be sown in shallow boxes and plunged into the pond etc in May.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Zizania+aquatica`
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Zizania aquatica

Group:
Plant Information

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Plant names you would like this comment to be added to:

Zizania aquatica

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Zizania latifolia

Common name:	Manchurian wild rice	Family:	Gramineae
Author:	(Griseb.) Stapf.	Botanical references:	200
Synonyms:	Zizania caduciflora (Hand.-Mazz.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Manchuria.		
Habitat:	Swamps marshes etc in running or stagnant shallow water[1, 136].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hydropyrum latifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Manchurian Wildrice [P],
Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 3.5m. It is hardy to zone 9. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It can grow in water.

Habitats and Possible Locations

Pond.

Cultivar **'So Zhou'**: Pond.

Edible Uses

Flowers; Root; Seed; Stem.

The swollen stem bases, infected with the smut fungus Ustilago esculenta, are eaten as a vegetable by the Chinese[1, 74, 105]. They must be harvested before the fungus starts to produce spores since the flesh deteriorates at this time[206]. They are parboiled then sautéed with other vegetables and have a nutty flavour reminiscent of coconut[183]. The wild forms of this species have developed resistance to the smut, so specially disease-susceptible cultivars are grown[206].

Seed - cooked[1, 74, 136]. It can be used like rice in sweet or savoury dishes[183]. The seed can also be ground into a flour and used in making cakes, biscuits etc[K]. The seed contains about 13.7% protein, 0.9% fat, 72.7% carbohydrate, 0.7% ash[179].

Young inflorescences - cooked and used as a vegetable[183].

Young shoots - raw or cooked[46, 136, 178]. A pleasant sweet taste[74]. The shoots contain about 1% protein, 0.3% fat, 4.7% carbohydrate, 0.7% ash[179].

Root[1, 74]. No more details.

Medicinal Uses

Disclaimer

Diuretic; Febrifuge; Tonic.

The shoots, roots and the seed are diuretic and febrifuge[178, 218].

The leaves are tonic[218].

Other Uses

Weaving.

The leaves are woven into mats[1, 46, 61].

Cultivation details

A marsh or water plant requiring shallow stagnant or slowly flowing water, it is easily grown in most soils in a sunny position[136]. Prefers a slightly acidic clay-loam soil[206].

One report suggests that the plant is in hardiness zone 9 (only tolerating light frosts)[200] but this is rather questionable, there are several reports of the plant being perfectly hardy in Britain, though it does not usually flower in this country[136]. It requires hot summers with temperatures between 20 - 30°c if it is to do well[206].

It is often cultivated as a food crop in E. Asia and is often grown as cover for wild fowl along the sides of lakes in Britain[136]. It grows very well at Kew[136].

Propagation

Seed - it must not be allowed to dry out or it will quickly lose its viability, usually within 4 weeks[136]. Store collected seed in jars of water in a cool place such as the salad compartment of a fridge. Sow the seed in a greenhouse in spring. Immerse the pots so that they are covered by about 5cm of water. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Cultivars

'So Zhou'

An early cultivar with tender flesh[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Species Database Bibliography
- The Edible Pond and Bog Garden

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Zizania caduciflora* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[136] **Royal Botanic Gardens, Kew.** *Kew Bulletin. 1909* Royal Botanic Gardens, Kew. 1909
An interesting article on growing wild rice, Zizania aquatica and Z. latifolia.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Flowers; Root; Seed; Stem.

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'So Zhou'

An early cultivar with tender flesh[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Species Database Bibliography

- The Edible Pond and Bog Garden

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Zizania caduciflora* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[136] **Royal Botanic Gardens, Kew.** *Kew Bulletin. 1909* Royal Botanic Gardens, Kew. 1909
An interesting article on growing wild rice, Zizania aquatica and Z. latifolia.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Readers Comments

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Plants For A Future: Database Search Results

Zizania latifolia

Common name:	Manchurian wild rice	Family:	Gramineae
Author:	(Griseb.) Stapf.	Botanical references:	200
Synonyms:	Zizania caduciflora (Hand.-Mazz.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Manchuria.		
Habitat:	Swamps marshes etc in running or stagnant shallow water[1, 136].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hydropyrum latifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Manchurian Wildrice [P],
Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 3.5m. It is hardy to zone 9. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It can grow in water.

Habitats and Possible Locations

Pond.

Cultivar **'So Zhou'**: Pond.

Edible Uses

Flowers; Root; Seed; Stem.

The swollen stem bases, infected with the smut fungus Ustilago esculenta, are eaten as a vegetable by the Chinese[1, 74, 105]. They must be harvested before the fungus starts to produce spores since the flesh deteriorates at this time[206]. They are parboiled then sautéed with other vegetables and have a nutty flavour reminiscent of coconut[183]. The wild forms of this species have developed resistance to the smut, so specially disease-susceptible cultivars are grown[206].

Seed - cooked[1, 74, 136]. It can be used like rice in sweet or savoury dishes[183]. The seed can also be ground into a flour and used in making cakes, biscuits etc[K]. The seed contains about 13.7% protein, 0.9% fat, 72.7% carbohydrate, 0.7% ash[179].

Young inflorescences - cooked and used as a vegetable[183].

Young shoots - raw or cooked[46, 136, 178]. A pleasant sweet taste[74]. The shoots contain about 1% protein, 0.3% fat, 4.7% carbohydrate, 0.7% ash[179].

Root[1, 74]. No more details.

Medicinal Uses

Disclaimer

Diuretic; Febrifuge; Tonic.

The shoots, roots and the seed are diuretic and febrifuge[178, 218].

The leaves are tonic[218].

Other Uses

Weaving.

The leaves are woven into mats[1, 46, 61].

Cultivation details

A marsh or water plant requiring shallow stagnant or slowly flowing water, it is easily grown in most soils in a sunny position[136]. Prefers a slightly acidic clay-loam soil[206].

One report suggests that the plant is in hardiness zone 9 (only tolerating light frosts)[200] but this is rather questionable, there are several reports of the plant being perfectly hardy in Britain, though it does not usually flower in this country[136]. It requires hot summers with temperatures between 20 - 30°c if it is to do well[206].

It is often cultivated as a food crop in E. Asia and is often grown as cover for wild fowl along the sides of lakes in Britain[136]. It grows very well at Kew[136].

Propagation

Seed - it must not be allowed to dry out or it will quickly lose its viability, usually within 4 weeks[136]. Store collected seed in jars of water in a cool place such as the salad compartment of a fridge. Sow the seed in a greenhouse in spring. Immerse the pots so that they are covered by about 5cm of water. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Cultivars

'So Zhou'

An early cultivar with tender flesh[183].

Suppliers

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Plant Information

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Enter your comment about this plant here.

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zizania latifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:39:33 2004

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Zizia aurea

Common name:	Golden alexanders	Family:	Umbelliferae
Author:	(L.) Koch.	Botanical references:	200
Synonyms:			
Known Hazards:	There is a report that the root might be toxic[222].		
Range:	Eastern N. America - Quebec to Saskatchewan and south to Texas and Florida..		
Habitat:	Moist meadowland[200]. Dry woods and rocky outcrops[222].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below. Golden Alexander's [H], Golden Alexanders [B], Golden Zizia [P],
Epithets:	From a Dictionary of Botanical Epithets aurea = golden;
Systematics:	From a UDSA Plants Database Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 3. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Flowers.

The flowers, with the main stem removed, are a welcome addition to a tossed green salad. They are also a delicious cooked vegetable when used in a similar manner to broccoli[183].

Medicinal Uses

Disclaimer

Febrifuge; Hypnotic; Vulnerary.

A tea made from the root is febrifuge[222, 257]. The root is also believed to be vulnerary and hypnotic[222].

Other Uses

None known

Cultivation details

Requires a moist soil and a position in full sun[200].

Suitable for the wild garden and other informal plantings as well as collections of native wild flowers[200].

Propagation

Seed - we have no information for this species but it is probably best sown in spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 3. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Flowers.

The flowers, with the main stem removed, are a welcome addition to a tossed green salad. They are also a delicious cooked vegetable when used in a similar manner to broccoli[183].

Medicinal Uses

Disclaimer

Febrifuge; Hypnotic; Vulnerary.

A tea made from the root is febrifuge[222, 257]. The root is also believed to be vulnerary and hypnotic[222].

Other Uses

None known

Cultivation details

Requires a moist soil and a position in full sun[200].

Suitable for the wild garden and other informal plantings as well as collections of native wild flowers[200].

Propagation

Seed - we have no information for this species but it is probably best sown in spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Range:	Eastern N. America - Quebec to Saskatchewan and south to Texas and Florida..		
Habitat:	Moist meadowland[200]. Dry woods and rocky outcrops[222].		
Plants For A Future Rating (1-5):	2		

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	Golden Alexander's [H], Golden Alexanders [B], Golden Zizia [P],
Epithets:	From a Dictionary of Botanical Epithets
	aurea = golden;
Systematics:	From a UDSA Plants Database
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Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 3. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Flowers.

The flowers, with the main stem removed, are a welcome addition to a tossed green salad. They are also a delicious cooked vegetable when used in a similar manner to broccoli[183].

Medicinal Uses

Disclaimer

Febrifuge; Hypnotic; Vulnerary.

A tea made from the root is febrifuge[222, 257]. The root is also believed to be vulnerary and hypnotic[222].

Other Uses

None known

Cultivation details

Requires a moist soil and a position in full sun[200].

Suitable for the wild garden and other informal plantings as well as collections of native wild flowers[200].

Propagation

Seed - we have no information for this species but it is probably best sown in spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Add a comment on: *Zizia aurea*

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Zizia aurea

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Plant Information

Comment:

Enter your comment about this plant here.

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Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Zizia aurea

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Ziziphus jujuba

Common name:	Jujube	Family:	Rhamnaceae
Author:	Mill.	Botanical references:	11, 50, 200
Synonyms:	Ziziphus zizyphus ((L.)Karsten.), Ziziphus vulgaris (Lam.), Ziziphus sativa (Gaertn.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Dry gravelly or stony slopes of hills and mountains[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Rhamnus jujuba[G] Rhamnus zizyphus[G,H] Z. jujube[HORTIPLEX] Z. mauritiana[B,E,G,P] Z. spinosa[G] Z. vulgaris var. spinosa[G] Zizyphus jujuba[H,] Zizyphus lotos[H] Zizyphus sativa[H] Zizyphus vulgaris[E,H] Zizyphus zizyphus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Azufaifo [E], Bedara China [E], Chinese Date [H], Chinese Jujube [H], Common Jujube [B,P], Dara [E], Hong Zao [E], Indian Jujube [P,B], Jujube [H,E], Jujubier [E], Kan Tsao [E], Kola [E], Liane Crocs Chien [E], Liang Tsao [E], Mei Tsao [E], Nabug [E], Nan Tsao [E], Pei Tsao [E], Perita Haitiana [E], Petite Pomme [E], Pomme Malcadi [E], Ponsere [E], Suan Tsao [E], Ta Tsao [E], Tsao [E], Unnab [E], Unnap Agaci [E], Widara [E],

Systematics:	From a UDSA Plants Database Order: Rhamnales . Buckthorn family
Other Range Info:	From the Ethnobotany Database Asia; China; Dominican Republic; Europe; Haiti; India; India(Santal); Iraq; Java (Import); Malacca (Import); Nigeria; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Western Australia, Queensland, Northen Territory (Aust).

Physical Characteristics

A decidious tree growing to 10m by 7m at a fast rate. It is hardy to zone 6. It is in flower from April to May, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves.

Fruit - raw or cooked[1, 2, 3, 100, 158]. Mealy and sweet[46]. A sourish-sweet flavour[174]. The fruit can be eaten fresh, dried like dates or cooked in puddings, cakes, breads, jellies, soups etc[183]. The dried fruit has the nicest taste[11, 132]. The fruits are often left to become wrinkled and spongy, which increases their sweetness, and are then eaten fresh or cooked[238]. The dried fruit can also be ground into a powder. This powder is used in the preparation of 'kochujang', a fermented hot pepper-soybean paste that resembles miso[183]. Fruits are about 13mm in diameter[194] and contain one or two seeds[238]. Average yields from wild trees in the Himalayas are 9.5kg per year[194]. The fruit contains about 8.7% sugars, 2.6% protein, 1.4% ash, 1.7% pectin and 1.3% tannin[194]. The fruit is about 25mm long, though it can be larger in cultivated varieties[200].

The fruit can be used as a coffee substitute[183].

Leaves - cooked. A famine food, they are only used when all else fails[179]. A nutritional analysis is available[218].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 337 Protein: 11.8 Fat: 4.3 Carbohydrate: 75.3 Fibre: 14.3 Ash: 8.6
In milligrammes per 100g weight of food:
Calcium: 1970 Phosphorus: 230 VitaminA: 200
Source: [218]

Fruit (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 350 Protein: 7.3 Fat: 1.2 Carbohydrate: 84 Fibre: 4 Ash: 3
In milligrammes per 100g weight of food:
Calcium: 130 Phosphorus: 168 Iron: 3.5 Sodium: 12 Potassium: 1050 VitaminA: 125
Thiamine: 0.1 Riboflavin: 0.18 Niacin: 2.8 VitaminC: 300
Source: [218]
Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Anodyne; Antidote; Astringent; Cancer; Diuretic; Emollient; Expectorant; Hypnotic; Narcotic; Pectoral; Poultice; Refrigerant; Sedative; Skin; Stomachic; Tonic.

Jujube is both a delicious fruit and an effective herbal remedy. It aids weight gain, improves muscular strength and increases stamina[254]. In Chinese medicine it is prescribed as a tonic to strengthen liver function[254]. Japanese research has shown that jujube increases immune-system resistance. In one clinical trial in China 12 patients with liver complaints were given jujube, peanuts and brown sugar nightly. In four weeks their liver function had improved[254].

Antidote, diuretic, emollient, expectorant[11, 61, 174, 178, 194].

The leaves are astringent and febrifuge[4, 218]. They are said to promote the growth of hair[218]. They are used to form a plaster in the treatment of strangury[240].

The dried fruits are anodyne, anticancer, pectoral, refrigerant, sedative, stomachic, styptic and tonic[4, 176, 218]. They are considered to purify the blood and aid digestion[240]. They are used internally in the treatment of chronic fatigue, loss of appetite, diarrhoea, anaemia, irritability and hysteria[176, 238].

The seed is hypnotic, narcotic, sedative, stomachic and tonic[147, 176, 218]. It is used internally in the treatment of palpitations, insomnia, nervous exhaustion, night sweats and excessive perspiration[176, 238].

The root is used in the treatment of dyspepsia[218]. A decoction of the root has been used in the treatment of fevers[4, 240]. The root is made into a powder and applied to old wounds and ulcers[240].

The plant is a folk remedy for anaemia, hypertonia, nephritis and nervous diseases[218].

The plant is widely used in China as a treatment for burns[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Charcoal; Fuel; Hedge; Wood.

Plants can be grown as a hedge[178].

Wood - dense, hard, compact, tough. Used for turnery, agricultural implements etc[74, 146, 158]. It makes an excellent fuel[146] and a good charcoal[158].

Cultivation details

Succeeds in most soils so long as they are well-drained[3, 200]. Prefers an open loam and a hot dry position[1, 3]. Succeeds in an alkaline soil[200]. Plants are fast growing, even in poor soils[146].

Plants are hardy to about -20°c[200]. Another report says that they are hardy to about -30°c when fully dormant[160].

The jujube is often cultivated in warm temperate zones for its edible fruit, there are many named varieties[50, 183]. The trees need a hot dry summer if they are to fruit well, which rather restricts their potential in a country like Britain[238, K].

Trees are resistant to most pests and diseases[160].

Responds well to coppicing[146].

Trees form a deep taproot and should be planted into their permanent positions as soon as possible[200].

Fast growing and quick to mature, it can fruit in 3 - 4 years from seed[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires 3 months warm then 3 months cold stratification[113]. Germination should take place in the first spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for at least their first winter. Plant out in early summer.

Root cuttings in a greenhouse in the winter[200]. Best results are achieved if a temperature of 5 - 10°c can be maintained[238].

Cuttings of mature wood of the current season's growth, November to January in a frame[238].

Division of suckers in the dormant season[174]. They can be planted out direct into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Ziziphus jujube* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ziziphus mauritiana* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Ziziphus sativa* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Ziziphus vulgaris* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Ziziphus zizyphus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Zizyphus jujuba* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

References for *Zizyphus lotos* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Zizyphus sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Zizyphus vulgaris* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Zizyphus zizyphus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Rhamnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*

Lovely pictures, a very readable book.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[194] **Parmar. C. and Kaushal. M.K.** *Wild Fruits of the Sub-Himalayan Region.* Kalyani Publishers. New Delhi. 1982
Contains lots of information on about 25 species of fruit-bearing plants of the Himalayas, not all of them suitable for cool temperate zones.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4

Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Ziziphus jujuba

Andrew Ricketts Tue Oct 15 13:41:15 2002

I believe there are several cultivars: Li, Nikitkij 93, Shui men, Small, So tsao, Tajan czao. Found in a nursery catalogue in Australia. Also there is a book on Jujubes by Meyer.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the

details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Ziziphus+jujuba`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

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Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Buckthorn family
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Disclaimer

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Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires 3 months warm then 3 months cold stratification[113]. Germination should take place in the first spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for at least their first winter. Plant out in early summer.

Root cuttings in a greenhouse in the winter[200]. Best results are achieved if a temperature of 5 - 10°c can be maintained[238].

Cuttings of mature wood of the current season's growth, November to January in a frame[238].

Division of suckers in the dormant season[174]. They can be planted out direct into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Ziziphus jujube* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ziziphus mauritiana* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for *Ziziphus sativa* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Ziziphus vulgaris* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Ziziphus zizyphus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Zizyphus jujuba* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

References for *Zizyphus lotos* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Zizyphus sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Zizyphus vulgaris* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Zizyphus zizyphus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Rhamnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*

Lovely pictures, a very readable book.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[194] **Parmar. C. and Kaushal. M.K.** *Wild Fruits of the Sub-Himalayan Region.* Kalyani Publishers. New Delhi. 1982
Contains lots of information on about 25 species of fruit-bearing plants of the Himalayas, not all of them suitable for cool temperate zones.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4

Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Ziziphus jujuba

Andrew Ricketts Tue Oct 15 13:41:15 2002

I believe there are several cultivars: Li, Nikitkij 93, Shui men, Small, So tsao, Tajan czao. Found in a nursery catalogue in Australia. Also there is a book on Jujubes by Meyer.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Ziziphus+jujuba`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Ziziphus+jujuba`

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Plants For A Future: Database Search Results

Ziziphus jujuba

Common name:	Jujube	Family:	Rhamnaceae
Author:	Mill.	Botanical references:	11, 50, 200
Synonyms:	Ziziphus zizyphus ((L.)Karsten.), Ziziphus vulgaris (Lam.), Ziziphus sativa (Gaertn.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Dry gravelly or stony slopes of hills and mountains[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Rhamnus jujuba[G] Rhamnus zizyphus[G,H] Z. jujube[HORTIPLEX] Z. mauritiana[B,E,G,P] Z. spinosa[G] Z. vulgaris var. spinosa[G] Zizyphus jujuba[H,] Zizyphus lotos[H] Zizyphus sativa[H] Zizyphus vulgaris[E,H] Zizyphus zizyphus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Azufaifo [E], Bedara China [E], Chinese Date [H], Chinese Jujube [H], Common Jujube [B,P], Dara [E], Hong Zao [E], Indian Jujube [P,B], Jujube [H,E], Jujubier [E], Kan Tsao [E], Kola [E], Liane Crocs Chien [E], Liang Tsao [E], Mei Tsao [E], Nabug [E], Nan Tsao [E], Pei Tsao [E], Perita Haitiana [E], Petite Pomme [E], Pomme Malcadi [E], Ponsere [E], Suan Tsao [E], Ta Tsao [E], Tsao [E], Unnab [E], Unnap Agaci [E], Widara [E],
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Buckthorn family
Other Range Info:	From the Ethnobotany Database

	Asia; China; Dominican Republic; Europe; Haiti; India; India(Santal); Iraq; Java (Import); Malacca (Import); Nigeria; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Western Australia, Queensland, Northen Territory (Aust).

Physical Characteristics

A decidious tree growing to 10m by 7m at a fast rate. It is hardy to zone 6. It is in flower from April to May, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves.

Fruit - raw or cooked[1, 2, 3, 100, 158]. Mealy and sweet[46]. A sourish-sweet flavour[174]. The fruit can be eaten fresh, dried like dates or cooked in puddings, cakes, breads, jellies, soups etc[183]. The dried fruit has the nicest taste[11, 132]. The fruits are often left to become wrinkled and spongy, which increases their sweetness, and are then eaten fresh or cooked[238]. The dried fruit can also be ground into a powder. This powder is used in the preparation of 'kochujang', a fermented hot pepper-soybean paste that resembles miso[183]. Fruits are about 13mm in diameter[194] and contain one or two seeds[238]. Average yields from wild trees in the Himalayas are 9.5kg per year[194]. The fruit contains about 8.7% sugars, 2.6% protein, 1.4% ash, 1.7% pectin and 1.3% tannin[194]. The fruit is about 25mm long, though it can be larger in cultivated varieties[200].

The fruit can be used as a coffee substitute[183].

Leaves - cooked. A famine food, they are only used when all else fails[179]. A nutritional analysis is available[218].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 337 Protein: 11.8 Fat: 4.3 Carbohydrate: 75.3 Fibre: 14.3 Ash: 8.6
In milligrammes per 100g weight of food:
Calcium: 1970 Phosphorus: 230 VitaminA: 200
Source: [218]

Fruit (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 350 Protein: 7.3 Fat: 1.2 Carbohydrate: 84 Fibre: 4 Ash: 3
In milligrammes per 100g weight of food:
Calcium: 130 Phosphorus: 168 Iron: 3.5 Sodium: 12 Potassium: 1050 VitaminA: 125
Thiamine: 0.1 Riboflavin: 0.18 Niacin: 2.8 VitaminC: 300
Source: [218]
Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Anodyne; Antidote; Astringent; Cancer; Diuretic; Emollient; Expectorant; Hypnotic; Narcotic; Pectoral; Poultice; Refrigerant; Sedative; Skin; Stomachic; Tonic.

Jujube is both a delicious fruit and an effective herbal remedy. It aids weight gain, improves muscular strength and increases stamina[254]. In Chinese medicine it is prescribed as a tonic to strengthen liver function[254]. Japanese research has shown that jujube increases immune-system resistance. In one clinical trial in China 12 patients with liver complaints were given jujube, peanuts and brown sugar nightly. In four weeks their liver function had improved[254].

Antidote, diuretic, emollient, expectorant[11, 61, 174, 178, 194].

The leaves are astringent and febrifuge[4, 218]. They are said to promote the growth of hair[218]. They are used to form a plaster in the treatment of strangury[240].

The dried fruits are anodyne, anticancer, pectoral, refrigerant, sedative, stomachic, styptic and tonic[4, 176, 218]. They are considered to purify the blood and aid digestion[240]. They are used internally in the treatment of chronic fatigue, loss of appetite, diarrhoea, anaemia, irritability and hysteria[176, 238].

The seed is hypnotic, narcotic, sedative, stomachic and tonic[147, 176, 218]. It is used internally in the treatment of palpitations, insomnia, nervous exhaustion, night sweats and excessive perspiration[176, 238].

The root is used in the treatment of dyspepsia[218]. A decoction of the root has been used in the treatment of fevers[4, 240]. The root is made into a powder and applied to old wounds and ulcers[240].

The plant is a folk remedy for anaemia, hypertonia, nephritis and nervous diseases[218].

The plant is widely used in China as a treatment for burns[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Charcoal; Fuel; Hedge; Wood.

Plants can be grown as a hedge[178].

Wood - dense, hard, compact, tough. Used for turnery, agricultural implements etc[74, 146, 158]. It makes an excellent fuel[146] and a good charcoal[158].

Cultivation details

Succeeds in most soils so long as they are well-drained[3, 200]. Prefers an open loam and a hot dry position[1, 3]. Succeeds in an alkaline soil[200]. Plants are fast growing, even in poor soils[146].

Plants are hardy to about -20°c[200]. Another report says that they are hardy to about -30°c when fully dormant[160].

The jujube is often cultivated in warm temperate zones for its edible fruit, there are many named varieties[50, 183]. The trees need a hot dry summer if they are to fruit well, which rather restricts their potential in a country like Britain[238, K].

Trees are resistant to most pests and diseases[160].

Responds well to coppicing[146].

Trees form a deep taproot and should be planted into their permanent positions as soon as possible[200].

Fast growing and quick to mature, it can fruit in 3 - 4 years from seed[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires 3 months warm then 3 months cold stratification[113]. Germination should take place in the first spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for at least their first winter. Plant out in early summer.

Root cuttings in a greenhouse in the winter[200]. Best results are achieved if a temperature of 5 - 10°c can be maintained[238].

Cuttings of mature wood of the current season's growth, November to January in a frame[238].

Division of suckers in the dormant season[174]. They can be planted out direct into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ziziphus jujuba*

Subject:

Ziziphus jujuba

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ziziphus jujuba

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Zostera marina

Common name:	Eel grass	Family:	Zosteraceae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Fine gravel, sand or mud in the sea from low water spring tides down to depths of 4 metres[17]. It is rarely found in estuaries[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Groot Zeegras [D], Seawrack [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	marina = near sea;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Eel-grass family
Other Range Info:	From the Ethnobotany Database
	Mexico(Seri)

Physical Characteristics

Perennial growing to 1m. . It is in flower from June to September, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Water. We rate it 2 out of 5 for

usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Leaves; Root; Seed.

Leaves - raw or cooked[177, 256]. The leaf bases are crisp and sweet, they were often used as a feast food by the native North American Indians[256].

Seed[177]. No more details are given.

The root of the plant is chewed for its saccharine juice[2, 105]. The root is crisp and sweet, it was used as a flavouring by the native North American Indians and was also dried for winter food[256]. The raw rhizomes were often used as a feast food[256].

Medicinal Uses

Disclaimer

Women's complaints.

The leaves are used in the treatment of dropsy, goitre and women's illnesses[218].

Other Uses

Compost; Packing.

The dried leaves and stems are used as a packing material[46, 61, 66, 100].

The plant is frequently used as a manure[2].

Cultivation details

A plant of shallow sea water, it is not really suitable for normal cultivation.

Propagation

Seed - best sown as soon as it is ripe.

Division.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Zosteraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of

useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[256] **Turner. N. J.** *Food Plants of Coastal First Peoples* UBC Press. Vancouver. 1995 ISBN 0-7748-0533-1
Excellent little handbook about the native food plants of Western Canada. Good descriptions of the plants and their uses with colour photos of most plants.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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URL for Site: http://

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Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Zostera marina

Common name:	Eel grass	Family:	Zosteraceae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Fine gravel, sand or mud in the sea from low water spring tides down to depths of 4 metres[17]. It is rarely found in estuaries[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Groot Zeegras [D], Seawrack [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	marina = near sea;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Eel-grass family
Other Range Info:	From the Ethnobotany Database
	Mexico(Seri)

Physical Characteristics

Perennial growing to 1m. . It is in flower from June to September, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Water. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Leaves; Root; Seed.

Leaves - raw or cooked[177, 256]. The leaf bases are crisp and sweet, they were often used as a feast food by the native North American Indians[256].

Seed[177]. No more details are given.

The root of the plant is chewed for its saccharine juice[2, 105]. The root is crisp and sweet, it was used as a flavouring by the native North American Indians and was also dried for winter food[256]. The raw rhizomes were often used as a feast food[256].

Medicinal Uses

Disclaimer

Women's complaints.

The leaves are used in the treatment of dropsy, goitre and women's illnesses[218].

Other Uses

Compost; Packing.

The dried leaves and stems are used as a packing material[46, 61, 66, 100].

The plant is frequently used as a manure[2].

Cultivation details

A plant of shallow sea water, it is not really suitable for normal cultivation.

Propagation

Seed - best sown as soon as it is ripe.

Division.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Zosteraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218

An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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Habitats and Possible Locations

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Edible Uses

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zostera marina*

Subject:

Zostera marina

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zostera marina

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Zoysia japonica

Common name:	Korean lawn grass	Family:	Gramineae
Author:	Steud.	Botanical references:	58, 200
Synonyms:	Zoysia pungens japonica, Zoysia pungens (non Willd.), Osterdamia japonica		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny slopes in mountains and hills all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Osterdamia matrella[G] Z. matrella[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Korean Temple Grass [B], Korean Templegrass [P], Manila Templegrass [P],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

An evergreen perennial growing to 0.2m. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Lawn, Cultivated Beds.

Edible Uses

Seed; Stem.

Seed[177]. No more details are given.

Stem bases[177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sunny position in a well-drained soil.

Frequently cultivated in warm temperate zones as a lawn grass[58, 200]. Plants are hardy to about -10°c and succeed outdoors in many parts of Britain[200].

Propagation

Seed - surface sow in spring in a greenhouse. Germination should take place within 2 weeks, prick out the seedlings into individual pots when they are large enough to handle and plant them out in the summer.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Zoysia matrella* (a possible synonym).

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Zoysia japonica

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Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny slopes in mountains and hills all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Osterdamia matrella[G] Z. matrella[G,P]
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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

An evergreen perennial growing to 0.2m. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Lawn, Cultivated Beds.

Edible Uses

Seed; Stem.

Seed[177]. No more details are given.

Stem bases[177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Subject:

Zoysia japonica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zoysia japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Zygophyllum fabago

Common name:	Syrian bean caper	Family:	Zygophyllaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S.E. Europe. N. Africa to W. Asia - Syria to Afghanistan.		
Habitat:	Dry places[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Z. fabago var. brachycarpum[G] Z. fabago var. brachycarpum auct. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Khennaiq Ad Dijaj [E], Morsana [E], Syrian Beancaper [P],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Creosote-bush family
Other Range Info:	From the Ethnobotany Database
	Iraq; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Idaho, Oregon, Washington.

Physical Characteristics

Perennial growing to 1.2m. It is hardy to zone 8. It is in flower from July to September, and the seeds ripen from August to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds, By Walls, By East Wall.

Edible Uses

Condiment.

The flower buds are pickled and used as a caper substitute[2, 103, 105, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sunny position in a dry very well-drained soil[1].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a greenhouse. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer.

Division in spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Basal cuttings in late spring. Harvest the shoots with plenty of underground stem when they are about 8 - 10cm above the ground. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Zygophyllaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Habitat:	Dry places[50].		
Plants For A Future Rating (1-5):	1		

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Medicinal Uses

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Other Uses

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Habitat:	Dry places[50].		
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Habitats and Possible Locations

Cultivated Beds, By Walls, By East Wall.

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Condiment.

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Medicinal Uses

Disclaimer

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Other Uses

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Zygophyllum fabago*

Subject:

Zygophyllum fabago

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Zygophyllum fabago

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Youngia chelidoniifolia

Common name:		Family:	Compositae
Author:	Kitam.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan, Korea, Manchuria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Biennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Leaves.

Flowers - cooked[105, 177].

Leaves - cooked[105, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in some parts of the country. We do not know the plants cultivation needs.

Propagation

Seed - we have no information for this species but suggest sowing the seed in middle to late spring in situ. If you only have a small quantity of seed then it will probably be better to sow it in a cold frame in April and plant out in late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Plants For A Future: Database Search Results

Youngia chelidoniifolia

Common name:		Family:	Compositae
Author:	Kitam.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan, Korea, Manchuria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Biennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Leaves.

Flowers - cooked[105, 177].

Leaves - cooked[105, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in some parts of the country. We do not know the plants cultivation needs.

Propagation

Seed - we have no information for this species but suggest sowing the seed in middle to late spring in situ. If you only have a small quantity of seed then it will probably be better to sow it in a cold frame in April and plant out in late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Youngia+chelidoniifolia`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Youngia chelidoniifolia*

Subject:

Youngia chelidoniifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Youngia chelidoniifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:40:25 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Youngia denticulata

Common name:		Family:	Compositae
Author:	(Houtt.) Kitam.	Botanical references:	58
Synonyms:	Paraixeris denticulata, Lactuca denticulata ((Houtt.)Maxim.), Ixeris denticulata		
Known Hazards:	None known		
Range:	E. Asia - China, Japan Korea.		
Habitat:	Sunny slopes and roadsides in mountains all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Pan Pien Shan [E], Shui K'U Mai [E],
Epithets:	From a Dictionary of Botanical Epithets
	denticulata = with small teeth;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Annual/Biennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and stems - raw or cooked[46, 61, 177]. They contain about 1.6% protein, 0.4% fat, 2.1% carbohydrate, 0.8% ash[179].

Medicinal Uses

Disclaimer

Febrifuge.

Febrifuge. Used in the treatment of sore throats[178].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. We do not know the plants cultivation needs.

Propagation

Seed - we have no information for this species but suggest sowing the seed in middle to late spring in situ. If you only have a small quantity of seed then it will probably be better to sow it in a cold frame in April and plant out in late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Lactuca denticulata* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Paraixeris denticulata* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Youngia denticulata

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Range:	E. Asia - China, Japan Korea.		
Habitat:	Sunny slopes and roadsides in mountains all over Japan[58].		
Plants For A Future Rating (1-5):	1		

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Epithets:	From a Dictionary of Botanical Epithets
	denticulata = with small teeth;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Annual/Biennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and stems - raw or cooked[46, 61, 177]. They contain about 1.6% protein, 0.4% fat, 2.1% carbohydrate, 0.8% ash[179].

Medicinal Uses

Disclaimer

Febrifuge.

Febrifuge. Used in the treatment of sore throats[178].

Other Uses

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Cultivation details

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Readers Comments

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Habitat:	Sunny slopes and roadsides in mountains all over Japan[58].		
Plants For A Future Rating (1-5):	1		

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Physical Characteristics

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Habitats and Possible Locations

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Edible Uses

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Young leaves and stems - raw or cooked[46, 61, 177]. They contain about 1.6% protein, 0.4% fat, 2.1% carbohydrate, 0.8% ash[179].

Medicinal Uses

Disclaimer

Febrifuge.

Febrifuge. Used in the treatment of sore throats[178].

Other Uses

None known

Cultivation details

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Propagation

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Add a comment on: *Youngia denticulata*

Subject:

Youngia denticulata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Youngia denticulata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:40:33 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Youngia japonica

Common name:		Family:	Compositae
Author:	(L.) DC.	Botanical references:	58
Synonyms:	Youngia thunbergiana, Prenanthes japonica, Crepis japonica ((L.) Benth.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan Korea.		
Habitat:	Waste ground, cultivated fields and roadsides all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. japonica ssp. elstonii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oriental False Hawk's-beard [B], Oriental False Hawksbeard [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Biennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and young plant - cooked[61, 105, 177, 179].

Medicinal Uses

Disclaimer

Antidote; Antitussive; Febrifuge.

The plant is antitussive and febrifuge[218]. It is also used in the treatment of boils and snakebites[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. We do not know the plants cultivation needs.

Propagation

Seed - we have no information for this species but suggest sowing the seed in middle to late spring in situ. If you only have a small quantity of seed then it will probably be better to sow it in a cold frame in April and plant out in late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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A translation of an ancient Chinese book on edible wild foods. Fascinating.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Readers Comments

Youngia japonica

Weed Lady (weedlady@wildfoodforagers.org) Tue Jan 20 17:32:16 2004

Link: Wild Food Foragers of America Newsletter features one edible weed per month, how to harvest, store and prepare. Hawksbeard is a wonderful spring salad green, a good detox tea, and source of chlorophyll in the diet. Use as a food like dandelion, but is more prolific and easier to harvest.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Biennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and young plant - cooked[61, 105, 177, 179].

Medicinal Uses

Disclaimer

Antidote; Antitussive; Febrifuge.

The plant is antitussive and febrifuge[218]. It is also used in the treatment of boils and snakebites[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. We do not know the plants cultivation needs.

Propagation

Seed - we have no information for this species but suggest sowing the seed in middle to late spring in situ. If you only have a small quantity of seed then it will probably be better to sow it in a cold frame in April and plant out in late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Readers Comments

Youngia japonica

Weed Lady (weedlady@wildfoodforagers.org) Tue Jan 20 17:32:16 2004

Link: Wild Food Foragers of America Newsletter features one edible weed per month, how to harvest, store and prepare. Hawksbeard is a wonderful spring salad green, a good detox tea, and source of chlorophyll in the diet. Use as a food like dandelion, but is more prolific and easier to harvest.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Youngia japonica

Common name:		Family:	Compositae
Author:	(L.) DC.	Botanical references:	58
Synonyms:	Youngia thunbergiana, Prenanthes japonica, Crepis japonica ((L.) Benth.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan Korea.		
Habitat:	Waste ground, cultivated fields and roadsides all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. japonica ssp. elstonii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oriental False Hawk's-beard [B], Oriental False Hawksbeard [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Biennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and young plant - cooked[61, 105, 177, 179].

Medicinal Uses

Disclaimer

Antidote; Antitussive; Febrifuge.

The plant is antitussive and febrifuge[218]. It is also used in the treatment of boils and snakebites[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. We do not know the plants cultivation needs.

Propagation

Seed - we have no information for this species but suggest sowing the seed in middle to late spring in situ. If you only have a small quantity of seed then it will probably be better to sow it in a cold frame in April and plant out in late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Youngia japonica*

Subject:

Youngia japonica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Youngia japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:40:42 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Yucca aloifolia

Common name:	Spanish bayonet	Family:	Agavaceae
Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southeastern N. America - North Carolina to Florida, west to Louisiana. Naturalized in S. Europe[11]		
Habitat:	Sand dunes of the coast, occasionally up to 60 km inland, in pine forests[82]. Also found on the margins of brackish marshes[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Aloe Yucca [P,B], Bayoneta [E], Spanish Bayonet [H], Yucca [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Haiti; Mexico

Physical Characteristics

An evergreen tree growing to 7.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from May to June, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked[257]. A thick, succulent mass of bitter-sweet juicy flesh[82]. The fruit is up to 10 cm long and 4cm wide[229].

Flowers - raw or cooked[177]. They are delicious raw, or can be dried, crushed and used as a flavouring. A crisp texture[183].

Flowering stem - peeled and boiled[177, 183]. Used like asparagus.

Medicinal Uses

Disclaimer

Purgative; Salve.

The fruit is purgative[240].

The boiled and mashed root, mixed with oil, has been used as a salve in the treatment of various complaints[257].

Other Uses

Basketry; Brush; Fibre; Soap; String; Varnish.

A fibre obtained from the leaves is used for making ropes, baskets and mats[169].

Narrow, split leaf strips have been used as sewing material for coiled plaques[257].

The leaves have been used in several types of basketry[257].

The leaf splints have been used as brushes to apply colour to pottery[257].

The leaves can be split and used as a temporary string[257].

The roots are rich in saponins and can be used as a soap substitute. They are crushed and then placed in water to form suds that are used in bathing and shampooing[257].

The juice from the plant has been used as a varnish[257].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. They can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[11].

A very ornamental plant[1], it is only hardy in the mildest areas of Britain tolerating temperatures down to about -10°c if in a suitable site[11, 200]. It requires greenhouse protection in most of the country[1].

Members of this genus seem to be immune to the predations of rabbits[233].

The flowers of most members of this genus can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush. This species, however, does not require the Yucca moth for pollination and will set fruit without hand pollination[11]. The flowers open at night[229] and are powerfully fragrant at this time[245].

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K].

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Scent

Flowers: Fresh

The flowers are powerfully fragrant at night[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

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A classic with a wealth of information on the plants, but poor on pictures.

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A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Yucca+aloifolia`

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Plants For A Future: Database Search Results

Yucca aloifolia

Common name:	Spanish bayonet	Family:	Agavaceae
Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southeastern N. America - North Carolina to Florida, west to Louisiana. Naturalized in S. Europe[11]		
Habitat:	Sand dunes of the coast, occasionally up to 60 km inland, in pine forests[82]. Also found on the margins of brackish marshes[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Aloe Yucca [P,B], Bayoneta [E], Spanish Bayonet [H], Yucca [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Haiti; Mexico

Physical Characteristics

An evergreen tree growing to 7.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from May to June, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked[257]. A thick, succulent mass of bitter-sweet juicy flesh[82]. The fruit is up to 10 cm long and 4cm wide[229].

Flowers - raw or cooked[177]. They are delicious raw, or can be dried, crushed and used as a flavouring. A crisp texture[183].

Flowering stem - peeled and boiled[177, 183]. Used like asparagus.

Medicinal Uses

Disclaimer

Purgative; Salve.

The fruit is purgative[240].

The boiled and mashed root, mixed with oil, has been used as a salve in the treatment of various complaints[257].

Other Uses

Basketry; Brush; Fibre; Soap; String; Varnish.

A fibre obtained from the leaves is used for making ropes, baskets and mats[169].

Narrow, split leaf strips have been used as sewing material for coiled plaques[257].

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Cultivation details

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A very ornamental plant[1], it is only hardy in the mildest areas of Britain tolerating temperatures down to about -10°c if in a suitable site[11, 200]. It requires greenhouse protection in most of the country[1].

Members of this genus seem to be immune to the predations of rabbits[233].

The flowers of most members of this genus can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush. This species, however, does not require the Yucca moth for pollination and will set fruit without hand pollination[11]. The flowers open at night[229] and are powerfully fragrant at this time[245].

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K].

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Scent

Flowers: Fresh

The flowers are powerfully fragrant at night[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully

referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Yucca aloifolia

Common name:	Spanish bayonet	Family:	Agavaceae
Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southeastern N. America - North Carolina to Florida, west to Louisiana. Naturalized in S. Europe[11]		
Habitat:	Sand dunes of the coast, occasionally up to 60 km inland, in pine forests[82]. Also found on the margins of brackish marshes[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Aloe Yucca [P,B], Bayoneta [E], Spanish Bayonet [H], Yucca [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Haiti; Mexico

Physical Characteristics

An evergreen tree growing to 7.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from May to June, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked[257]. A thick, succulent mass of bitter-sweet juicy flesh[82]. The fruit is up to 10 cm long and 4cm wide[229].

Flowers - raw or cooked[177]. They are delicious raw, or can be dried, crushed and used as a flavouring. A crisp texture[183].

Flowering stem - peeled and boiled[177, 183]. Used like asparagus.

Medicinal Uses

Disclaimer

Purgative; Salve.

The fruit is purgative[240].

The boiled and mashed root, mixed with oil, has been used as a salve in the treatment of various complaints[257].

Other Uses

Basketry; Brush; Fibre; Soap; String; Varnish.

A fibre obtained from the leaves is used for making ropes, baskets and mats[169].

Narrow, split leaf strips have been used as sewing material for coiled plaques[257].

The leaves have been used in several types of basketry[257].

The leaf splints have been used as brushes to apply colour to pottery[257].

The leaves can be split and used as a temporary string[257].

The roots are rich in saponins and can be used as a soap substitute. They are crushed and then placed in water to form suds that are used in bathing and shampooing[257].

The juice from the plant has been used as a varnish[257].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. They can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[11].

A very ornamental plant[1], it is only hardy in the mildest areas of Britain tolerating temperatures down to about -10°c if in a suitable site[11, 200]. It requires greenhouse protection in most of the country[1].

Members of this genus seem to be immune to the predations of rabbits[233].

The flowers of most members of this genus can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush. This species, however, does not require the Yucca moth for pollination and will set fruit without hand pollination[11]. The flowers open at night[229] and are powerfully fragrant at this time[245].

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K].

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Scent

Flowers: Fresh

The flowers are powerfully fragrant at night[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca aloifolia*

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Yucca aloifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca aloifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Yucca angustissima

Common name:		Family:	Agavaceae
Author:	Engelm. ex Trev.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America.		
Habitat:	Desert areas in Arizona, 900 - 2100 metres.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Fine-leaf Yucca [B], Narrowleaf Yucca [P],
Epithets:	From a Dictionary of Botanical Epithets
	angustissima = narrowest;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 0.4m at a slow rate. It is hardy to zone 8. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - the immature fruit is cooked[85]. Baked in an oven[216]. A bitter taste, the bitterness is in the skin[85]. The fruit is about 6cm long and 2.5cm wide[200].

Flowers - raw or cooked. They are delicious raw, or can be dried, crushed and used as a flavouring[85].

Flowering stem - peeled, cooked and used like asparagus. The whitish inner portion is used[85].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Broom; Brush; Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[85].

The leaves are very fibrous and can be used as paint brushes[92] or as a broom or woven to make mats etc[85]. They are also used in basketry[216].

The roots are rich in saponins and can be used as a soap substitute[85, 216].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants can succeed in light shade[K]. They are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant, this species is also tolerant of damp weather[11].

Plants are not hardy in the colder areas of the country, they tolerate temperatures down to about -10° if in a suitable location[11, 200].

Closely allied to Y. glauca[11]. The plant has a thick prostrate rootstock[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

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References

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Yucca angustissima

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Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America.		
Habitat:	Desert areas in Arizona, 900 - 2100 metres.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - the immature fruit is cooked[85]. Baked in an oven[216]. A bitter taste, the bitterness is in the skin[85]. The fruit is about 6cm long and 2.5cm wide[200].

Flowers - raw or cooked. They are delicious raw, or can be dried, crushed and used as a flavouring[85].

Flowering stem - peeled, cooked and used like asparagus. The whitish inner portion is used[85].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Broom; Brush; Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[85].

The leaves are very fibrous and can be used as paint brushes[92] or as a broom or woven to make mats etc[85]. They are also used in basketry[216].

The roots are rich in saponins and can be used as a soap substitute[85, 216].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants can succeed in light shade[K]. They are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant, this species is also tolerant of damp weather[11].

Plants are not hardy in the colder areas of the country, they tolerate temperatures down to about

-10° if in a suitable location[11, 200].

Closely allied to Y. glauca[11]. The plant has a thick prostrate rootstock[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

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PFAF Web Pages

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Common name:		Family:	Agavaceae
Author:	Engelm. ex Trev.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America.		
Habitat:	Desert areas in Arizona, 900 - 2100 metres.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Fine-leaf Yucca [B], Narrowleaf Yucca [P],
Epithets:	From a Dictionary of Botanical Epithets
	angustissima = narrowest;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 0.4m at a slow rate. It is hardy to zone 8. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It

can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - the immature fruit is cooked[85]. Baked in an oven[216]. A bitter taste, the bitterness is in the skin[85]. The fruit is about 6cm long and 2.5cm wide[200].

Flowers - raw or cooked. They are delicious raw, or can be dried, crushed and used as a flavouring[85].

Flowering stem - peeled, cooked and used like asparagus. The whitish inner portion is used[85].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Broom; Brush; Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[85].

The leaves are very fibrous and can be used as paint brushes[92] or as a broom or woven to make mats etc[85]. They are also used in basketry[216].

The roots are rich in saponins and can be used as a soap substitute[85, 216].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants can succeed in light shade[K]. They are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant, this species is also tolerant of damp weather[11].

Plants are not hardy in the colder areas of the country, they tolerate temperatures down to about

-10° if in a suitable location[11, 200].

Closely allied to Y. glauca[11]. The plant has a thick prostrate rootstock[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Yucca+angustissima`

This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Yucca+angustissima`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca angustissima*

Subject:

Yucca angustissima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca angustissima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:40:59 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Yucca baccata

Common name:	Spanish bayonet	Family:	Agavaceae
Author:	Torr.	Botanical references:	200, 235
Synonyms:	Yucca circinata (Baker.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - Colorado to Texas, California and Mexico.		
Habitat:	Dry slopes usually on rocky or sandy soils.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Amole [S], Banana Yucca [S,B,P,DEN2,FEIS], Blue Yucca [H], Spanish Bayonnet [H], Wild Date [H], Yucca, Banana [S],
Epithets:	From a Dictionary of Botanical Epithets
	baccata = bearing berries;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database

	Mexico(Kickapoo)

Physical Characteristics

An evergreen shrub growing to 0.9m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Leaves; Seed; Stem.

Fully ripe fruit - raw, cooked or dried for winter use[1, 2, 3, 62, 92, 94, 257]. A staple food for several native North American Indian tribes, the fruits are large, fleshy, sweet and palatable[85, 92, 95, 183]. The ovoid fruit is about 17cm long and 7cm wide[200]. Considered to be a luxury by the native North American Indians[207], the fruits were often baked in ovens[216]. The cooked fruit can be formed into cakes and then dried for later use[257]. Large quantities of the fruit has caused diarrhoea in people who are not used to it[85]. The dried fruit can be dissolved in water to make a drink[257].

Flower buds - cooked[2, 62, 95, 183]. A soapy taste[85]. The older flowers are best[85], they are rich in sugar[94]. The flowers, harvested before the summer rains (which turn them bitter), have been used as a vegetable[257].

Flowering stems - cooked[257]. Harvested before the flowers open then roasted[257].

Seed - cooked. It can be roasted and then ground into a powder and boiled[62, 85].

The tender crowns of the plants have been roasted and eaten in times of food shortage[257].

The young leaves have been cooked as a flavouring in soups[257].

Medicinal Uses

Disclaimer

Antiemetic; Laxative.

An infusion of the pulverized leaves has been used as an antiemetic to prevent vomiting[257].

The fruits have been eaten raw as a laxative[257].

Other Uses

Basketry; Brush; Fibre; Hair; Needles; Soap; String; Waterproofing; Weaving.

A fibre obtained from the leaves is used for making ropes, baskets and mats[21, 46, 57, 85, 92, 94, 95]. The fibre can be braided into a good quality rope[257].

The leaves can be reduced into fibre and then made into cloth[257]. To obtain the fibre, the terminal spine and a section of the back of the leaf are removed and pounded to free the fibre from the fleshy portion of the leaf[257]. Another method of obtaining the fibre was to fold the leaves into sections about 10cm long. The leaves were then boiled with a small quantity of cedar ashes. When sufficiently cooked, the leaves were placed in a bowl or basket and cooled, then youths and young women would peel off the epidermis and chew the leaves, starting at one end and finishing at the other. After chewing the leaves, the fibres were separated, straightened out and hung to dry. When required for weaving, they would first be soaked in water to soften them[257].

The whole leaf is sometimes split into sections and then tied together by square knots to make a rope[92, 257].

The leaf can be used as a paint brush[92]. Leaf slivers are used, the end being pounded to reveal the fibres[257]. The leaves have also been used to make small brushes for pottery decoration[257].

The leaf is used in basket making[216, 257].

Small roots have been used in making baskets[257]. They have been used to produce a red pattern in baskets[257].

The leaves can be split and then woven into mats[257].

The leaves can be split and used as a temporary string[257]. The leaf fibre has been braided into ropes[257].

The terminal spines have been used as needles[257].

The dried leaves have been boiled with gum, hardened, ground into a powder then mixed with water and used to make baskets waterproof[257].

The roots are rich in saponins and can be used crushed and then soaked in water to release the suds for use as a soap[21, 85, 95, 216, 257]. It makes a good hair wash[85, 94, 257] and can also be used on the body and for washing clothes[257]. A soap can also be obtained from the leaves and stems[257].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when grown on poor sandy soils[200]. Prefers a hot dry position[166], disliking heavy rain[3]. Established plants are very drought resistant[11].

Only hardy in the milder areas of Britain[3, 200]. Another report says that plants are hardy to at least -30°c[164]. A plant at Kew (1992) has survived the last 3 winters outdoors[K]. This plant is still thriving in 1999, though it has not grown much and has not flowered[K]. Another plant is thriving in an open sunny position at Cambridge Botanical Gardens and must have experienced temperatures of at least -10°c, probably somewhat lower[K].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring[3]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Soap Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology

Deptarments' Tree Fact Sheets.

References for *yucca baccata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus

colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Yucca baccata

Common name:	Spanish bayonet	Family:	Agavaceae
Author:	Torr.	Botanical references:	200, 235
Synonyms:	Yucca circinata (Baker.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - Colorado to Texas, California and Mexico.		
Habitat:	Dry slopes usually on rocky or sandy soils.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Amole [S], Banana Yucca [S,B,P,DEN2,FEIS], Blue Yucca [H], Spanish Bayonnet [H], Wild Date [H], Yucca, Banana [S],
Epithets:	From a Dictionary of Botanical Epithets
	baccata = bearing berries;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Mexico(Kickapoo)

Physical Characteristics

An evergreen shrub growing to 0.9m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Leaves; Seed; Stem.

Fully ripe fruit - raw, cooked or dried for winter use[1, 2, 3, 62, 92, 94, 257]. A staple food for several native North American Indian tribes, the fruits are large, fleshy, sweet and palatable[85, 92, 95, 183]. The ovoid fruit is about 17cm long and 7cm wide[200]. Considered to be a luxury by the native North American Indians[207], the fruits were often baked in ovens[216]. The cooked fruit can be formed into cakes and then dried for later use[257]. Large quantities of the fruit has caused diarrhoea in people who are not used to it[85]. The dried fruit can be dissolved in water to make a drink[257].

Flower buds - cooked[2, 62, 95, 183]. A soapy taste[85]. The older flowers are best[85], they are rich in sugar[94]. The flowers, harvested before the summer rains (which turn them bitter), have been used as a vegetable[257].

Flowering stems - cooked[257]. Harvested before the flowers open then roasted[257].

Seed - cooked. It can be roasted and then ground into a powder and boiled[62, 85].

The tender crowns of the plants have been roasted and eaten in times of food shortage[257].

The young leaves have been cooked as a flavouring in soups[257].

Medicinal Uses

Disclaimer

Antiemetic; Laxative.

An infusion of the pulverized leaves has been used as an antiemetic to prevent vomiting[257].

The fruits have been eaten raw as a laxative[257].

Other Uses

Basketry; Brush; Fibre; Hair; Needles; Soap; String; Waterproofing; Weaving.

A fibre obtained from the leaves is used for making ropes, baskets and mats[21, 46, 57, 85, 92, 94, 95]. The fibre can be braided into a good quality rope[257].

The leaves can be reduced into fibre and then made into cloth[257]. To obtain the fibre, the terminal spine and a section of the back of the leaf are removed and pounded to free the fibre from the fleshy portion of the leaf[257]. Another method of obtaining the fibre was to fold the leaves into sections about 10cm long. The leaves were then boiled with a small quantity of cedar ashes. When sufficiently cooked, the leaves were placed in a bowl or basket and cooled, then youths and young women would peel off the epidermis and chew the leaves, starting at one end and finishing at the other. After chewing the leaves, the fibres were separated, straightened out and hung to dry. When required for weaving, they would first be soaked in water to soften them[257].

The whole leaf is sometimes split into sections and then tied together by square knots to make a rope[92, 257].

The leaf can be used as a paint brush[92]. Leaf slivers are used, the end being pounded to reveal the fibres[257]. The leaves have also been used to make small brushes for pottery decoration[257].

The leaf is used in basket making[216, 257].

Small roots have been used in making baskets[257]. They have been used to produce a red pattern in baskets[257].

The leaves can be split and then woven into mats[257].

The leaves can be split and used as a temporary string[257]. The leaf fibre has been braided into ropes[257].

The terminal spines have been used as needles[257].

The dried leaves have been boiled with gum, hardened, ground into a powder then mixed with water and used to make baskets waterproof[257].

The roots are rich in saponins and can be used crushed and then soaked in water to release the suds for use as a soap[21, 85, 95, 216, 257]. It makes a good hair wash[85, 94, 257] and can also be used on the body and for washing clothes[257]. A soap can also be obtained from the leaves and stems[257].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when grown on poor sandy soils[200]. Prefers a hot dry position[166], disliking heavy rain[3]. Established plants are very drought resistant[11].

Only hardy in the milder areas of Britain[3, 200]. Another report says that plants are hardy to at least -30°c[164]. A plant at Kew (1992) has survived the last 3 winters outdoors[K]. This plant is still thriving in 1999, though it has not grown much and has not flowered[K]. Another plant is thriving in an open sunny position at Cambridge Botanical Gardens and must have experienced temperatures of at least -10°c, probably somewhat lower[K].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring[3]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Soap Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for *yucca baccata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico

Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Yucca+baccata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Yucca+baccata`

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Plants For A Future: Database Search Results

Yucca baccata

Common name:	Spanish bayonet	Family:	Agavaceae
Author:	Torr.	Botanical references:	200, 235
Synonyms:	Yucca circinata (Baker.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - Colorado to Texas, California and Mexico.		
Habitat:	Dry slopes usually on rocky or sandy soils.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Amole [S], Banana Yucca [S,B,P,DEN2,FEIS], Blue Yucca [H], Spanish Bayonnet [H], Wild Date [H], Yucca, Banana [S],
Epithets:	From a Dictionary of Botanical Epithets
	baccata = bearing berries;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Mexico(Kickapoo)

Physical Characteristics

An evergreen shrub growing to 0.9m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Leaves; Seed; Stem.

Fully ripe fruit - raw, cooked or dried for winter use[1, 2, 3, 62, 92, 94, 257]. A staple food for several native North American Indian tribes, the fruits are large, fleshy, sweet and palatable[85, 92, 95, 183]. The ovoid fruit is about 17cm long and 7cm wide[200]. Considered to be a luxury by the native North American Indians[207], the fruits were often baked in ovens[216]. The cooked fruit can be formed into cakes and then dried for later use[257]. Large quantities of the fruit has caused diarrhoea in people who are not used to it[85]. The dried fruit can be dissolved in water to make a drink[257].

Flower buds - cooked[2, 62, 95, 183]. A soapy taste[85]. The older flowers are best[85], they are rich in sugar[94]. The flowers, harvested before the summer rains (which turn them bitter), have been used as a vegetable[257].

Flowering stems - cooked[257]. Harvested before the flowers open then roasted[257].

Seed - cooked. It can be roasted and then ground into a powder and boiled[62, 85].

The tender crowns of the plants have been roasted and eaten in times of food shortage[257].

The young leaves have been cooked as a flavouring in soups[257].

Medicinal Uses

Disclaimer

Antiemetic; Laxative.

An infusion of the pulverized leaves has been used as an antiemetic to prevent vomiting[257].

The fruits have been eaten raw as a laxative[257].

Other Uses

Basketry; Brush; Fibre; Hair; Needles; Soap; String; Waterproofing; Weaving.

A fibre obtained from the leaves is used for making ropes, baskets and mats[21, 46, 57, 85, 92, 94, 95]. The fibre can be braided into a good quality rope[257].

The leaves can be reduced into fibre and then made into cloth[257]. To obtain the fibre, the terminal spine and a section of the back of the leaf are removed and pounded to free the fibre from the fleshy portion of the leaf[257]. Another method of obtaining the fibre was to fold the leaves into sections about 10cm long. The leaves were then boiled with a small quantity of cedar ashes. When sufficiently cooked, the leaves were placed in a bowl or basket and cooled, then youths and young women would peel off the epidermis and chew the leaves, starting at one end and finishing at the other. After chewing the leaves, the fibres were separated, straightened out and hung to dry. When required for weaving, they would first be soaked in water to soften them[257].

The whole leaf is sometimes split into sections and then tied together by square knots to make a rope[92, 257].

The leaf can be used as a paint brush[92]. Leaf slivers are used, the end being pounded to reveal the fibres[257]. The leaves have also been used to make small brushes for pottery decoration[257].

The leaf is used in basket making[216, 257].

Small roots have been used in making baskets[257]. They have been used to produce a red pattern in baskets[257].

The leaves can be split and then woven into mats[257].

The leaves can be split and used as a temporary string[257]. The leaf fibre has been braided into ropes[257].

The terminal spines have been used as needles[257].

The dried leaves have been boiled with gum, hardened, ground into a powder then mixed with water and used to make baskets waterproof[257].

The roots are rich in saponins and can be used crushed and then soaked in water to release the suds for use as a soap[21, 85, 95, 216, 257]. It makes a good hair wash[85, 94, 257] and can also be used on the body and for washing clothes[257]. A soap can also be obtained from the leaves and stems[257].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when grown on poor sandy soils[200]. Prefers a hot dry position[166], disliking heavy rain[3]. Established plants are very drought resistant[11].

Only hardy in the milder areas of Britain[3, 200]. Another report says that plants are hardy to at least -30°c[164]. A plant at Kew (1992) has survived the last 3 winters outdoors[K]. This plant is still thriving in 1999, though it has not grown much and has not flowered[K]. Another plant is thriving in an open sunny position at Cambridge Botanical Gardens and must have experienced temperatures of at least -10°c, probably somewhat lower[K].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring[3]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca baccata*

Subject:

Yucca baccata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca baccata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Yucca brevifolia

Common name:	Joshua tree	Family:	Agavaceae
Author:	Engelm.	Botanical references:	200
Synonyms:	Yucca arborescens ((Torr.)Trel.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - California to Utah.		
Habitat:	Arid mesas and mountain slopes, usually at 650 - 2200 metres[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. arizonica[B,P] Y. baccata var. brevifolia[B,CPHOTO,CAL,CAL,P] Y. confinis[B,P] Y. thornberi[B,P] Y. treleasei[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Joshua Tree [FEIS,P,DEN2], Joshua-tree [H,B], Spanish Dagger [P],
Epithets:	From a Dictionary of Botanical Epithets
	brevifolia = short leaved;
Systematics:	From a UDSA Plants Database

	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 7. It is in leaf all year, in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Flowers; Fruit; Root; Seed; Seedpod.

Flowers - cooked[257]. The flower buds, before opening, can be parboiled in salt water to remove the bitterness, drained and then cooked again and served like cauliflower[183]. The opened flowers are rich in sugar and can be roasted and eaten as candy[183].

Fruit - cooked[257]. The fruits can be roasted then formed into cakes and dried for later use[257].

Root - raw, boiled or roasted[183].

Seed[183]. Gathered and eaten by the local Indians[82]. No further details are given, but it is probably ground into a powder and mixed with cornmeal or other flours and used for making bread, cakes etc.

Immature seedpod[257]. No more details given.

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Brush; Dye; Fibre; Soap; Weaving.

A fibre obtained from the leaves is used for making ropes, baskets, sandals, clothing and mats[82, 257].

The whole leaf can be woven into mats etc and it can also be used as a paint brush[82, 257].

The dark red core of the roots has been used as a pattern material in coiled baskets[257]. The core is split into strands, soaked and worked in with the coiling so that the colour is always on the outside[257].

Red and black dyes have been obtained from the roots[257].

The roots are rich in saponins and can be used as a soap substitute[21, 85]. It makes a good hair wash[85, 94].

Wood - light, soft, spongy, difficult to work[82]. Sometimes cut into thin layers and used as wrapping material, or manufactured into boxes and other small articles[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when they are grown on poor sandy soils[200]. Prefers a hot dry position[166], disliking heavy rain[3]. Established plants are very drought resistant[11].

The flowers of this species are malodorous[200].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K].. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring[3]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

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References for *Yucca baccata var. brevifolia* (a possible synonym).

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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Yucca brevifolia

Common name:	Joshua tree	Family:	Agavaceae
Author:	Engelm.	Botanical references:	200
Synonyms:	Yucca arborescens ((Torr.)Trel.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - California to Utah.		
Habitat:	Arid mesas and mountain slopes, usually at 650 - 2200 metres[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. arizonica[B,P] Y. baccata var. brevifolia[B,CPHOTO,CAL,CAL,P] Y. confinis[B,P] Y. thornberi[B,P] Y. treleasei[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Joshua Tree [FEIS,P,DEN2], Joshua-tree [H,B], Spanish Dagger [P],
Epithets:	From a Dictionary of Botanical Epithets
	brevifolia = short leaved;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 7. It is in leaf all year, in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Flowers; Fruit; Root; Seed; Seedpod.

Flowers - cooked[257]. The flower buds, before opening, can be parboiled in salt water to remove the bitterness, drained and then cooked again and served like cauliflower[183]. The opened flowers are rich in sugar and can be roasted and eaten as candy[183].

Fruit - cooked[257]. The fruits can be roasted then formed into cakes and dried for later use[257].

Root - raw, boiled or roasted[183].

Seed[183]. Gathered and eaten by the local Indians[82]. No further details are given, but it is probably ground into a powder and mixed with cornmeal or other flours and used for making bread, cakes etc.

Immature seedpod[257]. No more details given.

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Brush; Dye; Fibre; Soap; Weaving.

A fibre obtained from the leaves is used for making ropes, baskets, sandals, clothing and mats[82, 257].

The whole leaf can be woven into mats etc and it can also be used as a paint brush[82, 257].

The dark red core of the roots has been used as a pattern material in coiled baskets[257]. The core is split into strands, soaked and worked in with the coiling so that the colour is always on the outside[257].

Red and black dyes have been obtained from the roots[257].

The roots are rich in saponins and can be used as a soap substitute[21, 85]. It makes a good hair wash[85, 94].

Wood - light, soft, spongy, difficult to work[82]. Sometimes cut into thin layers and used as wrapping material, or manufactured into boxes and other small articles[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when they are grown on poor sandy soils[200]. Prefers a hot dry position[166], disliking heavy rain[3]. Established plants are very drought resistant[11].

The flowers of this species are malodorous[200].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K].. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring[3]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Yucca arborescens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Yucca baccata var. brevifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Plants For A Future: Database Search Results

Yucca brevifolia

Common name:	Joshua tree	Family:	Agavaceae
Author:	Engelm.	Botanical references:	200
Synonyms:	Yucca arborescens ((Torr.)Trel.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - California to Utah.		
Habitat:	Arid mesas and mountain slopes, usually at 650 - 2200 metres[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. arizonica[B,P] Y. baccata var. brevifolia[B,CPHOTO,CAL,CAL,P] Y. confinis[B,P] Y. thornberi[B,P] Y. treleasei[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	brevifolia = short leaved;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 7. It is in leaf all year, in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Flowers; Fruit; Root; Seed; Seedpod.

Flowers - cooked[257]. The flower buds, before opening, can be parboiled in salt water to remove the bitterness, drained and then cooked again and served like cauliflower[183]. The opened flowers are rich in sugar and can be roasted and eaten as candy[183].

Fruit - cooked[257]. The fruits can be roasted then formed into cakes and dried for later use[257].

Root - raw, boiled or roasted[183].

Seed[183]. Gathered and eaten by the local Indians[82]. No further details are given, but it is probably ground into a powder and mixed with cornmeal or other flours and used for making bread, cakes etc.

Immature seedpod[257]. No more details given.

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Brush; Dye; Fibre; Soap; Weaving.

A fibre obtained from the leaves is used for making ropes, baskets, sandals, clothing and mats[82, 257].

The whole leaf can be woven into mats etc and it can also be used as a paint brush[82, 257].

The dark red core of the roots has been used as a pattern material in coiled baskets[257]. The core is split into strands, soaked and worked in with the coiling so that the colour is always on the outside[257].

Red and black dyes have been obtained from the roots[257].

The roots are rich in saponins and can be used as a soap substitute[21, 85]. It makes a good hair wash[85, 94].

Wood - light, soft, spongy, difficult to work[82]. Sometimes cut into thin layers and used as wrapping material, or manufactured into boxes and other small articles[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when they are grown on poor sandy soils[200]. Prefers a hot dry position[166], disliking heavy rain[3]. Established plants are very drought resistant[11].

The flowers of this species are malodorous[200].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K].. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring[3]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

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Yucca brevifolia

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Optional web-link:

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Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Yucca brevifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Yucca constricta

Common name:		Family:	Agavaceae
Author:	Buckley.	Botanical references:	200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas to the Gulf of Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckley's Yucca [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	constricta = constricted; stricta = upright;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen perennial growing to 1.5m. It is hardy to zone 9. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. Delicious raw, they can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82, 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11, 200]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[200].

Plants are not very hardy in Britain, though they can succeed outdoors in the mildest areas of the country[200].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Yucca constricta

Common name:		Family:	Agavaceae
Author:	Buckley.	Botanical references:	200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas to the Gulf of Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckley's Yucca [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	constricta = constricted; stricta = upright;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen perennial growing to 1.5m. It is hardy to zone 9. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate

drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. Delicious raw, they can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82, 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11, 200]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[200].

Plants are not very hardy in Britain, though they can succeed outdoors in the mildest areas of the country[200].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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[169] **Buchanan. R.** *A Weavers Garden.*
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

Readers Comments

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Plants For A Future: Database Search Results

Yucca constricta

Common name:		Family:	Agavaceae
Author:	Buckley.	Botanical references:	200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas to the Gulf of Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckley's Yucca [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	constricta = constricted; stricta = upright;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen perennial growing to 1.5m. It is hardy to zone 9. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate

drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. Delicious raw, they can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82, 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11, 200]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[200].

Plants are not very hardy in Britain, though they can succeed outdoors in the mildest areas of the country[200].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca constricta*

Subject:

Yucca constricta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca constricta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

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Yucca elata

Common name:	Soap tree	Family:	Agavaceae
Author:	Engelm.	Botanical references:	82, 200
Synonyms:	Yucca radiosa (Trel.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas. Arizona, northern Mexico.		
Habitat:	Mesas, desert washes, plains and desert grasslands, and in deserts, normally between 500 - 2000 metres[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. angustifolia var. radiosa[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Palmella [H], Palmilla [S], Soap Tree [E], Soaptree [H], Soaptree Yucca [S,DEN2,FEIS,B,P], Soapweed [H], Yucca, Soaptree [S],
Epithets:	From a Dictionary of Botanical Epithets
	elata = high;
Systematics:	From a UDSA Plants Database

	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database Us

Physical Characteristics

An evergreen shrub growing to 2m by 0.5m at a slow rate. It is hardy to zone 9. It is in leaf all year, in flower from July to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Fruit; Seedpod; Stem.

Fruit - raw or cooked[177, 181, 183]. The fruit is a dry capsule up to 5cm long and 36mm wide[229].

Seedpods[181]. We are not sure how this differs from the fruit but one report mentions edible fruit as well as an edible seedpod.

Flowers - raw or cooked[177, 181, 257]. Delicious raw, they can also be dried, crushed and used as a flavouring[164]. The flowers are boiled and eaten as a vegetable[257]. Used in preserves[183].

Flowering stem - cooked and used like asparagus[164]. The stems were slow baked for several hours, then dried and broken into pieces to store. They would be soaked in water to soften them before being eaten[257].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Fibre; Soap.

The leaves, or a fibre obtained from them, is used for making ropes and mats[82, 169, 181, 257].

The leaves can be woven into shallow or tray baskets[257]. The leaf has also been used as a binding element in coarse coiled basketry[257].

The roots have a red core and have been used to ornament baskets[257].

The roots are rich in saponins and can be used as a soap substitute for washing the hair, body, clothes etc[82, 181, 257]. Also used as a foaming agent in beer[183]. A slick soap-like fluid in the trunk has been used as a substitute for soap[229].

Wood - light, soft and spongy[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11, 200]. Plants are hardier when grown on poor sandy soils[200]. Established plants develop a very deep, branching root system and are very drought resistant[82, 200].

Plants are not very hardy in Britain, requiring greenhouse protection according to some reports[1, 200] whilst another report says that they are hardy to about -30°c[164].

A slow-growing and fairly long-lived plant, some specimens may be 300 years old[229]. In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[181] **Pesman. M. W.** *Meet Flora Mexicana.* Dale S. King. Arizona. 1962
Very readable flora but rather lacking botanically. A few notes on useful plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225

A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Yucca elata

Common name:	Soap tree	Family:	Agavaceae
Author:	Engelm.	Botanical references:	82, 200
Synonyms:	Yucca radiosa (Trel.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas. Arizona, northern Mexico.		
Habitat:	Mesas, desert washes, plains and desert grasslands, and in deserts, normally between 500 - 2000 metres[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. angustifolia var. radiosa[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Palmella [H], Palmilla [S], Soap Tree [E], Soaptree [H], Soaptree Yucca [S,DEN2,FEIS,B,P], Soapweed [H], Yucca, Soaptree [S],
Epithets:	From a Dictionary of Botanical Epithets
	elata = high;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

An evergreen shrub growing to 2m by 0.5m at a slow rate. It is hardy to zone 9. It is in leaf all year, in flower from July to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Fruit; Seedpod; Stem.

Fruit - raw or cooked[177, 181, 183]. The fruit is a dry capsule up to 5cm long and 36mm wide[229].

Seedpods[181]. We are not sure how this differs from the fruit but one report mentions edible fruit as well as an edible seedpod.

Flowers - raw or cooked[177, 181, 257]. Delicious raw, they can also be dried, crushed and used as a flavouring[164]. The flowers are boiled and eaten as a vegetable[257]. Used in preserves[183].

Flowering stem - cooked and used like asparagus[164]. The stems were slow baked for several hours, then dried and broken into pieces to store. They would be soaked in water to soften them before being eaten[257].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Fibre; Soap.

The leaves, or a fibre obtained from them, is used for making ropes and mats[82, 169, 181, 257].

The leaves can be woven into shallow or tray baskets[257]. The leaf has also been used as a binding element in coarse coiled basketry[257].

The roots have a red core and have been used to ornament baskets[257].

The roots are rich in saponins and can be used as a soap substitute for washing the hair, body, clothes etc[82, 181, 257]. Also used as a foaming agent in beer[183]. A slick soap-like fluid in the trunk has been used as a substitute for soap[229].

Wood - light, soft and spongy[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11, 200]. Plants are hardier when grown on poor sandy soils[200]. Established plants develop a very deep, branching root system and are very drought resistant[82, 200].

Plants are not very hardy in Britain, requiring greenhouse protection according to some reports[1, 200] whilst another report says that they are hardy to about -30°c[164].

A slow-growing and fairly long-lived plant, some specimens may be 300 years old[229]. In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[181] **Pesman. M. W.** *Meet Flora Mexicana.* Dale S. King. Arizona. 1962
Very readable flora but rather lacking botanically. A few notes on useful plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225

A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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Plants For A Future: Database Search Results

Yucca elata

Common name:	Soap tree	Family:	Agavaceae
Author:	Engelm.	Botanical references:	82, 200
Synonyms:	Yucca radiosa (Trel.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas. Arizona, northern Mexico.		
Habitat:	Mesas, desert washes, plains and desert grasslands, and in deserts, normally between 500 - 2000 metres[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. angustifolia var. radiosa[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Palmella [H], Palmilla [S], Soap Tree [E], Soaptree [H], Soaptree Yucca [S,DEN2,FEIS,B,P], Soapweed [H], Yucca, Soaptree [S],
Epithets:	From a Dictionary of Botanical Epithets
	elata = high;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

An evergreen shrub growing to 2m by 0.5m at a slow rate. It is hardy to zone 9. It is in leaf all year, in flower from July to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Fruit; Seedpod; Stem.

Fruit - raw or cooked[177, 181, 183]. The fruit is a dry capsule up to 5cm long and 36mm wide[229].

Seedpods[181]. We are not sure how this differs from the fruit but one report mentions edible fruit as well as an edible seedpod.

Flowers - raw or cooked[177, 181, 257]. Delicious raw, they can also be dried, crushed and used as a flavouring[164]. The flowers are boiled and eaten as a vegetable[257]. Used in preserves[183].

Flowering stem - cooked and used like asparagus[164]. The stems were slow baked for several hours, then dried and broken into pieces to store. They would be soaked in water to soften them before being eaten[257].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Fibre; Soap.

The leaves, or a fibre obtained from them, is used for making ropes and mats[82, 169, 181, 257].

The leaves can be woven into shallow or tray baskets[257]. The leaf has also been used as a binding element in coarse coiled basketry[257].

The roots have a red core and have been used to ornament baskets[257].

The roots are rich in saponins and can be used as a soap substitute for washing the hair, body, clothes etc[82, 181, 257]. Also used as a foaming agent in beer[183]. A slick soap-like fluid in the trunk has been used as a substitute for soap[229].

Wood - light, soft and spongy[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11, 200]. Plants are hardier when grown on poor sandy soils[200]. Established plants develop a very deep, branching root system and are very drought resistant[82, 200].

Plants are not very hardy in Britain, requiring greenhouse protection according to some reports[1, 200] whilst another report says that they are hardy to about -30°c[164].

A slow-growing and fairly long-lived plant, some specimens may be 300 years old[229]. In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca elata*

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Plant Information

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca elata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Yucca filamentosa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Spoonleaf yucca	Family:	Agavaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Yucca concava (Haw.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - Southern New Jersey to Florida. Naturalized in S. Europe.		
Habitat:	Sand dunes, waste ground and pine forests along the coastal plain[11, 43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. filamentosa var. concava[B,P] Y. filamentosa var. smalliana[B,P] Y. flaccida[B,P] Y. recurvifolia[B] Y. smalliana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adam' Needle [E], Adam's Needle [H,P], Adam's-needle [B], Bear's Thread [H], Soap Root [H], Virjinya Avizesi [E], Yucca [H],
Epithets:	From a Dictionary of Botanical Epithets
	filamentosa = many filaments;

Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Egypt; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 1.2m by 0.6m at a medium rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked[2, 46, 61]. Large and fleshy[161, 183]. The fruit is often dried for winter use[1].

Flowers - raw or dried, crushed and used as a flavouring[159, 164, 177]. A tasty addition to the salad bowl[183]. We have found the flowers to be fairly bitter[K].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

Poultice; Salve.

A poultice made from the roots is used in the treatment of sores, skin diseases and sprains[222, 257].

Other Uses

Brush; Fibre; Paper; Soap.

A fibre obtained from the leaves is used for making ropes, cloth, baskets and mats[21, 46, 61, 82, 169]. The fibre can also be used for making paper[189] The leaves are harvested in summer, they are scraped to remove the outer skin and are then soaked in water for 24 hours prior to cooking. The fibres are cooked for 2 hours with lye and then beaten in a ball mill for 4 hours. They make a cream paper[189].

The leaves are used as paint brushes[92].

The roots are rich in saponins and can be used as a soap substitute for washing the hair, body and clothing[46, 61, 82, 257].

Cultivation details

A very easily grown plant, it thrives in most soils but prefers a sandy loam and full exposure to the south[11]. Dislikes peaty or chalky soils[111]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[190].

Plants are hardy to at least -15°c when grown in a well-drained soil.

This species is one of the toughest members of the genus and once established is capable of surviving, and even thriving, despite considerable neglect. Plants growing in dense weed competition on our Cornwall trial grounds have managed to spread and even flower[K].

A very ornamental and free flowering species[1], there are some named varieties[182].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in about four years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Soap Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Yucca filamentosa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Spoonleaf yucca	Family:	Agavaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Yucca concava (Haw.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - Southern New Jersey to Florida. Naturalized in S. Europe.		
Habitat:	Sand dunes, waste ground and pine forests along the coastal plain[11, 43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Y. filamentosa var. concava[B,P] Y. filamentosa var. smalliana[B,P] Y. flaccida[B,P] Y. recurvifolia[B] Y. smalliana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Adam' Needle [E], Adam's Needle [H,P], Adam's-needle [B], Bear's Thread [H], Soap Root [H], Virjinya Avizesi [E], Yucca [H],
Epithets:	From a Dictionary of Botanical Epithets filamentosa = many filaments;
Systematics:	From a UDSA Plants Database Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database Egypt; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 1.2m by 0.6m at a medium rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked[2, 46, 61]. Large and fleshy[161, 183]. The fruit is often dried for winter use[1].

Flowers - raw or dried, crushed and used as a flavouring[159, 164, 177]. A tasty addition to the salad bowl[183]. We have found the flowers to be fairly bitter[K].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

Poultice; Salve.

A poultice made from the roots is used in the treatment of sores, skin diseases and sprains[222, 257].

Other Uses

Brush; Fibre; Paper; Soap.

A fibre obtained from the leaves is used for making ropes, cloth, baskets and mats[21, 46, 61, 82, 169]. The fibre can also be used for making paper[189] The leaves are harvested in summer, they are scraped to remove the outer skin and are then soaked in water for 24 hours prior to cooking.

The fibres are cooked for 2 hours with lye and then beaten in a ball mill for 4 hours. They make a cream paper[189].

The leaves are used as paint brushes[92].

The roots are rich in saponins and can be used as a soap substitute for washing the hair, body and clothing[46, 61, 82, 257].

Cultivation details

A very easily grown plant, it thrives in most soils but prefers a sandy loam and full exposure to the south[11]. Dislikes peaty or chalky soils[111]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[190].

Plants are hardy to at least -15°c when grown in a well-drained soil.

This species is one of the toughest members of the genus and once established is capable of surviving, and even thriving, despite considerable neglect. Plants growing in dense weed competition on our Cornwall trial grounds have managed to spread and even flower[K].

A very ornamental and free flowering species[1], there are some named varieties[182].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in about four years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Soap Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
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Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Yucca concava (Haw.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - Southern New Jersey to Florida. Naturalized in S. Europe.		
Habitat:	Sand dunes, waste ground and pine forests along the coastal plain[11, 43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	Order: Liliales . Century-plant family
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Physical Characteristics

An evergreen shrub growing to 1.2m by 0.6m at a medium rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

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Cultivated Beds.

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Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Cultivars

"

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Subject:

Yucca filamentosa

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca filamentosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Yucca filifera

Common name:		Family:	Agavaceae
Author:	Chadaub.	Botanical references:	11, 72, 200
Synonyms:	Yucca meldensis (Engelm.), Yucca flaccida (Haw.), Yucca filamentosa flaccida ((Haw.)Engelm.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America.		
Habitat:	Dry or stony soils, Blue ridge and Appalachian provinces, Alabama to North Carolina[72].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. concava[B,P] Y. filamentosa[B,E,G,H,HORTIPLEX,P] Y. filamentosa var. concava[B,P] Y. filamentosa var. smalliana[B,P] Y. recurvifolia[B] Y. smalliana[B,P]
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Epithets:	From a Dictionary of Botanical Epithets

	filifer = bearing threads; filifera = bearing threads;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Egypt; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 10m. It is hardy to zone 7. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. Delicious raw, they can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

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A fibre obtained from the leaves is used for making ropes, baskets and mats[82, 169].

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Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[200].

Hardy to at least -5°c according to one report[200], whilst another says that it is hardy to about -30c[164].

The leaves can be damaged by strong winds[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in about four years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Yucca filifera*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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URL for Site:	http://
Details:	

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca filifera*

Subject:

Yucca filifera

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca filifera

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

Your Email Address:

Date: Sun May 16 01:41:52 2004

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Plants For A Future: Database Search Results

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Yucca glauca

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Soapweed	Family:	Agavaceae
Author:	Nuttall.	Botanical references:	11, 60, 200
Synonyms:	Yucca angustifolia (Pursh.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Central N. America - Iowa to Texas and N. Dakota.		
Habitat:	Dry plains and sandy hills[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. glauca var. glauca[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adam's Needle [H], Plains Yucca [H], Small Soapweed [E,P], Soapweed [H], Soapweed Yucca [FEIS,P,B], Spanish Bayonet [H],
Epithets:	From a Dictionary of Botanical Epithets
	glauca = glaucous;
Systematics:	From a UDSA Plants Database

	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian); Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 1.5m by 0.5m at a slow rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Leaves; Seedpod; Stem.

Fruit - raw or cooked[2, 46, 61, 161, 257]. Dry, with a bitter skin[85]. The fruit can be baked and either eaten immediately or formed into cakes and dried for later use[257]. The raw fruit can be dried for winter use[1, 257]. The immature fruits are peeled, boiled and served with seasonings[183]. The soaked, cooked fruit can be made into a syrup and used like hot chocolate[257]. The fruit is up to 8cm long and 12mm wide[2].

Flowers and flower buds - raw or cooked[61, 85]. Delicious raw, they can also be dried, crushed and used as a flavouring[164]. A delicious addition to the salad bowl, or used as a potherb[183].

Flowering stem - raw or cooked[62, 85, 161, 257]. It can be cooked and used like asparagus[164]. The white inner portion of the stem is eaten[183].

Seedpods - cooked. They can be boiled or roasted and used as a vegetable[257].

The plant crowns have been roasted and eaten in times of food shortage[257].

Medicinal Uses

Disclaimer

Antidandruff; Contraceptive; Oxytoxic; Poultice; Skin.

A soap made from the crushed roots is said to be an effective treatment for dandruff and skin irritations[213, 222].

A cold infusion of the root has been used to expedite the delivery of a child or the placenta[257]. The root is poulticed and applied to inflammations, wounds, bleeding cuts, sprains etc[222, 257].

The rotten root can be crushed and boiled to make suds. Drinking these suds is said to induce the menopause in women, thereby rendering then infertile[257].

Other Uses

Basketry; Broom; Brush; Fibre; Hair; Needles; Soap; String; Weaving.

Both the leaves, and a fibre obtained from the leaves, can be used for making cloth, ropes and mats[21, 57, 61, 82, 85, 169, 257].

The leaves can be split and used to make baskets[257].

The leaves are used as paint brushes and brooms[46, 85, 92].

The leaves can be split and used as a temporary tying material[257].

The sharp points of the leaves have been used as needles[257].

The roots are rich in saponins and can be used as a soap substitute[82, 85, 95].

The soap obtained from the root makes a good hair shampoo[95], it is said to be effective against dandruff and also to act as a tonic to stop the hair falling out[213, 257]. The shampoo also rids the body of lice and other parasites[257].

Cultivation details

Thrives in most soils but prefers a sandy loam and full exposure to the south[11]. Dislikes chalky or peaty soils[111]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Prefers a hot dry position and a poor soil[166]. Established plants are very drought tolerant[200].

Hardy to at least -30°c according to one report[164], whilst another one says that it is hardy to about -15°c[200].

A very ornamental plant[1], it rarely flowers unless in a dry sandy soil[42]. The scent of the flowers is most pronounced at night[245].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush[1].

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Scent

Flowers: Fresh

> The scent of the flowers is most pronounced at night[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Soap Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
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References

[K] **Ken Fern**
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[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

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[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico

Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
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Useful wild plants of America. A pocket guide.

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A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

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A good book on plants that you didn't know could be grown outdoors in Britain.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Yucca+glauca`

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Plants For A Future: Database Search Results

Yucca glauca

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Soapweed	Family:	Agavaceae
Author:	Nuttall.	Botanical references:	11, 60, 200
Synonyms:	Yucca angustifolia (Pursh.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Central N. America - Iowa to Texas and N. Dakota.		
Habitat:	Dry plains and sandy hills[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. glauca var. glauca[B,P]
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Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian); Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 1.5m by 0.5m at a slow rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Leaves; Seedpod; Stem.

Fruit - raw or cooked[2, 46, 61, 161, 257]. Dry, with a bitter skin[85]. The fruit can be baked and either eaten immediately or formed into cakes and dried for later use[257]. The raw fruit can be dried for winter use[1, 257]. The immature fruits are peeled, boiled and served with seasonings[183]. The soaked, cooked fruit can be made into a syrup and used like hot chocolate[257]. The fruit is up to 8cm long and 12mm wide[2].

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The plant crowns have been roasted and eaten in times of food shortage[257].

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Disclaimer

Antidandruff; Contraceptive; Oxytoxic; Poultice; Skin.

A soap made from the crushed roots is said to be an effective treatment for dandruff and skin irritations[213, 222].

A cold infusion of the root has been used to expedite the delivery of a child or the placenta[257]. The root is poulticed and applied to inflammations, wounds, bleeding cuts, sprains etc[222, 257].

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Other Uses

Basketry; Broom; Brush; Fibre; Hair; Needles; Soap; String; Weaving.

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The sharp points of the leaves have been used as needles[257].

The roots are rich in saponins and can be used as a soap substitute[82, 85, 95].

The soap obtained from the root makes a good hair shampoo[95], it is said to be effective against dandruff and also to act as a tonic to stop the hair falling out[213, 257]. The shampoo also rids the body of lice and other parasites[257].

Cultivation details

Thrives in most soils but prefers a sandy loam and full exposure to the south[11]. Dislikes chalky or peaty soils[111]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Prefers a hot dry position and a poor soil[166]. Established plants are very drought tolerant[200].

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A very ornamental plant[1], it rarely flowers unless in a dry sandy soil[42]. The scent of the flowers is most pronounced at night[245].

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Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

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Scent

Flowers: Fresh

> The scent of the flowers is most pronounced at night[245].

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[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN

0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Yucca glauca

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Soapweed	Family:	Agavaceae
Author:	Nuttall.	Botanical references:	11, 60, 200
Synonyms:	Yucca angustifolia (Pursh.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Central N. America - Iowa to Texas and N. Dakota.		
Habitat:	Dry plains and sandy hills[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. glauca var. glauca[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adam's Needle [H], Plains Yucca [H], Small Soapweed [E,P], Soapweed [H], Soapweed Yucca [FEIS,P,B], Spanish Bayonet [H],
Epithets:	From a Dictionary of Botanical Epithets
	glauca = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian); Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 1.5m by 0.5m at a slow rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Leaves; Seedpod; Stem.

Fruit - raw or cooked[2, 46, 61, 161, 257]. Dry, with a bitter skin[85]. The fruit can be baked and either eaten immediately or formed into cakes and dried for later use[257]. The raw fruit can be dried for winter use[1, 257]. The immature fruits are peeled, boiled and served with seasonings[183]. The soaked, cooked fruit can be made into a syrup and used like hot chocolate[257]. The fruit is up to 8cm long and 12mm wide[2].

Flowers and flower buds - raw or cooked[61, 85]. Delicious raw, they can also be dried, crushed and used as a flavouring[164]. A delicious addition to the salad bowl, or used as a potherb[183].

Flowering stem - raw or cooked[62, 85, 161, 257]. It can be cooked and used like asparagus[164]. The white inner portion of the stem is eaten[183].

Seedpods - cooked. They can be boiled or roasted and used as a vegetable[257].

The plant crowns have been roasted and eaten in times of food shortage[257].

Medicinal Uses

Disclaimer

Antidandruff; Contraceptive; Oxytoxic; Poultice; Skin.

A soap made from the crushed roots is said to be an effective treatment for dandruff and skin irritations[213, 222].

A cold infusion of the root has been used to expedite the delivery of a child or the placenta[257]. The root is poulticed and applied to inflammations, wounds, bleeding cuts, sprains etc[222, 257].

The rotten root can be crushed and boiled to make suds. Drinking these suds is said to induce the menopause in women, thereby rendering then infertile[257].

Other Uses

Basketry; Broom; Brush; Fibre; Hair; Needles; Soap; String; Weaving.

Both the leaves, and a fibre obtained from the leaves, can be used for making cloth, ropes and mats[21, 57, 61, 82, 85, 169, 257].

The leaves can be split and used to make baskets[257].

The leaves are used as paint brushes and brooms[46, 85, 92].

The leaves can be split and used as a temporary tying material[257].

The sharp points of the leaves have been used as needles[257].

The roots are rich in saponins and can be used as a soap substitute[82, 85, 95].

The soap obtained from the root makes a good hair shampoo[95], it is said to be effective against dandruff and also to act as a tonic to stop the hair falling out[213, 257]. The shampoo also rids the body of lice and other parasites[257].

Cultivation details

Thrives in most soils but prefers a sandy loam and full exposure to the south[11]. Dislikes chalky or peaty soils[111]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Prefers a hot dry position and a poor soil[166]. Established plants are very drought tolerant[200].

Hardy to at least -30°c according to one report[164], whilst another one says that it is hardy to about -15°c[200].

A very ornamental plant[1], it rarely flowers unless in a dry sandy soil[42]. The scent of the flowers is most pronounced at night[245].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush[1].

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Scent

Flowers: Fresh

> The scent of the flowers is most pronounced at night[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca glauca*

Subject:

Yucca glauca

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca glauca

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Yucca gloriosa

Common name:	Spanish dagger	Family:	Agavaceae
Author:	L.	Botanical references:	11, 72, 200
Synonyms:	Yucca ellacombei (Hort. ex Baker.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - North Carolina to Florida. Naturalized in S. Europe[50].		
Habitat:	Sand dunes and the borders of beaches of the seacoast[82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Moundlily Yucca [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	gloriosa = glorious;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Costa Rica; India(Santal)

Physical Characteristics

An evergreen shrub growing to 1.8m by 1.2m . It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Root; Stem.

Fruit - raw or cooked. The fruit is up to 10cm long and 26mm wide[229]. The fruit is very rarely produced in the wild[82].

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Root - cooked. It can be dried, ground into a powder and made into a bread[105].

Medicinal Uses

Disclaimer

Detergent; Purgative.

The fruit is purgative[240].

The root is detergent[240].

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making cloth, ropes, baskets and mats[46, 61, 82,

169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[190]. Judging by its native habitat, this plant should tolerate maritime exposure[K].

Very cold hardy, tolerating temperatures down to at least -15°c[200], or to -25°c according to another report[187], but plants are subject to injury and decay by winter damp and snow[11].

A very ornamental plant[1], there are some named varieties[187]. Plants do not flower every year, requiring hot summers to initiate flowering[190]. The flowers are produced in the autumn and are often damaged by early frosts[233]. The scent of the flowers is most pronounced at night[245].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Cuttings can be made of the tops of old plants. These normally root quite easily in the growing season[11].

Scent

Flowers: Fresh

The scent of the flowers is most pronounced at night[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: ***Yucca gloriosa***

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Soap Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[72] **Small.** *Manual of the Southeastern Flora.*
Getting rather dated now, it covers Southeastern N. America. No pictures, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

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Yucca gloriosa

Common name:	Spanish dagger	Family:	Agavaceae
Author:	L.	Botanical references:	11, 72, 200
Synonyms:	Yucca ellacombei (Hort. ex Baker.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - North Carolina to Florida. Naturalized in S. Europe[50].		
Habitat:	Sand dunes and the borders of beaches of the seacoast[82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Moundlily Yucca [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	gloriosa = glorious;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Costa Rica; India(Santal)

Physical Characteristics

An evergreen shrub growing to 1.8m by 1.2m . It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Root; Stem.

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Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[190]. Judging by its native habitat, this plant should tolerate maritime exposure[K].

Very cold hardy, tolerating temperatures down to at least -15°c[200], or to -25°c according to another report[187], but plants are subject to injury and decay by winter damp and snow[11].

A very ornamental plant[1], there are some named varieties[187]. Plants do not flower every year, requiring hot summers to initiate flowering[190]. The flowers are produced in the autumn and are often damaged by early frosts[233]. The scent of the flowers is most pronounced at night[245].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Cuttings can be made of the tops of old plants. These normally root quite easily in the growing season[11].

Scent

Flowers: Fresh

The scent of the flowers is most pronounced at night[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Yucca gloriosa*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Soap Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[72] **Small.** *Manual of the Southeastern Flora.*
Getting rather dated now, it covers Southeastern N. America. No pictures, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Yucca+gloriosa`
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Plants For A Future: Database Search Results

Yucca gloriosa

Common name:	Spanish dagger	Family:	Agavaceae
Author:	L.	Botanical references:	11, 72, 200
Synonyms:	Yucca ellacombei (Hort. ex Baker.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - North Carolina to Florida. Naturalized in S. Europe[50].		
Habitat:	Sand dunes and the borders of beaches of the seacoast[82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Moundlily Yucca [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	gloriosa = glorious;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Costa Rica; India(Santal)

Physical Characteristics

An evergreen shrub growing to 1.8m by 1.2m . It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Root; Stem.

Fruit - raw or cooked. The fruit is up to 10cm long and 26mm wide[229]. The fruit is very rarely produced in the wild[82].

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Root - cooked. It can be dried, ground into a powder and made into a bread[105].

Medicinal Uses

Disclaimer

Detergent; Purgative.

The fruit is purgative[240].

The root is detergent[240].

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making cloth, ropes, baskets and mats[46, 61, 82, 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant[190]. Judging by its native habitat, this plant should tolerate maritime exposure[K].

Very cold hardy, tolerating temperatures down to at least -15°c[200], or to -25°c according to another report[187], but plants are subject to injury and decay by winter damp and snow[11].

A very ornamental plant[1], there are some named varieties[187]. Plants do not flower every year, requiring hot summers to initiate flowering[190]. The flowers are produced in the autumn and are often damaged by early frosts[233]. The scent of the flowers is most pronounced at night[245].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Cuttings can be made of the tops of old plants. These normally root quite easily in the growing season[11].

Scent

Flowers: Fresh

The scent of the flowers is most pronounced at night[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Yucca gloriosa*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca gloriosa*

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Yucca gloriosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca gloriosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Yucca harrimaniae

Common name:	Spanish bayonet	Family:	Agavaceae
Author:	Trelease.	Botanical references:	11, 200, 228
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Central N. America - Utah to Colorado.		
Habitat:	High plains grasslands to open coniferous woods[228].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Spanish Bayonet [P], Spanish-bayonet [B],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 0.4m at a slow rate. It is hardy to zone 7. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Stem.

Fruit - the immature fruit is cooked. A bitter taste, but most of the bitterness is in the skin[85].

Flowers - raw or cooked[85]. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - peeled, cooked and used like asparagus[164]. The whitish inner portion is eaten[85].

Medicinal Uses

Disclaimer

None known

Other Uses

Broom; Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82, 85, 169]. The leaves themselves can be used as paint brushes[92], brooms or woven to make mats etc[85].

The roots are rich in saponins and can be used as a soap substitute[85].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Requires a sunny position[11]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant, this species is also tolerant of cool damp weather[11].

Hardy to at least -30°c[164].

Closely allied to Y. glauca[1].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring[111]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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References

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Notes from observations, tasting etc at Plants For A Future and on field trips.

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Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926

A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

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A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Author:	Trelease.	Botanical references:	11, 200, 228
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Range:	Central N. America - Utah to Colorado.		
Habitat:	High plains grasslands to open coniferous woods[228].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 0.4m at a slow rate. It is hardy to zone 7. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Stem.

Fruit - the immature fruit is cooked. A bitter taste, but most of the bitterness is in the skin[85].

Flowers - raw or cooked[85]. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - peeled, cooked and used like asparagus[164]. The whitish inner portion is eaten[85].

Medicinal Uses

Disclaimer

None known

Other Uses

Broom; Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82, 85, 169]. The leaves themselves can be used as paint brushes[92], brooms or woven to make mats etc[85].

The roots are rich in saponins and can be used as a soap substitute[85].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Requires a sunny position[11]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant, this species is also tolerant of cool damp weather[11].

Hardy to at least -30°c[164].

Closely allied to Y. glauca[1].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary.

This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division of suckers in late spring[111]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Yucca+harrimaniae`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Yucca+harrimaniae`

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Plants For A Future: Database Search Results

Yucca harrimaniae

Common name:	Spanish bayonet	Family:	Agavaceae
Author:	Trelease.	Botanical references:	11, 200, 228
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Central N. America - Utah to Colorado.		
Habitat:	High plains grasslands to open coniferous woods[228].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Spanish Bayonet [P], Spanish-bayonet [B],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 0.4m at a slow rate. It is hardy to zone 7. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Stem.

Fruit - the immature fruit is cooked. A bitter taste, but most of the bitterness is in the skin[85].

Flowers - raw or cooked[85]. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - peeled, cooked and used like asparagus[164]. The whitish inner portion is eaten[85].

Medicinal Uses

Disclaimer

None known

Other Uses

Broom; Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82, 85, 169]. The leaves themselves can be used as paint brushes[92], brooms or woven to make mats etc[85].

The roots are rich in saponins and can be used as a soap substitute[85].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Requires a sunny position[11]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought resistant, this species is also tolerant of cool damp weather[11].

Hardy to at least -30°c[164].

Closely allied to Y. glauca[1].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary.

This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

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Division of suckers in late spring[111]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca harrimaniae*

Subject:

Yucca harrimaniae

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca harrimaniae

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:42:21 2004

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Yucca recurvifolia

Common name:		Family:	Agavaceae
Author:	Salisb.	Botanical references:	11, 72, 200
Synonyms:	Yucca recurva (Haw.), Yucca pendula (Groenl.), Yucca gloriosa recurvifolia ((Salisb.)Engelm.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - Georgia to Missouri and Louisiana.		
Habitat:	Dunes on coastal plains[72].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Y. concava[B,P] Y. filamentosa[B,E,G,H,HORTIPLEX,P] Y. filamentosa var. concava[B,P] Y. filamentosa var. smalliana[B,P] Y. flaccida[B,P] Y. smalliana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Adam' Needle [E], Adam's Needle [H,P], Adam's-needle [B], Bear's Thread [H], Curveleaf Yucca [P], Soap Root [H], Virjinya Avizesi [E], Yucca [H],
Systematics:	From a UDSA Plants Database

	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Egypt; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 2.5m by 1m . It is hardy to zone 8. It is in leaf all year, in flower from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164]. A crisp crunchy texture, the flowers are very substantial and need to be well chewed. They have a slightly bitter flavour[K].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82. 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[190].

Hardy to at least -15°c[187, 200], this species is the most easily cultivated of the Yuccas, resisting snow, damp and atmospheric pollution[11].

A very ornamental plant[1], there are some named varieties[182].

Closely related to Y. gloriosa[1], and possibly a sterile hybrid[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in

a greenhouse until established[78].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Yucca filamentosa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[72] **Small.** *Manual of the Southeastern Flora.*
Getting rather dated now, it covers Southeastern N. America. No pictures, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
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[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

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Range:	South-eastern N. America - Georgia to Missouri and Louisiana.		
Habitat:	Dunes on coastal plains[72].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. concava[B,P] Y. filamentosa[B,E,G,H,HORTIPLEX,P] Y. filamentosa var. concava[B,P] Y. filamentosa var. smalliana[B,P] Y. flaccida[B,P] Y. smalliana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adam' Needle [E], Adam's Needle [H,P], Adam's-needle [B], Bear's Thread [H], Curveleaf Yucca [P], Soap Root [H], Virjinya Avizesi [E], Yucca [H],
Systematics:	From a UDSA Plants Database
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Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

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Flowers; Fruit; Stem.

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Medicinal Uses

Disclaimer

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Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82. 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[190].

Hardy to at least -15°c[187, 200], this species is the most easily cultivated of the Yuccas, resisting snow, damp and atmospheric pollution[11].

A very ornamental plant[1], there are some named varieties[182].

Closely related to Y. gloriosa[1], and possibly a sterile hybrid[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Yucca filamentosa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[72] **Small.** *Manual of the Southeastern Flora.*
Getting rather dated now, it covers Southeastern N. America. No pictures, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
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[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

Readers Comments

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Plants For A Future: Database Search Results

Yucca recurvifolia

Common name:		Family:	Agavaceae
Author:	Salisb.	Botanical references:	11, 72, 200
Synonyms:	Yucca recurva (Haw.), Yucca pendula (Groenl.), Yucca gloriosa recurvifolia ((Salisb.)Engelm.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-eastern N. America - Georgia to Missouri and Louisiana.		
Habitat:	Dunes on coastal plains[72].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. concava[B,P] Y. filamentosa[B,E,G,H,HORTIPLEX,P] Y. filamentosa var. concava[B,P] Y. filamentosa var. smalliana[B,P] Y. flaccida[B,P] Y. smalliana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adam' Needle [E], Adam's Needle [H,P], Adam's-needle [B], Bear's Thread [H], Curveleaf Yucca [P], Soap Root [H], Virjinya Avizesi [E], Yucca [H],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Egypt; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 2.5m by 1m . It is hardy to zone 8. It is in leaf all year, in flower from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164]. A crisp crunchy texture, the flowers are very substantial and need to be well chewed. They have a slightly bitter flavour[K].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82. 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[190].

Hardy to at least -15°c[187, 200], this species is the most easily cultivated of the Yuccas, resisting snow, damp and atmospheric pollution[11].

A very ornamental plant[1], there are some named varieties[182].

Closely related to Y. gloriosa[1], and possibly a sterile hybrid[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca recurvifolia*

Subject:

Yucca recurvifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca recurvifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Yucca rupicola

Common name:	Twisted-leaf yucca	Family:	Agavaceae
Author:	Scheele.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. pallida[B,P] Y. tortifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Texas Yucca [P,B], Twist-leaf Yucca [B], Twistleaf Yucca [P],
Epithets:	From a Dictionary of Botanical Epithets
	rupicola = living near rocks;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 0.6m. It is hardy to zone 9. It is in leaf all year, in flower in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82. 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. It can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[200].

Hardy to at least -5°c[200], plants have succeeded outdoors in the drier areas of Britain[182]. It flowers regularly outdoors in Scotland[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Yucca pallida* (a possible synonym).

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

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Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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If you know of another site which has good information about this plant fill in the following the details here.

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Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Yucca rupicola

Common name:	Twisted-leaf yucca	Family:	Agavaceae
Author:	Scheele.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. pallida[B,P] Y. tortifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Texas Yucca [P,B], Twist-leaf Yucca [B], Twistleaf Yucca [P],
Epithets:	From a Dictionary of Botanical Epithets
	rupicola = living near rocks;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 0.6m. It is hardy to zone 9. It is in leaf all year, in flower in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil

and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82. 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. It can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[200].

Hardy to at least -5°c[200], plants have succeeded outdoors in the drier areas of Britain[182]. It flowers regularly outdoors in Scotland[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth.

This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

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[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

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Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Yucca+rupicola`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Yucca+rupicola`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Yucca rupicola

Common name:	Twisted-leaf yucca	Family:	Agavaceae
Author:	Scheele.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - Texas.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. pallida[B,P] Y. tortifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Texas Yucca [P,B], Twist-leaf Yucca [B], Twistleaf Yucca [P],
Epithets:	From a Dictionary of Botanical Epithets
	rupicola = living near rocks;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 0.6m. It is hardy to zone 9. It is in leaf all year, in flower in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil

and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82. 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. It can succeed in light shade[K]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[200].

Hardy to at least -5°c[200], plants have succeeded outdoors in the drier areas of Britain[182]. It flowers regularly outdoors in Scotland[11].

In the plants native environment, its flowers can only be pollinated by a certain species of moth.

This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca rupicola*

Subject:

Yucca rupicola

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca rupicola

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Yucca schidigera

Common name:	Mojave yucca	Family:	Agavaceae
Author:	Roezl.	Botanical references:	200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - California, Arizona and Nevada.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. californica[B,P] Y. macrocarpa[B,P] Y. mohavensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mojave Yucca [P,FEIS,DEN2,B],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen tree growing to 4.5m. It is hardy to zone 8. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Stem.

Young flowering stems - chopped and cooked like asparagus[164] or baked like a sweet potato[183].

Fruit - raw or cooked[257]. Baked then dried and ground into a powder then used in soups etc or made into a drink[257]. The fruit can also be used to make jellies[183].

Flowers - raw or cooked[257]. They are delicious raw, and can also be dried, crushed and used as a flavouring[164] and can also be used in jellies[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Brush; Fibre; Soap.

The leaves, or a fibre obtained from them, has been used for making ropes, baskets and mats[82, 169].

The strong fibres have been used to make shoes and sandals[257].

The leaves have been used to make brushes for body painting and for painting pots etc[257].

The roots are rich in saponins and can be used as a soap substitute[82, 257].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[200].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

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The Palm Center

> Distribution: UK
> How to order: Online ordering only
> Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
> Last Updated: Oct 03
> **Item: *Yucca schidigera***

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Yucca+schidigera`
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Plants For A Future: Database Search Results

Yucca schidigera

Common name:	Mojave yucca	Family:	Agavaceae
Author:	Roezl.	Botanical references:	200
Synonyms:			
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - California, Arizona and Nevada.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. californica[B,P] Y. macrocarpa[B,P] Y. mohavensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mojave Yucca [P,FEIS,DEN2,B],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen tree growing to 4.5m. It is hardy to zone 8. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Stem.

Young flowering stems - chopped and cooked like asparagus[164] or baked like a sweet potato[183].

Fruit - raw or cooked[257]. Baked then dried and ground into a powder then used in soups etc or made into a drink[257]. The fruit can also be used to make jellies[183].

Flowers - raw or cooked[257]. They are delicious raw, and can also be dried, crushed and used as a flavouring[164] and can also be used in jellies[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Brush; Fibre; Soap.

The leaves, or a fibre obtained from them, has been used for making ropes, baskets and mats[82, 169].

The strong fibres have been used to make shoes and sandals[257].

The leaves have been used to make brushes for body painting and for painting pots etc[257].

The roots are rich in saponins and can be used as a soap substitute[82, 257].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[200].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary.

This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Yucca schidigera*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca schidigera*

Subject:

Yucca schidigera

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca schidigera

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:42:47 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Yucca smalliana

Common name:	Adam's needle	Family:	Agavaceae
Author:	Fern.	Botanical references:	11, 43, 200
Synonyms:	Yucca filamentosa (Small. non L.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - S. California to Florida.		
Habitat:	Sands, old fields and bluffs[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. concava[B,P] Y. filamentosa var. concava[B,P] Y. filamentosa var. smalliana[B,P] Y. flaccida[B,P] Y. recurvifolia[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adam' Needle [E], Adam's Needle [H,P], Adam's-needle [B], Bear's Thread [H], Soap Root [H], Virjinya Avizesi [E], Yucca [H],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Egypt; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 1.2m by 1m . It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82. 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Can succeed in light shade. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[200].

Not very hardy outdoors in Britain, though it should succeed outdoors in the milder areas of the country[200].

This species was formerly included in Y. filamentosa and at least some of the plants grown under that name should belong here[11, 233]. It looks more like Y. glauca[233].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Yucca filamentosa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

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[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990

Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Yucca smalliana

Common name:	Adam's needle	Family:	Agavaceae
Author:	Fern.	Botanical references:	11, 43, 200
Synonyms:	Yucca filamentosa (Small. non L.)		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Southern N. America - S. California to Florida.		
Habitat:	Sands, old fields and bluffs[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Egypt; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 1.2m by 1m . It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Hand. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

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Medicinal Uses

Disclaimer

None known

Other Uses

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Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

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Range:	Southern N. America - S. California to Florida.		
Habitat:	Sands, old fields and bluffs[43].		
Plants For A Future Rating (1-5):	2		

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Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Fruit; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked. They are delicious raw, and can also be dried, crushed and used as a flavouring[164].

Flowering stem - cooked and used like asparagus[164].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[82. 169].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Can succeed in light shade. Plants are hardier when grown on poor sandy soils[200]. Established plants are very drought tolerant[200].

Not very hardy outdoors in Britain, though it should succeed outdoors in the milder areas of the country[200].

This species was formerly included in Y. filamentosa and at least some of the plants grown under that name should belong here[11, 233]. It looks more like Y. glauca[233].

In the plants native environment, its flowers can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush.

Individual crowns are monocarpic, dying after flowering[233]. However, the crown will usually produce a number of sideshoots before it dies and these will grow on to flower in later years[233].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in a greenhouse until established[78].

Division in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Yucca+smalliana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Yucca+smalliana`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yucca smalliana*

Subject:

Yucca smalliana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca smalliana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Yucca whipplei

Common name:	Our Lord's candle	Family:	Agavaceae
Author:	Torr.	Botanical references:	11, 200
Synonyms:	Yucca funifera (K.Koch.), Hesperoyucca whipplei ((Torr.)Trel.), Hesperoyucca funifera		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - S. California, Mexico.		
Habitat:	Dry, grassy and often stony slopes to 1200 metres[84].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. californica[B,P] Y. filifera[HORTIPLEX] Y. graminifolia[B,P] Y. hesperoyucca[H] Y. newberryi[B,P] Y. nitida[B,P] Y. whipplei ssp. intermedia[B,P] Y. whipplei ssp. parishii[B,P] Y. whipplei ssp. percursa[B,P] Y. whipplei var. graminifolia[B,P] Y. whipplei var. intermedia[B,P] Y. whipplei var. parishii[B,P] Y. whipplei var. percursa[B,P] Y. whipplei var. whipplei[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chaparral Yucca [P], Our Lord's Candle [FEIS], Our-lord's-candle [B], Spanish Bayonet [H],

Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 2m by 1m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Seed; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked[46, 61, 84]. They are delicious raw, and can also be dried, crushed and used as a flavouring[84, 164]. Young flowers have been parboiled and eaten, whilst older flowers have been boiled in three lots of water before being eaten[257]. This suggests the flowers are quite bitter[K].

Flowering stem - raw or cooked[161]. It is best used when fully grown, but before the flower buds expand[95]. It can be peeled, cut into sections then cooked and used like asparagus[95, 164]. The roasted stems have been dried, ground into a powder then mixed with water to make cakes[257].

Seed - cooked. It can be ground into a powder or cooked and used as a gruel[46, 61, 161].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[61, 82]. It is fine and white[92].

The leaves are used as paint brushes[92].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Requires a sunny position[11]. Prefers a hot dry position[166], strongly disliking winter wet[11]. Established plants are very drought tolerant[200]. Plants are hardier when grown on poor sandy soils[200].

Plants are hardy to at least -5°c[200] and tolerate short periods down to -10°c[187]. They grow well in the warmer maritime areas of Britain but need protection from winter rains[182]. Plants have survived to flowering at Kew and at Bodnant in N. Wales[187].

Cultivated as a fibre plant in Mexico[61].

A very ornamental plant[1], it requires late summer and autumn warmth to initiate flowering[11]. The flowers are sweetly scented[187].

Usually monocarpic, living for a number of years without flowering and dying after it does flower[11, 164]. Plants do produce suckers, however, and can be propagated by this means[78]. The flowers of most members of this genus can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush. This species, however, is self-fertile and does not require the Yucca moth for pollination, setting fruit without hand pollination[11].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

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Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Scent

Flowers: Fresh

> The flowers are sweetly scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Soap Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Yucca filifera* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Yucca whipplei var. whipplei* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References

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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good

details on habitats, some details on plant uses. Not really for the casual reader.

[84] **Coyle. J. and Roberts. N. C.** *A Field Guide to the Common and Interesting Plants of Baja California.* Natural History Publishing Co. 1975
A very readable pocket flora with good illustrations, it gives quite a few plant uses.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Yucca whipplei

Common name:	Our Lord's candle	Family:	Agavaceae
Author:	Torr.	Botanical references:	11, 200
Synonyms:	Yucca funifera (K.Koch.), Hesperoyucca whipplei ((Torr.)Trel.), Hesperoyucca funifera		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - S. California, Mexico.		
Habitat:	Dry, grassy and often stony slopes to 1200 metres[84].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. californica[B,P] Y. filifera[HORTIPLEX] Y. graminifolia[B,P] Y. hesperoyucca[H] Y. newberryi[B,P] Y. nitida[B,P] Y. whipplei ssp. intermedia[B,P] Y. whipplei ssp. parishii[B,P] Y. whipplei ssp. percursa[B,P] Y. whipplei var. graminifolia[B,P] Y. whipplei var. intermedia[B,P] Y. whipplei var. parishii[B,P] Y. whipplei var. percursa[B,P] Y. whipplei var. whipplei[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chaparral Yucca [P], Our Lord's Candle [FEIS], Our-lord's-candle [B], Spanish Bayonet [H],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 2m by 1m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Seed; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked[46, 61, 84]. They are delicious raw, and can also be dried, crushed and used as a flavouring[84, 164]. Young flowers have been parboiled and eaten, whilst older flowers have been boiled in three lots of water before being eaten[257]. This suggests the flowers are quite bitter[K].

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Seed - cooked. It can be ground into a powder or cooked and used as a gruel[46, 61, 161].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[61, 82]. It is fine and white[92].

The leaves are used as paint brushes[92].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Requires a sunny position[11]. Prefers a hot dry position[166], strongly disliking winter wet[11]. Established plants are very drought tolerant[200]. Plants are hardier when grown on poor sandy soils[200].

Plants are hardy to at least -5°c[200] and tolerate short periods down to -10°c[187]. They grow well in the warmer maritime areas of Britain but need protection from winter rains[182]. Plants have survived to flowering at Kew and at Bodnant in N. Wales[187].

Cultivated as a fibre plant in Mexico[61].

A very ornamental plant[1], it requires late summer and autumn warmth to initiate flowering[11]. The flowers are sweetly scented[187].

Usually monocarpic, living for a number of years without flowering and dying after it does flower[11, 164]. Plants do produce suckers, however, and can be propagated by this means[78]. The flowers of most members of this genus can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush. This species, however, is self-fertile and does not require the Yucca moth for pollination, setting fruit without hand pollination[11].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in

a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Scent

Flowers: Fresh

The flowers are sweetly scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

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References for *Yucca filifera* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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[84] **Coyle. J. and Roberts. N. C.** *A Field Guide to the Common and Interesting Plants of Baja California.* Natural History Publishing Co. 1975
A very readable pocket flora with good illustrations, it gives quite a few plant uses.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2

A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Yucca whipplei

Common name:	Our Lord's candle	Family:	Agavaceae
Author:	Torr.	Botanical references:	11, 200
Synonyms:	Yucca funifera (K.Koch.), Hesperoyucca whipplei ((Torr.)Trel.), Hesperoyucca funifera		
Known Hazards:	The roots contain saponins[222]. Whilst saponins are quite toxic to people, they are poorly absorbed by the body and so tend to pass straight through. They are also destroyed by prolonged heat, such as slow baking in an oven. Saponins are found in many common foods such as beans[K]. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	South-western N. America - S. California, Mexico.		
Habitat:	Dry, grassy and often stony slopes to 1200 metres[84].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Y. californica[B,P] Y. filifera[HORTIPLEX] Y. graminifolia[B,P] Y. hesperoyucca[H] Y. newberryi[B,P] Y. nitida[B,P] Y. whipplei ssp. intermedia[B,P] Y. whipplei ssp. parishii[B,P] Y. whipplei ssp. percursa[B,P] Y. whipplei var. graminifolia[B,P] Y. whipplei var. intermedia[B,P] Y. whipplei var. parishii[B,P] Y. whipplei var. percursa[B,P] Y. whipplei var. whipplei[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chaparral Yucca [P], Our Lord's Candle [FEIS], Our-lord's-candle [B], Spanish Bayonet [H],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family

Physical Characteristics

An evergreen shrub growing to 2m by 1m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Flowers; Fruit; Seed; Stem.

Fruit - raw or cooked.

Flowers - raw or cooked[46, 61, 84]. They are delicious raw, and can also be dried, crushed and used as a flavouring[84, 164]. Young flowers have been parboiled and eaten, whilst older flowers have been boiled in three lots of water before being eaten[257]. This suggests the flowers are quite bitter[K].

Flowering stem - raw or cooked[161]. It is best used when fully grown, but before the flower buds expand[95]. It can be peeled, cut into sections then cooked and used like asparagus[95, 164]. The roasted stems have been dried, ground into a powder then mixed with water to make cakes[257].

Seed - cooked. It can be ground into a powder or cooked and used as a gruel[46, 61, 161].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Soap.

A fibre obtained from the leaves is used for making ropes, baskets and mats[61, 82]. It is fine and white[92].

The leaves are used as paint brushes[92].

The roots are rich in saponins and can be used as a soap substitute[82].

Cultivation details

Thrives in any soil but prefers a sandy loam and full exposure to the south[11]. Requires a sunny position[11]. Prefers a hot dry position[166], strongly disliking winter wet[11]. Established plants are very drought tolerant[200]. Plants are hardier when grown on poor sandy soils[200].

Plants are hardy to at least -5°c[200] and tolerate short periods down to -10°c[187]. They grow well in the warmer maritime areas of Britain but need protection from winter rains[182]. Plants have survived to flowering at Kew and at Bodnant in N. Wales[187].

Cultivated as a fibre plant in Mexico[61].

A very ornamental plant[1], it requires late summer and autumn warmth to initiate flowering[11]. The flowers are sweetly scented[187].

Usually monocarpic, living for a number of years without flowering and dying after it does flower[11, 164]. Plants do produce suckers, however, and can be propagated by this means[78]. The flowers of most members of this genus can only be pollinated by a certain species of moth. This moth cannot live in Britain and, if fruit and seed is required, hand pollination is necessary. This can be quite easily and successfully done using something like a small paint brush. This species, however, is self-fertile and does not require the Yucca moth for pollination, setting fruit without hand pollination[11].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus seem to be immune to the predations of rabbits[233]

Propagation

Seed - sow spring in a greenhouse. Pre-soaking the seed for 24 hours in warm water may reduce the germination time. It usually germinates within 1 - 12 months if kept at a temperature of 20°c. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for at least their first two winters. Plant them out into their permanent positions in early summer and consider giving them some winter protection for at least their first winter outdoors - a simple pane of glass is usually sufficient[K]. Seed is not produced in Britain unless the flowers are hand pollinated.

Root cuttings in late winter or early spring. Lift in April/May and remove small buds from base of stem and rhizomes. Dip in dry wood ashes to stop any bleeding and plant in a sandy soil in pots in

a greenhouse until established[78].

Division of suckers in late spring. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the following spring.

Scent

Flowers: Fresh

The flowers are sweetly scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Yucca whipplei*

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Yucca whipplei

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yucca whipplei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Yushania anceps

Common name:	Ringal	Family:	Gramineae
Author:	(Mitford.) Yi.	Botanical references:	11, 200
Synonyms:	Arundinaria jaunsarensis (Gamble.), Arundinaria anceps (Mitford.)		
Known Hazards:	None known		
Range:	E. Asia - N.W. Himalayas		
Habitat:	Found at heights of 3000 metres[25].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

An evergreen bamboo growing to 4.5m. It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Hedge; Plant support.

Canes are used as plant supports and in basketry, they must be properly ripened[25, 158, 195].

The plant makes an attractive hedge or screen, eventually becoming very dense[195].

Cultivation details

Prefers an open loam of fair quality[200] and a position sheltered from cold drying winds[11]. Succeeds on peaty soils. Requires abundant moisture and plenty of organic matter in the soil[1, 11]. Grows well in light woodland[122].

A very ornamental plant[11], it often loses its leaves in winter but is very hardy in Britain[25]. Another report says that it is only hardy in the milder areas of Britain whilst yet another says that it tolerates temperatures down to about -20°c.

The rhizome is running and can be invasive[11, 25, 122]. It is fairly easy to control, however, because the new shoots are brittle and easily broken off of the plant. New shoots are produced from late May[25].

This species is notably resistant to honey fungus[200].

Plants often flower in Britain, sometimes continuously over a number of years, they are not monocarpic and often produce viable seed[122]. Plants can be badly weakened by flowering but they usually recover, however they are likely to be killed if they are given artificial NPK fertilizers at this time[122].

Propagation

Seed - surface sow as soon as it is ripe in a greenhouse at about 20°c. Do not allow the compost to dry out. Germination usually takes place fairly quickly so long as the seed is of good quality, though it can take 3 - 6 months. Grow on in a lightly shaded place in the greenhouse until the seedlings are large enough to plant out, which could take a few years. Seed is rarely available.

Division in late spring[25]. Best done as the new shoots first appear above ground[25]. Take divisions with at least three canes in the clump, trying to cause as little root disturbance to the main plant as possible. Grow them on in light shade in a greenhouse in pots of a high fertility sandy medium. Mist the foliage regularly until plants are established. Plant them out into their permanent positions when a good root system has developed, which can take a year or more[200].

Basal cane cuttings[25].

Cultivars

'Pitt White'

> Can grow up to 15cm in a day, the new shoots are produced from late May from a running rootstock. The plant is described from a clone growing at Pitt White in Devon.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

> Distribution: UK
> How to order: Online ordering only
> Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
> Last Updated: Oct 03
> **Item: *Yushania anceps***

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Author:	(Mitford.) Yi.	Botanical references:	11, 200
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Known Hazards:	None known		
Range:	E. Asia - N.W. Himalayas		
Habitat:	Found at heights of 3000 metres[25].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

An evergreen bamboo growing to 4.5m. It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

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Edible Uses

None known

Medicinal Uses

Disclaimer

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Other Uses

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Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Yushania anceps*

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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Hedge; Plant support.

Canes are used as plant supports and in basketry, they must be properly ripened[25, 158, 195].

The plant makes an attractive hedge or screen, eventually becoming very dense[195].

Cultivation details

Prefers an open loam of fair quality[200] and a position sheltered from cold drying winds[11]. Succeeds on peaty soils. Requires abundant moisture and plenty of organic matter in the soil[1, 11]. Grows well in light woodland[122].

A very ornamental plant[11], it often loses its leaves in winter but is very hardy in Britain[25]. Another report says that it is only hardy in the milder areas of Britain whilst yet another says that it tolerates temperatures down to about -20°c.

The rhizome is running and can be invasive[11, 25, 122]. It is fairly easy to control, however, because the new shoots are brittle and easily broken off of the plant. New shoots are produced from late May[25].

This species is notably resistant to honey fungus[200].

Plants often flower in Britain, sometimes continuously over a number of years, they are not monocarpic and often produce viable seed[122]. Plants can be badly weakened by flowering but they usually recover, however they are likely to be killed if they are given artificial NPK fertilizers at this time[122].

Propagation

Seed - surface sow as soon as it is ripe in a greenhouse at about 20°c. Do not allow the compost to dry out. Germination usually takes place fairly quickly so long as the seed is of good quality, though it can take 3 - 6 months. Grow on in a lightly shaded place in the greenhouse until the seedlings are large enough to plant out, which could take a few years. Seed is rarely available.

Division in late spring[25]. Best done as the new shoots first appear above ground[25]. Take divisions with at least three canes in the clump, trying to cause as little root disturbance to the main plant as possible. Grow them on in light shade in a greenhouse in pots of a high fertility sandy medium. Mist the foliage regularly until plants are established. Plant them out into their permanent positions when a good root system has developed, which can take a year or more[200].

Basal cane cuttings[25].

Cultivars

'Pitt White'

Can grow up to 15cm in a day, the new shoots are produced from late May from a running rootstock. The plant is described from a clone growing at Pitt White in Devon.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Yushania anceps*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Yushania anceps*

Subject:

Yushania anceps

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Yushania anceps

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Yushania maling

Common name:		Family:	Gramineae
Author:	(Gamble.) Stapleton.	Botanical references:	200
Synonyms:	Arundinaria racemosa (Auct. non Munro.)		
Known Hazards:	None known		
Range:	E. Asia - N.E. Himalayas.		
Habitat:	Temperate forests and open grazing areas, 1600 - 3000 metres[220].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

An evergreen bamboo growing to 3m. It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Weaving.

The canes are used to in house construction and for matting. When growing vigorously, the canes can be used for weaving baskets or making fencing, more usually though the growth is smaller and is used for making brushes and straws[220].

Cultivation details

Prefers an open loam of fair quality[200] and a position sheltered from cold drying winds[11]. Succeeds on peaty soils. Requires abundant moisture and plenty of organic matter in the soil[1, 11]. Grows well in light woodland[122].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -5°c and is probably best grown under protection[200]. A plant is growing well at Trebah gardens in Cornwall, where it was 5 metres tall with new canes 30mm in diameter in 195[K].

The rhizome is running and can be invasive[11, 122]. It is fairly easy to control, however, because the new shoots are brittle and easily broken off of the plant. New shoots are produced from late May.

This species is notably resistant to honey fungus[200].

Plants only flower at intervals of many years. When they do come into flower most of the plants energies are directed into producing seed and consequently the plant is severely weakened. They sometimes die after flowering, but if left alone they will usually recover though they will look very poorly for a few years. If fed with artificial NPK fertilizers at this time the plants are more likely to die[122].

Propagation

Seed - surface sow as soon as it is ripe in a greenhouse at about 20°c. Do not allow the compost to dry out. Germination usually takes place fairly quickly so long as the seed is of good quality, though it can take 3 - 6 months. Grow on in a lightly shaded place in the greenhouse until the seedlings are large enough to plant out, which could take a few years. Seed is rarely available.

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Basal cane cuttings[25].

Suppliers

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Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Arundinaria racemosa* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

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References

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An excellllent little booklet that looks in some detail at the native bamboos of Nepal, including looking at their uses.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Range:	E. Asia - N.E. Himalayas.		
Habitat:	Temperate forests and open grazing areas, 1600 - 3000 metres[220].		
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Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

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Medicinal Uses

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Yushania maling

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Details of Location and growing conditions:

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Xanthium commune

Common name:		Family:	Compositae
Author:	Britton.	Botanical references:	43
Synonyms:	Xanthium italicum (Moretti.)		
Known Hazards:	Poisonous[65, 76]. Most members of this genus are toxic to grazing animals and are usually avoided by them[222]. The seed also contains toxins[222].		
Range:	Eastern N. America - southwards from Quebec and Saskatchewan.		
Habitat:	Low ground, stream banks, waste places, cultivated land etc[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. acerosum[B,P] X. californicum[B,P] X. californicum var. rotundifolium[B,P] X. campestre[B,P] X. canadense[B,G,P] X. cavanillesii[B,P] X. cenchroides[B,P] X. echinatum[B,P] X. glanduliferum[B,P] X. macounii[B,P] X. oligacanthum[B,P] X. oviforme[B,P] X. pensylvanicum[B,P] X. saccharatum[B,P] X. speciosum[B,P] X. strumarium ssp. italicum[B,P] X. strumarium var. canadense[B,,G,P] X. strumarium var. oviforme[B,P] X. strumarium var. pensylvanicum[B,P] X. varians[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Abrojo [E], Canada Cockleburr [P],

Epithets:	From a Dictionary of Botanical Epithets commune = common;
Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Argentina
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Iowa, Minnesota, New South Wales, Western Australia, Tasmaina, Northen Territory (Aust).

Physical Characteristics

Annual growing to 1.5m. . It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

Seed.

Seed[161]. It is dried, then ground into a powder and mixed with cereal flours when making bread, biscuits etc[161]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it is likely to succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

An easily grown plant, it succeeds in most soils but requires a sunny position.

Plants often self sow.

Propagation

Seed - sow spring in situ. The seed requires plenty of moisture in order to germinate.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Xanthium italicum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Xanthium strumarium var. canadense* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN

0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Name of Site:

URL for Site: http://

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Plants For A Future: Database Search Results

Xanthium commune

Common name:		Family:	Compositae
Author:	Britton.	Botanical references:	43
Synonyms:	Xanthium italicum (Moretti.)		
Known Hazards:	Poisonous[65, 76]. Most members of this genus are toxic to grazing animals and are usually avoided by them[222]. The seed also contains toxins[222].		
Range:	Eastern N. America - southwards from Quebec and Saskatchewan.		
Habitat:	Low ground, stream banks, waste places, cultivated land etc[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. acerosum[B,P] X. californicum[B,P] X. californicum var. rotundifolium[B,P] X. campestre[B,P] X. canadense[B,G,P] X. cavanillesii[B,P] X. cenchroides[B,P] X. echinatum[B,P] X. glanduliferum[B,P] X. macounii[B,P] X. oligacanthum[B,P] X. oviforme[B,P] X. pensylvanicum[B,P] X. saccharatum[B,P] X. speciosum[B,P] X. strumarium ssp. italicum[B,P] X. strumarium var. canadense[B,,G,P] X. strumarium var. oviforme[B,P] X. strumarium var. pensylvanicum[B,P] X. varians[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Abrojo [E], Canada Cockleburr [P],
Epithets:	From a Dictionary of Botanical Epithets
	commune = common;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Other Range Info:	From the Ethnobotany Database Argentina
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Iowa, Minnesota, New South Wales, Western Australia, Tasmaina, Northen Territory (Aust).

Physical Characteristics

Annual growing to 1.5m. . It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

Seed.

Seed[161]. It is dried, then ground into a powder and mixed with cereal flours when making bread, biscuits etc[161]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it is likely to succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

An easily grown plant, it succeeds in most soils but requires a sunny position.

Plants often self sow.

Propagation

Seed - sow spring in situ. The seed requires plenty of moisture in order to germinate.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Xanthium italicum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Xanthium strumarium var. canadense* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

Readers Comments

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Plants For A Future: Database Search Results

Xanthium commune

Common name:		Family:	Compositae
Author:	Britton.	Botanical references:	43
Synonyms:	Xanthium italicum (Moretti.)		
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Range:	Eastern N. America - southwards from Quebec and Saskatchewan.		
Habitat:	Low ground, stream banks, waste places, cultivated land etc[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. acerosum[B,P] X. californicum[B,P] X. californicum var. rotundifolium[B,P] X. campestre[B,P] X. canadense[B,G,P] X. cavanillesii[B,P] X. cenchroides[B,P] X. echinatum[B,P] X. glanduliferum[B,P] X. macounii[B,P] X. oligacanthum[B,P] X. oviforme[B,P] X. pensylvanicum[B,P] X. saccharatum[B,P] X. speciosum[B,P] X. strumarium ssp. italicum[B,P] X. strumarium var. canadense[B,,G,P] X. strumarium var. oviforme[B,P] X. strumarium var. pensylvanicum[B,P] X. varians[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Abrojo [E], Canada Cockleburr [P],
Epithets:	From a Dictionary of Botanical Epithets
	commune = common;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Other Range Info:	From the Ethnobotany Database
	Argentina
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota, New South Wales, Western Australia, Tasmaina, Northen Territory (Aust).

Physical Characteristics

Annual growing to 1.5m. . It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

Seed.

Seed[161]. It is dried, then ground into a powder and mixed with cereal flours when making bread, biscuits etc[161]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it is likely to succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

An easily grown plant, it succeeds in most soils but requires a sunny position.

Plants often self sow.

Propagation

Seed - sow spring in situ. The seed requires plenty of moisture in order to germinate.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Xanthium commune*

Subject:

Xanthium commune

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xanthium commune

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Xanthium spinosum

Common name:	Spiny cocklebur	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	Poisonous[65, 76]. Most members of this genus are toxic to grazing animals and are usually avoided by them[222]. The seed also contains toxins[222].		
Range:	S. America. A locally established casual in Britain[17].		
Habitat:	Naturalized in waste ground in N. America[235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Acanthoxanthium spinosum[B,P] X. spinosum var. inerme[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cachurera Menor [E], Cepa Caballo [E], Cepa De Caballo [E], Clotweed [E], Cocklebur [H], Espinho De Carneiro [E], Pitrak [E], Spiny Clot Burr [H], Spiny Clotbur, Cadillos [S], Spiny Cocklebur [L], Spiny Cockleburr [P,B], Stekende Stekelnoot [D],
Epithets:	From a Dictionary of Botanical Epithets
	spinosum = spiny;
Systematics:	From a UDSA Plants Database

	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; Brazil; India; Spain; Turkey; Uruguay; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Oregon, Washington, Victoria, New South Wales, South Australia, Western Australia, Tasmaina, Queensland, Northen Territory (Aust).

Physical Characteristics

Annual growing to 0.5m. It is hardy to zone 7. It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emetic; Miscellany; Styptic.

The whole plant is an active styptic for both local and general application[4]. It is said to be a valuable and sure specific in the treatment of hydrophobia[4]. The plant is also diaphoretic, diuretic and sedative[61].

An infusion of the root has been used as an emetic[257].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils but requires a sunny position.

Plants often self sow.

Propagation

Seed - sow spring in situ. The seed requires plenty of moisture in order to germinate.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

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A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Habitat:	Naturalized in waste ground in N. America[235].		
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Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Oregon, Washington, Victoria, New South Wales, South Australia, Western Australia, Tasmaina, Queensland, Northen Territory (Aust).

Physical Characteristics

Annual growing to 0.5m. It is hardy to zone 7. It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emetic; Miscellany; Styptic.

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An infusion of the root has been used as an emetic[257].

Other Uses

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Cultivation details

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Plants often self sow.

Propagation

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Xanthium+spinosum`

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Plants For A Future: Database Search Results

Xanthium spinosum

Common name:	Spiny cocklebur	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	Poisonous[65, 76]. Most members of this genus are toxic to grazing animals and are usually avoided by them[222]. The seed also contains toxins[222].		
Range:	S. America. A locally established casual in Britain[17].		
Habitat:	Naturalized in waste ground in N. America[235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Acanthoxanthium spinosum[B,P] X. spinosum var. inerme[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cachurera Menor [E], Cepa Caballo [E], Cepa De Caballo [E], Clotweed [E], Cocklebur [H], Espinho De Carneiro [E], Pitrak [E], Spiny Clot Burr [H], Spiny Clotbur, Cadillos [S], Spiny Cocklebur [L], Spiny Cockleburr [P,B], Stekende Stekelnoot [D],
Epithets:	From a Dictionary of Botanical Epithets
	spinosum = spiny;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; Brazil; India; Spain; Turkey; Uruguay; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Oregon, Washington, Victoria, New South Wales, South Australia, Western Australia, Tasmaina, Queensland, Northen Territory (Aust).

Physical Characteristics

Annual growing to 0.5m. It is hardy to zone 7. It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emetic; Miscellany; Styptic.

The whole plant is an active styptic for both local and general application[4]. It is said to be a valuable and sure specific in the treatment of hydrophobia[4]. The plant is also diaphoretic, diuretic and sedative[61].

An infusion of the root has been used as an emetic[257].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils but requires a sunny position.

Plants often self sow.

Propagation

Seed - sow spring in situ. The seed requires plenty of moisture in order to germinate.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Xanthium+spinosum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Xanthium+spinosum`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Xanthium spinosum*

Subject:

Xanthium spinosum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xanthium spinosum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:43:40 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Xanthium strumarium

Common name:	Cocklebur	Family:	Compositae
Author:	L.	Botanical references:	17, 50
Synonyms:	Xanthium canadense (Mill.)		
Known Hazards:	Poisonous[65, 76]. Most members of this genus are toxic to grazing animals and are usually avoided by them[222]. The seed also contains toxins[222].		
Range:	A cosmopolitan plant, a locally established casual in Britain[17].		
Habitat:	River banks, lake shores, cultivated ground and pastures[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. acerosum[B,P] X. californicum[B,P] X. californicum var. rotundifolium[B,P] X. campestre[B,P] X. cavanillesii[B,P] X. cenchroides[B,P] X. commune[B,P] X. echinatum[B,P] X. glanduliferum[B,P] X. italicum[B,P] X. macounii[B,P] X. occidentale[G] X. oligacanthum[B,P] X. orientale[G] X. oviforme[B,P] X. pensylvanicum[B,G,P] X. pungens[G] X. saccharatum[B,P] X. speciosum[B,P] X. strumarium ssp. italicum[B,P] X. strumarium var. canadense[B,,G,P] X. strumarium var. oviforme[B,P] X. strumarium var. pensylvanicum[B,P] X. strumonium[E] X. varians[B,P] X. vulgare[G]
	From various places around the Web, may not be correct. See below.

Other Common Names:	Buah Anjang [E], Burweed [E], Cadillo [E], Canada Cockleburr [P], Cang Er Zi [E], Chuan Erh [E], Common Cocklebur [FEIS,L], Erh Tang [E], Gatico [E], Hsi Erh [E], Kucuk Siracaotu [E], Late Stekelnoot [D], Lizzaij [E], Ona-Momi [E], Rough Cockleburr [P,B], Sea Burdock [E], Ts'Ang Erh [E], Yang Fu Lai [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Brazil; China; Dominican Republic; Hawaii; India; Indochina; Iraq; Japan; Java; Mexico(Seri); Spain; Sudan; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota, New South Wales, Western Australia, Tasmaina, Northen Territory (Aust).

Physical Characteristics

Annual growing to 0.75m by 0.4m . It is hardy to zone 7. It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves and young plants - cooked[2, 105, 177]. They must be thoroughly boiled and then washed[179]. Caution is advised, the plant is probably poisonous[218].

Seed - raw or cooked[212]. It can be used as a piñole[257]. The seed can be ground into a powder and mixed with flour for making bread, cakes etc[105, 257]. The seed contains about 36.7% protein, 38.6% fat, 5.2% ash[179]. It also contains a glycoside[179] and is probably poisonous.

Medicinal Uses

Disclaimer

Anodyne; Antibacterial; Antifungal; Antirheumatic; Antispasmodic; Appetizer; Diaphoretic; Diuretic; Emollient; Febrifuge; Laxative; Sedative.

The leaves and root are anodyne, antirheumatic, appetizer, diaphoretic, diuretic, emollient, laxative and sedative[61, 147, 178, 222]. The plant is considered to be useful in treating long-standing cases of malaria[240] and is used as an adulterant for Datura stramonium[61]. An infusion of the plant has been used in the treatment of rheumatism, diseased kidneys and tuberculosis[257]. It has also been used as a liniment on the armpits to reduce perspiration[257].

The fruits are anodyne, antibacterial, antifungal, antirheumatic and antispasmodic[238]. They are used internally in the treatment of allergic rhinitis, sinusitis, catarrh, rheumatism, rheumatoid arthritis, constipation, diarrhoea, lumbago, leprosy and pruritis[238, 257]. They are also used externally to treat pruritis[238]. The fruits are harvested when ripe and dried for later use[238].

The root is a bitter tonic and febrifuge[240]. It has historically been used in the treatment of scrofulous tumours[222]. A decoction of the root has been used in the treatment of high fevers and to help a woman expel the afterbirth[257].

A decoction of the seeds has been used in the treatment of bladder complaints[257]. A poultice of the powdered seed has been applied as a salve on open sores[257].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Repellent; Tannin.

The dried leaves are a source of tannin[145].

A yellow dye is obtained from the leaves[178].

The seed powder has been used as a blue body paint[257].

The dried plant repels weevils from stored wheat grain[178].

Cultivation details

Requires a sunny position, succeeding in most soils. Prefers a poor dry soil[238].

Hardy to about -15°c[238].

Plants often self sow and in some parts of the world have become noxious weeds[238].

Propagation

Seed - sow spring or autumn in situ[238]. The seed requires plenty of moisture in order to germinate.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Xanthium canadense* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Xanthium strumarium var. canadense* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Xanthium strumonium* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X

A very readable herbal from China, combining some modern methods with traditional chinese methods.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Xanthium+strumarium`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Xanthium strumarium

Common name:	Cocklebur	Family:	Compositae
Author:	L.	Botanical references:	17, 50
Synonyms:	Xanthium canadense (Mill.)		
Known Hazards:	Poisonous[65, 76]. Most members of this genus are toxic to grazing animals and are usually avoided by them[222]. The seed also contains toxins[222].		
Range:	A cosmopolitan plant, a locally established casual in Britain[17].		
Habitat:	River banks, lake shores, cultivated ground and pastures[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Buah Anjang [E], Burweed [E], Cadillo [E], Canada Cockleburr [P], Cang Er Zi [E], Chuan Erh [E], Common Cocklebur [FEIS,L], Erh Tang [E], Gatico [E], Hsi Erh [E], Kucuk Siracaotu [E], Late Stekelnoot [D], Lizzaij [E], Ona-Momi [E], Rough Cockleburr [P,B], Sea Burdock [E], Ts'Ang Erh [E], Yang Fu Lai [E],

Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Brazil; China; Dominican Republic; Hawaii; India; Indochina; Iraq; Japan; Java; Mexico(Seri); Spain; Sudan; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Iowa, Minnesota, New South Wales, Western Australia, Tasmaina, Northen Territory (Aust).

Physical Characteristics

Annual growing to 0.75m by 0.4m . It is hardy to zone 7. It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves and young plants - cooked[2, 105, 177]. They must be thoroughly boiled and then washed[179]. Caution is advised, the plant is probably poisonous[218].

Seed - raw or cooked[212]. It can be used as a piñole[257]. The seed can be ground into a powder and mixed with flour for making bread, cakes etc[105, 257]. The seed contains about 36.7% protein, 38.6% fat, 5.2% ash[179]. It also contains a glycoside[179] and is probably poisonous.

Medicinal Uses

Disclaimer

Anodyne; Antibacterial; Antifungal; Antirheumatic; Antispasmodic; Appetizer; Diaphoretic; Diuretic; Emollient; Febrifuge; Laxative; Sedative.

The leaves and root are anodyne, antirheumatic, appetizer, diaphoretic, diuretic, emollient, laxative and sedative[61, 147, 178, 222]. The plant is considered to be useful in treating long-standing cases of malaria[240] and is used as an adulterant for Datura stramonium[61]. An infusion of the plant has been used in the treatment of rheumatism, diseased kidneys and tuberculosis[257]. It has also been used as a liniment on the armpits to reduce perspiration[257].

The fruits are anodyne, antibacterial, antifungal, antirheumatic and antispasmodic[238]. They are used internally in the treatment of allergic rhinitis, sinusitis, catarrh, rheumatism, rheumatoid arthritis, constipation, diarrhoea, lumbago, leprosy and pruritis[238, 257]. They are also used externally to treat pruritis[238]. The fruits are harvested when ripe and dried for later use[238].

The root is a bitter tonic and febrifuge[240]. It has historically been used in the treatment of scrofulous tumours[222]. A decoction of the root has been used in the treatment of high fevers and to help a woman expel the afterbirth[257].

A decoction of the seeds has been used in the treatment of bladder complaints[257]. A poultice of the powdered seed has been applied as a salve on open sores[257].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Repellent; Tannin.

The dried leaves are a source of tannin[145].

A yellow dye is obtained from the leaves[178].

The seed powder has been used as a blue body paint[257].

The dried plant repels weevils from stored wheat grain[178].

Cultivation details

Requires a sunny position, succeeding in most soils. Prefers a poor dry soil[238].

Hardy to about -15°c[238].

Plants often self sow and in some parts of the world have become noxious weeds[238].

Propagation

Seed - sow spring or autumn in situ[238]. The seed requires plenty of moisture in order to germinate.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Xanthium canadense* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Xanthium strumarium var. canadense* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Xanthium strumonium* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese

methods.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Xanthium strumarium

Common name:	Cocklebur	Family:	Compositae
Author:	L.	Botanical references:	17, 50
Synonyms:	Xanthium canadense (Mill.)		
Known Hazards:	Poisonous[65, 76]. Most members of this genus are toxic to grazing animals and are usually avoided by them[222]. The seed also contains toxins[222].		
Range:	A cosmopolitan plant, a locally established casual in Britain[17].		
Habitat:	River banks, lake shores, cultivated ground and pastures[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. acerosum[B,P] X. californicum[B,P] X. californicum var. rotundifolium[B,P] X. campestre[B,P] X. cavanillesii[B,P] X. cenchroides[B,P] X. commune[B,P] X. echinatum[B,P] X. glanduliferum[B,P] X. italicum[B,P] X. macounii[B,P] X. occidentale[G] X. oligacanthum[B,P] X. orientale[G] X. oviforme[B,P] X. pensylvanicum[B,G,P] X. pungens[G] X. saccharatum[B,P] X. speciosum[B,P] X. strumarium ssp. italicum[B,P] X. strumarium var. canadense[B,,G,P] X. strumarium var. oviforme[B,P] X. strumarium var. pensylvanicum[B,P] X. strumonium[E] X. varians[B,P] X. vulgare[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buah Anjang [E], Burweed [E], Cadillo [E], Canada Cockleburr [P], Cang Er Zi [E], Chuan Erh [E], Common Cocklebur [FEIS,L], Erh Tang [E], Gatico [E], Hsi Erh [E], Kucuk Siracaotu [E], Late Stekelnoot [D], Lizzaij [E], Ona-Momi [E], Rough Cockleburr [P,B], Sea Burdock [E], Ts'Ang Erh [E], Yang Fu Lai [E],

Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Brazil; China; Dominican Republic; Hawaii; India; Indochina; Iraq; Japan; Java; Mexico(Seri); Spain; Sudan; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Iowa, Minnesota, New South Wales, Western Australia, Tasmaina, Northen Territory (Aust).

Physical Characteristics

Annual growing to 0.75m by 0.4m . It is hardy to zone 7. It is in flower from July to October, and the seeds ripen from August to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves and young plants - cooked[2, 105, 177]. They must be thoroughly boiled and then washed[179]. Caution is advised, the plant is probably poisonous[218].

Seed - raw or cooked[212]. It can be used as a piñole[257]. The seed can be ground into a powder and mixed with flour for making bread, cakes etc[105, 257]. The seed contains about 36.7% protein, 38.6% fat, 5.2% ash[179]. It also contains a glycoside[179] and is probably poisonous.

Medicinal Uses

Disclaimer

Anodyne; Antibacterial; Antifungal; Antirheumatic; Antispasmodic; Appetizer; Diaphoretic; Diuretic; Emollient; Febrifuge; Laxative; Sedative.

The leaves and root are anodyne, antirheumatic, appetizer, diaphoretic, diuretic, emollient, laxative and sedative[61, 147, 178, 222]. The plant is considered to be useful in treating long-standing cases of malaria[240] and is used as an adulterant for Datura stramonium[61]. An infusion of the plant has been used in the treatment of rheumatism, diseased kidneys and tuberculosis[257]. It has also been used as a liniment on the armpits to reduce perspiration[257].

The fruits are anodyne, antibacterial, antifungal, antirheumatic and antispasmodic[238]. They are used internally in the treatment of allergic rhinitis, sinusitis, catarrh, rheumatism, rheumatoid arthritis, constipation, diarrhoea, lumbago, leprosy and pruritis[238, 257]. They are also used externally to treat pruritis[238]. The fruits are harvested when ripe and dried for later use[238].

The root is a bitter tonic and febrifuge[240]. It has historically been used in the treatment of scrofulous tumours[222]. A decoction of the root has been used in the treatment of high fevers and to help a woman expel the afterbirth[257].

A decoction of the seeds has been used in the treatment of bladder complaints[257]. A poultice of the powdered seed has been applied as a salve on open sores[257].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Repellent; Tannin.

The dried leaves are a source of tannin[145].

A yellow dye is obtained from the leaves[178].

The seed powder has been used as a blue body paint[257].

The dried plant repels weevils from stored wheat grain[178].

Cultivation details

Requires a sunny position, succeeding in most soils. Prefers a poor dry soil[238].

Hardy to about -15°c[238].

Plants often self sow and in some parts of the world have become noxious weeds[238].

Propagation

Seed - sow spring or autumn in situ[238]. The seed requires plenty of moisture in order to germinate.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Xanthium strumarium*

Subject:

Xanthium strumarium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xanthium strumarium

Please use the exact Latin Names of the plants as specified in this database, one per line.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Xanthoceras sorbifolium

Common name:	Yellowhorn	Family:	Sapindaceae
Author:	Bunge.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - N. China.		
Habitat:	Thickets in drier areas, usually on shaded slopes.		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	bifolium = 2 leaved;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Soapberry family

Physical Characteristics

A decidious shrub growing to 6m by 2.5m at a slow rate. It is hardy to zone 6 and is frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Seed.

Flowers - cooked[2, 105, 183]. They are usually boiled[179].

Leaves - cooked[2, 105, 183]. They are usually boiled[179].

Seed - cooked[2, 105, 177]. The seed is about the size of a pea, it is quite sweet[183], with a taste like a sweet chestnut[178]. The seed is husked and then ground into a powder and boiled[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loamy soil[1], but succeeds in most well-drained fertile soils in a sunny position[184, 200]. Prefers a warm dry situation[184]. Requires protection from cold winds[202].

Dormant plants are hardy to about -20°c[184]. They grow best in areas with warm summers and dry springs without late frosts[184], the young growth can be damaged by late spring frosts[1, 11]. They require summer heat in order to fully ripen their wood and to stimulate the production of flower buds[11, 200]. They are subject to attacks by 'coral spot' fungus, particularly if the wood is not fully ripened and is then damaged by winter cold[11].

Flowers are produced on the previous year's wood[202]. Plants are usually slow to become established[202].

Propagation

Seed - 3 months cool stratification improves germination rates[113] so the seed is probably best sown in a cold frame in the autumn[K]. Another report says that the seed can be sown in a warm greenhouse in February or March[78], probably after stratification[K]. When large enough to handle, prick the seedlings out into individual pots. Grow the on in a lightly shaded position in a greenhouse for their first winter then plant them out into their permanent positions in late spring or early summer. Consider giving them some protection from winter cold for their first winter or two outdoors.

Root cuttings, 3cm long planted horizontally in pots in a frame in December or January. Good percentage[78].

Division of suckers in the dormant season[200]. They can be planted out straight into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Sapindaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Xanthoceras sorbifolium

Common name:	Yellowhorn	Family:	Sapindaceae
Author:	Bunge.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - N. China.		
Habitat:	Thickets in drier areas, usually on shaded slopes.		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	bifolium = 2 leaved;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Soapberry family

Physical Characteristics

A decidious shrub growing to 6m by 2.5m at a slow rate. It is hardy to zone 6 and is frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Seed.

Flowers - cooked[2, 105, 183]. They are usually boiled[179].

Leaves - cooked[2, 105, 183]. They are usually boiled[179].

Seed - cooked[2, 105, 177]. The seed is about the size of a pea, it is quite sweet[183], with a taste like a sweet chestnut[178]. The seed is husked and then ground into a powder and boiled[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loamy soil[1], but succeeds in most well-drained fertile soils in a sunny position[184, 200]. Prefers a warm dry situation[184]. Requires protection from cold winds[202].

Dormant plants are hardy to about -20°c[184]. They grow best in areas with warm summers and dry springs without late frosts[184], the young growth can be damaged by late spring frosts[1, 11]. They require summer heat in order to fully ripen their wood and to stimulate the production of flower buds[11, 200]. They are subject to attacks by 'coral spot' fungus, particularly if the wood is not fully ripened and is then damaged by winter cold[11].

Flowers are produced on the previous year's wood[202]. Plants are usually slow to become established[202].

Propagation

Seed - 3 months cool stratification improves germination rates[113] so the seed is probably best sown in a cold frame in the autumn[K]. Another report says that the seed can be sown in a warm greenhouse in February or March[78], probably after stratification[K]. When large enough to handle, prick the seedlings out into individual pots. Grow the on in a lightly shaded position in a greenhouse for their first winter then plant them out into their permanent positions in late spring or early summer. Consider giving them some protection from winter cold for their first winter or two

outdoors.

Root cuttings, 3cm long planted horizontally in pots in a frame in December or January. Good percentage[78].

Division of suckers in the dormant season[200]. They can be planted out straight into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Sapindaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6

Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

Readers Comments

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Plants For A Future: Database Search Results

Xanthoceras sorbifolium

Common name:	Yellowhorn	Family:	Sapindaceae
Author:	Bunge.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - N. China.		
Habitat:	Thickets in drier areas, usually on shaded slopes.		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	bifolium = 2 leaved;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Soapberry family

Physical Characteristics

A decidious shrub growing to 6m by 2.5m at a slow rate. It is hardy to zone 6 and is frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Seed.

Flowers - cooked[2, 105, 183]. They are usually boiled[179].

Leaves - cooked[2, 105, 183]. They are usually boiled[179].

Seed - cooked[2, 105, 177]. The seed is about the size of a pea, it is quite sweet[183], with a taste like a sweet chestnut[178]. The seed is husked and then ground into a powder and boiled[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loamy soil[1], but succeeds in most well-drained fertile soils in a sunny position[184, 200]. Prefers a warm dry situation[184]. Requires protection from cold winds[202].

Dormant plants are hardy to about -20°c[184]. They grow best in areas with warm summers and dry springs without late frosts[184], the young growth can be damaged by late spring frosts[1, 11]. They require summer heat in order to fully ripen their wood and to stimulate the production of flower buds[11, 200]. They are subject to attacks by 'coral spot' fungus, particularly if the wood is not fully ripened and is then damaged by winter cold[11].

Flowers are produced on the previous year's wood[202]. Plants are usually slow to become established[202].

Propagation

Seed - 3 months cool stratification improves germination rates[113] so the seed is probably best sown in a cold frame in the autumn[K]. Another report says that the seed can be sown in a warm greenhouse in February or March[78], probably after stratification[K]. When large enough to handle, prick the seedlings out into individual pots. Grow the on in a lightly shaded position in a greenhouse for their first winter then plant them out into their permanent positions in late spring or early summer. Consider giving them some protection from winter cold for their first winter or two

outdoors.

Root cuttings, 3cm long planted horizontally in pots in a frame in December or January. Good percentage[78].

Division of suckers in the dormant season[200]. They can be planted out straight into their permanent positions.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Xanthoceras sorbifolium*

Subject:

Xanthoceras sorbifolium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xanthoceras sorbifolium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Xanthorhiza simplicissima

Common name:	Yellowroot	Family:	Ranunculaceae
Author:	Marsh.	Botanical references:	11, 43, 200
Synonyms:	Zanthorrhiza apifolia (L'Hér.), Xanthorhiza apiifolia ((L'Hér.)Guimpel.,Otto.&Hague.)		
Known Hazards:	The root, when taken in high doses, is potentially toxic[222].		
Range:	Eastern N. America - New York to West Virginia and south to Florida and Alabama.		
Habitat:	Damp woods, thickets and the banks of streams[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Shrub Yellowroot [B], Yellowroot [P],
Epithets:	From a Dictionary of Botanical Epithets
	simplicissima = simplest;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 1m by 3m at a fast rate. It is hardy to zone 6. It is in flower from March to April. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

None known

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Astringent; Stomachic; Tonic.

The root is astringent and a blood tonic[222]. A tea made from the roots is used to treat mouth ulcers[213], stomach ulcers, colds, jaundice etc[222, 257]. An infusion of the roots has also been used to treat piles, though the report does not specify if it is used internally or externally[257]. Some caution is advised in the use of this plant, see the notes above on toxicity.

The root contains the alkaloid 'berberine' which is used for its tonic properties and for digestive disorders[213]. Berberine is anti-inflammatory, astringent, haemostatic, antispasmodic, immuno-stimulant, uterine tonic and antimicrobial[222]. It stimulates the secretion of bile and bilirubin and may be helpful in correcting high tyramine levels in people with liver cirrhosis[222].

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the root[46, 61]. The entire plant can be crushed to yield a yellow dye[257].

A good ground cover for damp semi-shaded positions[11, 200]. Plants should be spaced about 1.2 metres apart each way[208].

Cultivation details

Requires a moist acid soil in sun or part shade[184]. Prefers shade or semi-shade[188]. Succeeds in any moist fertile soil according to other reports[1, 182, 200].

Hardy to about -20°c[184].

Plants can spread considerably by means of suckers[182], especially when they are growing in a light soil[208].

A greedy plant, inhibiting the growth of nearby plants, especially legumes[54].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the autumn[200]. Sow stored seed in a cold frame in late winter. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in the autumn or late winter[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ranunculaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Xanthorhiza simplicissima

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Author:	Marsh.	Botanical references:	11, 43, 200
Synonyms:	Zanthorrhiza apifolia (L'Hér.), Xanthorhiza apiifolia ((L'Hér.)Guimpel.,Otto.&Hague.)		
Known Hazards:	The root, when taken in high doses, is potentially toxic[222].		
Range:	Eastern N. America - New York to West Virginia and south to Florida and Alabama.		
Habitat:	Damp woods, thickets and the banks of streams[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Shrub Yellowroot [B], Yellowroot [P],
Epithets:	From a Dictionary of Botanical Epithets
	simplicissima = simplest;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 1m by 3m at a fast rate. It is hardy to zone 6. It is in flower from March to April. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

None known

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Astringent; Stomachic; Tonic.

The root is astringent and a blood tonic[222]. A tea made from the roots is used to treat mouth ulcers[213], stomach ulcers, colds, jaundice etc[222, 257]. An infusion of the roots has also been used to treat piles, though the report does not specify if it is used internally or externally[257]. Some caution is advised in the use of this plant, see the notes above on toxicity.

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A greedy plant, inhibiting the growth of nearby plants, especially legumes[54].

Propagation

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References for the family Ranunculaceae.

See the PFAF Links Pages for other sources

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References

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[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Xanthorhiza simplicissima

Common name:	Yellowroot	Family:	Ranunculaceae
Author:	Marsh.	Botanical references:	11, 43, 200
Synonyms:	Zanthorrhiza apifolia (L'Hér.), Xanthorhiza apiifolia ((L'Hér.)Guimpel.,Otto.&Hague.)		
Known Hazards:	The root, when taken in high doses, is potentially toxic[222].		
Range:	Eastern N. America - New York to West Virginia and south to Florida and Alabama.		
Habitat:	Damp woods, thickets and the banks of streams[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Shrub Yellowroot [B], Yellowroot [P],
Epithets:	From a Dictionary of Botanical Epithets
	simplicissima = simplest;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 1m by 3m at a fast rate. It is hardy to zone 6. It is in flower from March to April. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

None known

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Astringent; Stomachic; Tonic.

The root is astringent and a blood tonic[222]. A tea made from the roots is used to treat mouth ulcers[213], stomach ulcers, colds, jaundice etc[222, 257]. An infusion of the roots has also been used to treat piles, though the report does not specify if it is used internally or externally[257]. Some caution is advised in the use of this plant, see the notes above on toxicity.

The root contains the alkaloid 'berberine' which is used for its tonic properties and for digestive disorders[213]. Berberine is anti-inflammatory, astringent, haemostatic, antispasmodic, immuno-stimulant, uterine tonic and antimicrobial[222]. It stimulates the secretion of bile and bilirubin and may be helpful in correcting high tyramine levels in people with liver cirrhosis[222].

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the root[46, 61]. The entire plant can be crushed to yield a yellow dye[257].

A good ground cover for damp semi-shaded positions[11, 200]. Plants should be spaced about 1.2 metres apart each way[208].

Cultivation details

Requires a moist acid soil in sun or part shade[184]. Prefers shade or semi-shade[188]. Succeeds in any moist fertile soil according to other reports[1, 182, 200].

Hardy to about -20°c[184].

Plants can spread considerably by means of suckers[182], especially when they are growing in a light soil[208].

A greedy plant, inhibiting the growth of nearby plants, especially legumes[54].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the autumn[200]. Sow stored seed in a cold frame in late winter. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in the autumn or late winter[11].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List]() or email [webmaster@pfaf.org]() (note we don't have the time to answer individual plant related queries).

Add a comment on: *Xanthorhiza simplicissima*

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Xanthorhiza simplicissima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xanthorhiza simplicissima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Xanthorrhoea australis

Common name:	Grasstree	Family:	Xanthorrhoeaceae
Author:	R. Br.	Botanical references:	154, 265
Synonyms:	Xanthorrhoea media (R.Br.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria.		
Habitat:	Poor sandy or heathy soils up to the montane zone[154].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Xanthorroea australis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Australian Grass Tree [H],
Epithets:	From a Dictionary of Botanical Epithets
	australis = southern;

Physical Characteristics

An evergreen perennial growing to 1m by 1m . It is frost tender. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

By Walls, By South Wall, By West Wall.

Edible Uses

Leaves; Nectar; Root; Stem.

The pith of the stem is eaten raw or roasted, it has an agreeable nutty taste that is slightly balsamic[193]. It contains about 41% carbohydrate, 3.5% protein and traces of vitamin C[193]. It is possible to extract sugar from the stem[193].

Leaf bases - chewed[144]. They are hard to detach from the plant[144]. They sometimes taste sweet and juicy though more often they are tough and astringent[193].

The flowers produce an abundance of nectar and this can be collected from the flowers, either by sucking the flowers or by cooking them up to produce a syrup[144].

The root might be edible[144].

Medicinal Uses

Disclaimer

Miscellany.

The resin has medicinal uses[171]. No details are given.

Other Uses

Adhesive; Friction sticks; Incense; Resin; Size; Varnish.

A resin collects around the bases of old leaves and can be collected by beating the stems[171]. It can be used as a varnish for wood or metal[154, 156, 171] and as an incense[156]. It can also be used as a size, a sealing wax, mahogany stain for wood and medicinally[171]. It makes a good glue[193]. The gum is soft and pliable when heated over a flame but it cools to a rock-hard consistency[193].

The flower stems are good firesticks[193].

Cultivation details

Requires a well-drained light or medium soil and a very sunny position[200]. Succeeds in poor soils in the wild[154].

This species is not very frost-hardy in this country and normally requires greenhouse protection[1]. It tolerates temperatures down to at least -7°c in Australian gardens[K], though this cannot be translated directly to British gardens due to our cooler summers and longer colder and wetter winters. It would certainly be worthwhile trying it outdoors in the mildest areas of the country[K].

Other members of this genus should also have the same edible and non-edible uses[144, 193].

Propagation

Seed - sow spring in a warm greenhouse. The seed usually germinates in about 5 weeks[157]. Prick out the seedlings into individual pots when they are large enough to handle. Grow them on in the greenhouse for at least their first winter and plant them out in late spring or early summer, giving them the protection of a frame or cloche until they are growing away happily. Protect the outdoor plants for at least their first winter.

Division of offsets in late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Xanthorrhoea media* (a possible synonym).

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Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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Synonyms:	Xanthorrhoea media (R.Br.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria.		
Habitat:	Poor sandy or heathy soils up to the montane zone[154].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Xanthorroea australis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Australian Grass Tree [H],
Epithets:	From a Dictionary of Botanical Epithets
	australis = southern;

Physical Characteristics

An evergreen perennial growing to 1m by 1m . It is frost tender. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

By Walls, By South Wall, By West Wall.

Edible Uses

Leaves; Nectar; Root; Stem.

The pith of the stem is eaten raw or roasted, it has an agreeable nutty taste that is slightly balsamic[193]. It contains about 41% carbohydrate, 3.5% protein and traces of vitamin C[193]. It is possible to extract sugar from the stem[193].

Leaf bases - chewed[144]. They are hard to detach from the plant[144]. They sometimes taste sweet and juicy though more often they are tough and astringent[193].

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The root might be edible[144].

Medicinal Uses

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Miscellany.

The resin has medicinal uses[171]. No details are given.

Other Uses

Adhesive; Friction sticks; Incense; Resin; Size; Varnish.

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The flower stems are good firesticks[193].

Cultivation details

Requires a well-drained light or medium soil and a very sunny position[200]. Succeeds in poor soils in the wild[154].

This species is not very frost-hardy in this country and normally requires greenhouse protection[1]. It tolerates temperatures down to at least -7°c in Australian gardens[K], though this cannot be translated directly to British gardens due to our cooler summers and longer colder and wetter winters. It would certainly be worthwhile trying it outdoors in the mildest areas of the country[K].

Other members of this genus should also have the same edible and non-edible uses[144, 193].

Propagation

Seed - sow spring in a warm greenhouse. The seed usually germinates in about 5 weeks[157]. Prick out the seedlings into individual pots when they are large enough to handle. Grow them on in the greenhouse for at least their first winter and plant them out in late spring or early summer, giving them the protection of a frame or cloche until they are growing away happily. Protect the outdoor plants for at least their first winter.

Division of offsets in late spring.

Suppliers

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Edible Uses

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Xanthorrhoea australis*

Subject:

Xanthorrhoea australis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xanthorrhoea australis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:44:14 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Xerophyllum tenax

Common name:	Indian basket grass	Family:	Melanthiaceae
Author:	(Purs.) Nutt.	Botanical references:	60, 200
Synonyms:	Xerophyllum douglasii, Helonias tenax (Pursh.)		
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Dry sunny hills and open woods[187]. Moist places in open woods and clearings, from sea level to 2100 metres[1, 60].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beargrass [FEIS,S], Common Beargrass [P], Western Turkeybeard [B],
Epithets:	From a Dictionary of Botanical Epithets
	tenax = tenacious;
Other Range Info:	From the Ethnobotany Database
	Us(Blackfoot); Us(Flathead)

Physical Characteristics

An evergreen perennial growing to 1.2m by 2m at a slow rate. It is hardy to zone 5. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Root.

Root - baked[92].

Medicinal Uses

Disclaimer

Ophthalmic; Styptic.

The roots are styptic[257]. A poultice of the chewed root has been applied to wounds[257]. A decoction of the grated root has been used as a wash on bleeding wounds, sprains and broken limbs[257]. The washed roots have been rubbed to make a lather and then used to wash sore eyes[257].

Other Uses

Basketry; Fibre; Weaving.

A watertight basket can be made from the leaves[21, 46, 61, 99, 257]. This basket has been used for cooking food in[257]. The fibres are split from the leaves and then used[92]. The plant is also used to decorate baskets[257].

The small leaves have been used to make dresses[257]. The plants were burnt every year. The leaves were harvested in the spring when they first started to grow out of the charred rhizome. Prior to using, the leaves were soaked in water to make them pliable, but if left too long they turned green[257].

The dried and bleached leaves are used for weaving into hats and capes[207, 257].

Cultivation details

Requires a well-drained soil in full sun[187]. Prefers a fairly moisture-retentive sandy peaty soil[1, 200]. Requires a damp peaty soil[233]. Plants can be difficult to cultivate[188].

Plants are hardy to about -20°c[187], especially if the roots are given a good mulch in the winter[200].

If left undisturbed, plants can form quite large colonies, spreading by means of their tough rhizomes[200]. Plants do not flower every year, there are often gaps of 5 - 7 years between flowering[212].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if possible, otherwise in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division as the plant comes into growth in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *xerophyllum tenax* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Author:	(Purs.) Nutt.	Botanical references:	60, 200
Synonyms:	Xerophyllum douglasii, Helonias tenax (Pursh.)		
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Dry sunny hills and open woods[187]. Moist places in open woods and clearings, from sea level to 2100 metres[1, 60].		
Plants For A Future Rating (1-5):	2		

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Epithets:	From a Dictionary of Botanical Epithets
	tenax = tenacious;
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

An evergreen perennial growing to 1.2m by 2m at a slow rate. It is hardy to zone 5. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Root.

Root - baked[92].

Medicinal Uses

Disclaimer

Ophthalmic; Styptic.

The roots are styptic[257]. A poultice of the chewed root has been applied to wounds[257]. A decoction of the grated root has been used as a wash on bleeding wounds, sprains and broken limbs[257]. The washed roots have been rubbed to make a lather and then used to wash sore eyes[257].

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The dried and bleached leaves are used for weaving into hats and capes[207, 257].

Cultivation details

Requires a well-drained soil in full sun[187]. Prefers a fairly moisture-retentive sandy peaty soil[1, 200]. Requires a damp peaty soil[233]. Plants can be difficult to cultivate[188].

Plants are hardy to about -20°c[187], especially if the roots are given a good mulch in the winter[200].

If left undisturbed, plants can form quite large colonies, spreading by means of their tough rhizomes[200]. Plants do not flower every year, there are often gaps of 5 - 7 years between flowering[212].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if possible, otherwise in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Dry sunny hills and open woods[187]. Moist places in open woods and clearings, from sea level to 2100 metres[1, 60].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beargrass [FEIS,S], Common Beargrass [P], Western Turkeybeard [B],
Epithets:	From a Dictionary of Botanical Epithets
	tenax = tenacious;
Other Range Info:	From the Ethnobotany Database
	Us(Blackfoot); Us(Flathead)

Physical Characteristics

An evergreen perennial growing to 1.2m by 2m at a slow rate. It is hardy to zone 5. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Root.

Root - baked[92].

Medicinal Uses

Disclaimer

Ophthalmic; Styptic.

The roots are styptic[257]. A poultice of the chewed root has been applied to wounds[257]. A decoction of the grated root has been used as a wash on bleeding wounds, sprains and broken limbs[257]. The washed roots have been rubbed to make a lather and then used to wash sore eyes[257].

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A watertight basket can be made from the leaves[21, 46, 61, 99, 257]. This basket has been used for cooking food in[257]. The fibres are split from the leaves and then used[92]. The plant is also used to decorate baskets[257].

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Cultivation details

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If left undisturbed, plants can form quite large colonies, spreading by means of their tough rhizomes[200]. Plants do not flower every year, there are often gaps of 5 - 7 years between flowering[212].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if possible, otherwise in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Add a comment on: *Xerophyllum tenax*

Subject:

Xerophyllum tenax

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xerophyllum tenax

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:44:22 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Xylosma japonica

Common name:		Family:	Flacourtiaceae
Author:	(Walp.) A. Gray.	Botanical references:	11, 58, 200
Synonyms:	Xylosma racemosum (Miq.), Xylosma congestum ((Lour.)Merrill.), Hisingera racemosa (Siebold.&Zucc.), Hisingera japonica (Siebold.&Zucc.), Flacourtia japonica (Walp.), Croton congestum (Lour.), Apactis japonica (Thunb.)		
Known Hazards:	The leaves contain a glycoside[179]. We are not sure if this means that it is poisonous[K].		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Near seashores, C. and S. Japan[58]. Woodlands in Korea[109].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. congesta[G] X. racemosa[G]
Systematics:	From a UDSA Plants Database
	Order: Violales . Flacourtia family

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 8. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It

can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Leaves.

Young shoots - cooked. A famine food, they are only used when all else fails[179]. The leaves contain a glycoside[179], see the notes above on toxicity.

Medicinal Uses

Disclaimer

Oxytoxic; Poultice.

The ashes of the stem bark are mixed with water and used to treat jaundice scrofula, sores, tumours etc[218]. They are also used to speed parturition[218].

Other Uses

Hedge.

Tolerant of clipping, the plant can be grown as a formal hedge especially in areas cooler than its native range where it only develops into a shrub or small tree[200].

Cultivation details

Succeeds in full sun or light shade in most well-drained soils[200]. Tolerant of poor rocky soils[200]. Judging by the plants native habitat in Japan, it probably tolerates maritime exposure[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Even in the milder areas of the country it usually only makes a small tree or shrub[11].

Propagation

Seed - we have no information for this species but suggest sowing the seed in spring in a greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Xylosma congesta* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Flacourtiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Xylosma japonica

Common name:		Family:	Flacourtiaceae
Author:	(Walp.) A. Gray.	Botanical references:	11, 58, 200
Synonyms:	Xylosma racemosum (Miq.), Xylosma congestum ((Lour.)Merrill.), Hisingera racemosa (Siebold.&Zucc.), Hisingera japonica (Siebold.&Zucc.), Flacourtia japonica (Walp.), Croton congestum (Lour.), Apactis japonica (Thunb.)		
Known Hazards:	The leaves contain a glycoside[179]. We are not sure if this means that it is poisonous[K].		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Near seashores, C. and S. Japan[58]. Woodlands in Korea[109].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. congesta[G] X. racemosa[G]
Systematics:	From a UDSA Plants Database
	Order: Violales . Flacourtia family

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 8. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Leaves.

Young shoots - cooked. A famine food, they are only used when all else fails[179]. The leaves contain a glycoside[179], see the notes above on toxicity.

Medicinal Uses

Disclaimer

Oxytoxic; Poultice.

The ashes of the stem bark are mixed with water and used to treat jaundice scrofula, sores, tumours etc[218]. They are also used to speed parturition[218].

Other Uses

Hedge.

Tolerant of clipping, the plant can be grown as a formal hedge especially in areas cooler than its native range where it only develops into a shrub or small tree[200].

Cultivation details

Succeeds in full sun or light shade in most well-drained soils[200]. Tolerant of poor rocky soils[200]. Judging by the plants native habitat in Japan, it probably tolerates maritime exposure[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Even in the milder areas of the country it usually only makes a small tree or shrub[11].

Propagation

Seed - we have no information for this species but suggest sowing the seed in spring in a greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[200].

Suppliers

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Web References

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Plants For A Future: Database Search Results

Xylosma japonica

Common name:		Family:	Flacourtiaceae
Author:	(Walp.) A. Gray.	Botanical references:	11, 58, 200
Synonyms:	Xylosma racemosum (Miq.), Xylosma congestum ((Lour.)Merrill.), Hisingera racemosa (Siebold.&Zucc.), Hisingera japonica (Siebold.&Zucc.), Flacourtia japonica (Walp.), Croton congestum (Lour.), Apactis japonica (Thunb.)		
Known Hazards:	The leaves contain a glycoside[179]. We are not sure if this means that it is poisonous[K].		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Near seashores, C. and S. Japan[58]. Woodlands in Korea[109].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. congesta[G] X. racemosa[G]
Systematics:	From a UDSA Plants Database
	Order: Violales . Flacourtia family

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 8. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Leaves.

Young shoots - cooked. A famine food, they are only used when all else fails[179]. The leaves contain a glycoside[179], see the notes above on toxicity.

Medicinal Uses

Disclaimer

Oxytoxic; Poultice.

The ashes of the stem bark are mixed with water and used to treat jaundice scrofula, sores, tumours etc[218]. They are also used to speed parturition[218].

Other Uses

Hedge.

Tolerant of clipping, the plant can be grown as a formal hedge especially in areas cooler than its native range where it only develops into a shrub or small tree[200].

Cultivation details

Succeeds in full sun or light shade in most well-drained soils[200]. Tolerant of poor rocky soils[200]. Judging by the plants native habitat in Japan, it probably tolerates maritime exposure[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Even in the milder areas of the country it usually only makes a small tree or shrub[11].

Propagation

Seed - we have no information for this species but suggest sowing the seed in spring in a greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[200].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xylosma japonica

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Xyris caroliniana

Common name:	Carolina yelloweyed grass	Family:	Xyridaceae
Author:	Walt.	Botanical references:	1, 43
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Ontario to New York and south to Florida.		
Habitat:	Wet peaty or sandy soils[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. arenicola[B,P] X. flexuosa[B,P] X. pallescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carolina Yellow-eyed-grass [B], Carolina Yelloweyed Grass [P],
Systematics:	From a UDSA Plants Database
	Order: Commelinales . Yellow-eyed Grass family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 1m. . It is in flower from June to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden.

Edible Uses

None known

Medicinal Uses

Disclaimer

Poultice; Skin.

Poultice, skin[61].

An infusion of the roots has been used in the treatment of diarrhoea[222]. It is said to be a good remedy for children to use[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

Succeeds in damp borders and the bog garden, requiring a moist humus-rich soil in sun or semi-shade[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse as soon as it if possible, otherwise in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division as plants come into growth in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Xyridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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Plants For A Future: Database Search Results

Xyris caroliniana

Common name:	Carolina yelloweyed grass	Family:	Xyridaceae
Author:	Walt.	Botanical references:	1, 43
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Ontario to New York and south to Florida.		
Habitat:	Wet peaty or sandy soils[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden.

Edible Uses

None known

Medicinal Uses

Disclaimer

Poultice; Skin.

Poultice, skin[61].

An infusion of the roots has been used in the treatment of diarrhoea[222]. It is said to be a good remedy for children to use[257].

Other Uses

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Cultivation details

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Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse as soon as it if possible, otherwise in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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References for the family Xyridaceae.

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References

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Plants For A Future: Database Search Results

Xyris caroliniana

Common name:	Carolina yelloweyed grass	Family:	Xyridaceae
Author:	Walt.	Botanical references:	1, 43
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Ontario to New York and south to Florida.		
Habitat:	Wet peaty or sandy soils[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	X. arenicola[B,P] X. flexuosa[B,P] X. pallescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carolina Yellow-eyed-grass [B], Carolina Yelloweyed Grass [P],
Systematics:	From a UDSA Plants Database
	Order: Commelinales . Yellow-eyed Grass family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 1m. . It is in flower from June to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden.

Edible Uses

None known

Medicinal Uses

Disclaimer

Poultice; Skin.

Poultice, skin[61].

An infusion of the roots has been used in the treatment of diarrhoea[222]. It is said to be a good remedy for children to use[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

Succeeds in damp borders and the bog garden, requiring a moist humus-rich soil in sun or semi-shade[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse as soon as it if possible, otherwise in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division as plants come into growth in the spring.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Xyris caroliniana*

Subject:

Xyris caroliniana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Xyris caroliniana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:44:39 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Wasabia japonica

Common name:	Japanese horseradish	Family:	Cruciferae
Author:	(Miq.) Matsuma.	Botanical references:	58, 200
Synonyms:	Eutrema wasabi ((Siebold) Maxim.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Wet places and by streams, in lowland and mountain areas[58]. Usually found near the coast[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cochlearia wasabi[G] Eutrema japonica[G] Lunaria japonica[G] W. pungens[G] W. wasabi[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Wasabi [P,E],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

Perennial growing to 0.3m by 0.2m . It is hardy to zone 8. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Leaves; Root.

Root - a horseradish substitute[2, 46, 58, 61, 105]. The fleshy rhizomes are finely grated and prepared into an attractive fresh green paste which is much used as a condiment in Japan[183]. It is considered to have a distinct flavour and pungency that is superior to horseradish, Armoracia rusticana[183]. The pungency rapidly deteriorates once the root has been cut[200]. Roots of plants 15 - 24 months old are best[238].

Leaves, flowers and petioles - cooked[105, 179, 200]. The leaves, flowers, leafstalks and freshly sliced rhizome are soaked in salt water and then mixed with saki lees to make a popular Japanese pickle called 'wasabi-zuke'[183]. The following analysis is said to belong to the leaves but it looks more like a root analysis[K]. The leaves contain about 6.1% protein, 0.2% fat, 22.3% carbohydrate, 1.3% ash[179].

Medicinal Uses

Disclaimer

Digestive.

The root is a pungent warming herb that stimulates the digestion[238]. It is used internally as an antidote to fish poison[238]. (This probably refers to food poisoning caused by eating fish[K]).

Other Uses

None known

Cultivation details

Prefers a position in wet soil or shallow water. The best quality roots are produced from plants growing in semi-shade in clear running spring water at a temperature between 11 - 14°c[200].

This species is cultivated in eastern Asia for its edible root which is used in much the same way as horseradish[58], it takes 3 - 5 years to produce marketable roots[116]. The roots are finger-thick and up to 18cm long[206].

Propagation

Seed - sow spring in a greenhouse and keep the seed permanently moist[238]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first year. Stand the pots in shallow water to ensure the plants do not dry out. Plant them out in late spring or early summer.

Division in spring as the plant comes into growth. Very easy, the larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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Well written and very informative.

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A very well presented and informative book on herbs from around the globe. Plenty in it for both

the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Wasabia japonica

Common name:	Japanese horseradish	Family:	Cruciferae
Author:	(Miq.) Matsuma.	Botanical references:	58, 200
Synonyms:	Eutrema wasabi ((Siebold) Maxim.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Wet places and by streams, in lowland and mountain areas[58]. Usually found near the coast[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cochlearia wasabi[G] Eutrema japonica[G] Lunaria japonica[G] W. pungens[G] W. wasabi[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Wasabi [P,E],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

Perennial growing to 0.3m by 0.2m . It is hardy to zone 8. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Leaves; Root.

Root - a horseradish substitute[2, 46, 58, 61, 105]. The fleshy rhizomes are finely grated and prepared into an attractive fresh green paste which is much used as a condiment in Japan[183]. It is considered to have a distinct flavour and pungency that is superior to horseradish, Armoracia rusticana[183]. The pungency rapidly deteriorates once the root has been cut[200]. Roots of plants 15 - 24 months old are best[238].

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Medicinal Uses

Disclaimer

Digestive.

The root is a pungent warming herb that stimulates the digestion[238]. It is used internally as an antidote to fish poison[238]. (This probably refers to food poisoning caused by eating fish[K]).

Other Uses

None known

Cultivation details

Prefers a position in wet soil or shallow water. The best quality roots are produced from plants growing in semi-shade in clear running spring water at a temperature between 11 - 14°c[200].

This species is cultivated in eastern Asia for its edible root which is used in much the same way as horseradish[58], it takes 3 - 5 years to produce marketable roots[116]. The roots are finger-thick and up to 18cm long[206].

Propagation

Seed - sow spring in a greenhouse and keep the seed permanently moist[238]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first year. Stand the pots in shallow water to ensure the plants do not dry out. Plant them out in late spring or early summer.

Division in spring as the plant comes into growth. Very easy, the larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Suppliers

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Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Wet places and by streams, in lowland and mountain areas[58]. Usually found near the coast[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

Perennial growing to 0.3m by 0.2m . It is hardy to zone 8. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Leaves; Root.

Root - a horseradish substitute[2, 46, 58, 61, 105]. The fleshy rhizomes are finely grated and prepared into an attractive fresh green paste which is much used as a condiment in Japan[183]. It is considered to have a distinct flavour and pungency that is superior to horseradish, Armoracia rusticana[183]. The pungency rapidly deteriorates once the root has been cut[200]. Roots of plants 15 - 24 months old are best[238].

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Medicinal Uses

Disclaimer

Digestive.

The root is a pungent warming herb that stimulates the digestion[238]. It is used internally as an antidote to fish poison[238]. (This probably refers to food poisoning caused by eating fish[K]).

Other Uses

None known

Cultivation details

Prefers a position in wet soil or shallow water. The best quality roots are produced from plants growing in semi-shade in clear running spring water at a temperature between 11 - 14°c[200].

This species is cultivated in eastern Asia for its edible root which is used in much the same way as horseradish[58], it takes 3 - 5 years to produce marketable roots[116]. The roots are finger-thick and up to 18cm long[206].

Propagation

Seed - sow spring in a greenhouse and keep the seed permanently moist[238]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first year. Stand the pots in shallow water to ensure the plants do not dry out. Plant them out in late spring or early summer.

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Add a comment on: *Wasabia japonica*

Subject:

Wasabia japonica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wasabia japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Washingtonia filifera

Common name:	Desert fan palm	Family:	Palmae
Author:	(Lindl.) Wendl.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - S. California, S.W. Arizona, N.W. Mexico.		
Habitat:	Often forming extensive groves or small isolated clumps in moist alkaline spots in rocky canyons about seeps, springs and streams below 1500 metres[71, 82, 166].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Brahea filamentosa[B,G,P] Brahea filifera[B] Brahea filifera hort. ex[P] Neowashingtonia filamentosa[B,G,P] Neowashingtonia filifera[G] Pritchardia filamentosa[B,G,P] Pritchardia filifera[B,G,P] W. filamentosa[B,G,P] W. filifera var. robusta[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	California Fan Palm [H,B,P,DEN2], California Palm [FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	filifer = bearing threads; filifera = bearing threads;
Systematics:	From a UDSA Plants Database
	Order: Arecales . Renamed to Arecaceae -- Palm family

Physical Characteristics

An evergreen tree growing to 12m by 12m at a medium rate. It is hardy to zone 9. It is in leaf all year, in flower from July to August, and the seeds ripen from November to January. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Fruit; Leaves; Seed.

Fruit - raw or cooked or dried for later use[2, 46, 161, 177, 257]. It can be made into jellies and drinks or dried and ground into a meal[46, 183]. The seed can be ground up with the dried fruit and then both are eaten as a porridge[246]. The fruit is small and hard[213], but has a thin sweet pulp that tastes somewhat like dates[183, 213]. The ovoid fruit is about 6mm long and 4mm wide[200].

Young central bud - roasted[46, 177, 183]. Harvesting this central bud will kill the tree since it is unable to make side branches[K].

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Medicinal Uses

Disclaimer

None known

Other Uses

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A fibre from the leaves is used in basket making and for cordage[46, 169].

The whole leaves are woven and used as the side walls and roofs of huts and temporary dwellings[46, 257].

The seeds have been used as the rattle in gourd rattles[257].

Wood - light and soft[82]. It has been used for making cooking implements, spoons etc[257].

Cultivation details

Requires a sheltered sunny position in a fertile moist but well-drained soil[188, 231]. Tolerates some salt in the soil[200] and maritime exposure in climates that are warmer than Britain[200]. Plants can tolerate extensive droughts so long as their roots have tapped into underground water supplies[231].

Plants can tolerate light frosts and should succeed outdoors in the mildest parts of Britain[166]. They have been known to tolerate short-lived lows down to about -10°c[231].

This species has an extensive and fleshy but strong root system that can penetrate to a considerable depth in search of water[231]. It generally establishes best when planted out at a young stage. However, older plants are substantially more cold tolerant than juvenile plants[231]. In areas at the limit of their cold tolerance, therefore, it is prudent to grow the plants in containers for some years, giving them winter protection, and only planting them into their permanent positions when sheer size dictates[231]. Palms can also be transplanted even when very large. Although the thick fleshy roots are easily damaged and/or desiccated, new roots are generally freely produced. It is important to stake the plant very firmly to prevent rock, and also to give it plenty of water until re-established - removing many of the leaves can also help[231].

Plants growing in the wild are seen as an indication of underground water[200].

Plants produce a 'skirt' of old dead leaves, this can be a fire hazard and the old leaves are usually removed when being grown in areas liable to forest fires[200].

A fast growing tree, even when young, in its native environment and very tolerant of transplanting despite its deep root system[200].

Propagation

Seed - best sown as soon as it is ripe in a greenhouse. Pre-soaking for 24 hours in warm water may speed up germination, especially of stored seed[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first two winters. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Give the plants some protection from the cold for at least their first two winters outdoors.

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Systematics:	From a UDSA Plants Database
	Order: Arecales . Renamed to Arecaceae -- Palm family

Physical Characteristics

An evergreen tree growing to 12m by 12m at a medium rate. It is hardy to zone 9. It is in leaf all year, in flower from July to August, and the seeds ripen from November to January. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

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Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

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Fruit; Leaves; Seed.

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Medicinal Uses

Disclaimer

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This species has an extensive and fleshy but strong root system that can penetrate to a considerable depth in search of water[231]. It generally establishes best when planted out at a young stage. However, older plants are substantially more cold tolerant than juvenile plants[231]. In areas at the limit of their cold tolerance, therefore, it is prudent to grow the plants in containers for some years, giving them winter protection, and only planting them into their permanent positions when sheer size dictates[231]. Palms can also be transplanted even when very large. Although the thick fleshy roots are easily damaged and/or desiccated, new roots are generally freely produced. It is important to stake the plant very firmly to prevent rock, and also to give it plenty of water until re-established - removing many of the leaves can also help[231].

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Washingtonia+filifera`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Washingtonia filifera*

Subject:

Washingtonia filifera

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Washingtonia filifera

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:45:00 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment   Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Weigela coraeensis

Common name:		Family:	Caprifoliaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Grows near seashores all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla coraeensis[G]
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6. It is in flower in June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Young leaves - cooked[105]. A famine food, they are only used when all else fails[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200]. Judging by the plants native range, it is likely to succeed in maritime exposure[K].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

There are some named forms, selected for their ornamental value[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Weigela coraeensis

Common name:		Family:	Caprifoliaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Grows near seashores all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla coraeensis[G]
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6. It is in flower in June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Young leaves - cooked[105]. A famine food, they are only used when all else fails[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200]. Judging by the plants native range, it is likely to succeed in maritime exposure[K].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

There are some named forms, selected for their ornamental value[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

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Plants For A Future: Database Search Results

Weigela coraeensis

Common name:		Family:	Caprifoliaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Grows near seashores all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla coraeensis[G]
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6. It is in flower in June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Young leaves - cooked[105]. A famine food, they are only used when all else fails[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200]. Judging by the plants native range, it is likely to succeed in maritime exposure[K].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

There are some named forms, selected for their ornamental value[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

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Add a comment on: *Weigela coraeensis*

Subject:

Weigela coraeensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Weigela decora

Common name:		Family:	Caprifoliaceae
Author:	(Nak.) Nak.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla decora[G]
Epithets:	From a Dictionary of Botanical Epithets
	decora = beautiful;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Young leaves - cooked[105]. They can be boiled with rice or millet[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

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Author:	(Nak.) Nak.	Botanical references:	58, 200
Synonyms:			
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Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Young leaves - cooked[105]. They can be boiled with rice or millet[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

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Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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Readers Comments

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Plants For A Future: Database Search Results

Weigela decora

Common name:		Family:	Caprifoliaceae
Author:	(Nak.) Nak.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla decora[G]
Epithets:	From a Dictionary of Botanical Epithets
	decora = beautiful;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Young leaves - cooked[105]. They can be boiled with rice or millet[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Weigela decora*

Subject:

Weigela decora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Weigela decora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Weigela floribunda

Common name:		Family:	Caprifoliaceae
Author:	(Sieb. & Zucc.) K. Koch.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla floribunda[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Crimson Weigela [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	floribunda = profusely flowered;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 2.5m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Young leaves - cooked[177]. A famine food, they are only used when all else fails.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Plants are very hardy, tolerating temperatures down to about -23°c[200].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

Closely related to W. coraeensis[11].

There are a number of named forms, selected for their ornamental value[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Weigela floribunda

Common name:		Family:	Caprifoliaceae
Author:	(Sieb. & Zucc.) K. Koch.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	Order: Dipsacales . Honeysuckle family

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves.

Young leaves - cooked[177]. A famine food, they are only used when all else fails.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

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Closely related to W. coraeensis[11].

There are a number of named forms, selected for their ornamental value[200].

Plants in this genus are notably resistant to honey fungus[200].

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Range:	E. Asia - Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

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Edible Uses

Leaves.

Young leaves - cooked[177]. A famine food, they are only used when all else fails.

Medicinal Uses

Disclaimer

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Other Uses

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Cultivation details

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Propagation

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Add a comment on: *Weigela floribunda*

Subject:

Weigela floribunda

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Weigela floribunda

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Weigela florida

Common name:		Family:	Caprifoliaceae
Author:	(Bunge.) A. DC.	Botanical references:	11, 200
Synonyms:	Weigela rosea (Lindl.), Diervilla florida ((Bunge.)Siebold.&Zucc.), Calysphyrum floridum (Bunge.)		
Known Hazards:	None known		
Range:	E. Asia - N. China, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Old Fashioned Weigela [DEN1], Old-fashioned Weigela [B], Oldfashioned Weigela [P], Weigela [H],
Epithets:	From a Dictionary of Botanical Epithets
	florida = flowering;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 3m by 3m at a medium rate. It is hardy to zone 5. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Plants can be grown as a medium sized hedge, the cultivar 'Folis Purpuris' is most often used[29].

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Hardy to about -20°c[184].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

There are many named varieties grown for their ornamental value[182, 200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: T-W
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

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Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Weigela florida

Common name:		Family:	Caprifoliaceae
Author:	(Bunge.) A. DC.	Botanical references:	11, 200
Synonyms:	Weigela rosea (Lindl.), Diervilla florida ((Bunge.)Siebold.&Zucc.), Calysphyrum floridum (Bunge.)		
Known Hazards:	None known		
Range:	E. Asia - N. China, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Old Fashioned Weigela [DEN1], Old-fashioned Weigela [B], Oldfashioned Weigela [P], Weigela [H],
Epithets:	From a Dictionary of Botanical Epithets
	florida = flowering;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 3m by 3m at a medium rate. It is hardy to zone 5. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Plants can be grown as a medium sized hedge, the cultivar 'Folis Purpuris' is most often used[29].

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Hardy to about -20°c[184].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

There are many named varieties grown for their ornamental value[182, 200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Cultivars

"

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

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- Checklist of plants suitable for hedging and windbreaks: T-W
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Readers Comments

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Plants For A Future: Database Search Results

Weigela florida

Common name:		Family:	Caprifoliaceae
Author:	(Bunge.) A. DC.	Botanical references:	11, 200
Synonyms:	Weigela rosea (Lindl.), Diervilla florida ((Bunge.)Siebold.&Zucc.), Calysphyrum floridum (Bunge.)		
Known Hazards:	None known		
Range:	E. Asia - N. China, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Old Fashioned Weigela [DEN1], Old-fashioned Weigela [B], Oldfashioned Weigela [P], Weigela [H],
Epithets:	From a Dictionary of Botanical Epithets
	florida = flowering;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub growing to 3m by 3m at a medium rate. It is hardy to zone 5. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Plants can be grown as a medium sized hedge, the cultivar 'Folis Purpuris' is most often used[29].

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Hardy to about -20°c[184].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

There are many named varieties grown for their ornamental value[182, 200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

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Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Weigela florida

Group:
Plant Information

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Weigela florida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Weigela hortensis

Common name:		Family:	Caprifoliaceae
Author:	(Sieb. & Zucc.) K. Koch.	Botanical references:	11, 58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla hortensis[G]
Epithets:	From a Dictionary of Botanical Epithets
	hortensis = of gardens;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub. It is hardy to zone 7. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Tea.

Young leaves - cooked[105, 177]. A famine food, they are only used when all else fails.

A tea is made from the leaves[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182]. The flowers have a soft sweet perfume[245].

Closely related to W. japonica[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Scent

Flowers: Fresh

The flowers have a soft sweet perfume[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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Email Address:

Submit

Add a longer comment

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Weigela+hortensis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Weigela+hortensis`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Weigela hortensis

Common name:		Family:	Caprifoliaceae
Author:	(Sieb. & Zucc.) K. Koch.	Botanical references:	11, 58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Tea.

Young leaves - cooked[105, 177]. A famine food, they are only used when all else fails.

A tea is made from the leaves[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182]. The flowers have a soft sweet perfume[245].

Closely related to W. japonica[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Scent

Flowers: Fresh

The flowers have a soft sweet perfume[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Weigela hortensis

Common name:		Family:	Caprifoliaceae
Author:	(Sieb. & Zucc.) K. Koch.	Botanical references:	11, 58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla hortensis[G]
Epithets:	From a Dictionary of Botanical Epithets
	hortensis = of gardens;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

A decidious shrub. It is hardy to zone 7. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Tea.

Young leaves - cooked[105, 177]. A famine food, they are only used when all else fails.

A tea is made from the leaves[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182]. The flowers have a soft sweet perfume[245].

Closely related to W. japonica[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Scent

Flowers: Fresh

The flowers have a soft sweet perfume[245].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Weigela hortensis*

Subject:

Weigela hortensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Weigela hortensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 01:45:40 2004

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Weigela japonica

Common name:		Family:	Caprifoliaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Diervilla versicolor, Diervilla japonica ((Thunb.)DC.)		
Known Hazards:	The leaves are slightly toxic[178].		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla floribunda var. versicolor[G] W. floribunda var. versicolor[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Yang Lu [E],
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Salve.

Salve. Used as a wash for virulent sores[178].

Other Uses

Hedge.

Plants can be grown as a hedge[178].

Cultivation details

An easily grown plant, succeeding in most fertile soils[11, 200]. Prefers a moist well-drained soil in sun or partial shade[200]. Tolerates atmospheric pollution[200].

Plants are very floriferous and can exhaust themselves, literally flowering themselves to death. The flowers are borne in the leaf nodes of the previous years growth and any pruning is therefore best done as soon as the plant has finished flowering[182].

There are some named forms selected for their ornamental value[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

Softwood basal cuttings, 10 - 12cm long, in a sandy soil in a cold frame in early summer[200].

Cuttings of half-ripe wood, 8 - 10 cm with a heel, July/August in a frame[200].

Cuttings of mature wood of the current seasons growth. 20 cm long, November in a sheltered outdoor nursery bed[200].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Diervilla versicolor* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Weigela japonica

Common name:		Family:	Caprifoliaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Diervilla versicolor, Diervilla japonica ((Thunb.)DC.)		
Known Hazards:	The leaves are slightly toxic[178].		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diervilla floribunda var. versicolor[G] W. floribunda var. versicolor[G]
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Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
	China

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Salve.

Salve. Used as a wash for virulent sores[178].

Other Uses

Hedge.

Plants can be grown as a hedge[178].

Cultivation details

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There are some named forms selected for their ornamental value[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible, otherwise in late winter or early spring. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer.

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Known Hazards:	The leaves are slightly toxic[178].		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

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Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

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Add a comment on: *Weigela japonica*

Subject:

Weigela japonica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Weigela japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Email Address:

Date: Sun May 16 01:45:47 2004

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Weinmannia racemosa

Common name:	Kamahi	Family:	Cunoniaceae
Author:	L. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to montane forest, North, South and Stewart islands[44].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	racemosa = with racemes;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Cunonia family

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 9. It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit - raw. A sweet and pleasant flavour[2, 105, 177]. The fruit is about 5mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Tannin; Wood.

A black dye is obtained from the bark[153].

The bark contains about 13% tannin[46, 61, 123, 153].

Wood. Used in cabinet making[153].

Cultivation details

Prefers a light rich soil[1]. Succeeds in a fertile well-drained circum-neutral loamy soil, with shelter from cold winds[200].

Plants are not very frost-tolerant, though they are probably hardy in the mildest areas of the country[11, 166].

The foliage of this tree when an adult is markedly different from the juvenile foliage, though plants begin to flower whilst still in the juvenile form[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in spring in a warm greenhouse. Prick the seedlings out into individual pots when they are large enough to handle. Overwinter the young plants in a greenhouse for at least the first winter and plant out in their permanent positions in late spring or early summer. Give some protection for its first winter

outdoors.

Cuttings of half-ripe wood, 5 - 8cm with a heel, July/August in a frame[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

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An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[123] **?** *Encyclopaedia Britannica. 15th edition.*
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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Weinmannia racemosa

David Nicholls Fri Jun 9 23:13:44 2000

CAUTION! The berries are not edible according to Crowe, the main authority on New Zealand edibles,see page 165 A field Guide to the Native edible plants of New Zealand 1997 edition. He says the error probably started with Sturtevant getting confused with Tawa (Beilschmiedia tawa, one of the best N.Z edibles I think, if you can adjust to fruit tasting like potato)which has a similar Maori name.

He does not however say it is poisonous and it is not listed anywhere as poisonous as far as I can see.

It was however very valuable to Maori for other uses above and bark was once exported for very high tannin content.

I have no personal experience of growing or using this plant.

P.S.I dont mean to sound unappreciative I really like this websight, very useful to me, thanks.

David Nicholls

New Zealand

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Author:	L. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to montane forest, North, South and Stewart islands[44].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	racemosa = with racemes;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Cunonia family

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 9. It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit - raw. A sweet and pleasant flavour[2, 105, 177]. The fruit is about 5mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Tannin; Wood.

A black dye is obtained from the bark[153].

The bark contains about 13% tannin[46, 61, 123, 153].

Wood. Used in cabinet making[153].

Cultivation details

Prefers a light rich soil[1]. Succeeds in a fertile well-drained circum-neutral loamy soil, with shelter from cold winds[200].

Plants are not very frost-tolerant, though they are probably hardy in the mildest areas of the country[11, 166].

The foliage of this tree when an adult is markedly different from the juvenile foliage, though plants begin to flower whilst still in the juvenile form[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in spring in a warm greenhouse. Prick the seedlings out into individual pots when they are large enough to handle. Overwinter the young plants in a greenhouse for at least the first winter and plant out in their permanent positions in late spring or early summer. Give some protection for its first winter outdoors.

Cuttings of half-ripe wood, 5 - 8cm with a heel, July/August in a frame[78].

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I have no personal experience of growing or using this plant.

P.S.I dont mean to sound unappreciative I really like this websight, very useful to me, thanks.

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New Zealand

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Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to montane forest, North, South and Stewart islands[44].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	racemosa = with racemes;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Cunonia family

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 9. It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit - raw. A sweet and pleasant flavour[2, 105, 177]. The fruit is about 5mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Tannin; Wood.

A black dye is obtained from the bark[153].

The bark contains about 13% tannin[46, 61, 123, 153].

Wood. Used in cabinet making[153].

Cultivation details

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Cuttings of half-ripe wood, 5 - 8cm with a heel, July/August in a frame[78].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Weinmannia racemosa*

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Weinmannia racemosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Wikstroemia japonica

Common name:		Family:	Thymelaeaceae
Author:	(Sieb. & Zucc.) Miq.	Botanical references:	58
Synonyms:	Wikstroemia trichotoma ((Thunb.)Makino.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Grassy slopes and thickets in the hills of central and southern Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Wickstroemia japonica[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Jao Hua [E],
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Mezereum family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Shrub. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Paper.

A paper is make from the bark[46].

Cultivation details

Not known

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for *Wickstroemia japonica* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Thymelaeaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants*. Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Add a longer comment

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Known Hazards:	None known		
Range:	E. Asia - Japan.		
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Shrub. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Paper.

A paper is make from the bark[46].

Cultivation details

Not known

Propagation

Seed -

Suppliers

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Range:	E. Asia - Japan.		
Habitat:	Grassy slopes and thickets in the hills of central and southern Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Wickstroemia japonica[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Jao Hua [E],
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Mezereum family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Shrub. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Paper.

A paper is make from the bark[46].

Cultivation details

Not known

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Wikstroemia japonica*

Subject:

Wikstroemia japonica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wikstroemia japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:46:03 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Wikstroemia sikokiana

Common name:		Family:	Thymelaeaceae
Author:	Franch. & Sav.	Botanical references:	58, 200
Synonyms:	Diplomorpha sikokiana ((Franch.&Sav.)Nakai.)		
Known Hazards:	None known		
Range:	E. Asia - central and southern Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Myrtales . Mezereum family

Physical Characteristics

Shrub. It is hardy to zone 9 and is frost tender. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Paper.

A paper can be obtained from the bark[46].

Cultivation details

200

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for the family Thymelaeaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Wikstroemia sikokiana

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Author:	Franch. & Sav.	Botanical references:	58, 200
Synonyms:	Diplomorpha sikokiana ((Franch.&Sav.)Nakai.)		
Known Hazards:	None known		
Range:	E. Asia - central and southern Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Myrtales . Mezereum family

Physical Characteristics

Shrub. It is hardy to zone 9 and is frost tender. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Paper.

A paper can be obtained from the bark[46].

Cultivation details

200

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for the family Thymelaeaceae.

See the PFAF Links Pages for other sources

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References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Paper.

A paper can be obtained from the bark[46].

Cultivation details

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Add a comment on: *Wikstroemia sikokiana*

Subject:

Wikstroemia sikokiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wikstroemia sikokiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Wisteria floribunda

Common name:	Japanese wisteria	Family:	Leguminosae
Author:	(Willd.) DC.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - Japan.		
Habitat:	Damp habitats by streams etc in thickets and woods in hills and mountains in all areas of Japan south of Hokkaido[58, 200, 249].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Glycine floribunda[G] Kraunhia floribunda[B,G,P] Rehsonia floribunda[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Wisteria [H,P,DEN1,E,B], Wistaria [E], Wisteria [H],
Epithets:	From a Dictionary of Botanical Epithets
	floribunda = profusely flowered;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Japan; Us

Physical Characteristics

A decidious climber growing to 8m by 8m at a medium rate. It is hardy to zone 4. It is in flower from June to July, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers; Leaves; Seed; Tea.

Seed - cooked[105, 177, 183]. When baked in a fire they have much the same flavour as chestnuts[249]. Some caution is advised, see the notes on toxicity at the top of the page.

Young leaves - cooked[105, 177, 183]. The tender young leaves are sometimes eaten and are also used a a tea substitute[249].

Flowers - cooked[105, 177, 183]. Used as a food in parts of China[249].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre.

The bark is used for making ropes and sandals[249]. The branches can be used as cables and also for making bridges, for which purpose it is said to be very durable[249].

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Although they are winter hardy to about -20°c[200], when growing in areas with cool summers the plants require the extra summer warmth of a sunny wall if they are to do well[184].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

A vigorous climbing plant, supporting itself by twining around shrubs and trees, though it also succeeds as a free-standing shrub, growing to about 2 metres in height. The shoots twine in a clock-wise direction[182].

This species is closely related to W. sinensis[50, 126].

Often grown as an ornamental plant, there are many named varieties[182, 200]. The flowers have a strong perfume which can be sweet or musty according to the variety being grown[249].

The plants flower mainly on short spurs so, if removing unwanted side-branches, it is best to cut them back to 2 - 3 leaves rather than removing them completely since this will encourage the formation of flowering spurs[249]. Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

Plants are self-fertile and usually produce good crops of seeds in cultivation, there are several cultivars such as 'Geisha' and 'Royal Purple' that are particularly good at this[249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late

spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Scent

Flowers: Fresh

> The flowers can have a sweet or musky scent according to variety[249].

Cultivars

'Shiro Noda'

> This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Royal Purple'

> This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Lawrence'

> This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Geisha'

> This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[249] **Valder. P.** *Wisterias: a comprehensive guide.* Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

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Readers Comments

Wisteria floribunda

EllenMcGrath-Thorpe Sat Apr 26 18:33:07 2003

can this plant be grown in a container? thanks, Ellen

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Wisteria floribunda

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Author:	(Willd.) DC.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - Japan.		
Habitat:	Damp habitats by streams etc in thickets and woods in hills and mountains in all areas of Japan south of Hokkaido[58, 200, 249].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Glycine floribunda[G] Kraunhia floribunda[B,G,P] Rehsonia floribunda[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Wisteria [H,P,DEN1,E,B], Wistaria [E], Wisteria [H],
Epithets:	From a Dictionary of Botanical Epithets
	floribunda = profusely flowered;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Japan; Us

Physical Characteristics

A decidious climber growing to 8m by 8m at a medium rate. It is hardy to zone 4. It is in flower from June to July, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers; Leaves; Seed; Tea.

Seed - cooked[105, 177, 183]. When baked in a fire they have much the same flavour as chestnuts[249]. Some caution is advised, see the notes on toxicity at the top of the page.

Young leaves - cooked[105, 177, 183]. The tender young leaves are sometimes eaten and are also used a a tea substitute[249].

Flowers - cooked[105, 177, 183]. Used as a food in parts of China[249].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre.

The bark is used for making ropes and sandals[249]. The branches can be used as cables and also for making bridges, for which purpose it is said to be very durable[249].

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Although they are winter hardy to about -20°c[200], when growing in areas with cool summers the plants require the extra summer warmth of a sunny wall if they are to do well[184].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

A vigorous climbing plant, supporting itself by twining around shrubs and trees, though it also succeeds as a free-standing shrub, growing to about 2 metres in height. The shoots twine in a clock-wise direction[182].

This species is closely related to W. sinensis[50, 126].

Often grown as an ornamental plant, there are many named varieties[182, 200]. The flowers have a strong perfume which can be sweet or musty according to the variety being grown[249].

The plants flower mainly on short spurs so, if removing unwanted side-branches, it is best to cut them back to 2 - 3 leaves rather than removing them completely since this will encourage the formation of flowering spurs[249]. Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

Plants are self-fertile and usually produce good crops of seeds in cultivation, there are several cultivars such as 'Geisha' and 'Royal Purple' that are particularly good at this[249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Scent

Flowers: Fresh

The flowers can have a sweet or musky scent according to variety[249].

Cultivars

'Shiro Noda'

This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Royal Purple'

This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Lawrence'

This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Geisha'

This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[249] **Valder. P.** *Wisterias: a comprehensive guide.* Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

Readers Comments

Wisteria floribunda

EllenMcGrath-Thorpe Sat Apr 26 18:33:07 2003

can this plant be grown in a container? thanks, Ellen

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Wisteria+floribunda`

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Plants For A Future: Database Search Results

Wisteria floribunda

Common name:	Japanese wisteria	Family:	Leguminosae
Author:	(Willd.) DC.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - Japan.		
Habitat:	Damp habitats by streams etc in thickets and woods in hills and mountains in all areas of Japan south of Hokkaido[58, 200, 249].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Glycine floribunda[G] Kraunhia floribunda[B,G,P] Rehsonia floribunda[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Wisteria [H,P,DEN1,E,B], Wistaria [E], Wisteria [H],
Epithets:	From a Dictionary of Botanical Epithets
	floribunda = profusely flowered;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Japan; Us

Physical Characteristics

A decidious climber growing to 8m by 8m at a medium rate. It is hardy to zone 4. It is in flower from June to July, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers; Leaves; Seed; Tea.

Seed - cooked[105, 177, 183]. When baked in a fire they have much the same flavour as chestnuts[249]. Some caution is advised, see the notes on toxicity at the top of the page.

Young leaves - cooked[105, 177, 183]. The tender young leaves are sometimes eaten and are also used a a tea substitute[249].

Flowers - cooked[105, 177, 183]. Used as a food in parts of China[249].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre.

The bark is used for making ropes and sandals[249]. The branches can be used as cables and also for making bridges, for which purpose it is said to be very durable[249].

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Although they are winter hardy to about -20°c[200], when growing in areas with cool summers the plants require the extra summer warmth of a sunny wall if they are to do well[184].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

A vigorous climbing plant, supporting itself by twining around shrubs and trees, though it also succeeds as a free-standing shrub, growing to about 2 metres in height. The shoots twine in a clock-wise direction[182].

This species is closely related to W. sinensis[50, 126].

Often grown as an ornamental plant, there are many named varieties[182, 200]. The flowers have a strong perfume which can be sweet or musty according to the variety being grown[249].

The plants flower mainly on short spurs so, if removing unwanted side-branches, it is best to cut them back to 2 - 3 leaves rather than removing them completely since this will encourage the formation of flowering spurs[249]. Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

Plants are self-fertile and usually produce good crops of seeds in cultivation, there are several cultivars such as 'Geisha' and 'Royal Purple' that are particularly good at this[249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Scent

Flowers: Fresh

The flowers can have a sweet or musky scent according to variety[249].

Cultivars

'Shiro Noda'

This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Royal Purple'

This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Lawrence'

This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

'Geisha'

This form produces seed more abundantly than most cultivars, the seeds being produced in long, many-seeded pods[249].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Wisteria floribunda*

Subject:

Wisteria floribunda

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wisteria floribunda

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Wisteria frutescens

Common name:	American wisteria	Family:	Leguminosae
Author:	(L.) Poir.	Botanical references:	11, 200
Synonyms:	Glycine frutescens (L.)		
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	South-eastern N. America - Virginia to Florida, Arkansas and Texas.		
Habitat:	Clambering over cliffs and trees on woodland edges in low moist ground[235, 249].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Kraunhia frutescens[B,P] Kraunhia macrostachya[B,P] W. frutescens var. frutescens[G] W. frutescens var. macrostachya[B,P] W. macrostachya[B,,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Wisteria [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber growing to 12m. It is hardy to zone 5. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers.

The fresh flowers are eaten in tossed green salads[183]. They are said to be excellent when dipped in batter and fried in oil as fritters[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

A number of named forms have been selected for their ornamental value[200].

Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

Plants in this genus are notably susceptible to honey fungus[200].

A climbing plant, twining in an anticlockwise direction around the stems of other plants[249].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Wisteria frutescens var. frutescens* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0

A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada*
Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[249] **Valder. P.** *Wisterias: a comprehensive guide.* Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Wisteria frutescens

Common name:	American wisteria	Family:	Leguminosae
Author:	(L.) Poir.	Botanical references:	11, 200
Synonyms:	Glycine frutescens (L.)		
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	South-eastern N. America - Virginia to Florida, Arkansas and Texas.		
Habitat:	Clambering over cliffs and trees on woodland edges in low moist ground[235, 249].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Kraunhia frutescens[B,P] Kraunhia macrostachya[B,P] W. frutescens var. frutescens[G] W. frutescens var. macrostachya[B,P] W. macrostachya[B,,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Wisteria [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber growing to 12m. It is hardy to zone 5. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers.

The fresh flowers are eaten in tossed green salads[183]. They are said to be excellent when dipped in batter and fried in oil as fritters[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

A number of named forms have been selected for their ornamental value[200].

Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

Plants in this genus are notably susceptible to honey fungus[200].

A climbing plant, twining in an anticlockwise direction around the stems of other plants[249].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but

some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Wisteria frutescens var. frutescens* (a possible synonym).

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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[249] **Valder. P.** *Wisterias: a comprehensive guide.* Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

Readers Comments

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Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	South-eastern N. America - Virginia to Florida, Arkansas and Texas.		
Habitat:	Clambering over cliffs and trees on woodland edges in low moist ground[235, 249].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

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Habitats and Possible Locations

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Edible Uses

Flowers.

The fresh flowers are eaten in tossed green salads[183]. They are said to be excellent when dipped in batter and fried in oil as fritters[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

Plants in this genus are notably susceptible to honey fungus[200].

A climbing plant, twining in an anticlockwise direction around the stems of other plants[249].

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Wisteria frutescens*

Subject:

Wisteria frutescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wisteria frutescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:46:28 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Wisteria japonica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Leguminosae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Milletia japonica (Siebold.&Zucc.)		
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - Japan, Korea.		
Habitat:	Clambering over cliffs and trees on woodland edges and in thickets in lowland, C. and S. Japan.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Kraunhia japonica[G] Millettia japonica[G]
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Seed.

Seed - cooked[105]. A famine food, used when all else fails[177]. Some caution is advised, see the notes on toxicity at the top of the page.

Young leaves - cooked[105]. A famine food, they are only used when all else fails[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

This species is not hardy in the colder areas of the country[200].

There is some confusion over the correct name of this species, many authorities referring it to a separate genus as Millettia japonica (Sieb.&Zucc.)A.Gray.[249].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

A climbing plant, attaching itself to branches or whatever by twining in a clockwise direction[249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

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Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Millettia japonica* (a possible synonym).

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References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Your Name:	
Email Address:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Physical Characteristics

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Leaves; Seed.

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Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Millettia japonica* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[249] **Valder. P.** *Wisterias: a comprehensive guide.* Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

Readers Comments

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Plants For A Future: Database Search Results

Wisteria japonica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Leguminosae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Milletia japonica (Siebold.&Zucc.)		
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - Japan, Korea.		
Habitat:	Clambering over cliffs and trees on woodland edges and in thickets in lowland, C. and S. Japan.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Kraunhia japonica[G] Millettia japonica[G]
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Seed.

Seed - cooked[105]. A famine food, used when all else fails[177]. Some caution is advised, see the notes on toxicity at the top of the page.

Young leaves - cooked[105]. A famine food, they are only used when all else fails[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

This species is not hardy in the colder areas of the country[200].

There is some confusion over the correct name of this species, many authorities referring it to a separate genus as Millettia japonica (Sieb.&Zucc.)A.Gray.[249].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

A climbing plant, attaching itself to branches or whatever by twining in a clockwise direction[249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Wisteria japonica*

Subject:

Wisteria japonica

Group:
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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wisteria japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Wisteria sinensis

Common name:	Chinese wisteria	Family:	Leguminosae
Author:	(Sims.) Sweet.	Botanical references:	11, 109, 200
Synonyms:	Wisteria chinensis (DC.)		
Known Hazards:	The seed of all members of this genus is poisonous[200]. The bark contains a glycoside and a resin that are both poisonous[218]. The seed and seedpod contains a resin and a glycoside called wisterin. They have caused poisoning in children of many countries, producing mild to severe gastro-enteritis[249].		
Range:	E. Asia - China. Locally naturalized in Europe in France[50].		
Habitat:	Clambering over cliffs and trees on woodland edges at low altitudes in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Glycine sinensis[G] Kraunhia sinensis[G] Rehsonia sinensis[B,P] W. sinensis var. alba[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Wisteria [B,E,P], Wistaria [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Japan; Us

Physical Characteristics

A decidious climber growing to 25m by 20m at a medium rate. It is hardy to zone 5. It is in flower in May, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers; Seed; Tea.

Seed - cooked[105, 177, 183]. Some caution is advised, see notes on toxicity at the top of the page.

Flowers - cooked. They are thoroughly washed and then boiled or made into fritters[105, 177, 179, 183]. The flowers are also cured in sugar then mixed with flour and made into a famous local delicacy called 'Teng Lo'[249].

The leaves contain allantoic acid[218]. They are used as a tea substitute[218]. The young leaves have also been eaten[249].

Medicinal Uses

Disclaimer

Cardiac; Diuretic.

The seed is diuretic[178, 218]. It is used in the treatment of heart ailments[178, 218].

One report says that the stems and flowers are also used in Chinese medicine, but gives no more information[249].

Other Uses

Paper.

A fibre from the stems can be used to make paper, the fibre is about 1.3 - 3.7mm long[189]. Stems are harvested in the summer, the leaves removed and the stems steamed until the fibre can be stripped. The fibres are cooked for 2 hours with lye and then put in a ball mill for 3 hours. The paper is a buff colour[189].

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Succeeds in partial shade. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Hardy to about -15°c[184, 200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

There are several named forms selected for their ornamental value[188].

Sparrows and other birds frequently eat the young buds of this plant and this is the commonest cause of poor flowering on established plants[184]. Plants sometimes have a second season of flowering in August[219].

The plants flower mainly on short spurs so, if removing unwanted side-branches, it is best to cut them back to 2 - 3 leaves rather than removing them completely since this will encourage the formation of flowering spurs[249]. Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

A climbing plant supporting itself by twining around other plants, the shoots twine in an anticlockwise direction[182].

Very tolerant of pruning, plants can regenerate from old wood[202].

Plants in this genus are notably susceptible to honey fungus[200].

Closely related to W. floribunda[126].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

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Division of suckers in the winter[249]. If growing named varieties, it is of course necessary to ensure they are growing on their own roots if the suckers are to be true to type[249].

Scent

Flowers: Fresh

> The flowers can have a sweet or musky scent according to variety[249].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Wisteria chinensis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre

A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[249] **Valder. P.** *Wisterias: a comprehensive guide*. Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

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Wisteria sinensis

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Range:	E. Asia - China. Locally naturalized in Europe in France[50].		
Habitat:	Clambering over cliffs and trees on woodland edges at low altitudes in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Japan; Us

Physical Characteristics

A decidious climber growing to 25m by 20m at a medium rate. It is hardy to zone 5. It is in flower in May, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2

out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

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One report says that the stems and flowers are also used in Chinese medicine, but gives no more information[249].

Other Uses

Paper.

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Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Succeeds in partial shade. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

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Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late

spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Division of suckers in the winter[249]. If growing named varieties, it is of course necessary to ensure they are growing on their own roots if the suckers are to be true to type[249].

Scent

Flowers: Fresh

> The flowers can have a sweet or musky scent according to variety[249].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Wisteria chinensis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2

Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[249] **Valder. P.** *Wisterias: a comprehensive guide.* Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

Readers Comments

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Plants For A Future: Database Search Results

Wisteria sinensis

Common name:	Chinese wisteria	Family:	Leguminosae
Author:	(Sims.) Sweet.	Botanical references:	11, 109, 200
Synonyms:	Wisteria chinensis (DC.)		
Known Hazards:	The seed of all members of this genus is poisonous[200]. The bark contains a glycoside and a resin that are both poisonous[218]. The seed and seedpod contains a resin and a glycoside called wisterin. They have caused poisoning in children of many countries, producing mild to severe gastro-enteritis[249].		
Range:	E. Asia - China. Locally naturalized in Europe in France[50].		
Habitat:	Clambering over cliffs and trees on woodland edges at low altitudes in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Glycine sinensis[G] Kraunhia sinensis[G] Rehsonia sinensis[B,P] W. sinensis var. alba[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Wisteria [B,E,P], Wistaria [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Japan; Us

Physical Characteristics

A decidious climber growing to 25m by 20m at a medium rate. It is hardy to zone 5. It is in flower in May, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2

out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers; Seed; Tea.

Seed - cooked[105, 177, 183]. Some caution is advised, see notes on toxicity at the top of the page.

Flowers - cooked. They are thoroughly washed and then boiled or made into fritters[105, 177, 179, 183]. The flowers are also cured in sugar then mixed with flour and made into a famous local delicacy called 'Teng Lo'[249].

The leaves contain allantoic acid[218]. They are used as a tea substitute[218]. The young leaves have also been eaten[249].

Medicinal Uses

Disclaimer

Cardiac; Diuretic.

The seed is diuretic[178, 218]. It is used in the treatment of heart ailments[178, 218].

One report says that the stems and flowers are also used in Chinese medicine, but gives no more information[249].

Other Uses

Paper.

A fibre from the stems can be used to make paper, the fibre is about 1.3 - 3.7mm long[189]. Stems are harvested in the summer, the leaves removed and the stems steamed until the fibre can be stripped. The fibres are cooked for 2 hours with lye and then put in a ball mill for 3 hours. The paper is a buff colour[189].

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Succeeds in partial shade. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Hardy to about -15°c[184, 200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

There are several named forms selected for their ornamental value[188].

Sparrows and other birds frequently eat the young buds of this plant and this is the commonest cause of poor flowering on established plants[184]. Plants sometimes have a second season of flowering in August[219].

The plants flower mainly on short spurs so, if removing unwanted side-branches, it is best to cut them back to 2 - 3 leaves rather than removing them completely since this will encourage the formation of flowering spurs[249]. Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

A climbing plant supporting itself by twining around other plants, the shoots twine in an anticlockwise direction[182].

Very tolerant of pruning, plants can regenerate from old wood[202].

Plants in this genus are notably susceptible to honey fungus[200].

Closely related to W. floribunda[126].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late

spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Division of suckers in the winter[249]. If growing named varieties, it is of course necessary to ensure they are growing on their own roots if the suckers are to be true to type[249].

Scent

Flowers: Fresh

> The flowers can have a sweet or musky scent according to variety[249].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Wisteria sinensis

Group:
Plant Information

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Wisteria sinensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Wisteria venusta

Common name:	Silky wisteria	Family:	Leguminosae
Author:	Rehd. & Wils.	Botanical references:	11, 58, 200
Synonyms:	Wisteria brachybotrys (Siebold.&Zucc.)		
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - Japan.		
Habitat:	Clambering over cliffs and trees on woodland edges in mountains and hills[58, 249].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	venusta = charming;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber growing to 10m by 10m . It is hardy to zone 5. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Seed.

Seed - cooked[105]. Some caution is advised, see notes on toxicity at the top of the page.

Young leaves - cooked[61, 105].

Medicinal Uses

Disclaimer

Antiinflammatory; Antitumor.

Galls that develop on the plant as a result of infection by the bacterium Erwinia milletiae are used in Japanese folk medicine as an anti-inflammatory agent[249]. Recent research has shown that substances in these galls can be used in the treatment of gastric cancer and can also inhibit kin tumour promotion by the Epstein-Barr virus[249].

Other Uses

Fibre.

A fibre obtained from the bark is used for making cloth and thread[46, 61, 249].

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Hardy to about -20°c[184, 200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

The name for this species was originally based on the cultivated garden form with white flowers. The true wild form is known as W. venusta violacea. Rehd[200].

Cultivated as a fibre plant in Japan[61].

There are several named varieties, develed for their ornamental value[249]. The flowers are scented, the smell can be either sweet or musky according to the variety being grown[249].

The plants flower mainly on short spurs so, if removing unwanted side-branches, it is best to cut them back to 2 - 3 leaves rather than removing them completely since this will encourage the formation of flowering spurs[249]. Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

A vigorous climbing plant supporting itself by twining around other plants, the shoots twine in an anticlockwise direction[184, 249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

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Scent

Flowers: Fresh

The flowers are delicately scented[245].

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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Epithets:	From a Dictionary of Botanical Epithets
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Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Seed.

Seed - cooked[105]. Some caution is advised, see notes on toxicity at the top of the page.

Young leaves - cooked[61, 105].

Medicinal Uses

Disclaimer

Antiinflammatory; Antitumor.

Galls that develop on the plant as a result of infection by the bacterium Erwinia milletiae are used in Japanese folk medicine as an anti-inflammatory agent[249]. Recent research has shown that substances in these galls can be used in the treatment of gastric cancer and can also inhibit kin tumour promotion by the Epstein-Barr virus[249].

Other Uses

Fibre.

A fibre obtained from the bark is used for making cloth and thread[46, 61, 249].

Cultivation details

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Hardy to about -20°c[184, 200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

The name for this species was originally based on the cultivated garden form with white flowers. The true wild form is known as W. venusta violacea. Rehd[200].

Cultivated as a fibre plant in Japan[61].

There are several named varieties, develed for their ornamental value[249]. The flowers are scented, the smell can be either sweet or musky according to the variety being grown[249].

The plants flower mainly on short spurs so, if removing unwanted side-branches, it is best to cut them back to 2 - 3 leaves rather than removing them completely since this will encourage the formation of flowering spurs[249]. Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

A vigorous climbing plant supporting itself by twining around other plants, the shoots twine in an anticlockwise direction[184, 249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Scent

Flowers: Fresh

The flowers are delicately scented[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Wisteria brachybotrys* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

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Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[249] **Valder. P.** *Wisterias: a comprehensive guide.* Florilegium. Australia. 1995 ISBN 0-646-22049-7
Excellent information and photographs of this genus with a little bit about their uses.

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Plants For A Future: Database Search Results

Wisteria venusta

Common name:	Silky wisteria	Family:	Leguminosae
Author:	Rehd. & Wils.	Botanical references:	11, 58, 200
Synonyms:	Wisteria brachybotrys (Siebold.&Zucc.)		
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - Japan.		
Habitat:	Clambering over cliffs and trees on woodland edges in mountains and hills[58, 249].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	venusta = charming;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber growing to 10m by 10m . It is hardy to zone 5. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Seed.

Seed - cooked[105]. Some caution is advised, see notes on toxicity at the top of the page.

Young leaves - cooked[61, 105].

Medicinal Uses

Disclaimer

Antiinflammatory; Antitumor.

Galls that develop on the plant as a result of infection by the bacterium Erwinia milletiae are used in Japanese folk medicine as an anti-inflammatory agent[249]. Recent research has shown that substances in these galls can be used in the treatment of gastric cancer and can also inhibit kin tumour promotion by the Epstein-Barr virus[249].

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Hardy to about -20°c[184, 200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

The name for this species was originally based on the cultivated garden form with white flowers. The true wild form is known as W. venusta violacea. Rehd[200].

Cultivated as a fibre plant in Japan[61].

There are several named varieties, develed for their ornamental value[249]. The flowers are scented, the smell can be either sweet or musky according to the variety being grown[249].

The plants flower mainly on short spurs so, if removing unwanted side-branches, it is best to cut them back to 2 - 3 leaves rather than removing them completely since this will encourage the formation of flowering spurs[249]. Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

A vigorous climbing plant supporting itself by twining around other plants, the shoots twine in an anticlockwise direction[184, 249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

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Scent

Flowers: Fresh

The flowers are delicately scented[245].

Suppliers

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Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wisteria venusta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Wisteria villosa

Common name:		Family:	Leguminosae
Author:	Rehd.	Botanical references:	
Synonyms:			
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - northern China.		
Habitat:	Clambering over cliffs and trees on woodland edges[249].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	villosa = hairy;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers.

Flowers[105, 177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species, though it is as hardy as W. sinensis and is quite possibly no more than a form of that species[249]. The following notes are based on the general needs of the genus.

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

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Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Excellent information and photographs of this genus with a little bit about their uses.

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Plants For A Future: Database Search Results

Wisteria villosa

Common name:		Family:	Leguminosae
Author:	Rehd.	Botanical references:	
Synonyms:			
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - northern China.		
Habitat:	Clambering over cliffs and trees on woodland edges[249].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	villosa = hairy;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers.

Flowers[105, 177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species, though it is as hardy as W. sinensis and is quite possibly no more than a form of that species[249]. The following notes are based on the general needs of the genus.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Wisteria+villosa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Wisteria+villosa`

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Plants For A Future: Database Search Results

Wisteria villosa

Common name:		Family:	Leguminosae
Author:	Rehd.	Botanical references:	
Synonyms:			
Known Hazards:	The seed of all members of this genus is poisonous[200].		
Range:	E. Asia - northern China.		
Habitat:	Clambering over cliffs and trees on woodland edges[249].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	villosa = hairy;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

A decidious climber. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Flowers.

Flowers[105, 177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species, though it is as hardy as W. sinensis and is quite possibly no more than a form of that species[249]. The following notes are based on the general needs of the genus.

Prefers a good loamy soil in a sunny south or south-west facing position, sheltered from cold winds and from early morning sun on frosty mornings[11, 200]. Plants can become chlorotic on alkaline soils[200]. A soil that is too rich results in excessive foliage at the expense of flowering[200].

Plants can take a few years to settle down after planting out[219]. Too much shade or too rich a soil are normally the culprits, some form of root restriction can be beneficial[219].

Any drastic pruning is best carried out in the spring, immediately after flowering[249]. Plants are very tolerant of even the most drastic pruning and will re-grow even if cut right back to the base[249].

Plants in this genus are notably susceptible to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. The plants also form a symbiotic relationship with a mycorrhizal fungus which makes more water, phosphorus and other minerals available to the plants[249].

Propagation

The seed does not exhibit any dormancy habits. It can be sown as soon as it is ripe in a cold frame and should germinate in the spring. Pre-soak stored seed for 24 hours in warm water and then sow in a greenhouse in early spring. The seed can also be sown in an outdoor seedbed in late spring[126]. Germination should take place in the first spring, though it can sometimes be delayed for another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out in late spring or early summer. Plants are very slow from seed and can take up to 20 years to come into flower[200].

Basal cuttings of side-shoots in early to mid summer in a frame[200]. Take the cuttings as soon as the new growth has hardened sufficiently, each cutting should have 2 - 3 leaves[249]. It can also help to remove a shallow slice of bark from the bottom 15mm of the cutting to expose extra cambium, since this will encourage more callusing and better rooting[249]. When kept in a mist frame with a bottom heat of 27 - 30°c, they will root within 4 weeks and produce well-established plants by the autumn[249].

Layering in spring. Simply lay any convenient long shoot along the ground and cover it with a shallow layer of soil. The shoot will readily produce roots at intervals along the stem. When these are well formed, the shoot can be divided up into a number of plants. These should be potted up and kept in a lightly shaded position in a greenhouse until well established and can then be planted out as required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Wisteria villosa*

Subject:

Wisteria villosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wisteria villosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:47:02 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Withania somnifera

Common name:	Ashwagandha	Family:	Solanaceae
Author:	(L.) Dunal.	Botanical references:	
Synonyms:			
Known Hazards:	The plant is toxic if eaten[238].		
Range:	Australia, E. Asia, Africa.		
Habitat:	Open places, disturbed areas etc[192]. An undershrub in stony places[238].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Physalis somnifera[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ajagandha [E], Ashwagandha [H], Clustered Wintercherry [H], Kanaje Hindi [E], Orovale [E], Samm Al Ferakh [E], Strychnos [E], Withania [P],
Epithets:	From a Dictionary of Botanical Epithets
	somnifer = sleep inducing; somnifera = sleep inducing;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database

	Afghanistan; Africa; Asia; Ethiopia; Greece; India; India(Ayurvedic); India(Punjab); India(Rajasthan); Iraq; Lesotho; Pakistan; South Africa(Kaffir); Spain; Sudan; Yemen
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 1m by 0.5m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Curdling agent.

The seeds are used to curdle plant milks in order to make vegetarian cheeses[183, 240].

Medicinal Uses

Disclaimer

Abortifacient; Adaptogen; Antibiotic; Aphrodisiac; Astringent; Deobstruent; Diuretic; Narcotic; Sedative; Tonic.

Ashwagandha is one of the most widespread tranquillisers used in India, where it holds a position of importance similar to ginseng in China[238]. It acts mainly on the reproductive and nervous systems, having a rejuvenative effect on the body, and is used to improve vitality and aid recovery after chronic illness[238, 254]. The plant is little known in the West[192].

The whole plant, but especially the leaves and the root bark, are abortifacient, adaptogen, antibiotic, aphrodisiac, deobstruent, diuretic, narcotic, strongly sedative and tonic[169, 192, 238, 240]. Internally, it is used to tone the uterus after a miscarriage and also in treating post-partum difficulties[192]. It is also used to treat nervous exhaustion, debility, insomnia, wasting diseases, failure to thrive in children, impotence, infertility, multiple sclerosis etc[238]. Externally it has been applied as a poultice to boils, swellings and other painful parts[192, 240]. The root is harvested in the autumn and dried for later use[238]. Some caution is advised in the use of this plant since it is toxic[K].

The fruit is diuretic[240].

The seed is diuretic and hypnotic[240].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Repellent; Soap.

The fruit is rich in saponins and can be used as a soap substitute[169, 192].

The leaves are an insect repellent[169].

Cultivation details

A fairly easily grown plant, it requires a warm sheltered position in full sun and a well-drained moderately fertile soil[169, K]. Prefers a dry stony soil[238].

This species is not hardy in temperate climates but it can be grown as an annual, flowering and fruiting in its first year from seed[169].

Propagation

Seed - sow early spring in a greenhouse. There is usually a high germination rate within 2 weeks. Prick out the seedlings into individual pots once they are large enough to handle and plant them out after the last expected frost. Consider giving the plants some protection, such as a cloche, until they are established and growing away well.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (T-W)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Solanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Readers Comments

Plant Rennet

Rich Sat Apr 15 16:59:27 2000

According to VegSoc, in the past, fig leaves, melon, wild thistle and safflower have all supplied plant rennets for cheese making.

agsieve also has information about another plant source, using the juice from the plant as a coagulant.

Cross references: *Plants:* *Asclepias eriocarpa* , *Carduus nutans* , *Carthamnus tinctorius* , *Cirsium arvense* , *Cirsium vulgare* , *Cynara cardunculus* , *Cynara scolymus* , *Drosera rotundifolia* , *Ficus carica* , *Galega officinalis* , *Galium verum* , *Fumaria officinalis* , *Oxalis acetosella* , *Pinguicula vulgaris* , *Pyrularia edulis* , *Rhus chinensis* , *Rumex acetosa* , *Urtica dioica* .

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future Rating (1-5):	3		

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Plants for a Future
A resource centre for edible and other useful plants

Back to PFAF home page. Main Catalogue Prev (S)

Due to all the work which needs doing on the Eco-Village at the moment, we will not be running the catalogue at the moment. However, we are busy propigating plants to get ready for a new catalogue to be release in the Autumn '98. These pages are just intended as a guide for the type of plant which may appear in the new catalogue.

T-W

960241 *Taxus cuspidata* **Japanese yew**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen tree to 10m tall.
It thrives in almost any soil, acid or alkaline, as long as it is well-drained, and in particular dry soils. It is very shade tolerant. It is dioecious - male and female plants must be grown if fruit and seed are required. The fruit is a fleshy berry about 8mm in diameter and containing a single seed. It can be eaten raw or cooked and is very sweet and gelatinous - most people find it delicious though some find it sickly. All other parts of this plant, including the seed, are highly poisonous. When eating the fruit you should spit out the large seed found in the fruit's centre. It does not matter if you should you swallow the whole seed since it will just pass straight through you without harm. If the seed is bitten into, however, you will immediately notice a very bitter flavour and you should spit it out or it could cause some problems. The wood is used for furniture, bows etc. A brown dye is obtained from the heartwood.

960079 *Thymus herba-barona* **Caraway thyme**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 10cm tall. Flowers in Summer.
Given a sunny position and a well-drained soil, thymes are easily grown. They tolerate poor or dry soils and drought. They can also be grown on a wall or as a ground cover.The plant has a fragrance reminiscent of caraway seeds and can be used as a flavouring for soups, vegetables etc., though we find the flavour rather strong. An essential oil from the plant is used in soaps, perfumery etc. The flowers are a magnet for bees and butterflies.

960080 *Thymus vulgaris* **Common thyme**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 20cm tall. Flowers for much of the Summer.
Given a sunny position and a well-drained soil, thymes are easily grown. They tolerate poor or dry soils and drought. They can also be grown on a wall or as a ground cover.The leaves and flowering tops make a great flavouring for salads or cooked food, and can also be used to make a herb tea. Regular consumption of thyme is said to increase life expectancy by up to 10%, and the plant also

has many other beneficial effects on the health. The growing plant is said to repel cabbage root fly, so grow some in your vegetable patch. The flowers will also attract lots of bees and butterflies.

960081 *Thymus x citriodorus* **Lemon thyme**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 10cm tall. Flowers in Summer.
Given a sunny position and a well-drained soil, thymes are easily grown. They tolerate poor or dry soils and drought. They can also be grown on a wall or as a ground cover.The leaves and flowering tops have a delicious lemon flavour. They make a great flavouring for salads or cooked food, and can also be used to make a herb tea. Regular consumption of thyme is said to increase life expectancy by up to 10%, and the plant also has many other beneficial effects on the health. The growing plant is said to repel cabbage root fly, so grow some in your vegetable patch. The flowers will also attract lots of bees and butterflies.

960099 *Tigridia pavonia* **Tiger flower**
£2.00 How is it supplied? 5 Bulbs When is it supplied: Winter? Yes Summer? No
Corm to 60cm tall. Not hardy outside of the milder ares of Britain. Flowers summer to autumn.
It prefers a well-drained light sandy soil in a warm sunny position and likes plenty of moisture in the growing season. The corms are not hardy outside the milder areas of Britain, though they can be dug up in the autumn and stored in a cool but frost free place over winter. The corrm is delicious when baked, similar to sweet potato. Unfortunately it is small, and hence only an occasional treat, but the flowers are so beautiful that the plant is more than worthy of a place in the garden.

960084 *Typha laxmannii*
£1.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Hardy perennial to 1.5m tall.
It grows in a rich soil in boggy pond margins or shallow water to 15cm deep, succeeding in sun or part shade. Plants can be invasive and are not suitable for small areas. It provides excellent cover for wildlife. The following parts are edible: roots, young shoots in spring, base of mature stem, young flowering stem, seed (which also produces an edible oil), pollen and young flowers. Impressive eh! They have many other uses as well. The stems and leaves have many uses, they make a good thatch, can be used in making paper, can be woven into mats, chairs, hats etc. They are a good source of biomass, making an excellent addition to the compost heap or used as a source of fuel etc. The hairs of the fruits are used for stuffing pillows etc. They have good insulating and buoyancy properties. The female flowers make an excellent tinder and can be lit from the spark of a flint. The pollen is highly inflammable and is used in making fireworks. This species is very good for stabilising the wet banks of rivers and lakes. All in all these are wonderful plants.

960137 *Viola odorata* **Sweet violet**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 10cm tall. Flowers late Winter to Spring.
This native woodland plant will also tolerate full sun. It succeeds in most soils if they are well-drained and makes a very good ground cover.The mild tasting young leaves and flower buds can be added in bulk to a salad, and are, like the flowers, usually available throughout the Winter.

The flowers are a wonderful decoration to a salad or dessert, having a mild sweet flavour with a delicate perfume. This plant is also used as a flavouring for puddings, cakes and sweets. A soothing tea can be made from the leaves and flowers. A pigment from the flowers can be used as a litmus for testing pH.Sweet violets have a wide range of medicinal uses, but are probably best known as a treatment for cancer.

960245 *Withania somnifera*
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Evergreen shrub to 1m tall. Plants are not generally hardy in Britain, though can be grown as annuals.
This species is not hardy in temperate climates but it can be grown as an annual, flowering and fruiting in its first year from seed. It requires full sun and a moderately fertile soil, preferably dry and stony. This is one of the most important medicinal herbs of India where it is used in the treatment of a wide variety of complaints including impotence, fatigue and degeneration of the nervous system. The seeds are used to curdle plant milks. The fruit is rich in saponins and can be used as a soap substitute. The leaves are an insect repellent. The plant is toxic if eaten.

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S

960135 *Sagittaria latifolia* **Duck potato**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perenial to 1.2m tall. Flowers in summer.
A plant for the pond or bog garden, it requires a moist or wet loamy soil in a sunny position, preferring shallow, still or slowly flowing water up to 12cm deep. The tuber can be eaten raw, though it is much better roasted and tastes a bit like potato. It is best to remove the skin after cooking. The tubers can be dried and ground into a flour and used to make a gruel or mixed with cereal flours to make bread. The tubers are at the end of thin roots, up to 30cm deep and away from the parent. It is best to dig them up in the late summer, when the leaves die down and before the water gets too cold.

960233 *Sagittaria sagittifolia* **Arrow head**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1 metre tall. Flowers in Summer.
A plant for the pond or bog garden, it requires a moist or wet loamy soil in a sunny position and prefers shallow, still or slowly flowing water up to 30cm deep. The roasted tuber tastes a bit like potato. It is best to remove the skin after cooking. The tubers can be dried and ground into a flour and used to make a gruel or mixed with cereal flours to make bread. The tubers are at the end of thin roots, up to 30cm deep and away from the parent. It is best to dig them up in the late summer, when the leaves die down and before the water gets too cold. Although somewhat acid, the leaves and young stems can be eaten cooked.

960069 *Salix 'Bowles hybrid'*
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Deciduous tree to 5m tall. Flowers in spring.
It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. It is best not to plant trees within 12 metres of buildings, because of its agressive root system. The stems are very flexible and are used in basket making. This is an excellent species to grow as a wind-break in exposed sites, it is very fast growing (capable of reaching 3 metres tall in its first year from cuttings) and is very tolerant of maritime

exposure. It is rather bare in the winter, however.

960070 *Salix alba* **White willow**
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 25m. Flowers in spring.
It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. A very important food plant for the caterpillars of many species of butterflies and a good bee plant, providing an early source of nectar and pollen. A very good wildlife habitat, more than 200 species of insects are associated with this tree. The young stems are very flexible and are used in basket making. This is an excellent species to grow as a wind-break in exposed sites, it is fast growing and is very tolerant of maritime exposure. It is rather bare in the winter, however. A fibre obtained from the stems is used in making paper, and the wood is good for turning.

960071 *Salix alba caerulea* **Cricket bat willow**
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 25m tall. Flowers in spring
It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. It is tolerant of maritime exposure. A very important food plant for the caterpillars of many species of butterflies and a good bee plant, providing an early source of nectar and pollen. A very good wildlife habitat, more than 200 species of insects are associated with this tree. The young stems are very flexible and are used in basket making. A fibre obtained from the stems is used in making paper, and the wood is used for cricket bats an artificial limbs.

960072 *Salix daphnoides* **Violet willow**
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 10m tall. Flowers late winter to early spring.
It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. It tolerates maritime exposure. The stems are very flexible and are used in basket making. Plants have extensive root systems and are often used to stabilize sand dunes. The wood is soft, even grained and smooth.

960234 *Salix fragilis* **Crack willow**
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 15m tall. Flowers in spring.
It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. Plants are very wind resistant, though the smaller twigs are liable to blow off in strong winds (these will often then take root and grow). A very important food plant for the caterpillars of many species of butterflies and a good bee plant, providing an early source of nectar and pollen. A very good wildlife habitat, more than 200 species of insects are associated with this tree. The young stems are very flexible and are used in basket making. The wood is used for floors and cart bases etc.

960073 *Salix pentandra* **Bay willow**
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 10m tall. Flowers in spring.

It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. The stems are very flexible and are used in basket making.

960074 *Salix purpurea* **Purple osier**
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 5m tall. Flowers early spring.
It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. A very important food plant for the caterpillars of many species of butterflies and a good bee plant, providing an early source of nectar and pollen. The young stems are very flexible and are used in basket making. The bark is much disliked by rabbits, so a closely woven fence ot this plant can be used as a protective barrier. The plant has an extensive root system and is used in soil reclamation and stabilization projects along estuaries.

960075 *Salix triandra* **Almond-leaved willow**
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 9m tall. Flowers in spring.
It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. The stems are very flexible and are highly valued for basket making. A yellow dye is obtained from the bark and young leaves.

960076 *Salix viminalis* **Osier**
£1.50 How is it supplied? 10 Cuttings When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 6m tall. Flowers in spring.
It succeeds in most soils, including wet, ill-drained or intermittantly flooded soils, but prefers a damp, heavy soil in a sunny position. The stems are very flexible and are used in basket making. The yield can be around 12 tonnes per hectare. It is often planted along the banks of rivers and lakes to prevent soil erosion.

960077 *Salvia officinalis* **Sage**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 60cm tall. Flowers in Summer.
Requires a sunny position in a well-drained soil. Dislikes heavy soils. Sage is especially useful when grown amongst cabbages and carrots because it repels insect pests.Sage is used as a food flavouring, herbal tea etc. It has a very beneficial effect on the digestive system and makes an excellent antiseptic mouthwash for ulcers etc. The leaves make an effective tooth cleaner.

960155 *Salvia officinalis 'Purpurascens'* **Purple sage**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 60cm tall. Flowers in Summer.
Requires a sunny position in a well-drained soil. Dislikes heavy soils. Sage is especially useful when grown amongst cabbages and carrots because it repels insect pests.Purple sage can be used in all the ways that green sage is used, as a food flavouring, herbal tea etc. It has a very beneficial effect on the digestive system and makes an excellent antiseptic mouthwash for ulcers etc. The leaves make an effective tooth cleaner.

960126 *Sambucus nigra* **Elderberry**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Deciduous shrub to 6m. Flowers mid-Summer.

A very easy and fast-growing plant for full sun or light shade. It succeeds in most soils, including heavy clay. Plants tolerate maritime exposure and industrial pollution.Both the flowers and fruit can be eaten raw or cooked. The flowers make a refreshing snack in the summer, but most people find the raw fruit unpleasant and it sometimes causes nausea. An excellent preserve can be made from the fruit, whilst both the flowers and the fruit are used to make wine. The leaves and stems are poisonous, but can be rubbed on the skin as an insect repellent. A decoction of them treats various fungal infections of plants such as leaf rot and powdery mildew. A black dye is obtained from the bark. When grown near a compost heap, the root activity of this plant encourages fermentation in the compost heap.

960127 *Sanguisorba minor* **Salad burnet**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 50cm tall. Flowers for much of the Summer.
Succeeds in most soils so long as they are well-drained. It grows well in meadows, and can be grown in longer grass at the edge of a lawn. Because of the extensive root systems this plant can be used for erosion control and reclaiming landfill and mining sites.The young leaves can be eaten raw or cooked and are available all year round. Some people detect a mild cucumber flavour, though I find them slightly bitter.

960098 *Saponaria officinalis* **Soapwort**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1 metre tall. Flowers in Summer.
An easily grown plant, it spreads freely at the roots and can be invasive. It dislikes dry soils, but is otherwise at home almost anywhere, succeeding in the garden, woodland or meadow.The plant contains toxic saponins and is not eaten. It's main use is for soap production. This is obtained by simmering the whole plant (especially the root) in water. The soap is a very effective, gentle cleaner that is excellent on the skin and clothes.

960157 *Satureia montana* **Winter savory**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 40cm tall. Flowers mid-Summer to Autumn.
Requires a sunny position in a well-drained soil. Dislikes heavy soils.The peppery-tasting leaves make a good flavouring for cooked foods, especially beans, and its digestive properties help to reduce the flatulent effect many people get from eating beans. The growing plant is a good insect repellent and so can be grown close to other plants to help keep them pest-free.

960235 *Scutellaria lateriflora* **Virginian skullcap**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Perennial to 60cm tall. Flowers in summer.
It succeeds in a sunny position in any ordinary garden soil that does not dry out during the growing season. Plants are not so long-lived when grown in rich soils. Skullcap is a commonly used herbal medicine and was traditionally used in the treatment of a wide range of nervous conditions including epilepsy, insomnia, anxiety, delerium tremens, withdrawal from barbiturates and tranquilisers, and neuralgia.

960128 *Secale montana* **Mountain rye**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes

Grass to 1.2m. Flowers in Summer.
An easily grown plant for a sunny position and a well-drained soil.This plant is probably the ancestor of the cultivated rye (S. cereale). The seed is smaller than S. cereale and, like most cereals, is not that easy to extract by hand but it is produced abundantly. The seed can be eaten in all the ways that rye is used, either as a whole grain or ground into a flour for bread making etc.

960236 *Seseli libanotis*
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy biennial/perennial to 60cm tall. Flowers in summer.
It succeeds in a moderately fertile well-drained soil in a sunny position and will do well on dry sunny banks. The young plant and leaves can be eaten cooked. The root is also edible.

960237 *Stachys affinis* **Chinese artichokes**
£1.50 How is it supplied? 5 Tubers When is it supplied: Winter? Yes Summer? No
Perennial to 45cm tall. Flowers mid-Summer.
Prefers a well-drained soil in a sunny position, but it is not too fussy so long as the soil does not dry out in the summer.The tubers are rather small but they are normally produced abundantly and have a good flavour. We usually eat them raw, though they can also be cooked.

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R

960052 *Reichardia picroides* **French scorzonera**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 30cm tall. Flowers Spring to late Summer.
A very easily grown plant for a well-drained soil in full sun or light shade. This is one of the few salad plants we have come across that is virtually slug-proof and yet has nice tasting leaves. The plants are short-lived, especially in wet years, but usually maintain themselves by self-sowing.The plants look a little like dandelions, but don't let that fool you. Unlike dandelions, the leaves have a very mild, slightly sweet flavour and can be eaten in quantity in salads. In mild winters, or with the protection of a cloche, the plant will produce its leaves all year round. You can also eat the root.

960054 *Rhus copallina* **Dwarf sumach**
£2.00 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Hardy deciduous shrub to 2m tall. Flowers in summer.
An easily grown plant, it likes a well-drained fertile soil in full sun, and tolerates poor soil and drought. The fruit can be eaten raw or cooked. There is not much flesh on it but if the fruit is soaked for 10 - 30 minutes in hot (but not boiling) or cold water it makes a very refreshing lemonade-like drink (but without any fizz of course!). The fallen leaves can be used as a brown dye or mordant, and the fruit gives a black dye. The wood makes small posts. Some other species in this genus can cause skin irritation and there are some suggestions that the sap of this species can cause a skin rash in susceptible people, but this has not been substantiated.

960229 *Rhus typhina* **Stag's horn sumach**
£2.00 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Hardy deciduous shrub to 6m tall. Flowers in summer.
A very easily grown plant, it likes a well-drained fertile soil in full sun but tolerates poor soil and drought and is fairly wind hardy. It is fast growing and suckers freely - too freely for small gardens. The sour fruits are used in pies. If the fruit is soaked for 10 - 30 minutes in hot (but not boiling) or cold water it makes a very refreshing lemonade-like drink (but without any fizz of course!). Boiling the leaves and the fruit gives a black ink. An oil from the seeds is used to make candles. Pipes, made from the young shoots, are used as flutes. It can be useful to prevent soil

erosion due to its extensive root system. Some other species in this genus can cause skin irritation and there are some suggestions that the sap of this species can cause a skin rash in susceptible people, but this has not been substantiated.

960055 *Ribes aureum* **Golden currant**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Deciduous shrub to 2m. Flowers in Spring.
Easily grown in a well-drained soil in full sun or light shade.The fruit can be eaten raw, cooked or dried for winter use. They are sweet and juicy but yields are often low in this country, unfortunately, mainly due to our cooler climate. The flowers can be eaten raw.

960057 *Rosa rugosa* **Ramanas rose**
£2.00 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Deciduous shrub to 2m. Flowers for much of the Summer.
Succeeds in most soils including clays and dry conditions, though it dislikes waterlogging. It flowers and fruits best in full sun, though it will tolerate partial shade. It makes an excellent wind-resistant hedge near the coast.This rose has the nicest and largest fruit we have tried to date. Like all roses, you do have to be careful of the irritant hairs just below the layer of flesh though. The fruit can be eaten raw and is deliciously sweet. It can also be used in jams and other preserves as well as to make a sweet tea. The flower petals are sometimes eaten, as are the young shoots in spring, but they are not really that desirable.

960058 *Rosmarinus officinalis* **Rosemary**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 1.5m. Flowers Spring to Autumn.
Requires a sunny position and a well-drained soil. Dislikes very heavy soils, though it does well in chalky soils and is drought tolerant.The leaves can be used as a flavouring or to make a tea which has many beneficial medicinal properties. The growing plant repels insects and the leaves can be dried and used to scent clothes drawers etc. The leaves can be used in anti-dandruff shampoos. The plant is a disinfectant and has many other uses.

960172 *Rosmarinus officinalis 'Prostratus'* **Prostrate rosemary**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 50cm tall. Flowers Spring to Autumn.
Requires a sunny position and a well-drained soil. Dislikes very heavy soils, though it does well in chalky soils and is drought tolerant.This is a prostrate form of rosemary, growing wider than high. The leaves can be used as a flavouring or to make a tea which has many beneficial medicinal properties. The growing plant repels insects and the leaves can be dried and used to scent clothes drawers etc. The leaves can be used in anti-dandruff shampoos. The plant is a disinfectant and has many other uses.

960063 *Rubus nepalensis* **Nepalese raspberry**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 15cm tall. Hardy in the milder areas. Flowers early to mid-Summer.
Best grown in the light shade of trees, this plant makes an excellent ground cover in a well-drained soil, though it is defoliated if temperatures fall much below -5 c and will be killed at about -10 c.From the Himalayas, this species makes an excellent ground cover and bears quite good crops of

delicious raspberry like fruits in August and September. A very productive way of keeping the weeds down.

960149 *Rumex acetosa 'Polish variety'* **Sorrel**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 60cm tall. This cultivar rarely produces flowers.
A very easily grown plant, tolerating almost total neglect, though it will do much better if you give it just a little tender loving care. It will succeed in the light shade of a woodland garden.This is one of our very favourite plants. The leaves have a delicious acid flavour and we use them a lot in salads, or just as a thirst-quenching munch when working in the garden. This cultivar will usually only flower if the summer is exceptionally hot, or if the plant thinks it is dying. Therefore it usually continues to produce its leaves all summer, instead of wasting its energy on producing seed. In mild winters it will provide leaves for harvesting all the year round. An infusion of the stems is used as a polish for bamboo and wicker furniture and also for silver. The juice of the plant removes stains from linen and also ink stains (but not ball-point ink) from white material.

960068 *Rumex alpinus* **Monk's rhubarb**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1.2m. Flowers in Summer.
A very easily grown plant, succeeding in most soils and situations except heavy shade. The leaves can be eaten raw or cooked. They have a slightly bitter flavour in the autumn and spring, but become more bitter in hot weather and when flowering. They are an excellent spinach substitute and in mild years can be picked almost throughout the winter. Dark green to brown and dark grey dyes can be obtained from the roots, they do not need a mordant. The leaves contain oxalic acid, so should not be eaten in large quantities.

960125 *Rumex scutatus* **Buckler-leaved sorrel**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 60cm tall. Flowers early Summer.
A very easily grown plant, succeeding in most well-drained soils so long as the site is at least reasonably sunny. It is drought tolerant and can even be grown on old walls.The leaves, which can be eaten raw or cooked, have a delicious lemony flavour. We use them a lot as a flavouring in salads, though they should not be eaten in large quantities because they contain oxalic acid.

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O-P

960250 *Origanum vulgare*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 60cm tall. Flowers in Summer.
It requires a rather dry, warm, well-drained soil in full sun, but is not fussy as to soil type, thriving on chalk. this herb is much used in Mediterranean cookery, often dried. It is a good companion plant, improving the flavour of nearby plants. The flowers are very attractive to bees and butterflies. The growing plant repels many insect pests so it is a good plant to grow in the vegetable area. It is a useful ground cover for sunny positions, it is rather slow to spread though.

960158 *Origanum vulgare 'Aureum'* **Golden oregano**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 30cm tall. Flowers mid to late Summer.
Easily grown in most well-drained soils, preferring full sun but tolerating some shade. A good ground-cover plant.The leaves are an excellent flavouring for salads or cooked foods, or you can make a herb tea from them. You can get a red or purple dye from the flowering tops. Oregano is used as a household medicinal herb to treat colds, digestive problems etc.

960045 *Origanum vulgare hirtum* **Greek oregano**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 50cm tall. Flowers mid to late Summer.
Easily grown in most well-drained soils, preferring full sun but tolerating some shade. It tolerates poor soils.This is a very aromatic form of oregano, the leaves are an excellent flavouring for salads or cooked foods, or you can make a herb tea from them. You can get a red or purple dye from the flowering tops. Oregano is used as a household medicinal herb to treat colds, digestive problems etc.

960046 *Oxalis deppei* **Iron cross plant**
£2.00 How is it supplied? 5 Bulbs When is it supplied: Winter? Yes Summer? No
Bulb to 30cm tall. Flowers early Summer until the first hard frosts.
A delightful plant for a sunny position in a well-drained soil. It dislikes chalky or heavy soils. The

bulbs can be left in the ground all winter in milder areas of the country, so long as the soil is well-drained. Otherwise, they can be harvested after the frost have killed back the top growth, stored in a frost-free place, and be replanted in the spring.This is a wonderful and ornamental salad plant. The leaves and flowers have a delicious lemony flavour and are freely produced from May round to the first frosts of autumn. The root can also be eaten raw or cooked, it is crisp and juicy but with very little flavour.The plant contains oxalic acid and so is best not eaten in large quantities.

960223 *Oxalis tetraphylla*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 10 cm tall. Not hardy in the colder parts of Britain. Flowers late spring to late summer.
A very easily grown plant, preferring a sandy soil in a warm dry position. Our plants have proved to be very tolerant of neglect, succeeding for a number of years even in the dense growth of grasses. The leaves and root can be eaten, either raw or cooked. The leaves contain oxalic acid, which is what gives them their lemony flavour. Perfectly all right in small quantities, the leaves should not be eaten in large amounts since oxalic acid can bind up the body's supply of calcium leading to nutritional deficiency. People with a tendency to rheumatism, arthritis, gout, kidney stones and hyperacidity should take especial caution if including this plant in their diet.

960097 *Oxalis tuberosa* **Oca**
£1.50 How is it supplied? 5 Tubers When is it supplied: Winter? Yes Summer? No
Perennial to 50cm tall. Plants are only slightly frost hardy. Flowers mid-Summer.
Grows best in a light rich soil in a sunny position. This plant makes an excellent potato substitute, the top growth being slightly hardier than potatoes and the plants virtually disease-proof. The freshly harvested tuber has a distinctive acid-lemon flavour and makes a fine vegetable either raw or cooked. When stored in the sun for a few weeks, the tubers become very sweet and are then excellent either raw or cooked. The leaves can also be eaten, but there are plenty of better tasting leaves around.

960048 *Peltaria alliacea* **Garlic cress**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen perennial to 30cm tall. Flowers late Spring to early Summer.
A very easily grown plant for full sun or light shade. It dislikes heavy clay soils. A fast-growing plant, it spreads rapidly at the roots and makes a good ground cover.As the common name suggests, the leaves taste like a cross between garlic and mustard. We find them a marvellous flavouring in salads, but too much is overpowering. They can be eaten all year round but are at their best in the winter and early spring, turning somewhat bitter in hotter weather. The flowers can also be eaten and have a similar flavour.

960049 *Phragmites australis* **Common reed**
£1.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Perennial to 3.5m. Flowers late Summer.
A very easily grown plant for a sunny position in marshy soil or shallow water, tolerating saline conditions. This is not a plant for a small garden or small pond since the roots run aggressively and will soon outgrow their allotted space. This does make it useful for stabilizing the soil along the

banks of streams.The list of uses for this plant is legion, though I have to admit that many of the edible uses are either fiddly or not very tasty. The roots can be used like potatoes, or are dried and ground into a meal for porridges etc. The very young shoots, harvested just as they come through the ground can be used like bamboo shoots. The stems, seeds etc are also eaten. Amongst the plants many other uses the stems are used for thatching, and a fibre from the stems is used to make paper

960123 *Physalis peruviana* **Goldenberry**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Perennial to 1.2m, the top growth is frost tender. Flowers mid-Summer until the frosts.
A very easily grown plant for a well-drained soil in a warm sheltered sunny position. It tolerates both acid and chalky soils. Whilst the top growth is not frost hardy, the roots will survive most winters in the milder areas of the country, especially if given a good mulch. In colder areas the plant can be grown as an annual in the same way as tomatoes.The fruit is absolutely delicious, with a bitter-sweet flavour. It comes in its own individual 'paper bag' which protects it from pests. The fruit is ripe when these bags dry and become papery. You can eat the fruit cooked as well, or dry it for a raisin substitute. It will store for

3 months or more if picked in its 'bag'. All parts of the plant, other than the fruit, are poisonous.

960226 *Phytolacca americana* **Pokeweed**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 2m tall. Flowers late summer.
An easily grown plant, succeeding in most soils, though preferring a moisture retentive soil in full sun or partial shade. Will do well in an open woodland garden. The leaves and young shoots are said to be perfectly safe to eat when young, and they make a good spinach, but it is best to change the water once whilst cooking them. Do not eat older leaves since these contain toxins. The fruits have been cooked in pies, though we are somewhat dubious about using them in this way since there are reports that they might be toxic. Much better is to use them as a dye, a beautiful purple-red colour is obtained from them, though it is water-solubleand thus not very permanent without a mordant. It makes a good body paint, washing off easily when no longer required, though the slightly toxic nature of the berries should be remembered. The rootstock is rich in saponins and can be used as a soap substitute. The plant sap can cause dermatitis in sensitive people and has also been known to damage chromosomes.

960169 *Polygonum bistorta* **Bistort**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 50cm tall. Flowers for much of the Summer.
Succeeds in most conditions though it prefers a moisture retentive not too fertile soil in sun or part shade.The young leaves have a fairly mild flavour and make an acceptable addition to mixed salads, they can also be cooked like spinach. The root is also edible, but it is rich in tannins and needs to be treated before being eaten. These tannins make it an excellent herb to use for treating wounds, diarrhoea etc.

960227 *Polymnia edulis* **Yacon**
£2.50 How is it supplied? 5 Tubers When is it supplied: Winter? Yes Summer? No
Perennial to 1m tall, it is only hardy in the south of Britain.

For best results, this fast growing plant requires a warm position in a deep rich soil, though it survives even when growing in poor soils. The top growth is killed back by the first autumn frosts, though the tubers can survive at least light frosts. Plants are grown in much the same way as potatoes, harvesting them in the autumn, storing them over the winter and replanting them in pots in early spring. When first harvested, the root can taste somewhat starchy but it soon becomes sweet, crisp and juicy and is delicious eaten raw. In South America it is normally eaten as a fruit! The flavour is further improved by exposure to the sun although some of the crispness will be lost. The skin has a somewhat resinous taste so it is usually removed. The cooked root retains is sweetness and crispness. The leaves and stems can be cooked as a vegetable.

960228 *Prunus avium* **Wild cherry**
£2.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Hardy deciduous tree to 18m tall. Flowers in spring.
It requires a well-drained moisture retentive soil and succeeds in light shade but fruits better in a sunny position. It thrives in a loamy soil, doing well on limestone. The wild cherry produces quite a lot of suckers and can form thickets, especially if the main trunk is felled. The fruit can be eaten raw or cooked and can have a sweet or a bitter flavour. It is good in pies and preserves. The seed is also edible but is best not eaten if it has a bitter flavour since this will be due to the presence of prussic acid (a toxin that is found in bitter almond seeds). An edible gum is obtained by wounding the bark. A green dye can be obtained from the leaves, and a dark grey/green one from the fruit. The wood is good for turnery.

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M-N

960120 *Malva moschata* **Musk mallow**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 80cm tall. Flowers mid-Summer.
A very easily grown plant for sun or light shade in a well-drained soil. It can also be grown in a meadow or a woodland garden.This is one of our major salad crops, the mild tasting leaves making an excellent perennial substitute for lettuce. They can be harvested from the spring until the plants come into flower. You then eat the flowers until the plant starts to set seed, then cut the plant down to produce a fresh crop of leaves followed by more flowers.It is best not to grow this plant with chemical fertilizers since it can then concentrate the nitrates in the leaves. These nitrates are suspected of causing a number of health problems.

960037 *Melissa officinalis* **Lemon balm**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1 metre tall. Flowers all Summer.
A very easily grown plant for a sunny position or light shade in all but the heaviest soils. It does well in dry soils and is drought tolerant. It can be grown in a woodland garden.The lemon flavoured leaves make a very pleasant herbal tea that has various medicinal benefits. The leaves also make a nice flavouring in salads or cooked meals. The fresh or dried plant is said to repel flies and ants.

960038 *Mentha aquatica* **Water mint**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Hardy perennial to 1 metre tall. Flowers summer to autumn.
Succeeds in most soils and situations so long as the soil is not too dry. Grows well in heavy clay soils. A sunny position is best for production of essential oils, but it also succeeds in partial shade. Plants can grow in water up to 15cm deep. It is a good butterfly plant. The leaves have a peppermint flavour and can be used as a flavouring in salads or cooked foods. A herb tea is made from the leaves.

960121 *Mentha pulegium* **Pennyroyal**

£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 30cm tall. Flowers in late Summer.
Mints are very easily grown so long as the soil is not very dry. They are more aromatic when grown in a sunny position but will tolerate quite a bit of shade. They can be grown in woodland gardens.Pennyroyal is used as a flavouring in salads or cooked food and has a very strong spearmint-like flavour. You can make a herb tea from the dried or fresh leaves. The growing or dried plant repels fleas, moths, ants etc.

960218 *Mentha requienii* **Corsican mint**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Perennial to 2cm tall. Flowers in summer. Plants are not hardy in the colder areas of Britain.
It succeeds in most soils and situations so long as the soil is not too dry. Grows well in heavy clay soils. A sunny position is best for production of essential oils, but it also succeeds in partial shade. Although not hardy in all areas of Britain, the plant usually self-sows even when the parent plant is killed by frost. It is a good bee and butterfly plant and a good companion plant for cabbages and tomatoes. The strongly flavoured leaves can be used as a flavouring for salads, coked foods or as a herb tea. An essential oil with a strong peppermint scent is obtained from the whole plant. A very low-growing plant, it spreads fairly freely and makes an ornamental ground cover.

960039 *Mentha spicata* **Spearmint**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 50cm tall. Flowers late Summer.
Mints are very easily grown so long as the soil is not very dry. They are more aromatic when grown in a sunny position but will tolerate quite a bit of shade. They can be grown in woodland gardens.The leaves have a strong flavour of spearmint, they can be used as a flavouring in salads and cooked foods and make a nice mint sauce. A herbal tea made from the leaves is an excellent tonic for the digestive system.

960153 *Mentha suaveolens 'Variegata'* **Pineapple mint**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 60cm tall. Flowers late Summer.
Mints are very easily grown so long as the soil is not very dry. They are more aromatic when grown in a sunny position but will tolerate quite a bit of shade. They can be grown in woodland gardens.The leaves are meant to have a pineapple flavour, though we cannot really detect it. Nonetheless, it makes a pleasant flavouring in salads and a nice herb tea.

960122 *Mentha x gentilis* **Ginger mint**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 45cm tall. Flowers late Summer.
Mints are v1ery easily grown so long as the soil is not very dry. They are more aromatic when grown in a sunny position but will tolerate quite a bit of shade. They can be grown in woodland gardens.Ginger mint is a hybrid of two native mints; spearmint and corn mint. Its leaves have a refreshing taste, which make a good flavouring in salads or cooked food, and also a very nice herb tea.

960041 *Mentha x piperita citrata* **Eau de cologne mint**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes

Perennial to 40cm tall. Flowers late Summer.
Mints are very easily grown so long as the soil is not very dry. They are more aromatic when grown in a sunny position but will tolerate quite a bit of shade. They can be grown in woodland gardens.Eau de Cologne mint is mostly used in perfumery. Most people find it a bit too strong for culinary use.

960042 *Mentha x piperita vulgaris* **Black peppermint**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 45cm tall. Flowers late Summer.
Mints are very easily grown so long as the soil is not very dry. They are more aromatic when grown in a sunny position but will tolerate quite a bit of shade. They can be grown in woodland gardens.The leaves have a delicious taste of peppermint and make a very nice flavouring in salads. Chewing a few leaves will sweeten the breath and leave the mouth feeling very clean and fresh. A tea made from the young shoots is an excellent remedy for indigestion.

960043 *Montia sibirica* **Pink purslane**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Short-lived evergreen perennial to 20cm tall. Flowers early Spring to Summer.
An excellent plant for the woodland garden, tolerating deep shade as well as full sun. It succeeds in most soils so long as they are well-drained. Although short-lived, it usually self-sows prolifically and makes an excellent ground cover.The leaves can be eaten all year round, they have a mild flavour with an earthy after-taste somewhat like raw beetroot. They go well in a salad - if you like raw beetroot. They can also be cooked.

960221 *Muehlenbeckia complexa* **Maidenhair vine**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous climber to 5m. It does not withstand hard frosts, growing very well in southwestern Britain but being killed back to the ground by severe frosts at Kew and further north. Flowers late Summer.
Requires a well-drained soil in sun or semi-shade. It supports itself by twining around other plants etc. A very salt and wind hardy plant, it is an excellent plant for growing on wire netting fences in very exposed positions, making a good windbreak hedge. The fruit, or to be botanically correct, the swollen flowers are sweet tasting and juicy.

960168 *Myrrhis odorata* **Sweet cicely**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1 metre tall. Flowers in late Spring.
Grows best in a rich moist soil succeeding in sun or shade and doing especially well in a woodland garden.All parts of the plant have a delicious flavour of aniseed. The leaves are available from late winter until early the following winter. They go well in salads and can also be used in cooked foods - they reduce the acidity of cooked dishes such as rhubarb. The root can be used as a vegetable, though they get rather tough when more than a couple of years old. The seed is also as a flavouring used and makes a pleasant mouth freshener when chewed raw. Both the leaves and the seeds can be used as a polish on wood - simply rub them over the wood and then rub the wood with a green cloth to remove any greenness.

960222 *Nasturtium officinale* **Watercress**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Perennial to 50cm tall. Flowers late spring to autumn.
Watercress prefers to grow in water about 5cm deep, but can grow in wet soil in a shady spot. The flowers are very attractive to bees. The nutritious leaves have a hot mustard-like flavour and can be eaten in salads or cooked in soups. The seeds are also be eaten, they can be ground into a flour and used to make a mustard substitute. Plants will often continue to grow all through mild winters. The plant is very sensitive to pollution so a clean source of water is required. Do not grow your plants in water that drains from fields where animals, particularly sheep, graze since there is then a risk of them being infested with the liver fluke parasite.

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G-L

960211 *Galium odoratum* **Sweet woodruff**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Hardy perennial to 15cm tall. Flowers late spring to summer.
It prefers a loose moist leafy soil in some shade and doesn't do well in full sun. This species is very tolerant of atmospheric pollution and grows well in towns. The leaves can be added to fruit salads etc, and the flowers used as a garnish. A red dye is obtained from the root. Soft-tan and grey-green dyes are obtained from the stems and leaves. It is a good ground-cover plant for woodland edges or the cool shade of shrubs. Although the fresh plant has very little aroma, as it dries it becomes very aromatic with the scent of newly-mown grass and then retains this aroma for years. It is used in the linen cupboard to protect from moths etc.

960212 *Galium verum* **Lady's bedstraw**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Hardy perennial to 60cm tall. Flowers in summer.
It prefers a loose moist leafy soil in some shade, but it tolerates a position in full sun. It will tolerate dry soils, but not very acid ones. A very invasive plant, though it is low-growing and mixes without harm with any plants at least 60cm tall. It grows well in the summer meadow and is a food plant for the larvae of several species of butterflies. The leaves are edible, though less than exciting. The roasted seed can be used as a coffee substitute. As the common name suggests the plant can be used as a mattress stuffing and it is said to keep fleas away. A sprig in a shoe is said to prevent blisters. A red dye can be obtained from the root and a yellow one from the flowering tops - this can be used as a food colouring.

960030 *Gaultheria shallon* **Shallon**
£4.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 1.2m. Flowers early Summer.
Requires an acid soil, growing best in woodland conditions and tolerant of dense shade and drought. It makes an excellent ground cover.The sweet and juicy fruit can be used raw, cooked in preserves, pies etc. or dried and used like raisins. You can make a tea with the leaves and get a dye from the fruit - one report says purple, another says dark green, so if you try it let us know.

960031 *Glyceria fluitans* **Floating manna grass**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial grass to 50cm tall. Flowers late Spring to mid-Summer.
A plant for a sunny position in a boggy soil, or the shallow edge of a pond. It can tolerate both very acid and very alkaline conditions.The sweetish seed can be eaten raw, cooked, or ground into flour for making bread. The seed was considered a delicacy in some parts of Europe and was an article of commerce until well into the 20th century. It is rather small, however, and therefore very fiddly to use.

960249 *Helleborus niger* **Black hellebore**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Hardy evergreen perennial to 30cm tall. Flowers in winter.
Cultivation of this plant is not always easy, it is said to prefer a rich limy soil in partial shade, though it grows well in our acid soil. Succeeds when grown in the shade of a north-facing wall, it also does well in heavy clay. It dislikes drought. It is a greedy plant, inhibiting the growth of nearby plants, especially legumes. Plants are suitable for ground cover when spaced about 45cm apart each way. The leaves can be used as a parasiticide against body lice, fleas etc, but BEWARE - all parts of the plant are poisonous, this poison can possibly be absorbed through the skin.

960133 *Hemerocallis lilioasphodelus* **Yellow day lily**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1 metre tall. Flowers late Spring to early Summer.
A very easily grown plant, succeeding in most soils and situations. Very tolerant of neglect, it can also be grown in the light shade of a woodland garden. Slugs love the young spring growth, however, so give it some protection at this time if necessary.The leaves and young shoots can be eaten raw or cooked like asparagus or celery. The flowers and flower buds can also be eaten in salads or cooked. They have a delicious sweet flavour, though some people detect an unpleasant after-taste when they are eaten on their own. The flowers can be dried and used as a soup thickener. The cooked roots taste like a cross between sweet corn and salsify. The tough foliage is plaited into cord and used to make footwear.

960117 *Hemerocallis multiflora* **Day lily**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1 metre tall. Flowers mid to late Summer.
A very easily grown plant, succeeding in most soils and situations. Very tolerant of neglect, it can also be grown in the light shade of a woodland garden. Slugs love the young spring growth, however, so give it some protection at this time if necessary.You can eat the leaves and young shoots cooked. The flower buds and flowers are a wonderful addition to a salad bowl, or dry them and use them as a soup thickener. The tough foliage is plaited into cord and used to make footwear.

960118 *Hibiscus syriacus* **Rose of sharon**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Deciduous shrub to 3m. Flowers early Autumn.
Succeeds in most well-drained soils in sun or semi-shade. The flowers are produced quite late in the year and so the plant needs a sheltered position if it is to give a good display.Young leaves

have a wonderful nutty-flavour and are excellent in salads, they can also be lightly cooked. The flowers have a mild flavour and make an excellent decorative addition to salads. Both the leaves and the flowers are used as a herb tea. The root is also edible, but not really worth while! Fibre from this plant is used to make cordage and paper, shampoo is made from the leaves and a blue dye from the flowers.

960032 *Hippophae salicifolia Female plants* **Willow-leaved sea buckthorn**
£2.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Deciduous tree to 15m tall. Not hardy in the colder areas of Britain. Flowers in spring. Dioecious - male and female plants must be grown if seed is required.
A fast-growing and very wind-resistant tree, it is an excellent pioneer species for re-establishing woodlands, though is not suitable for small areas since it suckers freely. It suceeds in most soils as long as they are not too dry. Recent research has shown that this is the most nutritious fruit that can be grown in Britain. It is very rich in vitamin C and many other vitamins and minerals plus bioflavinoids and essential fatty acids. The fruit is rather small and fiddly to pick, however. The flavour is like a sharp lemon, most people find it acceptable raw though it is too acid for them to eat in quantity. Cooked, it makes a delicious syrup. Recent research has shown that regular consumption of the fruit can prevent and even cure cancer. The wood can be used for fuel and the plant has a wide range of medicinal applications

960270 *Hippophae salicifolia Male plants* **Willow-leaved sea buckthorn**
£2.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
See Hippophae salicifolia female plants above.

960173 *Houttuynia cordata 'Chameleon'* **Tsi**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 60cm tall. Flowers early Summer.
Requires a moist to wet soil and will also grow in shallow water. It does not like full sun and will grow in deep shade. A fast- growing plant, it can be used as a ground cover.This is one of our favourite edible plants. The leaves have a distinct flavour and aroma of orange peel and make a delicious flavouring for salads and cooked foods. This cultivar is also very attractive to look at with multi-coloured variegated leaves. The root can be eaten cooked.

960171 *Houttuynia cordata 'Flore Pleno'* **Tsi**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 60cm tall. Flowers early Summer.
Requires a moist to wet soil and will also grow in shallow water. It does not like full sun and will grow in deep shade. A fast- growing plant, it can be used as a ground cover.This is one of our favourite edible plants. The leaves have a distinct flavour and aroma of orange peel and make a delicious flavouring for salads and cooked foods. The root can be eaten cooked.

960096 *Humulus lupulus* **Hops**
£2.00 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Perennial climber to 6m. Flowers mid-Summer.
Prefers a deep rich soil in a warm sheltered position. Does well on the sunny edges of a woodland.This is a famous medicinal and flavouring plant. It is the traditional flavouring in beer, where it also acts as a preservative. Medicinally, it is used primarily as a sedative. Other uses

include the young shoots which are eaten cooked in spring and a fibre from the stems.Please note, only the female plants are used medicinally and as a flavouring. We are not sure of the sexes of these plants.

L

960134 *Lathyrus tuberosus* **Earthnut pea**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Perennial to 1 metre tall. Flowers early to mid-Summer.
Easily grown in most soils in sun or semi-shade, succeeding in a woodland garden. Keep a look out for slugs though, since they can decimate the plants.The root can be eaten raw or cooked. Rather tough raw, it is soft and delicious when roasted with a flavour somewhat like sweet potatoes. This is one of the nicest roots we have ever eaten, but they are rather small and yields are pretty low.

960166 *Lavandula angustifolia* **Lavender**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 1.2m. Flowers mid to late Summer.
Requires a warm sunny position in a well-drained preferably light soil. Plants are tolerant of drought and maritime exposure, though they dislike cold winds. They can be grown as a low hedge.Lavender is widely grown as a medicinal plant and for its essential oil which is used in perfumery, aromatherapy etc. The shoot tips are also occasionally used as a flavouring in cooked foods, though they are rather aromatic. Both the growing and the dried plant can be used to repel insects.

960119 *Lavandula latifolia* **Spike lavender**
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Evergreen shrub to 40cm tall. Flowers mid to late Summer.
Requires a sunny position in a well-drained soil. It will do well in a dry position and is drought tolerant. It does not like a lot of rain, especially in the winter.The aromatic leaves can be used as a salad condiment, though we find it rather overpowering. The plant is best known for its essential oil which has a wide range of medicinal applications and is also used is used in soap making, food flavouring, as an antiseptic etc. The leaves and flowers act as a insect repellent in the linen cupboard and are said to repel mice.

960142 *Lepidium latifolium* **Dittander**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1.2m. Flowers early Summer.
One of the easiest plants to grow, tolerating total neglect. It does not like deep shade, but otherwise just throw it into the ground and walk away quickly. It spreads so vigorously that you might regret introducing it into your garden!If you like hot flavoured leaves, then this is the one for you. They taste like cress and are available for most months of the year, the plant dying down for just a short time in the winter. The root is also hot and can be used like horseradish. The seed is used as a condiment. One report says the plant can be used as an insecticide.

960167 *Levisticum officinale* **Lovage**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1.8m. Flowers mid to late Summer.
Prefers a rich moist but well-drained soil in a sunny position, though it tolerates some shade.All parts of the plant have a strong aroma reminiscent of celery with a hint of yeast. The leaves make an excellent flavouring in savoury foods, adding a yeasty flavour. They can also be used to make a herb tea that is more like a broth than a tea. The seeds are also used as a flavouring, whilst the stems are used as a celery substitute and the roots can be used as a vegetable when no more than 2 years old. The plant also has many medicinal properties, acting especially on the digestive system.

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F

960023 *Fagopyrum dibotrys* **Perennial buckwheat**
£1.50 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1.5m. Flowers late Summer.
Very easily grown in most well-drained soils, succeeding in poor soils and in heavy clay. This is a good plant for a sunny position or light shade in the woodland garden, though it can be somewhat invasive when conditions suit it.This is the perennial version of the annual grain that is found in wholefood shops. The grain can be used in all the same ways, but our plants have never set seed as yet. This is probably because they all come originally from one seedling and are self-sterile. The leaves contain rutin and so are a very healthy addition to the diet, they have an acceptable flavour, especially when steamed.

960024 *Feijoa sellowiana* **Feijoa**
£3.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Evergreen shrub to 3m, only hardy in mild areas. Flowers in Summer.
Requires a sunny position in a well-drained soil. It will only tolerate temperatures down to about -5 c, so can only be grown outdoors in the milder areas, and will appreciate the protection of a south-facing wall. It can be grown as a hedge in the mildest areas of Britain.The aromatic fruit is absolutely delicious when eaten raw, tasting like a cross between a pineapple and a strawberry. Unfortunately, these fruits are seldom ripened in Britain, but don't let that put you off because the flowers are also delicious, tasting more like a fruit than many fruits.

960116 *Foeniculum vulgare* **Fennel**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? Yes Summer? Yes
Perennial to 1.5m. Flowers late Summer to Autumn.
A very easily grown plant for a sunny position in a well-drained soil. It will self-sow prolifically when growing in suitable conditions.All parts of the plant have a strong flavour of aniseed. This is one of our favourite foods, we use the leaves in salads and as a flavouring in cooked foods. The seeds can be used as a flavouring or to make a herb tea. They can be sprouted and added to salads. The root can also be eaten cooked. Fennel is a very useful medicinal herb, acting especially on the digestive system. The dried plant is an insect repellent and the crushed leaves can be rubbed into

the fur of dogs or cats to keep them free of fleas.

960026 *Fragaria moschata* **Hautbois strawberry**
£1.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Perennial to 40cm tall. Flowers Spring to early Summer.
Best grown in a fertile well-drained soil, succeeding in acid and alkaline conditions. Grows well in semi-shade, but more fruit will be produced from plants in a sunny position. Plants make a very effective, though somewhat invasive, ground cover.This is a truly delicious strawberry with a rich aromatic flavour. Unfortunately, it is not usually produced very freely.

960027 *Fragaria viridis* **Green strawberry**
£1.50 How is it supplied? Barerooted When is it supplied: Winter? Yes Summer? No
Perennial to 40cm tall. Flowers Spring to early Summer.
Best grown in a fertile well-drained soil, succeeding in acid and alkaline conditions. Grows well in semi-shade, but more fruit will be produced from plants in a sunny position. Plants make a very effective, though somewhat invasive, ground cover.This is a truly delicious strawberry with a rich aromatic flavour. Unfortunately, it is not usually produced very freely.

960028 *Fuchsia magellanica* **Fuchsia**
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous shrub to 3m. Flowers mid-Summer to Autumn.
An easily grown plant for a well-drained soil in full sun or light shade. The foliage will be killed back in all but the mildest winters, but the plant should resprout from the base in the spring. It is very tolerant of maritime exposure and, in the mildest areas of the country, it can be grown as a hedge.The fruit is edible, but not that worthwhile. A black dye is obtained from the wood.

960152 *Fuchsia magellanica 'Globosa'*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous shrub to 3m. Flowers mid-Summer to Autumn.
An easily grown plant for a well-drained soil in full sun or light shade. The foliage will be killed back in all but the mildest winters, but the plant should resprout from the base in the spring. It is very tolerant of maritime exposure and, in the mildest areas of the country, it can be grown as a hedge.A cultivar of F. magellanica with superior tasting slightly aromatic fruits.

960150 *Fuchsia magellanica 'Riccartonii'*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous shrub to 3m. Flowers mid-Summer to Autumn.
An easily grown plant for a well-drained soil in full sun or light shade. The foliage will be killed back in all but the mildest winters, but the plant should resprout from the base in the spring. It is very tolerant of maritime exposure and, in the mildest areas of the country, it can be grown as a hedge.The fruit is edible, but not that worthwhile. A black dye is obtained from the wood.

960151 *Fuchsia magellanica 'Tresco'*
£2.00 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous shrub to 3m. Flowers mid-Summer to Autumn.
An easily grown plant for a well-drained soil in full sun or light shade. The foliage will be killed back in all but the mildest winters, but the plant should resprout from the base in the spring. It is very tolerant of maritime exposure and, in the mildest areas of the country, it can be grown as a

hedge.A cultivar of F. magellanica with superior tasting slightly aromatic fruits, though when eaten on their own they leave a slightly unpleasant after-taste in the mouth.

960207 *Fuchsia splendens*
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous shrub to 2m tall will need greenhouse protection in all but the mildest areas of Britain. Flowers Summer to Autumn.
It succeeds in any fertile well-drained circum-neutral soil. A very adaptable plant, it tolerates the heavy shade of a north- facing wall and also a position in full sun, though the foliage is apt to be somewhat pale when plants grow in full sun. This is the nicest fuchsia fruit we have eaten as yet, its flavour is somewhat lemon-like with no noticed aftertaste. The fruit can be up to 40mm long and 8mm wide.

960146 *Fuchsia splendens 'Karl Hartweg'*
£2.50 How is it supplied? 7cm Pot When is it supplied: Winter? No Summer? Yes
Deciduous shrub to 2m, only hardy in the mildest areas. Flowers mid-Summer to Autumn.
Requires a well-drained soil, succeeding in full sun and in deep shade. It can be grown against any aspect of wall. This plant is not very frost-tolerant, though it succeeds outdoors in Cornwall and south Devon, and perhaps in other mild areas. It can resprout from the base, so give it a good mulch in the autumn to protect the roots.This species has the nicest tasting fuchsia fruits we have tried to date. Eaten raw, they have a mild lemon-like flavour and can be eaten in quantity - if you can get there before our young son eats them all!

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Plants For A Future: Database Search Results

Withania somnifera

Common name:	Ashwagandha	Family:	Solanaceae
Author:	(L.) Dunal.	Botanical references:	
Synonyms:			
Known Hazards:	The plant is toxic if eaten[238].		
Range:	Australia, E. Asia, Africa.		
Habitat:	Open places, disturbed areas etc[192]. An undershrub in stony places[238].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Physalis somnifera[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ajagandha [E], Ashwagandha [H], Clustered Wintercherry [H], Kanaje Hindi [E], Orovale [E], Samm Al Ferakh [E], Strychnos [E], Withania [P],
Epithets:	From a Dictionary of Botanical Epithets
	somnifer = sleep inducing; somnifera = sleep inducing;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database
	Afghanistan; Africa; Asia; Ethiopia; Greece; India; India(Ayurvedic); India(Punjab); India(Rajasthan); Iraq; Lesotho; Pakistan; South Africa(Kaffir); Spain; Sudan; Yemen
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 1m by 0.5m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Curdling agent.

The seeds are used to curdle plant milks in order to make vegetarian cheeses[183, 240].

Medicinal Uses

Disclaimer

Abortifacient; Adaptogen; Antibiotic; Aphrodisiac; Astringent; Deobstruent; Diuretic; Narcotic; Sedative; Tonic.

Ashwagandha is one of the most widespread tranquillisers used in India, where it holds a position of importance similar to ginseng in China[238]. It acts mainly on the reproductive and nervous systems, having a rejuvenative effect on the body, and is used to improve vitality and aid recovery after chronic illness[238, 254]. The plant is little known in the West[192].

The whole plant, but especially the leaves and the root bark, are abortifacient, adaptogen, antibiotic, aphrodisiac, deobstruent, diuretic, narcotic, strongly sedative and tonic[169, 192, 238, 240]. Internally, it is used to tone the uterus after a miscarriage and also in treating post-partum difficulties[192]. It is also used to treat nervous exhaustion, debility, insomnia, wasting diseases, failure to thrive in children, impotence, infertility, multiple sclerosis etc[238]. Externally it has been applied as a poultice to boils, swellings and other painful parts[192, 240]. The root is harvested in the autumn and dried for later use[238]. Some caution is advised in the use of this plant since it is toxic[K].

The fruit is diuretic[240].

The seed is diuretic and hypnotic[240].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Repellent; Soap.

The fruit is rich in saponins and can be used as a soap substitute[169, 192].

The leaves are an insect repellent[169].

Cultivation details

A fairly easily grown plant, it requires a warm sheltered position in full sun and a well-drained moderately fertile soil[169, K]. Prefers a dry stony soil[238].

This species is not hardy in temperate climates but it can be grown as an annual, flowering and fruiting in its first year from seed[169].

Propagation

Seed - sow early spring in a greenhouse. There is usually a high germination rate within 2 weeks. Prick out the seedlings into individual pots once they are large enough to handle and plant them out after the last expected frost. Consider giving the plants some protection, such as a cloche, until they are established and growing away well.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Withania somnifera*

Subject:

Withania somnifera

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Withania somnifera

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Wittsteinia vacciniacea

Common name:	Baw-baw berry	Family:	Epacridaceae
Author:	F. Muell.	Botanical references:	1, 154
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Victoria.		
Habitat:	Found in the sub-alpine zone at altitudes between 900 - 1500 metres[154].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Ericales . Epacris family

Physical Characteristics

Shrub growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Fruit.

Fruit[144]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it can be grown outdoors in Britain. One report says that it requires greenhouse protection in this country[1]. However, plants tolerate temperatures down to at least -7°c in Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and colder wetter and longer winters. It would certainly be worthwhile trying it outdoors in the milder areas of the country[K]. It is likely to require a sunny sheltered position.

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse as soon as it is ripe if this is possible, otherwise in early spring. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow them on in the greenhouse for at least their first two winters before trying them outdoors.

Cuttings. Probably it is best to take these in July or August in a frame. It is quite likely that, as with many members of this family, plants have very fine root systems and great care must be taken when transplanting them.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

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Plants For A Future: Database Search Results

Wittsteinia vacciniacea

Common name:	Baw-baw berry	Family:	Epacridaceae
Author:	F. Muell.	Botanical references:	1, 154
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Victoria.		
Habitat:	Found in the sub-alpine zone at altitudes between 900 - 1500 metres[154].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Ericales . Epacris family

Physical Characteristics

Shrub growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Fruit.

Fruit[144]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it can be grown outdoors in Britain. One report says that it requires greenhouse protection in this country[1]. However, plants tolerate temperatures down to at least -7°c in Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and colder wetter and longer winters. It would certainly be worthwhile trying it outdoors in the milder areas of the country[K]. It is likely to require a sunny sheltered position.

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse as soon as it is ripe if this is possible, otherwise in early spring. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow them on in the greenhouse for at least their first two winters before trying them outdoors.

Cuttings. Probably it is best to take these in July or August in a frame. It is quite likely that, as with many members of this family, plants have very fine root systems and great care must be taken when transplanting them.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

Readers Comments

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Fruit.

Fruit[144]. No more details are given.

Medicinal Uses

Disclaimer

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Other Uses

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We have very little information on this species and do not know if it can be grown outdoors in Britain. One report says that it requires greenhouse protection in this country[1]. However, plants tolerate temperatures down to at least -7°c in Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and colder wetter and longer winters. It would certainly be worthwhile trying it outdoors in the milder areas of the country[K]. It is likely to require a sunny sheltered position.

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Add a comment on: *Wittsteinia vacciniacea*

Subject:

Wittsteinia vacciniacea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wittsteinia vacciniacea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:47:46 2004

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Wolffia arrhiza

Common name:	Least duckweed	Family:	Lemnaceae
Author:	(L.) Horkel.	Botanical references:	200, 204
Synonyms:			
Known Hazards:	None known		
Range:	Europe to Asia. N. America - Minnesota to Ontario and S.W. Quebec.		
Habitat:	Floating on quiet waters[204].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Spotless Watermeal [B,P], Wortelloos Kroos [D],
Systematics:	From a UDSA Plants Database
	Order: Arales . Duckweed family

Physical Characteristics

An evergreen perennial growing to 0.01m by 0.01m . It is hardy to zone 7. It is in leaf all year, in flower all year, and the seeds ripen all year. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Leaves.

Leaves - cooked. An excellent flavour, they taste somewhat like a sweet cabbage[183]. The leaves are very nutritious, containing about 20% protein, 44% carbohydrate. 5% fat and are rich in vitamins A, B2, B6, C and nicotinic acid[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

A pond plant, floating on the surface of the water, it requires a sunny position in still water that is rich in nitrates and lime[200].

At the limit of its climatic range in Britain and probably best grown in a cold water aquarium[200]. It over-winters in temperate areas by means of resting buds which sink to the bottom of the pond in the late autumn and rise again in the spring[200].

One of the smallest flowering plants in the world, it is cultivated as a vegetable in Burma, Laos and Thailand[183]. It has been recommended for commercial cultivation, especially in tropical areas, because of its rapid multiplication and high nutritional value[183].

Propagation

Seed - we have no information on this species but, since it can spread rapidly by division, it really needs no extra help once it is in a pond.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for the family Lemnaceae.

See the PFAF Links Pages for other sources

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References

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants*. Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[204] **Livingstone. B.** *Flora of Canada* National Museums of Canada 1978 ISBN 0-660-00025-3
In 4 volumes, it does not deal with plant uses but gives descriptions and habitats.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Wolffia arrhiza

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Author:	(L.) Horkel.	Botanical references:	200, 204
Synonyms:			
Known Hazards:	None known		
Range:	Europe to Asia. N. America - Minnesota to Ontario and S.W. Quebec.		
Habitat:	Floating on quiet waters[204].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Spotless Watermeal [B,P], Wortelloos Kroos [D],
Systematics:	From a UDSA Plants Database
	Order: Arales . Duckweed family

Physical Characteristics

An evergreen perennial growing to 0.01m by 0.01m . It is hardy to zone 7. It is in leaf all year, in flower all year, and the seeds ripen all year. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Leaves.

Leaves - cooked. An excellent flavour, they taste somewhat like a sweet cabbage[183]. The leaves are very nutritious, containing about 20% protein, 44% carbohydrate. 5% fat and are rich in vitamins A, B2, B6, C and nicotinic acid[183].

Medicinal Uses

Disclaimer

None known

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None known

Cultivation details

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Propagation

Seed - we have no information on this species but, since it can spread rapidly by division, it really needs no extra help once it is in a pond.

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Propagation

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Add a comment on: *Wolffia arrhiza*

Subject:

Wolffia arrhiza

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wolffia arrhiza

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Woodwardia radicans

Common name:	Chain fern	Family:	Blechnaceae
Author:	(L.) Sm.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although we have found no reports of toxicity for this species, a number of ferns contain carcinogens so some caution is advisable[200]. Many ferns also contain thiaminase, an enzyme that robs the body of its vitamin B complex. In small quantities this enzyme will do no harm to people eating an adequate diet that is rich in vitamin B, though large quantities can cause severe health problems. The enzyme is destroyed by heat or thorough drying, so cooking the plant will remove the thiaminase[172].		
Range:	South-western Europe and the Atlantic Islands.		
Habitat:	Woodland margins, often by streams[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Blechnum radicans[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rooting Chain Fern [B], Rooting Chainfern [P],
Epithets:	From a Dictionary of Botanical Epithets
	radicans = taking root (stems);
Systematics:	From a UDSA Plants Database
	Order: Polypodiales . Chain Fern family

Physical Characteristics

An evergreen fern growing to 1.8m by 0.6m . It is hardy to zone 9. It is in leaf all year. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Astringent.

Anthelmintic, astringent[178].

A decoction of the roots has been used both internally and externally in the treatment of pain from injuries[257].

Other Uses

Basketry; Ground cover.

Plants can be grown as a ground cover when spaced about 1 metre apart each way[208].

The dried fronds and stems have been used in making baskets[257].

Cultivation details

Requires a neutral to acid humus-rich soil[200]. Prefers growing in wet conditions, especially near running water[200]. Grows best in semi-shade[188].

This species is not hardy in the colder areas of the country, once established it tolerates temperatures down to about -5°c[200, 260] and succeeds outdoors in the milder areas[208].

Members of this genus are rarely if ever troubled by browsing deer[233].

A very ornamental plant[1].

Propagation

Spores - best sown as soon as they are ripe, though they can also be sown in the spring. Sow them on the surface of a humus-rich sterilized soil. Keep the compost moist, preferably by putting a plastic bag over the pot. Pot on small clumps of plantlets as soon as they are large enough to handle and keep humid until they are well established. Do not plant outside until the ferns are at least 2 years old and then only in a very well sheltered position.

Plants produce a plantlet at the tips of each frond. These can be detached from the parent plant and rooted in humid conditions in a frame or the fronds can be anchored down and the plantlet allowed to root in situ[200].

Division in spring[188].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Plants For A Future: Database Search Results

Woodwardia radicans

Common name:	Chain fern	Family:	Blechnaceae
Author:	(L.) Sm.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although we have found no reports of toxicity for this species, a number of ferns contain carcinogens so some caution is advisable[200]. Many ferns also contain thiaminase, an enzyme that robs the body of its vitamin B complex. In small quantities this enzyme will do no harm to people eating an adequate diet that is rich in vitamin B, though large quantities can cause severe health problems. The enzyme is destroyed by heat or thorough drying, so cooking the plant will remove the thiaminase[172].		
Range:	South-western Europe and the Atlantic Islands.		
Habitat:	Woodland margins, often by streams[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Blechnum radicans[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Rooting Chain Fern [B], Rooting Chainfern [P],
Epithets:	From a Dictionary of Botanical Epithets radicans = taking root (stems);
Systematics:	From a UDSA Plants Database Order: Polypodiales . Chain Fern family

Physical Characteristics

An evergreen fern growing to 1.8m by 0.6m . It is hardy to zone 9. It is in leaf all year. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Astringent.

Anthelmintic, astringent[178].

A decoction of the roots has been used both internally and externally in the treatment of pain from injuries[257].

Other Uses

Basketry; Ground cover.

Plants can be grown as a ground cover when spaced about 1 metre apart each way[208].

The dried fronds and stems have been used in making baskets[257].

Cultivation details

Requires a neutral to acid humus-rich soil[200]. Prefers growing in wet conditions, especially near running water[200]. Grows best in semi-shade[188].

This species is not hardy in the colder areas of the country, once established it tolerates temperatures down to about -5°c[200, 260] and succeeds outdoors in the milder areas[208].

Members of this genus are rarely if ever troubled by browsing deer[233].

A very ornamental plant[1].

Propagation

Spores - best sown as soon as they are ripe, though they can also be sown in the spring. Sow them on the surface of a humus-rich sterilized soil. Keep the compost moist, preferably by putting a plastic bag over the pot. Pot on small clumps of plantlets as soon as they are large enough to handle and keep humid until they are well established. Do not plant outside until the ferns are at least 2 years old and then only in a very well sheltered position.

Plants produce a plantlet at the tips of each frond. These can be detached from the parent plant and rooted in humid conditions in a frame or the fronds can be anchored down and the plantlet allowed to root in situ[200].

Division in spring[188].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Plants For A Future: Database Search Results

Woodwardia radicans

Common name:	Chain fern	Family:	Blechnaceae
Author:	(L.) Sm.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although we have found no reports of toxicity for this species, a number of ferns contain carcinogens so some caution is advisable[200]. Many ferns also contain thiaminase, an enzyme that robs the body of its vitamin B complex. In small quantities this enzyme will do no harm to people eating an adequate diet that is rich in vitamin B, though large quantities can cause severe health problems. The enzyme is destroyed by heat or thorough drying, so cooking the plant will remove the thiaminase[172].		
Range:	South-western Europe and the Atlantic Islands.		
Habitat:	Woodland margins, often by streams[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Blechnum radicans[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rooting Chain Fern [B], Rooting Chainfern [P],
Epithets:	From a Dictionary of Botanical Epithets
	radicans = taking root (stems);
Systematics:	From a UDSA Plants Database
	Order: Polypodiales . Chain Fern family

Physical Characteristics

An evergreen fern growing to 1.8m by 0.6m . It is hardy to zone 9. It is in leaf all year. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Astringent.

Anthelmintic, astringent[178].

A decoction of the roots has been used both internally and externally in the treatment of pain from injuries[257].

Other Uses

Basketry; Ground cover.

Plants can be grown as a ground cover when spaced about 1 metre apart each way[208].

The dried fronds and stems have been used in making baskets[257].

Cultivation details

Requires a neutral to acid humus-rich soil[200]. Prefers growing in wet conditions, especially near running water[200]. Grows best in semi-shade[188].

This species is not hardy in the colder areas of the country, once established it tolerates temperatures down to about -5°c[200, 260] and succeeds outdoors in the milder areas[208].

Members of this genus are rarely if ever troubled by browsing deer[233].

A very ornamental plant[1].

Propagation

Spores - best sown as soon as they are ripe, though they can also be sown in the spring. Sow them on the surface of a humus-rich sterilized soil. Keep the compost moist, preferably by putting a plastic bag over the pot. Pot on small clumps of plantlets as soon as they are large enough to handle and keep humid until they are well established. Do not plant outside until the ferns are at least 2 years old and then only in a very well sheltered position.

Plants produce a plantlet at the tips of each frond. These can be detached from the parent plant and rooted in humid conditions in a frame or the fronds can be anchored down and the plantlet allowed to root in situ[200].

Division in spring[188].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Woodwardia radicans

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Wyethia amplexicaulis

Common name:	Mulesears wyethia	Family:	Compositae
Author:	Nutt.	Botanical references:	60, 200
Synonyms:	Espeletia amplexicaulis (Nutt.)		
Known Hazards:	None known		
Range:	Central and Western N. America.		
Habitat:	Open, not too dry hillsides and dry meadows in the foothills[60].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Mules Ears [FEIS], Mulesears Wyethia [P], Northern Mule's-ears [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.8m. It is hardy to zone 5. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root; Seed.

Root - cooked[46, 61, 105, 161, 257]. The native North American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

Seed[161, 177, 207, 257]. No more details are given.

Young shoots[177]. No more details are given.

Medicinal Uses

Disclaimer

Poultice.

The roots furnish a remedy applied externally as a poultice to bruised and swollen limbs[207, 257].

Other Uses

None known

Cultivation details

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Plants are considered to be a pest of grazing ground in N. America and large-scale eradication programmes are carried out[212].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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A nice read, lots of information on plant uses.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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Add a longer comment

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Plants For A Future: Database Search Results

Wyethia amplexicaulis

Common name:	Mulesears wyethia	Family:	Compositae
Author:	Nutt.	Botanical references:	60, 200
Synonyms:	Espeletia amplexicaulis (Nutt.)		
Known Hazards:	None known		
Range:	Central and Western N. America.		
Habitat:	Open, not too dry hillsides and dry meadows in the foothills[60].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Mules Ears [FEIS], Mulesears Wyethia [P], Northern Mule's-ears [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.8m. It is hardy to zone 5. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root; Seed.

Root - cooked[46, 61, 105, 161, 257]. The native North American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

Seed[161, 177, 207, 257]. No more details are given.

Young shoots[177]. No more details are given.

Medicinal Uses

Disclaimer

Poultice.

The roots furnish a remedy applied externally as a poultice to bruised and swollen limbs[207, 257].

Other Uses

None known

Cultivation details

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Plants are considered to be a pest of grazing ground in N. America and large-scale eradication programmes are carried out[212].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

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Web References

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Wyethia amplexicaulis

Common name:	Mulesears wyethia	Family:	Compositae
Author:	Nutt.	Botanical references:	60, 200
Synonyms:	Espeletia amplexicaulis (Nutt.)		
Known Hazards:	None known		
Range:	Central and Western N. America.		
Habitat:	Open, not too dry hillsides and dry meadows in the foothills[60].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Mules Ears [FEIS], Mulesears Wyethia [P], Northern Mule's-ears [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.8m. It is hardy to zone 5. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root; Seed.

Root - cooked[46, 61, 105, 161, 257]. The native North American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

Seed[161, 177, 207, 257]. No more details are given.

Young shoots[177]. No more details are given.

Medicinal Uses

Disclaimer

Poultice.

The roots furnish a remedy applied externally as a poultice to bruised and swollen limbs[207, 257].

Other Uses

None known

Cultivation details

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Plants are considered to be a pest of grazing ground in N. America and large-scale eradication programmes are carried out[212].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Wyethia amplexicaulis*

Subject:

Wyethia amplexicaulis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wyethia amplexicaulis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:48:10 2004

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Plants For A Future: Database Search Results

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Wyethia angustifolia

Common name:	California compass plant	Family:	Compositae
Author:	(DC.) Nutt.	Botanical references:	71, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - Washington to California.		
Habitat:	Seasonally moist meadows[200], open grassy slopes to 1600 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	W. angustifolia var. foliosa[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	California Compassplant [P], California-compassplant [B],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 9. It is in flower from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Seed - cooked. They can be used as a piñole[168, 257]. The seed can be dried, ground into a powder and used as a thickener in soups or can be added to cereal flours when making bread etc[168, 257].

Young leaves - raw[168].

Medicinal Uses

Disclaimer

Diaphoretic; Febrifuge; Poultice.

A poultice of the pounded root has been used to draw blisters[257].

A decoction of the leaves has been used as a bath to promote perspiration and thereby treat fevers[257].

Other Uses

Dye.

A lemon-yellow dye is obtained from the flowers[168].

A gold to brass dye is obtained from the flowers, leaves and stems[168].

Cultivation details

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

According to [200] this species requires climatic zone 9, meaning that it can only tolerate occasional light frosts. This is somewhat questionable since the plant's native range extends northwards to Washington where the winter temperatures often fall much lower than this.

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[71] **Munz.** *A California Flora.* University of California Press 1959
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Wyethia angustifolia

Common name:	California compass plant	Family:	Compositae
Author:	(DC.) Nutt.	Botanical references:	71, 200
Synonyms:			
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Range:	Western N. America - Washington to California.		
Habitat:	Seasonally moist meadows[200], open grassy slopes to 1600 metres in California[71].		
Plants For A Future Rating (1-5):	2		

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According to [200] this species requires climatic zone 9, meaning that it can only tolerate occasional light frosts. This is somewhat questionable since the plant's native range extends northwards to Washington where the winter temperatures often fall much lower than this.

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

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Add a comment on: *Wyethia angustifolia*

Subject:

Wyethia angustifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wyethia angustifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Wyethia helianthoides

Common name:	Sunflower wyethia	Family:	Compositae
Author:	Nutt.	Botanical references:	60
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - C. and E. Oregon to Montana.		
Habitat:	Moist or wet meadows at moderate elevations in mountains[60].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Sunflower Wyethia [P], White-ray Mule's-ears [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root.

Root - cooked[105, 161]. The native North American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Plants For A Future: Database Search Results

Wyethia helianthoides

Common name:	Sunflower wyethia	Family:	Compositae
Author:	Nutt.	Botanical references:	60
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - C. and E. Oregon to Montana.		
Habitat:	Moist or wet meadows at moderate elevations in mountains[60].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Sunflower Wyethia [P], White-ray Mule's-ears [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root.

Root - cooked[105, 161]. The native North American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

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Author:	Nutt.	Botanical references:	60
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - C. and E. Oregon to Montana.		
Habitat:	Moist or wet meadows at moderate elevations in mountains[60].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Sunflower Wyethia [P], White-ray Mule's-ears [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root.

Root - cooked[105, 161]. The native North American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wyethia helianthoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Wyethia longicaulis

Common name:	Humboldt mulesears	Family:	Compositae
Author:	A. Gray.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Open woods and exposed ridges, 800 - 1500 metres[71].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Humboldt County Mule's-ears [B], Humboldt Mulesears [P],
Epithets:	From a Dictionary of Botanical Epithets
	longicaulis = long stemmed;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root; Seed.

Seed - cooked. It can be used as a piñole or can be ground into a powder and used with cereals in making bread etc[105, 161, 257].

Young leaves and stems - raw or cooked[105, 161, 257].

Root - cooked[46, 61]. The N. American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days before being eaten[94].

Medicinal Uses

Disclaimer

Ophthalmic; Poultice; Salve; Stomachic.

A decoction of the roots has been used in the treatment of stomach aches[257]. Externally, it can be used as a wash in the treatment of headaches and as a wash for inflamed and sore eyes[257]. A poultice of the baked roots has been applied to rheumatic joints[257]. A poultice of the dried powdered roots has been applied to burns and running sores[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder parts of the country. The following notes are based on the general needs of the genus.

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

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Plants For A Future Rating (1-5):	3		

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Physical Characteristics

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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root; Seed.

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Other Uses

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Cultivation details

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Plants For A Future: Database Search Results

Wyethia longicaulis

Common name:	Humboldt mulesears	Family:	Compositae
Author:	A. Gray.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Open woods and exposed ridges, 800 - 1500 metres[71].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Humboldt County Mule's-ears [B], Humboldt Mulesears [P],
Epithets:	From a Dictionary of Botanical Epithets
	longicaulis = long stemmed;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root; Seed.

Seed - cooked. It can be used as a piñole or can be ground into a powder and used with cereals in making bread etc[105, 161, 257].

Young leaves and stems - raw or cooked[105, 161, 257].

Root - cooked[46, 61]. The N. American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days before being eaten[94].

Medicinal Uses

Disclaimer

Ophthalmic; Poultice; Salve; Stomachic.

A decoction of the roots has been used in the treatment of stomach aches[257]. Externally, it can be used as a wash in the treatment of headaches and as a wash for inflamed and sore eyes[257]. A poultice of the baked roots has been applied to rheumatic joints[257]. A poultice of the dried powdered roots has been applied to burns and running sores[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder parts of the country. The following notes are based on the general needs of the genus.

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Wyethia longicaulis*

Subject:

Wyethia longicaulis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wyethia longicaulis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Wyethia mollis

Common name:	Woolly wyethia	Family:	Compositae
Author:	Gray.	Botanical references:	71, 200
Synonyms:			
Known Hazards:	One report suggests that the leaves might be poisonous[94].		
Range:	South-western N. America - Oregon to California.		
Habitat:	Dry wooded slopes and rocky openings, 1500 - 3000 metres in California[71].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below. Woolly Mule's-ears [B], Woolly Wyethia [P],
Epithets:	From a Dictionary of Botanical Epithets mollis = soft;
Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root; Seed.

Root - cooked. A sweet and agreeable flavour[94]. The N. American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

Seed - raw or cooked[257]. The seed can be used as a piñole, or it can be ground into a powder and used as a mush or mixed with cereals flours to make bread etc[257].

Medicinal Uses

Disclaimer

Antiphlogistic; Blood tonic; Diaphoretic; Emetic; Febrifuge; Poultice.

The root is antiphlogistic, diaphoretic, emetic and febrifuge[94, 257]. A decoction has been used as a blood tonic and also in the treatment of tuberculosis, venereal diseases, colds and fevers[257]. A poultice of the crushed roots has been applied to swellings[257].

A poultice of the crushed leaves has been applied to sprains, swellings and broken bones[257].

Other Uses

None known

Cultivation details

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. This species is more tolerant of drought than other members of the genus[200].

Plants are not hardy in the colder areas of Britain[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Wyethia mollis

Common name:	Woolly wyethia	Family:	Compositae
Author:	Gray.	Botanical references:	71, 200
Synonyms:			
Known Hazards:	One report suggests that the leaves might be poisonous[94].		
Range:	South-western N. America - Oregon to California.		
Habitat:	Dry wooded slopes and rocky openings, 1500 - 3000 metres in California[71].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Woolly Mule's-ears [B], Woolly Wyethia [P],
Epithets:	From a Dictionary of Botanical Epithets
	mollis = soft;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root; Seed.

Root - cooked. A sweet and agreeable flavour[94]. The N. American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

Seed - raw or cooked[257]. The seed can be used as a piñole, or it can be ground into a powder and used as a mush or mixed with cereals flours to make bread etc[257].

Medicinal Uses

Disclaimer

Antiphlogistic; Blood tonic; Diaphoretic; Emetic; Febrifuge; Poultice.

The root is antiphlogistic, diaphoretic, emetic and febrifuge[94, 257]. A decoction has been used as a blood tonic and also in the treatment of tuberculosis, venereal diseases, colds and fevers[257]. A poultice of the crushed roots has been applied to swellings[257].

A poultice of the crushed leaves has been applied to sprains, swellings and broken bones[257].

Other Uses

None known

Cultivation details

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. This species is more tolerant of drought than other members of the genus[200].

Plants are not hardy in the colder areas of Britain[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future: Database Search Results

Wyethia mollis

Common name:	Woolly wyethia	Family:	Compositae
Author:	Gray.	Botanical references:	71, 200
Synonyms:			
Known Hazards:	One report suggests that the leaves might be poisonous[94].		
Range:	South-western N. America - Oregon to California.		
Habitat:	Dry wooded slopes and rocky openings, 1500 - 3000 metres in California[71].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Woolly Mule's-ears [B], Woolly Wyethia [P],
Epithets:	From a Dictionary of Botanical Epithets
	mollis = soft;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root; Seed.

Root - cooked. A sweet and agreeable flavour[94]. The N. American Indians dug pits in the ground which they lined with large stones. They then burnt a fire on top of the stones until the stones were hot. The roots were placed on these hot stones, sealed in with fern leaves and earth and then fermented for one or two days[94].

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Medicinal Uses

Disclaimer

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A poultice of the crushed leaves has been applied to sprains, swellings and broken bones[257].

Other Uses

None known

Cultivation details

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. This species is more tolerant of drought than other members of the genus[200].

Plants are not hardy in the colder areas of Britain[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

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Add a comment on: *Wyethia mollis*

Subject:

Wyethia mollis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wyethia mollis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:48:41 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Wyethia robusta

Common name:		Family:	Compositae
Author:	Nutt.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - Washington to California[71].		
Habitat:	Seasonally moist meadows[200], open grassy slopes to 1600 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	robusta = robust;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.6m. . It is in flower from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed[61, 105, 161]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder parts of the country. This species might be no more than a synonym for W. angustifolia[71]. The following notes are based on the general needs of the genus.

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Wyethia robusta

Common name:		Family:	Compositae
Author:	Nutt.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - Washington to California[71].		
Habitat:	Seasonally moist meadows[200], open grassy slopes to 1600 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	robusta = robust;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.6m. . It is in flower from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed[61, 105, 161]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder parts of the country. This species might be no more than a synonym for W. angustifolia[71]. The following notes are based on the general needs of the genus.

Requires a free-draining, gritty but moisture-retentive soil in a sunny position[200]. Plants are intolerant of drought[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse or cold frame in early spring. Use a very freely-draining compost, prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are large enough.

Careful division of the crown as the plants come into growth in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Wyethia robusta*

Subject:

Wyethia robusta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Wyethia robusta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Vaccaria hispanica

Common name:	Cow cockle	Family:	Caryophyllaceae
Author:	(Mill.) Rausch.	Botanical references:	50, 200
Synonyms:	Vaccaria vulgaris, Vaccaria segetalis (Asch.), Vaccaria pyramidata (Medik.)		
Known Hazards:	The seeds and other parts of the plant contain saponins[218, 240]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm, they are also broken down if thoroughly heated[K]. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	C. and S. Europe, north to Belgium. An introduced and not infrequent casual in Britain[17].		
Habitat:	A weed of cultivated fields[50].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Saponaria vaccaria[B,G,P] V. hispanica subsp. hispanica[G] V. parviflora[G] V. vaccaria[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cow Basil [L], Cow Soapwort [P], Cowcockle [H,B], Dokan-So [E], Koekruid [D],
Epithets:	From a Dictionary of Botanical Epithets

	hispanica = Spanish;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pink family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Annual growing to 0.6m. . It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves - used as a condiment[177, 179, 183].

Seed - ground into a meal[179]. Rich in starch[179]. The seed contains 13.8 - 16.1% protein and 1.6 - 3.2% fat[218]. The seed also contains saponins, see notes above on toxicity[218].

Composition

Seed (Dry weight)

> In grammes per 100g weight of food:
> Protein: 15 Fat: 2.5
> Source: [218]
> Notes: The report does not make it clear whether this is a zero moisture basis.

Medicinal Uses

Disclaimer

Anodyne; Antiphlogistic; Antipruritic; Diuretic; Emmenagogue; Febrifuge; Galactogogue; Oxytoxic; Styptic; Vulnerary.

The seed is anodyne, discutient, diuretic, emmenagogue, galactogogue, styptic and vulnerary[147, 176, 178, 218]. A decoction is used to treat skin problems, breast tumours, menstrual problems, deficiency of lactation and sluggish labour[218]. The seeds are also taken internally as a galactogogue[218]. The flowers, leaves, roots and shoots also have the same properties[218].

The sap of the plant is said to be febrifuge and tonic[240]. It is used in the treatment of long-continued fevers of a low type[240].

The plant is used externally to cure itch[240].

Other Uses

None known

Cultivation details

Succeeds in any well-drained soil in a sunny position[200].

Sometimes cultivated for its seed which is often added to wild bird foods[200]. By this means, the plant is often found as an introduced casual in Britain[200].

Propagation

Seed - sow April in situ[1].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for the family Caryophyllaceae.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future Rating (1-5):	2		

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Plants For A Future: Database Search Results

Vaccaria hispanica

Common name:	Cow cockle	Family:	Caryophyllaceae
Author:	(Mill.) Rausch.	Botanical references:	50, 200
Synonyms:	Vaccaria vulgaris, Vaccaria segetalis (Asch.), Vaccaria pyramidata (Medik.)		
Known Hazards:	The seeds and other parts of the plant contain saponins[218, 240]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm, they are also broken down if thoroughly heated[K]. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	C. and S. Europe, north to Belgium. An introduced and not infrequent casual in Britain[17].		
Habitat:	A weed of cultivated fields[50].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Saponaria vaccaria[B,G,P] V. hispanica subsp. hispanica[G] V. parviflora[G] V. vaccaria[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cow Basil [L], Cow Soapwort [P], Cowcockle [H,B], Dokan-So [E], Koekruid [D],
Epithets:	From a Dictionary of Botanical Epithets
	hispanica = Spanish;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pink family
Other Range Info:	From the Ethnobotany Database

	China

Physical Characteristics

Annual growing to 0.6m. . It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves - used as a condiment[177, 179, 183].

Seed - ground into a meal[179]. Rich in starch[179]. The seed contains 13.8 - 16.1% protein and 1.6 - 3.2% fat[218]. The seed also contains saponins, see notes above on toxicity[218].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Protein: 15 Fat: 2.5
Source: [218]
Notes: The report does not make it clear whether this is a zero moisture basis.

Medicinal Uses

Disclaimer

Anodyne; Antiphlogistic; Antipruritic; Diuretic; Emmenagogue; Febrifuge; Galactogogue; Oxytoxic; Styptic; Vulnerary.

The seed is anodyne, discutient, diuretic, emmenagogue, galactogogue, styptic and vulnerary[147, 176, 178, 218]. A decoction is used to treat skin problems, breast tumours, menstrual problems, deficiency of lactation and sluggish labour[218]. The seeds are also taken internally as a galactogogue[218]. The flowers, leaves, roots and shoots also have the same properties[218].

The sap of the plant is said to be febrifuge and tonic[240]. It is used in the treatment of long-continued fevers of a low type[240].

The plant is used externally to cure itch[240].

Other Uses

None known

Cultivation details

Succeeds in any well-drained soil in a sunny position[200].

Sometimes cultivated for its seed which is often added to wild bird foods[200]. By this means, the plant is often found as an introduced casual in Britain[200].

Propagation

Seed - sow April in situ[1].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Vaccaria hispanica*

Subject:

Vaccaria hispanica

Group:
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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccaria hispanica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Vaccinium alaskensis

Common name:	Alaska blueberry	Family:	Ericaceae
Author:	Howell.	Botanical references:	60
Synonyms:	Vaccinium ovalifolium (non Smith.)		
Known Hazards:	None known		
Range:	Western N. America - Oregon to Alaska.		
Habitat:	Coastal woods and in the Cascades[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. alaskense[B,P] V. axillare[G] V. chamissonis[G]
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Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 1.8m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[172]. Rather acidic with a watery taste[256]. The North American Indians would often dry the fruit for use in winter[256].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm

tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

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Web References

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- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Details:

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Synonyms:	Vaccinium ovalifolium (non Smith.)		
Known Hazards:	None known		
Range:	Western N. America - Oregon to Alaska.		
Habitat:	Coastal woods and in the Cascades[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

A decidious shrub growing to 1.8m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[172]. Rather acidic with a watery taste[256]. The North American Indians would often dry the fruit for use in winter[256].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Vaccinium alaskensis

Group:
Plant Information

Comment:

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Vaccinium amoenum

Common name:	Large-cluster blueberry	Family:	Ericaceae
Author:	Ait.	Botanical references:	72, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America.		
Habitat:	Acid bogs, meadows, woods and thickets[72].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus amoenus[B,P] Cyanococcus virgatus[B,P] V. ashei[B,G,P] V. corymbosum var. amoenum[B,P] V. parviflorum[B,P] V. virgatum[B,G,P] V. virgatum var. ozarkense[B,P] V. virgatum var. speciosum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Small-flower Blueberry [B], Smallflower Blueberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	amoenum = pleasant;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 5. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. The fruit is about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

This species is closely related to V. virgatum[1].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Vaccinium virgatum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[72] **Small.** *Manual of the Southeastern Flora.*
Getting rather dated now, it covers Southeastern N. America. No pictures, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.*
Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Plants For A Future: Database Search Results

Vaccinium amoenum

Common name:	Large-cluster blueberry	Family:	Ericaceae
Author:	Ait.	Botanical references:	72, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America.		
Habitat:	Acid bogs, meadows, woods and thickets[72].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus amoenus[B,P] Cyanococcus virgatus[B,P] V. ashei[B,G,P] V. corymbosum var. amoenum[B,P] V. parviflorum[B,P] V. virgatum[B,G,P] V. virgatum var. ozarkense[B,P] V. virgatum var. speciosum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Small-flower Blueberry [B], Smallflower Blueberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	amoenum = pleasant;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 5. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. The fruit is about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

This species is closely related to V. virgatum[1].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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References for *Vaccinium virgatum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for the family Ericaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Vaccinium amoenum

Common name:	Large-cluster blueberry	Family:	Ericaceae
Author:	Ait.	Botanical references:	72, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America.		
Habitat:	Acid bogs, meadows, woods and thickets[72].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus amoenus[B,P] Cyanococcus virgatus[B,P] V. ashei[B,G,P] V. corymbosum var. amoenum[B,P] V. parviflorum[B,P] V. virgatum[B,G,P] V. virgatum var. ozarkense[B,P] V. virgatum var. speciosum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Small-flower Blueberry [B], Smallflower Blueberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	amoenum = pleasant;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 5. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. The fruit is about 8mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

This species is closely related to V. virgatum[1].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Vaccinium amoenum*

Subject:

Vaccinium amoenum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium amoenum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Vaccinium angustifolium

Common name:	Low sweet blueberry	Family:	Ericaceae
Author:	Ait.	Botanical references:	11, 43, 200
Synonyms:	Vaccinium pensylvanicum (Lam. non Mill.), Vaccinium pennsylvanicum angustifolium ((Aiton.)A.Gray.), Vaccinium lamarckii (Camp.)		
Known Hazards:	None known		
Range:	North-eastern N. America - Newfoundland to Maryland, west to Iowa and Minnesota.		
Habitat:	Dry open barrens, peats and rocks[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. angustifolium var. hypolasium[B,G,P] V. angustifolium var. laevifolium[B,G,P] V. angustifolium var. nigrum[B,G,P] V. brittonii[B,G,P] V. nigrum[B,P] V. pennsylvanicum[L] V. pennsylvaticum var. angustifolium[L] V. pensylvanicum var. nigrum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Blueberry [H], Blueberry [H], Early Sweet Blueberry [L], Late Lowbush Blueberry [B], Low Sweet Blueberry [FEIS,L], Lowbush Blueberry [P,H],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolium = narrow leaved;
Systematics:	From a UDSA Plants Database

	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.2m. It is hardy to zone 2. It is in flower from May to June, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Cultivar **'Pütte'**: Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw, cooked or used in preserves etc[2, 161, 177, 183]. A very sweet pleasant flavour with a slight taste of honey[11, 43, 183]. Largely grown for the canning industry, it is considered to be the best of the lowbush type blueberries[183]. The fruit can be dried and used like raisins[62]. The fruit is about 12mm in diameter[200]. This is the earliest commercially grown blueberry to ripen[235].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

Blood tonic; Oxytoxic.

A tea made from the leaves has been used as a blood purifier and in the treatment of infant's colic[222, 257]. It has also been used to induce labour and as a tonic after a miscarriage[222, 257].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

A very hardy plant, tolerating temperatures down to about -40°c[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Cultivated for its edible fruits, there are some named varieties[1, 183]. It succeeds in cold northerly locations such as Maine in N. America[183] and in C. Sweden. However, it is said to have little or no value as a fruit crop in Britain[11].

The typical species is not as well known as its subspecies V. angustifolium laevifolium. House[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

'Pütte'

> Developed in Sweden, this cultivar matures at 20 - 40cm tall, yielding large berries in dense clusters[183]. Dormant plants have withstood temperatures down to -40°c[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Vaccinium pennsylvanicum* (a possible synonym).
References for *Vaccinium pennsylvaticum var. angustifolium* (a possible synonym).

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5

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Plants For A Future: Database Search Results

Vaccinium angustifolium

Common name:	Low sweet blueberry	Family:	Ericaceae
Author:	Ait.	Botanical references:	11, 43, 200
Synonyms:	Vaccinium pensylvanicum (Lam. non Mill.), Vaccinium pennsylvanicum angustifolium ((Aiton.)A.Gray.), Vaccinium lamarckii (Camp.)		
Known Hazards:	None known		
Range:	North-eastern N. America - Newfoundland to Maryland, west to Iowa and Minnesota.		
Habitat:	Dry open barrens, peats and rocks[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. angustifolium var. hypolasium[B,G,P] V. angustifolium var. laevifolium[B,G,P] V. angustifolium var. nigrum[B,G,P] V. brittonii[B,G,P] V. nigrum[B,P] V. pennsylvanicum[L] V. pennsylvaticum var. angustifolium[L] V. pensylvanicum var. nigrum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Blueberry [H], Blueberry [H], Early Sweet Blueberry [L], Late Lowbush Blueberry [B], Low Sweet Blueberry [FEIS,L], Lowbush Blueberry [P,H],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolium = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.2m. It is hardy to zone 2. It is in flower from May to June, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Cultivar **'Pütte'**: Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw, cooked or used in preserves etc[2, 161, 177, 183]. A very sweet pleasant flavour with a slight taste of honey[11, 43, 183]. Largely grown for the canning industry, it is considered to be the best of the lowbush type blueberries[183]. The fruit can be dried and used like raisins[62]. The fruit is about 12mm in diameter[200]. This is the earliest commercially grown blueberry to ripen[235].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

Blood tonic; Oxytoxic.

A tea made from the leaves has been used as a blood purifier and in the treatment of infant's colic[222, 257]. It has also been used to induce labour and as a tonic after a miscarriage[222, 257].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

A very hardy plant, tolerating temperatures down to about -40°c[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Cultivated for its edible fruits, there are some named varieties[1, 183]. It succeeds in cold northerly locations such as Maine in N. America[183] and in C. Sweden. However, it is said to have little or no value as a fruit crop in Britain[11].

The typical species is not as well known as its subspecies V. angustifolium laevifolium. House[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

'Pütte'

> Developed in Sweden, this cultivar matures at 20 - 40cm tall, yielding large berries in dense clusters[183]. Dormant plants have withstood temperatures down to -40°c[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Vaccinium pennsylvanicum* (a possible synonym).
References for *Vaccinium pennsylvaticum var. angustifolium* (a possible synonym).

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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Plants For A Future: Database Search Results

Vaccinium angustifolium

Common name:	Low sweet blueberry	Family:	Ericaceae
Author:	Ait.	Botanical references:	11, 43, 200
Synonyms:	Vaccinium pensylvanicum (Lam. non Mill.), Vaccinium pennsylvanicum angustifolium ((Aiton.)A.Gray.), Vaccinium lamarckii (Camp.)		
Known Hazards:	None known		
Range:	North-eastern N. America - Newfoundland to Maryland, west to Iowa and Minnesota.		
Habitat:	Dry open barrens, peats and rocks[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. angustifolium var. hypolasium[B,G,P] V. angustifolium var. laevifolium[B,G,P] V. angustifolium var. nigrum[B,G,P] V. brittonii[B,G,P] V. nigrum[B,P] V. pennsylvanicum[L] V. pennsylvaticum var. angustifolium[L] V. pensylvanicum var. nigrum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Blueberry [H], Blueberry [H], Early Sweet Blueberry [L], Late Lowbush Blueberry [B], Low Sweet Blueberry [FEIS,L], Lowbush Blueberry [P,H],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolium = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.2m. It is hardy to zone 2. It is in flower from May to June, and the seeds ripen in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Cultivar **'Pütte'**: Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw, cooked or used in preserves etc[2, 161, 177, 183]. A very sweet pleasant flavour with a slight taste of honey[11, 43, 183]. Largely grown for the canning industry, it is considered to be the best of the lowbush type blueberries[183]. The fruit can be dried and used like raisins[62]. The fruit is about 12mm in diameter[200]. This is the earliest commercially grown blueberry to ripen[235].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

Blood tonic; Oxytoxic.

A tea made from the leaves has been used as a blood purifier and in the treatment of infant's colic[222, 257]. It has also been used to induce labour and as a tonic after a miscarriage[222, 257].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

A very hardy plant, tolerating temperatures down to about -40°c[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Cultivated for its edible fruits, there are some named varieties[1, 183]. It succeeds in cold northerly locations such as Maine in N. America[183] and in C. Sweden. However, it is said to have little or no value as a fruit crop in Britain[11].

The typical species is not as well known as its subspecies V. angustifolium laevifolium. House[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

'Pütte'

> Developed in Sweden, this cultivar matures at 20 - 40cm tall, yielding large berries in dense clusters[183]. Dormant plants have withstood temperatures down to -40°c[183].

Suppliers

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Vaccinium angustifolium

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Vaccinium angustifolium laevifolium

Common name:	Low sweet blueberry	Family:	Ericaceae
Author:	House.	Botanical references:	11, 43, 200
Synonyms:	Vaccinium pennsylvanicum (Lam.)		
Known Hazards:	None known		
Range:	North-eastern N. America.		
Habitat:	Dry open barrens, peats and rocks[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. angustifolium[B,G,H,P] V. angustifolium var. hypolasium[B,G,P] V. angustifolium var. laevifolium[B,G,P] V. angustifolium var. nigrum[B,G,P] V. brittonii[B,G,P] V. lamarckii[B,G,P] V. nigrum[B,P] V. pensylvanicum[G] V. pensylvanicum var. nigrum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Blueberry [H], Blueberry [H], Early Sweet Blueberry [L], Late Lowbush Blueberry [B], Low Sweet Blueberry [FEIS,L], Lowbush Blueberry [H,P],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolium = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.6m by 0.7m . It is hardy to zone 2. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Fruit; Tea.

Fruit - raw, cooked or used in preserves etc[2, 161, 183]. A very sweet pleasant flavour with a slight taste of honey[11, 43, 183]. Largely grown for the canning industry. The fruit can be dried and used like raisins[62]. The fruit is about 12mm in diameter[200].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

A very hardy plant, tolerating temperatures down to about -40°c[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Cultivated for its edible fruits, there are some named varieties[1, 183]. It succeeds in cold northerly locations such as Maine in N. America[183] and in central Sweden. However, it is said to have little or no value as a fruit crop in Britain[11].

This sub-species is more commonly grown in Britain than the typical form[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Vaccinium angustifolium* (a possible synonym).

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
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[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Vaccinium angustifolium laevifolium

Common name:	Low sweet blueberry	Family:	Ericaceae
Author:	House.	Botanical references:	11, 43, 200
Synonyms:	Vaccinium pennsylvanicum (Lam.)		
Known Hazards:	None known		
Range:	North-eastern N. America.		
Habitat:	Dry open barrens, peats and rocks[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. angustifolium[B,G,H,P] V. angustifolium var. hypolasium[B,G,P] V. angustifolium var. laevifolium[B,G,P] V. angustifolium var. nigrum[B,G,P] V. brittonii[B,G,P] V. lamarckii[B,G,P] V. nigrum[B,P] V. pensylvanicum[G] V. pensylvanicum var. nigrum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Blueberry [H], Blueberry [H], Early Sweet Blueberry [L], Late Lowbush Blueberry [B], Low Sweet Blueberry [FEIS,L], Lowbush Blueberry [H,P],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolium = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.6m by 0.7m . It is hardy to zone 2. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Fruit; Tea.

Fruit - raw, cooked or used in preserves etc[2, 161, 183]. A very sweet pleasant flavour with a slight taste of honey[11, 43, 183]. Largely grown for the canning industry. The fruit can be dried and used like raisins[62]. The fruit is about 12mm in diameter[200].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

A very hardy plant, tolerating temperatures down to about -40°c[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Cultivated for its edible fruits, there are some named varieties[1, 183]. It succeeds in cold northerly locations such as Maine in N. America[183] and in central Sweden. However, it is said to have little or no value as a fruit crop in Britain[11].

This sub-species is more commonly grown in Britain than the typical form[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Vaccinium angustifolium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information

System.

References for *Vaccinium pennsylvanicum* (a possible synonym).

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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A comprehensive but very terse guide. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Vaccinium angustifolium laevifolium

Common name:	Low sweet blueberry	Family:	Ericaceae
Author:	House.	Botanical references:	11, 43, 200
Synonyms:	Vaccinium pennsylvanicum (Lam.)		
Known Hazards:	None known		
Range:	North-eastern N. America.		
Habitat:	Dry open barrens, peats and rocks[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. angustifolium[B,G,H,P] V. angustifolium var. hypolasium[B,G,P] V. angustifolium var. laevifolium[B,G,P] V. angustifolium var. nigrum[B,G,P] V. brittonii[B,G,P] V. lamarckii[B,G,P] V. nigrum[B,P] V. pensylvanicum[G] V. pensylvanicum var. nigrum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Blueberry [H], Blueberry [H], Early Sweet Blueberry [L], Late Lowbush Blueberry [B], Low Sweet Blueberry [FEIS,L], Lowbush Blueberry [H,P],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolium = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.6m by 0.7m . It is hardy to zone 2. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Fruit; Tea.

Fruit - raw, cooked or used in preserves etc[2, 161, 183]. A very sweet pleasant flavour with a slight taste of honey[11, 43, 183]. Largely grown for the canning industry. The fruit can be dried and used like raisins[62]. The fruit is about 12mm in diameter[200].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

A very hardy plant, tolerating temperatures down to about -40°c[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Cultivated for its edible fruits, there are some named varieties[1, 183]. It succeeds in cold northerly locations such as Maine in N. America[183] and in central Sweden. However, it is said to have little or no value as a fruit crop in Britain[11].

This sub-species is more commonly grown in Britain than the typical form[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Vaccinium angustifolium laevifolium

Group:
Plant Information

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Details of Location and growing conditions:

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Vaccinium arboreum

Common name:	Farkleberry	Family:	Ericaceae
Author:	Marsh.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida, west to Texas.		
Habitat:	Moist sandy soils by ponds and streams[82]. Usually found in most shady slightly alkaline soils along stream banks, bluffs, hammocks and in open woods[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Batodendron andrachniforme[B,P] Batodendron arboreum[B,P] V. arboreum var. glaucescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Farkleberry [H,P,L], Sparkleberry [DEN1], Tree Sparkle-berry [B], Tree Sparkleberry [FEIS,L],
Epithets:	From a Dictionary of Botanical Epithets
	arboreum = tree like;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

An evergreen tree growing to 5m. It is hardy to zone 7. It is in leaf all year, in flower from July to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. Dry and slightly astringent but with a pleasant flavour[82]. Dry and insipid according to another report[183] whilst another says that it is dry, sweet and mealy[227] and yet another says that it is bitter and inedible[200]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Astringent.

The berries, root-bark and leaves are very astringent and have been used internally in the treatment of diarrhoea, dysentery etc[4, 82, 229]. The infusion is valuable in treating sore throats, chronic ophthalmia, leucorrhoea etc[4].

Other Uses

Rootstock; Tannin; Wood.

Said to be an excellent rootstock for 'Rabbiteye' blueberries (V. ashei)[183].

Tannin is obtained from the bark and root[82, 227].

Wood - heavy, hard, very close grained. It weighs 48lb per cubic foot. Used for making tool handles and other small articles[82, 227].

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants are deciduous when growing in cold climates[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Vaccinium arboreum

Common name:	Farkleberry	Family:	Ericaceae
Author:	Marsh.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida, west to Texas.		
Habitat:	Moist sandy soils by ponds and streams[82]. Usually found in most shady slightly alkaline soils along stream banks, bluffs, hammocks and in open woods[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Batodendron andrachniforme[B,P] Batodendron arboreum[B,P] V. arboreum var. glaucescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Farkleberry [H,P,L], Sparkleberry [DEN1], Tree Sparkle-berry [B], Tree Sparkleberry [FEIS,L],
Epithets:	From a Dictionary of Botanical Epithets
	arboreum = tree like;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

An evergreen tree growing to 5m. It is hardy to zone 7. It is in leaf all year, in flower from July to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. Dry and slightly astringent but with a pleasant flavour[82]. Dry and insipid according to another report[183] whilst another says that it is dry, sweet and mealy[227] and yet another says that it is bitter and inedible[200]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Astringent.

The berries, root-bark and leaves are very astringent and have been used internally in the treatment of diarrhoea, dysentery etc[4, 82, 229]. The infusion is valuable in treating sore throats, chronic ophthalmia, leucorrhoea etc[4].

Other Uses

Rootstock; Tannin; Wood.

Said to be an excellent rootstock for 'Rabbiteye' blueberries (V. ashei)[183].

Tannin is obtained from the bark and root[82, 227].

Wood - heavy, hard, very close grained. It weighs 48lb per cubic foot. Used for making tool handles and other small articles[82, 227].

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants are deciduous when growing in cold climates[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

Readers Comments

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Plants For A Future: Database Search Results

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	arboreum = tree like;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

An evergreen tree growing to 5m. It is hardy to zone 7. It is in leaf all year, in flower from July to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

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Medicinal Uses

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Astringent.

The berries, root-bark and leaves are very astringent and have been used internally in the treatment of diarrhoea, dysentery etc[4, 82, 229]. The infusion is valuable in treating sore throats, chronic ophthalmia, leucorrhoea etc[4].

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Tannin is obtained from the bark and root[82, 227].

Wood - heavy, hard, very close grained. It weighs 48lb per cubic foot. Used for making tool handles and other small articles[82, 227].

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants are deciduous when growing in cold climates[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

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Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Vaccinium arboreum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium arboreum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Vaccinium arbuscula

Common name:		Family:	Ericaceae
Author:	(A. Gray.) Mart.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Wet places, especially in coniferous forests, to 2400 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. caespitosum var. arbuscula[B] V. caespitosum var. caespitosum[B] V. cespitosum var. arbuscula[P] V. cespitosum var. cespitosum[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Tall Bilberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	arbuscula = dwarf tree;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[61, 105].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Vaccinium caespitosum var. caespitosum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

References for *Vaccinium cespitosum var. cespitosum* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Edible Uses

Fruit.

Fruit - raw or cooked[61, 105].

Medicinal Uses

Disclaimer

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Other Uses

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Cultivation details

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Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in

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References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948

A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Vaccinium arbuscula

Common name:		Family:	Ericaceae
Author:	(A. Gray.) Mart.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Wet places, especially in coniferous forests, to 2400 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. caespitosum var. arbuscula[B] V. caespitosum var. caespitosum[B] V. cespitosum var. arbuscula[P] V. cespitosum var. cespitosum[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Tall Bilberry [P],
Epithets:	From a Dictionary of Botanical Epithets
	arbuscula = dwarf tree;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[61, 105].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in

the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

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Add a comment on: *Vaccinium arbuscula*

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium arbuscula

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Vaccinium arctostaphylos

Common name:	Caucasian whortleberry	Family:	Ericaceae
Author:	L.	Botanical references:	11, 74, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - E. Mediterranean to W. Asia.		
Habitat:	Mountain slopes, fir/spruce or fir/beech woods, rhododendron thickets, occasionally in oak forests and near the timber line in stands of birch and occasionally of pine[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. arctostophylos[HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 3m by 2m . It is hardy to zone 6. It is in flower from May to July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw or cooked[177]. The fruit is juicy with a slightly acid flavour, it makes an acceptable fruit to nibble on, though it is nothing special[K]. The fruit is usually produced abundantly when the plant is well sited[K]. The pear-shaped fruit is small, about 8 - 10mm in size[183].

The leaves are a tea substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present[11, 200]. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. A plant growing in fairly heavy woodland shade at Westonbirt Arboretum in Gloucester was fruiting very heavily in September 1996, and we have seen several other plants fruiting well in dappled shade[K]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Closely related to V. padifolium[182], differing mainly in that species usually being evergreen[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Author:	L.	Botanical references:	11, 74, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - E. Mediterranean to W. Asia.		
Habitat:	Mountain slopes, fir/spruce or fir/beech woods, rhododendron thickets, occasionally in oak forests and near the timber line in stands of birch and occasionally of pine[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. arctostophylos[HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 3m by 2m . It is hardy to zone 6. It is in flower from May to July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw or cooked[177]. The fruit is juicy with a slightly acid flavour, it makes an acceptable fruit to nibble on, though it is nothing special[K]. The fruit is usually produced abundantly when the plant is well sited[K]. The pear-shaped fruit is small, about 8 - 10mm in size[183].

The leaves are a tea substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present[11, 200]. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. A plant growing in fairly heavy woodland shade at Westonbirt Arboretum in Gloucester was fruiting very heavily in September 1996, and we have seen several other plants fruiting well in dappled shade[K]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Closely related to V. padifolium[182], differing mainly in that species usually being evergreen[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm

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Suppliers

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Physical Characteristics

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Habitats and Possible Locations

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Medicinal Uses

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Other Uses

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Cultivation details

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Subject:

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Comment:

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium arctostaphylos

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:50:01 2004

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Add Comment Reset

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Plants For A Future: Database Search Results

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Vaccinium ashei

Common name:	Rabbiteye blueberry	Family:	Ericaceae
Author:	Reade.	Botanical references:	72, 200
Synonyms:	Polycodium ashei (Harb.)		
Known Hazards:	None known		
Range:	South-eastern N. America.		
Habitat:	Swamps and barren pine land[3, 72].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus amoenus[B,P] Cyanococcus virgatus[B,P] Polycodium candicans[B,P] Polycodium depressum[B,P] Polycodium floridanum[B,P] Polycodium leptosepalum[B,P] Polycodium macilentum[B,P] Polycodium melanocarpum[B,P] Polycodium neglectum[B,P] Polycodium stamineum[B,P] V. amoenum[B,G,P] V. caesium[B,P] V. corymbosum var. amoenum[B,P] V. melanocarpum[B,P] V. neglectum[B,P] V. parviflorum[B,P] V. stamineum[B,G,L,P] V. stamineum var. candicans[B,P] V. stamineum var. interius[B,P] V. stamineum var. melanocarpum[B,P] V. stamineum var. neglectum[B,P] V. virgatum[B,G,P] V. virgatum var. ozarkense[B,P] V. virgatum var. speciosum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Deerberry [B,P,L,DEN2], Small-flower Blueberry [B], Smallflower Blueberry [P], Squaw Huckleberry [L],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 8. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[3, 105, 142]. It is often insipid but some forms are well-flavoured[1, 200]. The fruit is often used for preserves etc and can also be dried for later use[183]. The fruit is up to 16mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Plants are not hardy in all parts of Britain, they should succeed outdoors in the milder areas, tolerating temperatures down to between -5 and -10°c[200].

Often cultivated for its edible fruit, there are many named varieties[142]. Plants have a low chill-factor and so succeed in areas nearer the equator such as Florida[183].

There is some confusion over this name with some authorities seeing it as no more than a synonym for V. virgatum. For the time being it will be kept here as a distinct species.

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200]. Established plants are drought resistant[183].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of soft wood, May/June in partial shade in media containing pine bark[113].

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain

- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Vaccinium stamineum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
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Readable but not very comprehensive.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Vaccinium+ashei`

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Plants For A Future: Database Search Results

Vaccinium ashei

Common name:	Rabbiteye blueberry	Family:	Ericaceae
Author:	Reade.	Botanical references:	72, 200
Synonyms:	Polycodium ashei (Harb.)		
Known Hazards:	None known		
Range:	South-eastern N. America.		
Habitat:	Swamps and barren pine land[3, 72].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus amoenus[B,P] Cyanococcus virgatus[B,P] Polycodium candicans[B,P] Polycodium depressum[B,P] Polycodium floridanum[B,P] Polycodium leptosepalum[B,P] Polycodium macilentum[B,P] Polycodium melanocarpum[B,P] Polycodium neglectum[B,P] Polycodium stamineum[B,P] V. amoenum[B,G,P] V. caesium[B,P] V. corymbosum var. amoenum[B,P] V. melanocarpum[B,P] V. neglectum[B,P] V. parviflorum[B,P] V. stamineum[B,G,L,P] V. stamineum var. candicans[B,P] V. stamineum var. interius[B,P] V. stamineum var. melanocarpum[B,P] V. stamineum var. neglectum[B,P] V. virgatum[B,G,P] V. virgatum var. ozarkense[B,P] V. virgatum var. speciosum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Deerberry [B,P,L,DEN2], Small-flower Blueberry [B], Smallflower Blueberry [P], Squaw Huckleberry [L],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 8. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[3, 105, 142]. It is often insipid but some forms are well-flavoured[1, 200]. The fruit is often used for preserves etc and can also be dried for later use[183]. The fruit is up to 16mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Plants are not hardy in all parts of Britain, they should succeed outdoors in the milder areas, tolerating temperatures down to between -5 and -10°c[200].

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There is some confusion over this name with some authorities seeing it as no more than a synonym for V. virgatum. For the time being it will be kept here as a distinct species.

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent

positions[200]. Established plants are drought resistant[183].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Division of suckers in spring or early autumn[113].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
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References for the family Ericaceae.

See the PFAF Links Pages for other sources

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References

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Range:	South-eastern N. America.		
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Vaccinium ashei*

Subject:

Vaccinium ashei

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium ashei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Vaccinium bracteatum

Common name:	Sea bilberry	Family:	Ericaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Andromeda chinensis (Lodd.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low elevations in mountains, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. buergeri[G] V. malaccense[G]
Epithets:	From a Dictionary of Botanical Epithets
	bracteatum = with bracts;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

An evergreen shrub growing to 1m. It is hardy to zone 7. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 177, 183]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Cancer.

The plant has been used in the treatment of cancer[218].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Plants are hardy at Kew but they are better grown in milder areas[11].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Closely related to V. sprengelii[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm

tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

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References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low elevations in mountains, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. buergeri[G] V. malaccense[G]
Epithets:	From a Dictionary of Botanical Epithets
	bracteatum = with bracts;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

An evergreen shrub growing to 1m. It is hardy to zone 7. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 177, 183]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Cancer.

The plant has been used in the treatment of cancer[218].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Plants are hardy at Kew but they are better grown in milder areas[11].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Closely related to V. sprengelii[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Suppliers

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Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Low elevations in mountains, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. buergeri[G] V. malaccense[G]
Epithets:	From a Dictionary of Botanical Epithets
	bracteatum = with bracts;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

An evergreen shrub growing to 1m. It is hardy to zone 7. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 177, 183]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Cancer.

The plant has been used in the treatment of cancer[218].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Plants are hardy at Kew but they are better grown in milder areas[11].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Closely related to V. sprengelii[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Suppliers

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Add a comment on: *Vaccinium bracteatum*

Subject:

Vaccinium bracteatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium bracteatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Vaccinium brittonii

Common name:		Family:	Ericaceae
Author:	Porter.	Botanical references:	11, 43
Synonyms:	Vaccinium angustifolium nigrum ((Wood.)Dole.)		
Known Hazards:	None known		
Range:	Eastern N. America - New Brunswick to New Jersey, Pennsylvania and Michigan.		
Habitat:	Dry open barrens, peats and rocks[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. angustifolium[B,G,H,P] V. angustifolium var. hypolasium[B,G,P] V. angustifolium var. laevifolium[B,G,P] V. angustifolium var. nigrum[B,G,P] V. lamarckii[B,G,P] V. nigrum[B,P] V. pensylvanicum[G] V. pensylvanicum var. nigrum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Blueberry [H], Blueberry [H], Late Lowbush Blueberry [B], Low Sweet Blueberry [FEIS], Lowbush Blueberry [P,H],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Web References

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Vaccinium angustifolium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Vaccinium brittonii

Common name:		Family:	Ericaceae
Author:	Porter.	Botanical references:	11, 43
Synonyms:	Vaccinium angustifolium nigrum ((Wood.)Dole.)		
Known Hazards:	None known		
Range:	Eastern N. America - New Brunswick to New Jersey, Pennsylvania and Michigan.		
Habitat:	Dry open barrens, peats and rocks[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. angustifolium[B,G,H,P] V. angustifolium var. hypolasium[B,G,P] V. angustifolium var. laevifolium[B,G,P] V. angustifolium var. nigrum[B,G,P] V. lamarckii[B,G,P] V. nigrum[B,P] V. pensylvanicum[G] V. pensylvanicum var. nigrum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Blueberry [H], Blueberry [H], Late Lowbush Blueberry [B], Low Sweet Blueberry [FEIS], Lowbush Blueberry [P,H],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in

the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Vaccinium angustifolium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

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See the PFAF Links Pages for other sources

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Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

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A decidious shrub growing to 2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in

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Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

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Suppliers

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Add a comment on: *Vaccinium brittonii*

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium brittonii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Vaccinium caesariense

Common name:		Family:	Ericaceae
Author:	MacKenzie.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New York and New Jersey.		
Habitat:	Swamps, peaty thickets and bogs of the coastal plain[43]. Also found in pine barrens[235].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	New Jersey Blueberry [P,B],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 1.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 177]. The fully ripe fruit is eaten raw or used in jams, pies, jellies etc[183]. The fruit is about 8mm in diameter[235].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm

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Plants For A Future: Database Search Results

Vaccinium caesariense

Common name:		Family:	Ericaceae
Author:	MacKenzie.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New York and New Jersey.		
Habitat:	Swamps, peaty thickets and bogs of the coastal plain[43]. Also found in pine barrens[235].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	New Jersey Blueberry [P,B],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 1.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 177]. The fully ripe fruit is eaten raw or used in jams, pies, jellies etc[183]. The fruit is about 8mm in diameter[235].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Vaccinium caesariense*

Subject:

Vaccinium caesariense

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium caesariense

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Vaccinium caespitosum

Common name:	Dwarf bilberry	Family:	Ericaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Northern and Western N. America - Alaska to California.		
Habitat:	Rocky or gravelly banks in open woods or alpine scrub[43, 184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. cespitosum[,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dwarf Bilberry [L], Dwarf Blueberry [P], Dwarf Huckleberry [FEIS,L],
Epithets:	From a Dictionary of Botanical Epithets
	caespitosum = tufted, caespitose;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.3m. It is hardy to zone 2. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw or cooked[2, 3, 85, 101]. Sweet[11, 182]. The fruit can be eaten raw, used in pies, preserves etc, or can be dried for later use[257]. A reasonable source of vitamin C[257]. The fruit is about 6mm in diameter[200].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Carminative; Hypoglycaemic.

Antiseptic, astringent, carminative, hypoglycaemic[172].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Hardy to about -30°c[184].

A dense suckering low-growing shrub[182], it spreads rapidly when in a suitable position[200]. Very suitable for growing in the rock garden[11].

This species is closely related to V. deliciosum[11, 182].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

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- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Vaccinium cespitosum* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
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Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Vaccinium caespitosum

Common name:	Dwarf bilberry	Family:	Ericaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Northern and Western N. America - Alaska to California.		
Habitat:	Rocky or gravelly banks in open woods or alpine scrub[43, 184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. cespitosum[,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dwarf Bilberry [L], Dwarf Blueberry [P], Dwarf Huckleberry [FEIS,L],
Epithets:	From a Dictionary of Botanical Epithets
	caespitosum = tufted, caespitose;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.3m. It is hardy to zone 2. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw or cooked[2, 3, 85, 101]. Sweet[11, 182]. The fruit can be eaten raw, used in pies, preserves etc, or can be dried for later use[257]. A reasonable source of vitamin C[257]. The fruit is about 6mm in diameter[200].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Carminative; Hypoglycaemic.

Antiseptic, astringent, carminative, hypoglycaemic[172].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Hardy to about -30°c[184].

A dense suckering low-growing shrub[182], it spreads rapidly when in a suitable position[200]. Very suitable for growing in the rock garden[11].

This species is closely related to V. deliciosum[11, 182].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

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Suppliers

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Author:	Michx.	Botanical references:	11, 43, 200
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Known Hazards:	None known		
Range:	Northern and Western N. America - Alaska to California.		
Habitat:	Rocky or gravelly banks in open woods or alpine scrub[43, 184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 0.3m. It is hardy to zone 2. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw or cooked[2, 3, 85, 101]. Sweet[11, 182]. The fruit can be eaten raw, used in pies, preserves etc, or can be dried for later use[257]. A reasonable source of vitamin C[257]. The fruit is about 6mm in diameter[200].

A tea is made from the leaves and dried fruits[101].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Carminative; Hypoglycaemic.

Antiseptic, astringent, carminative, hypoglycaemic[172].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Hardy to about -30°c[184].

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This species is closely related to V. deliciosum[11, 182].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Vaccinium caespitosum*

Subject:

Vaccinium caespitosum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium caespitosum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:50:43 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Vaccinium ciliatum

Common name:		Family:	Ericaceae
Author:	Thunb.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	ciliatum = fringed with hairs;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub. . It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

There is some confusion over this name. V. ciliatum. G.Don. non Thunb. is given as a synonym for V. oldhamii[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late

spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Vaccinium ciliatum

Common name:		Family:	Ericaceae
Author:	Thunb.	Botanical references:	58
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Range:	E. Asia - C. and S. Japan, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	ciliatum = fringed with hairs;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub. . It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

There is some confusion over this name. V. ciliatum. G.Don. non Thunb. is given as a synonym for V. oldhamii[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Division of suckers in spring or early autumn[113].

Suppliers

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Vaccinium ciliatum

Common name:		Family:	Ericaceae
Author:	Thunb.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	ciliatum = fringed with hairs;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub. . It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

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Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Suppliers

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Add a comment on: *Vaccinium ciliatum*

Subject:

Vaccinium ciliatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium ciliatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Your Name:

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Date: Sun May 16 01:50:52 2004

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Add Comment Reset

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Vaccinium constablaei

Common name:	Hillside blueberry	Family:	Ericaceae
Author:	A. Gray.	Botanical references:	235
Synonyms:	Vaccinium pallidum (Aiton.)		
Known Hazards:	None known		
Range:	Eastern N. America - Virginia to South Carolina.		
Habitat:	Woods in mountains[235].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus corymbosus[B,P] Cyanococcus cuthbertii[B,P] Cyanococcus liparis[B,P] Cyanococcus pallidus[B,P] Cyanococcus subcordatus[B,P] Cyanococcus tallapusae[B,P] Cyanococcus vacillans[B,P] V. altomontanum[B,G,P] V. corymbosum[B,DUTCH,G,H,L,Swal,P] V. corymbosum var. albiflorum[B,P] V. corymbosum var. glabrum[B,P] V. corymbosum var. pallidum[B,P] V. vacillans[B,G,P] V. vacillans var. crinitum[B,P] V. vacillans var. missouriense[B,P] V. viride[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Ridge Blueberry [P], Early Lowbush Blueberry [B], High Blueberry [L], Highbush Blueberry [H,P,L,FEIS,DEN2,B], Hillside Blueberry [L,FEIS], Lowbush Blueberry [DEN1], Swamp Blueberry [L], Trosbosbes [D],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 1m. . It is in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. A delicious flavour, it is the best tasting of all the blueberries[235]. The fruit is about 10mm in diameter[235].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in parts of this country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent

positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Vaccinium corymbosum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Vaccinium pallidum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada*

Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Details:	

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Plants For A Future: Database Search Results

Vaccinium constablaei

Common name:	Hillside blueberry	Family:	Ericaceae
Author:	A. Gray.	Botanical references:	235
Synonyms:	Vaccinium pallidum (Aiton.)		
Known Hazards:	None known		
Range:	Eastern N. America - Virginia to South Carolina.		
Habitat:	Woods in mountains[235].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus corymbosus[B,P] Cyanococcus cuthbertii[B,P] Cyanococcus liparis[B,P] Cyanococcus pallidus[B,P] Cyanococcus subcordatus[B,P] Cyanococcus tallapusae[B,P] Cyanococcus vacillans[B,P] V. altomontanum[B,G,P] V. corymbosum[B,DUTCH,G,H,L,Swal,P] V. corymbosum var. albiflorum[B,P] V. corymbosum var. glabrum[B,P] V. corymbosum var. pallidum[B,P] V. vacillans[B,G,P] V. vacillans var. crinitum[B,P] V. vacillans var. missouriense[B,P] V. viride[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Ridge Blueberry [P], Early Lowbush Blueberry [B], High Blueberry [L], Highbush Blueberry [H,P,L,FEIS,DEN2,B], Hillside Blueberry [L,FEIS], Lowbush Blueberry [DEN1], Swamp Blueberry [L], Trosbosbes [D],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 1m. . It is in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. A delicious flavour, it is the best tasting of all the blueberries[235]. The fruit is about 10mm in diameter[235].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in parts of this country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Vaccinium corymbosum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology

Deptarments' Tree Fact Sheets.

References for *Vaccinium pallidum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
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References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

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Plants For A Future: Database Search Results

Vaccinium constablaei

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Author:	A. Gray.	Botanical references:	235
Synonyms:	Vaccinium pallidum (Aiton.)		
Known Hazards:	None known		
Range:	Eastern N. America - Virginia to South Carolina.		
Habitat:	Woods in mountains[235].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Ridge Blueberry [P], Early Lowbush Blueberry [B], High Blueberry [L], Highbush Blueberry [H,P,L,FEIS,DEN2,B], Hillside Blueberry [L,FEIS], Lowbush Blueberry [DEN1], Swamp Blueberry [L], Trosbosbes [D],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 1m. . It is in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105]. A delicious flavour, it is the best tasting of all the blueberries[235]. The fruit is about 10mm in diameter[235].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in parts of this country. The following notes are based on the general needs of the genus.

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Vaccinium constablaei*

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Vaccinium constablaei

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium constablaei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Vaccinium corymbosum

Common name:	High-bush blueberry	Family:	Ericaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Quebec and south to Florida..		
Habitat:	Swamps, low wet woods, pine barrens and dry uplands[43].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus corymbosus[B,P] Cyanococcus cuthbertii[B,P] V. constablaei[B,G,P] V. corymbosum var. albiflorum[B,P] V. corymbosum var. glabrum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	High Blueberry [L], Highbush Blueberry [H,FEIS,DEN2,B,L,P], Swamp Blueberry [L], Trosbosbes [D],
Epithets:	From a Dictionary of Botanical Epithets
	corymbosum = full of corymbs;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 2m by 2m . It is hardy to zone 2. It is in flower from May to June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw or cooked[2, 3, 43, 62, 161]. It is usually sweet and juicy, though the flavour can be variable[11]. It can be used in pies, pastries, cereals, jellies etc[183]. The fruit can also be dried and used like raisins[183]. The fruit is rich in vitamin C[201]. The fruit is about 15mm in diameter[200].

A tea is made from the leaves and dried fruit[101].

Medicinal Uses

Disclaimer

Astringent; Pectoral.

Astringent, pectoral[201].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Hardy to about -25°c[184].

Often cultivated for its edible fruit in America[183], it is the most common and successful blueberry to be cultivated in Britain[11]. There are many named varieties[183]. A very variable plant, it usually blossoms freely in Britain[11]. Plants are at least partially self-sterile, more than one variety is required in order to obtain good yields of fruit[182].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Does not grow well with blackberries or raspberries[201].

Closely related to V. atrococcum and V. virgatum[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of greenwood, May/June in a shady position in a compost that contains some peat[113].

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Cuttings of mature wood, harvested in November and stored in a fridge then planted in a frame in March.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7

A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2

A well produced and very readable book.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future Rating (1-5):	4		

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Other Common Names:	From various places around the Web, may not be correct. See below.
	High Blueberry [L], Highbush Blueberry [H,FEIS,DEN2,B,L,P], Swamp Blueberry [L], Trosbosbes [D],
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	corymbosum = full of corymbs;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 2m by 2m . It is hardy to zone 2. It is in flower from May to June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw or cooked[2, 3, 43, 62, 161]. It is usually sweet and juicy, though the flavour can be variable[11]. It can be used in pies, pastries, cereals, jellies etc[183]. The fruit can also be dried and used like raisins[183]. The fruit is rich in vitamin C[201]. The fruit is about 15mm in diameter[200].

A tea is made from the leaves and dried fruit[101].

Medicinal Uses

Disclaimer

Astringent; Pectoral.

Astringent, pectoral[201].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Hardy to about -25°c[184].

Often cultivated for its edible fruit in America[183], it is the most common and successful blueberry to be cultivated in Britain[11]. There are many named varieties[183]. A very variable plant, it usually blossoms freely in Britain[11]. Plants are at least partially self-sterile, more than one variety is required in order to obtain good yields of fruit[182].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Does not grow well with blackberries or raspberries[201].

Closely related to V. atrococcum and V. virgatum[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of greenwood, May/June in a shady position in a compost that contains some peat[113].

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Cuttings of mature wood, harvested in November and stored in a fridge then planted in a frame in March.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain

- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

Readers Comments

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Plants For A Future: Database Search Results

Vaccinium corymbosum

Common name:	High-bush blueberry	Family:	Ericaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Quebec and south to Florida..		
Habitat:	Swamps, low wet woods, pine barrens and dry uplands[43].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyanococcus corymbosus[B,P] Cyanococcus cuthbertii[B,P] V. constablaei[B,G,P] V. corymbosum var. albiflorum[B,P] V. corymbosum var. glabrum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	High Blueberry [L], Highbush Blueberry [H,FEIS,DEN2,B,L,P], Swamp Blueberry [L], Trosbosbes [D],
Epithets:	From a Dictionary of Botanical Epithets
	corymbosum = full of corymbs;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

A decidious shrub growing to 2m by 2m . It is hardy to zone 2. It is in flower from May to June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Tea.

Fruit - raw or cooked[2, 3, 43, 62, 161]. It is usually sweet and juicy, though the flavour can be variable[11]. It can be used in pies, pastries, cereals, jellies etc[183]. The fruit can also be dried and used like raisins[183]. The fruit is rich in vitamin C[201]. The fruit is about 15mm in diameter[200].

A tea is made from the leaves and dried fruit[101].

Medicinal Uses

Disclaimer

Astringent; Pectoral.

Astringent, pectoral[201].

Other Uses

None known

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Hardy to about -25°c[184].

Often cultivated for its edible fruit in America[183], it is the most common and successful blueberry to be cultivated in Britain[11]. There are many named varieties[183]. A very variable plant, it usually blossoms freely in Britain[11]. Plants are at least partially self-sterile, more than one variety is required in order to obtain good yields of fruit[182].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Does not grow well with blackberries or raspberries[201].

Closely related to V. atrococcum and V. virgatum[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of greenwood, May/June in a shady position in a compost that contains some peat[113].

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Cuttings of mature wood, harvested in November and stored in a fridge then planted in a frame in March.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Vaccinium+corymbosum`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Vaccinium corymbosum*

Subject:

Vaccinium corymbosum

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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vaccinium corymbosum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Vaccinium crassifolium

Common name:	Creeping blueberry	Family:	Ericaceae
Author:	Andrews.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America.		
Habitat:	Sandy and peaty pinelands and barrens[43].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Creeping Blueberry [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	crassifolium = thick leaved;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

An evergreen shrub growing to 0.1m by 1m . It is hardy to zone 7. It is in leaf all year, in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 183]. The flavour is sweet but bland[43]. The fruit is about 4mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

Plants can be grown as a ground cover, the cultivars 'Bloodstone' and 'Well's Delight' have been specially recommended[183, 200].

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Not fully hardy in Britain, it is best grown in the milder areas of the country and is reluctant to flower in colder areas[1, 11, 182].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Occasionally cultivated for its edible fruit, there are some named varieties. 'Well's Delight' grows only 12 - 20cm tall, forming a nearly solid evergreen carpet and is recommended as an ornamental low-maintenance ground cover plant[183]. The fruit has a slight aromatic flavour[183]. 'Bloodstone' is another cultivar that has been recommended for ground cover[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

'Well's Delight'

The fruit ripens from mid to late summer, it has a slight aromatic flavour[183]. Growing only 12 - 20cm tall, it forms a nearly solid evergreen carpet and is recommended as an ornamental low-maintainance ground cover plant[183].

'Bloodstone'

This cultivar has been recommended for ground cover[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: T-X
- Checklist of plants suitable for ground cover

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

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Plants For A Future: Database Search Results

Vaccinium crassifolium

Common name:	Creeping blueberry	Family:	Ericaceae
Author:	Andrews.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America.		
Habitat:	Sandy and peaty pinelands and barrens[43].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Creeping Blueberry [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	crassifolium = thick leaved;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family

Physical Characteristics

An evergreen shrub growing to 0.1m by 1m . It is hardy to zone 7. It is in leaf all year, in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 183]. The flavour is sweet but bland[43]. The fruit is about 4mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

Plants can be grown as a ground cover, the cultivars 'Bloodstone' and 'Well's Delight' have been specially recommended[183, 200].

Cultivation details

Requires a moist but freely-draining lime free soil, preferring one that is rich in peat or a light loamy soil with added leaf-mould[11, 200]. Prefers a very acid soil with a pH in the range of 4.5 to 6, plants soon become chlorotic when lime is present. Succeeds in full sun or light shade though it fruits better in a sunny position[200]. Requires shelter from strong winds[200].

Not fully hardy in Britain, it is best grown in the milder areas of the country and is reluctant to flower in colder areas[1, 11, 182].

Dislikes root disturbance, plants are best grown in pots until being planted out in their permanent positions[200].

Occasionally cultivated for its edible fruit, there are some named varieties. 'Well's Delight' grows only 12 - 20cm tall, forming a nearly solid evergreen carpet and is recommended as an ornamental low-maintenance ground cover plant[183]. The fruit has a slight aromatic flavour[183]. 'Bloodstone' is another cultivar that has been recommended for ground cover[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow late winter in a greenhouse in a lime-free potting mix and only just cover the seed[78]. Stored seed might require a period of up to 3 months cold stratification[113]. Another report says that it is best to sow the seed in a greenhouse as soon as it is ripe[200]. Once they are about 5cm tall, prick the seedlings out into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, August in a frame[78]. Slow and difficult.

Layering in late summer or early autumn[78]. Another report says that spring is the best time to layer[200]. Takes 18 months[78].

Division of suckers in spring or early autumn[113].

Cultivars

'Well's Delight'

The fruit ripens from mid to late summer, it has a slight aromatic flavour[183]. Growing only 12 - 20cm tall, it forms a nearly solid evergreen carpet and is recommended as an ornamental low-maintainance ground cover plant[183].

'Bloodstone'

This cultivar has been recommended for ground cover[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

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- Checklist of plants suitable for ground cover: T-X
- Checklist of plants suitable for ground cover

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Checklist of plants suitable for ground cover

This is the old version of the list, you can find a version split into A-Z catogries Here.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Acaenia anserinifolia	Pirri-pirri bur	P	E	0.10	6	LMH	SN	M	ANB	F	Leaves used for tea.
Acanthus mollis	Bear's breeches	P		1.20		LM	SN	DM	ANB	S	Drought tolerant.
Adiantum venustum		F	E	0.25	9	LMH	S	M	ANB	M	
Aegopodium podagraria	Ground elder	P		0.60	5	LMH	FSN	M	ANB	F	Edible leaves.
Ajuga australis		P	E	0.15	6	LMH	N	DM	ANB	F	
Ajuga reptans	Bugle	P	E	0.30	6	LMH	FSN	DMWe	ANB	M	Edible young shoots. Drought tolerant.
Alchemilla vulgaris	Lady's mantle	P		0.30	5	LMH	SN	DM	NB	S	Edible young leaves.
Antennaria dioica	Catsfoot	P	E	0.12	5	L	N	DM	ANB	S	Tolerates poor soil and drought.
Arabis caucasica	Rock cress	P	E	0.15	4	LMH	SN	DM	ANB	M	Edible leaves. Tolerates poor soil and drought.
Arctostaphylos nevadensis	Pine-mat manzanita	Sh	E	0.10	6	LM	SN	M	A	M	Edible fruit and seed. Dye.
Arctostaphylos uva-ursi	Bearberry	Sh	E	0.10	4	LM	FSN	M	ANB	M	Edible fruit. Dye.
Arisarum vulgare	Friar's cowl	P		0.45	7	LM	FS	M	ANB		Edible root if thoroughly cooked.
Armeria maritima	Thrift	P	E	0.10	4	LM	N	DM	ANB	M	Edible leaves. Tolerates maritime exposure.
Artemesia ludoviciana	White sage	P		1.00	5	LM	SN	DM	NB	M	Condiment, leaves, tea. Drought tolerant.

Artemesia stelleriana	Beach wormwood	P	E	0.50	3	LM	N	DM	ANB	M	Condiment, tea. Medicinal. Drought tolerant.
Asarum canadense	Snake root	P		0.30	2	LMH	FS	M	ANB	S	Root is a ginger substitute. Medicinal.
Asarum caudatum		P	E	0.10	7	LMH	FS	M	AN	S	Root is a ginger substitute.
Asarum europaeum	Asarabacca	P	E	0.10	4	LMH	FS	M	ANB	S	Dye. Medicinal.
Asarum shuttleworthii		P	E	0.10	6	LMH	FS	M	AN	S	Root is a ginger substitute.
Aspidistra elatior	Aspidistra	P	E	0.60	7	LMH	FS	DM	ANB	S	Medicinal. Tolerates drought and poor soils.
Asplenium scolopendrium	Hart's tongue Fern	F	E	0.60	5	LM	FS	DM	ANB	M	Medicinal.
Athyrium felix-femina	Lady Fern	F		0.60	2	LMH	FS	M	ANB	M	Edible young shoots and root - they must be well cooked.
Aubrietia deltoidea	Aubretia	P	E	0.15	7	LM	SN	DM	ANB	M	Drought tolerant.
Aurinia saxatilis	Golden alyssum	P	E	0.25	3	LMH	N	DM	ANB	M	Tolerates drought and poor soils.
Baccharis pilularis	Chaparral broom	Sh	E	0.50	8	LMH	N	DM	ANB	M	Tolerates poor soils. A good ground stabilizer.
Baccharis viminea	Mule fat	Sh	E	4.00	8	LMH	N	DM	ANB	M	Tolerates poor soils. A good ground stabilizer.
Ballota pseudodictamnus		P	E	0.60	8	LMH	N	DM	ANB	M	Flowers are used as candle wicks.
Bergenia ciliata		P	E	0.30	7	LMH	SN	M	ANB	M	Medicinal. Tolerates poor soils.
Bergenia crassifolia		P	E	0.30	3	LMH	FSN	M	ANB	S	A tea is made from the leaves.
Bergenia purpurascens		P	E	0.45	4	LMH	SN	M	ANB	S	Medicinal.
Blechnum spicant	Hard Fern	F	E	0.30	5	LMH	FSN	M	AN	S	Root and young leaves - cooked.

Brachyglottis 'Sunshine'		Sh	E	1.50	8	LMH	N	M	ANB	S	Tolerates maritime exposure and drought.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Calluna vulgaris	Heather	Sh	E	0.60	4	LM	SN	DM	A	M	Tea, dye, thatching, basketry, brooms.
Campanula portenschlagiana		P		0.25	3	LM	SN	M	NB	F	Edible leaves.
Campanula poscharskyana		P	E	0.25	3	LM	SN	M	NB	F	Edible leaves.
Campsis radicans	Trumpet vine	Cl	D	12.00	4	LMH	SN	M	ANB	F	Medicinal.
Carex elata	Tufted sedge	P	E	1.20	7	LMH	SN	MWe	ANB	M	Edible root and seed.
Ceanothus prostratus	Squaw carpet	Sh	E	0.05	7	LM	SN	DM	ANB	M	Dye, soap substitute.
Ceanothus purpureus	Hollyleaf ceanothus	Sh	E	2.00	8	LM	SN	DM	ANB	M	Dye, soap substitute.
Ceanothus thyrsiflorus	Blue brush	Sh	E	4.50	7	LM	SN	DM	ANB	M	Dye, soap substitute. Tolerates maritime exposure.
Centaurea montana	Mountain cornflower	P		0.45	3	LMH	N	DM	ANB	F	Succeeds in poor soils.
Cephalotaxus fortunei	Chinese plum yew	Sh	E	6.00	7	LMH	FSN	M	ANB	S	Edible seed and fruit.
Chaenomeles speciosa	Japanese quince	Sh	D	3.00	5	LMH	FSN	M	ANB	M	Edible fruit.
Chaenomeles x superba	Dwarf quince	Sh	D	1.00	5	LMH	FSN	M	ANB	F	Edible fruit.
Chamaemelum nobile	Chamomile	P	E	0.15	4	LMH	SN	DM	ANB	M	Tea, condiment, hair shampoo, dye, companion plant, liquid feed and plant tonic, medicinal.
Chelidonium majus	Greater celandine	P		0.50	6	LMH	FSN	M	ANB	F	Medicinal. A weed in the garden, only use it in wild areas.
Chrysosplenium alternifolium	Golden saxifrage	P		0.30	4	LMH	SN	MWe	ANB	M	Edible leaves.
Chrysosplenium americanum	Water mat	P		0.10	3	LMH	SN	MWe	ANB	M	Condiment.
Chrysosplenium oppositifolium	Golden saxifrage	P		0.15	5	LMH	SN	MWe	ANB	M	Edible leaves.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Cistus salviifolius	Rock rose	Sh	E	0.60	8	LM	N	DM	ANB	M	Condiment. Tolerates maritime exposure.
Clematis orientalis		Cl	D	2.00	6	LMH	SN	M	ANB	F	Medicinal.
Convallaria keiskei	Lily of the valley	P		0.30	3	LMH	FSN	DMWe	ANB	S	Medicinal.
Convallaria majalis	Lily of the valley	P		0.15	3	LMH	FSN	DMWe	ANB	S	Essential oil, dye. Medicinal.
Coprosma acerosa brunnea		Sh	E	0.10	8	LM	SN	M	AN	S	Edible fruit. Coffee substitute. Dye.
Coptis brachypetala		P	E	0.22		LM	S	M	A	M	Dye.
Coptis chinensis		P	E	0.20		LMH	SN	MWe	A		Medicinal.
Coptis deltoidea		P	E			LMH	SN	MWe	A		Medicinal.
Coptis japonica		P	E	0.22	7	LMH	SN	M	A		Medicinal.
Coptis occidentalis		P	E	0.15	4	LMH	SN	M	A		Dye. Medicinal.
Coptis teeta		P	E	0.15		LMH	SN	M	A		Medicinal.
Coptis teetoides		P	E			LMH	SN	M	A		Medicinal.
Coptis trifolia	Goldthread	P	E	0.15	2	LMH	S	M	A		Dye. Medicinal.
Coriaria microphylla		Sh	D	1.20	8	LMH	SN	M	ANB	M	Dye, ink, tannin.
Cornus canadensis	Creeping dogwood	P		0.25	2	LMH	SN	M	AN	M	Edible fruit.
Cornus suecica	Dwarf cornel	P		0.15	2	LM	SN	M	AN	M	Edible fruit.
Coronilla varia	Crown vetch	P		0.30	6	LMH	N	DM	ANB	M	Insecticide. Soil stabilizer. Tolerates maritime exposure and poor soils.
Cotoneaster conspicuus		Sh	E	3.00	6	LMH	SN	M	ANB	M	Dye. Wind tolerant.
Cotoneaster microphyllus		Sh	E	1.00	5	LMH	SN	M	ANB	S	Dye. Wind tolerant.
Cyathodes colensoi		Sh	E	0.45	8	LMH	S	M	AN	S	Edible fruit.
Cyathodes fraseri		Sh	E	0.15	8	LMH	FS	M	AN	S	Edible fruit.
Cystopterus bulbifera		F			5	LMH	FS	M	ANB	F	Edible root. The plant can become invasive.

Cytisus scoparius	Broom	Sh	D	2.40	5	LMH	SN	DM	ANB	F	Succeeds on poor soils. Condiment, coffee substitute, fibre, dye, brooms. Medicinal.
Dactylis glomerata	Cock's foot	P		1.00	5	LMH	SN	M	ANB	F	A food plant for native wildlife.
Darmera peltata	Umbrella plant	P		2.00	6	LMH	SN	WeWa	ANB		Edible leaf stalk. Soil stabilization.
Deschampsia caespitosa	Tussock grass	P		1.50	5	LMH	SN	MWe	ANB	M	Edible seed.
Dianthus gratianopolitanus	Cheddar pink	P		0.30	3	LMH	N	D	NB	M	
Dryas octopetala	Mountain avens	Sh	E	0.10	2	LMH	N	M	ANB	M	Tea substitute.
Dryopteris felix-mas	Male Fern	F		1.20	2	LMH	S	DM	AN	M	Edible young fronds - must be cooked.
Duchesnea indica		P		0.10	6	LMH	N	M	ANB	F	Edible fruit.
Elymus arenarius	Lyme grass	P		1.20	6	LMH	N	DM	ANB	F	Weaving, soil stabilization. Tolerates maritime exposure.
Empetrum atropurpureum	Purple crowberry	Sh	E	0.20		LM	SN	M	A	S	Edible fruit. Wind tolerant.
Empetrum eamesii	Rockberry	Sh	E	0.15	3	LM	SN	M	A	S	Edible fruit. Wind tolerant.
Empetrum eamesii hermaphroditum	Mountain crowberry	Sh	E	0.30	3	LMH	N	M	AN	S	Edible fruit. Wind tolerant.
Empetrum nigrum	Crowberry	Sh	E	0.30	3	LMH	SN	M	AN	S	Edible fruit. Dye. Wind tolerant.
Empetrum rubrum		Sh	E	0.30	8	LMH	sn	M	AN	S	Edible fruit. Wind tolerant.
Epigaea asiatica		Sh	E	0.10	4	LM	FS	M	AN		Edible fruit.
Epimedium grandiflorum		P		0.35	5	LMH	S	M	ANB		Young leaves - cooked.
Epimedium sagittatum		P		0.50	6	LMH	S	M	ANB		Young leaves - cooked.
Erica vagans	Cornish heath	Sh	E	0.75	5	LM	N	DM	AN	M	Dye, brooms, thatching.
Erica x darleyensis		Sh	E	0.60	6	LM	N	M	ANB	M	Dye, brooms, thatching.
Euonymus fortunei		Sh	E	4.50	5	LMH	FSN	DM	ANB	M	Plants can also be grown as a hedge.
Fragaria californica	Californian strawberry	P		0.30		LMH	SN	M	ANB	F	Edible fruit.
Fragaria daltoniana		P		0.30		LMH	SN	M	ANB	F	Edible fruit.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Fragaria moschata	Hautbois strawberry	P		0.45	6	LMH	SN	M	ANB	F	Edible fruit.
Fragaria viridis	Green strawberry	P		0.30	6	LMH	SN	M	ANB	F	Edible fruit.
Galium mollugo	Hedge bedstraw	P		1.20	3	LMH	S	DM	ANB	M	Edible leaves. Dye.
Galium odoratum	Sweet woodruff	P		0.15	5	LMH	fs	DM	ANB	M	Edible leaves, tea. Dye. Medicinal.
Gaultheria adenothrix		Sh	E	0.30	9	LM	FS	M	AN	M	Edible fruit.
Gaultheria depressa	Mountain snowberry	Sh	E	0.10	9	LM	sn	M	AN	M	Edible fruit.
Gaultheria hispidula	Creeping snowberry	Sh	E	0.10	6	LM	S	M	AN	F	Edible fruit.
Gaultheria humifusa	Alpine wintergreen	Sh	E	0.10	7	LM	sn	M	AN		Edible fruit.
Gaultheria macrostigma		Sh	E	0.50	8	LM	S	M	A		Edible fruit.
Gaultheria mucronata		Sh	E	1.50	6	LM	SN	M	A		Edible fruit.
Gaultheria myrsinoides		Sh	E	0.15	9	LM	SN	M	A		Edible fruit.
Gaultheria nummularioides		Sh	E	0.10	9	LM	SN	M	AN		Edible fruit.
Gaultheria ovatifolia	Checkerberry	Sh	E	0.15	6	LM	FS	M	AN	M	Edible fruit.
Gaultheria procumbens	Checkerberry	Sh	E	0.15	4	LM	FS	DM	AN	M	Edible fruit and leaves. Tea. Essential oil, Medicinal.
Gaultheria pumila leucocarpa		Sh	E	0.20	7	LM	SN	M	A	F	Edible fruit.
Gaultheria shallon	Shallon	Sh	E	1.20	5	LM	FS	DM	A	M	Edible fruit. Tea. Dye.
Gaultheria tricophylla		Sh	E	0.10	8	LM	SN	M	AN		Edible fruit.
Gaultheria x wisleyensis		Sh	E	1.00	6	LM	FS	M	A		Edible fruit.
Gaylussacia brachycera	Box huckleberry	Sh	E	0.45	6	LMH	SN	DM	A		Edible fruit.
Genista hispanica	Spanish gorse	Sh	D	0.50	6	LM	N	DM	ANB		Medicinal. Drought tolerant.
Geranium macrorrhizum		P		0.50	4	LMH	SN	DM	NB	F	Essential oil.
Geranium sylvaticum	Wood cranesbill	P		0.60	4	LMH	FSN	M	ANB	F	Essential oil.
Geranium wallichianum		P		0.30	7	LMH	sn	M	ANB	F	Dye.

Glechoma hederacea	Ground ivy	P	E	0.20		MH	S	M	ANB	F	Edible leaves. Tea.
Hebe 'Great Orme'		Sh	E	1.00	6	LMH	N	M	ANB	M	Can also be used as a hedge. Tolerates maritime exposure.
Hebe rakaiensis		Sh	E	1.00	6	LMH	N	M	ANB	M	Can also be grown as a hedge.
Hedera helix	Ivy	Cl	E	15.00	5	LMH	FSN	MWe	ANB	M	Dye, hair shampoo. An excellent plant for wildlife.
Herniaria glabra	Rupture wort	Bi/P		0.02	5	LM	N	DM	ANB	S	Medicinal.
Heuchera americana	Rock geranium	P	E	0.45	4	LM	SN	M	ANB		Mordant.
Heuchera cylindrica	Alum root	P	E	0.45	4	LM	SN	M	ANB		Edible leaves. Mordant.
Heuchera diversifolia	Alum root	P	E	0.45	5	LM	SN	M	ANB		Edible leaves. Mordant.
Heuchera glabra		P	E	0.60	4	LM	SN	M	ANB		Edible leaves. Mordant.
Heuchera micrantha	Alum root	P	E	0.60	5	LM	SN	M	ANB		Edible leaves. Mordant.
Heuchera sanguinea	Alum root	P	E	0.60	6	LM	SN	M	ANB		Mordant.
Heuchera versicolor		P	E	0.20	9	LM	SN	M	ANB		Mordant.
Hosta crispula		P		0.30		LMH	SN	M	ANB	M	Edible leaves and stems.
Hosta longipes		P		0.30		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta plantaginae		P		0.25		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta rectifolia		P		0.20		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta sieboldiana		P		0.60		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta undulata		P		0.30		LMH	FSN	M	ANB	M	Edible leaves and stems.

Hosta ventricosa		P		0.25	5	LMH	FSN	M	ANB	M	Edible leaves and stems.
Houttuynia cordata	Tsi	P		0.60	5	LMH	S	MWeWa	ANB	F	Edible leaves.
Hydrangea anomala		Cl	D	12.00	5	LMH	FSN	M	ANB	M	Edible leaves. Sugar. Paper. Wind tolerant.
Hypericum androsaemum	Tutsan	Sh	D	1.00	6	LMH	SN	DM	ANB	M	Medicinal. Wind tolerant.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Hypericum bellum		Sh	E	0.70	6	LMH	SN	M	ANB		
Hypericum calycinum	Rose of Sharon	Sh	E	0.30	6	LMH	FSN	DM	ANB	F	Dye.
Imperata cylindrica		P		1.20	8	LMH	N	DM	ANB	F	Edible young shoots and root. Weaving, paper making, thatching. Tolerates maritime exposure
Iris foetidissima	Stinking gladwin	P	E	0.60	6	LMH	FSN	DM	ANB	S	Medicinal. Tolerates maritime exposure.
Juniperus communis	Juniper	Sh	E	9.00	2	LMH	SN	DM	ANB	S	Edible fruit, condiment, coffee, tea. Essential oil, incense, insect repellent. Medicinal.
Juniperus communis nana	Juniper	Sh	E	9.00	2	LMH	SN	DM	ANB	S	Same as above.
Juniperus conferta	Shore juniper	Sh	E		5	LMH	SN	DM	ANB	S	Edible fruit. Tolerates maritime exposure.
Juniperus horizontalis	Creeping juniper	Sh	E	1.00	4	LMH	N	DM	ANB	S	Coffee, tea. Tolerates maritime exposure.
Juniperus sabina	Savine	Sh	E	4.00	3	LMH	N	DM	ANB	S	Essential oil, parasiticide, insect repellent.
Juniperus squamata	Flaky juniper	Sh	E	8.00	5	LMH	N	DM	ANB	S	Medicinal. Drought tolerant.

Lamium album	White dead nettle	P		0.60	4	LMH	SN	M	ANB	M	Edible young leaves.
Lamium galeobdolon	Yellow archangel	P		0.30	6	LMH	FSN	M	ANB	F	Edible young leaves and flowers.
Lathyrus latifolius	Perennial sweet pea	P Cl		2.00	5	LMH	SN	DM	ANB	F	Seed, seedpods and young plants might be edible. Drought tolerant.
Liriope graminifolia		P	E	0.30	8	LM	SN	DM	ANB	M	Edible root. Drought tolerant.
Liriope minor		P	E	0.30	8	LM	SN	DM	ANB	M	Edible root. Drought tolerant.
Liriope muscari		P	E	0.45	8	LM	FSN	DM	ANB	M	Edible root. Drought tolerant.
Liriope spicata		P	E	0.30	4	LM	SN	DM	ANB	M	Edible root. Drought tolerant.
Lonicera henryi		Cl	E	4.00	4	LMH	SN	M	ANB	F	Edible flowers, leaves and stems.
Lonicera japonica		Cl	E	5.00	4	LMH	SN	DM	ANB	F	Edible flowers. Tea.
Lonicera nitida	Boxleaf honeysuckle	Sh	E	3.60	7	LMH	FSN	M	ANB	F	Can also be used as a hedge.
Lonicera pileata		Sh	E	0.20	5	LMH	FSN	DM	ANB	M	Tolerates maritime exposure.
Lysimachia nummularia	Creeping Jenny	P	E	0.15	4	LMH	SN	MWeWa	ANB	M	Tea.
Mahonia aquifolium	Oregon grape	Sh	E	2.00	5	LMH	FSN	DM	ANB	M	Edible fruit and flowers. Dye.
Mahonia repens	Oregon grape	Sh	E	0.30	6	LMH	SN	DM	ANB	M	Edible fruit. Dye.
Maianthemum canadense		P		0.20	3	LMH	FS	M	ANB	M	The fruit might be edible.
Matteuccia struthiopteris	Ostrich Fern	F		0.90	2	LMH	S	M	AN	M	Edible young leaves and root.
Meehania urticifolia		P		0.30	5	LMH	S	M	ANB		Edible young leaves.
Mentha requienii	Corsican mint	P		0.10	6	LMH	SN	M	ANB	S	Edible young leaves. Tea.
Millium effusum	Wood millet	P		1.80	6	LMH	FS	DM	ANB	M	Edible seed. Weaving, soil stabilization.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Miscanthus sinensis	Eulalia	P		4.00	4	LMH	SN	M	ANB	F	Biomass. Wind tolerant.
Mitchella repens	Partridge berry	Sh	E	0.30	3	LM	SN	M	AN		Edible fruit.
Mitchella undulata		P	E	0.10	6	LM	SN	M	AN		Edible fruit.
Montia sibirica	Pink purslane	A/P		0.15	3	LMH	FSN	DM	ANB	M	Edible leaves and flowers.
Muehlenbeckia axillaris		Cl	D	0.30	8	LMH	SN	M	ANB	M	Edible fruit.
Oenanthe javanica	Water dropwort	P		1.00	10	LMH	N	WeWa	ANB		Edible root, leaves and seed.
Onoclea sensibilis	Sensitive Fern	F		1.20	4	LMH	FS	MWe	AN		Edible young leaves and root.
Ophiopogon japonicus		P	E	0.30	7	LM	SN	MWeWa	ANB		Edible root.
Origanum vulgare	Oreganum	P		0.60	5	LMH	SN	DM	ANB	M	Edible leaves, tea, condiment. Essential oil, dye, insect repellent. Medicinal.
Origanum vulgare hirtum	Greek oregano	P		0.60	5	LMH	SN	DM	ANB	M	As above.
Oxalis oregana	Redwood sorrel	P		0.20	7	LMH	FSN	M	ANB	M	Edible young leaves.
Pachyphragma macrophylla		P	E	0.40	7	LMH	FS	DM	ANB		Edible leaves?
Pachysandra terminalis		Sh	E	0.20	5	LMH	FS	DM	ANB	M	Edible fruit. Drought tolerant.
Paronychia argentea	Algerian tea	P		0.10	7	LM	N	DM	ANB		Tea substitute.
Parthenocissus quinquefolia	Virginia creeper	Cl	D	30.00	3	LMH	SN	M	ANB	F	Edible fruit and stems. Dye.
Parthenocissus tricuspidata	Boston ivy	Cl	D	18.00	4	LMH	SN	M	ANB	F	Edible sap.
Peltaria alliacea	Garlic cress	P	E	0.30	6	LM	SN	M	ANB	M	Edible leaves.
Pennisetum alopecuroides		P		1.50	7	LM	N	DM	ANB		Edible seed.
Petasites albus	Butterbur	P		0.60	5	LMH	FSN	M	ANB	F	Edible leaf stems.
Petasites frigidus	Sweet coltsfoot	P		0.15	5	LMH	FSN	MWe	ANB	F	Edible leaves, stems and roots.
Petasites japonicus	Sweet coltsfoot	P		1.50	5	LMH	FSN	MWe	ANB	F	Edible leaf stems and flowers.

Phalaris arundinacea	Canary grass	P		1.50	4	LMH	SN	DMWe	ANB	F	
Phlomis fruticosa	Jerusalem sage	Sh	E	1.30	7	LMH	N	DM	ANB	M	Succeeds in poor soils.
Phlomis russeliana		P		1.00	7	LMH	SN	DM	ANB	F	Drought tolerant.
Phlomis samia		P		1.00	7	LMH	SN	DM	ANB	F	
Phyla nodiflora	Frogfruit	P		0.20	10	LMH	N	DM	ANB		Edible leaves. Tea.
Picea abies	Norway spruce	T	E	60.00	4	LMH	N	MWe	AN	F	Selected dwarf cultivars are used. Edible cones, inner bark, tea. Adhesive, turpentine.
Pinus mugo	Dwarf mountain pine	T	E	4.50	3	LM	N	DM	AN	M	Condiment, dye. Soil stabilization.
Platycrater arguta		Sh	D	0.20	8	LMH	S	M	ANB		Tea. Wind tolerant.
Pleioblastus humilis		B	E	2.00	7	LMH	S	M	ANB	F	Soil stabilization.
Pleioblastus humilis pumilus		B	E	1.00	7	LMH	S	M	ANB	F	Soil stabilization.
Pleioblastus pygmaeus	Fern-leaf bamboo	B	E	0.25	6	LMH	SN	M	ANB	F	Soil stabilization.
Pleioblastus pygmaeus distichus		B	E	0.75	6	LMH	SN	M	ANB	F	Soil stabilization.
Pleioblastus variegatus	White-striped bamboo	B	E	0.75	7	LMH	SN	M	ANB	F	Soil stabilization.
Polypodium vulgare	Polypody	F	E	0.30	3	LMH	FS	DM	ANB	M	Edible root.
Potentilla fruticosa	Shrubby cinquefoil	Sh	D	1.20	6	LMH	SN	M	ANB	M	Tea. Drought tolerant.
Primula vulgaris	Primrose	P		0.30	6	LMH	SN	M	ANB	M	Edible young leaves and flowers.
Prunella grandiflora		P	E	0.15	5	LMH	SN	M	ANB	M	Edible leaves.
Prunella vulgaris	Self-heal	P		0.15	3	LMH	SN	M	ANB	M	Edible leaves, drink. Dye.
Prunus laurocerasus	Cherry laurel	Sh	E	6.00	7	LMH	FSN	M	ANB	M	Edible fruit? Dye. Use selected cultivars.
Pueraria lobata	Kudzu vine	P Cl		15.00	6	LMH	N	M	ANB	F	Edible root, stem and leaves. Fibre.
Pulmonaria officinalis	Lungwort	P	E	0.30	4	LMH	FS	M	ANB	M	Edible leaves.

Botanical name	**Common name**	**Habit**	**Evergreen/ Decidious**	**Height (meters)**	**Hardyness zone**	**Soil**	**Shade**	**Moisture**	**pH**	**Growth rate**	**Notes**

Pulmonaria saccharata	Jerusalem sage	P	E	0.30	3	LMH	FSN	M	ANB	M	Condiment.
Reineckia carnea		P	E	0.10	7	LMH	FS	M	AN		
Rheum palmatum	Turkey rhubarb	P		3.00	7	MH	SN	M	ANB	M	Edible leaf stem. Insecticide.
Ribes glandulosum	Skunk currant	Sh	D	0.40	2	LMH	SN	M	ANB		Edible fruit.
Rosa wichuraiana		Sh	D	0.30	5	LMH	SN	M	ANB	M	Edible fruit and young shoots.
Rosmarinus officinalis	Rosemary	Sh	E	2.00	6	LM	N	DM	ANB	M	Condiment, tea. Insect repellent, incense, hair shampoo, essential oil, medicinal.
Rubus arizonicus		Sh	D	0.20		LMH	SN	M	ANB		Edible fruit. Dye.
Rubus calycinoides		Sh	E	0.08		LMH	FSN	M	ANB		Edible fruit. Dye.
Rubus hispidus	Swamp dewberry	Sh	E	0.20	3	LMH	SN	M	ANB		Edible fruit. Dye.
Rubus illecebrosus	Strawberry-raspberry	Sh	D	0.60	5	LMH	SN	M	ANB	M	Edible fruit. Dye.
Rubus nepalensis	Nepalese raspberry	Sh	E	0.20	9	LMH	SN	M	ANB	M	Edible fruit. dye.
Rubus parvus		Sh	E	0.20	9	LMH	SN	M	ANB		Edible fruit, sap. Dye.
Rubus tricolor	Creeping bramble	Sh	E	0.30	7	LMH	FSN	DM	ANB	F	Edible fruit. dye.
Ruscus aculeatus	Butcher's broom	Sh	E	1.00	7	LMH	FS	DM	ANB	S	Edible shoots, coffee. Scourer.
Salix repens	Creeping willow	Sh	D	1.50	5	LMH	SN	M	ANB		Soil stabilizer and soil reclamation..
Salvia officinalis	Sage	Sh	E	0.60	5	LM	N	DM	NB	M	Condiment, tea. Essential oil, insect repellent.
Sanicula europaea	Wood sanicle	P		0.60	6	LMH	SN	M	ANB		Edible leaves?
Santolina chamaecyparissus	Lavender-cotton	Sh	E	0.60	7	LM	N	DM	ANB	M	Condiment. Essential oil, insect repellent, dye.
Sasa veitchii	Kuma-zasa	B	E	1.50	8	LMH	S	M	ANB	F	

Saxifraga stolonifera	Strawberry saxifrage	P		0.40	5	LMH	S	M	ANB		Edible leaves and flowering stem.
Schizophragma hydrangioides		Cl	D	6.00	5	LMH	SN	M	ANB	S	Edible leaves.
Sedum acre	Common stonecrop	P	E	0.12	5	LMH	N	DM	ANB	F	Edible leaves, condiment. Tolerates drought.
Sedum album	Small houseleek	P		0.10	6	LMH	N	DM	ANB	F	Edible leaves. Tolerates maritime exposure.
Sedum anacampseros	Loce restorer	P		0.10	6	LMH	SN	DM	AN		Edible leaves.
Sedum spathulifolium		P	E	0.15	7	LMH	N	DM	ANB	M	Edible leaves.
Sedum spurium		P	E	0.15	7	LMH	N	DM	ANB	M	Edible leaves.
Shibataea kumasasa	Okame-zasa	B	E	0.75	6	LMH	S	M	ANB	F	
Stephanandra incisa		Sh	D	2.50	5	LMH	SN	M	ANB		Edible young leaves.
Symphytum tuberosum		P		0.60	5	LMH	SN	M	ANB	F	Coffee substitute.
Thymus praecox		Sh	E	0.05	5	LM	N	DM	ANB	M	Condiment. Essential oil, medicinal.
Thymus serpyllum	Wild thyme	Sh	E	0.10	5	LM	N	DM	ANB	M	Edible leaves, tea. Essential oil, insect repellent, fungicide, medicinal. Wind tolerant.
Thymus vulgaris	Common thyme	Sh	E	0.20	7	LM	N	DM	NB	M	As above.
Thymus x citriodorus	Lemon thyme	Sh	E	0.20	7	LM	N	DM	NB	M	As above.
Tiarella cordifolia	Foamflower	P	E	0.20	3	LMH	SN	M	ANB	S	Medicinal.
Tolmiea menziesii	Youth on age	P		0.60	7	LMH	FS	DM	ANB	M	Edible young shoots.
Trachelospermum asiaticum		Cl	E	6.00	9	LMH	SN	M	ANB	S	

Botanical name	Common name	Habit	Evergreen/ Deciduous	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Trifolium repens	White clover	P	E	0.10	4	LMH	N	M	ANB	M	Edible leaves and flowers. Tea.

Vaccinium crassifolium	Creeping blueberry	Sh	E	0.10	7	LM	SN	M	A		Edible fruit.
Vaccinium nummularia		Sh	E	0.10		LM	SN	M	A		Edible fruit
Vaccinium praestans	Kamchatka bilberry	Sh	D	0.15	4	LM	S	M	A	S	Edible fruit.
Vaccinium vitis-idaea	Cowberry	Sh	E	0.35	5	LM	SN	M	A		Edible fruit, tea. Dye.
Vinca minor	Lesser periwinkle	Sh	E	0.20	4	LMH	FSN	DM	ANB	M	Basket making. Medicinal. Drought tolerant.
Viola cornuta	Viola	P	E	0.30	5	LMH	SN	M	AN		Edible leaves, flowers, tea.
Viola labradorica	Labrador violet	P	E	0.10	2	LMH	FSN	M	AN		Edible leaves and flowers.
Viola obliqua	Marsh blue violet	P		0.15		LMH	SN	MWe	ANB		Edible flowers, leaves, tea.
Vitis coignetiae	Crimson glory vine	Cl	D	20.00	5	LMH	SN	DM	ANB	F	Edible leaves and stems. Dye.
Vitis davidii	Spiny vitis	Cl	D	20.00	7	LMH	SN	DM	ANB		Edible fruit and leaves. Dye.
Xanthorrhiza simplicissima	Yellowroot	Sh	D	1.00	6	LMH	SN	MWe	A		Dye.

KEY.

Habit: A = Annual. B = Bamboo. Bi = Biennial. Cl - Climber. F = Fern. Sh = Shrub. T = Tree.

Deciduous/Evergreen: D = Deciduous. E = Evergreen.

Hardyness zone: 1 = Succeeds in the Arctic zone. 10 = Does not tolerate frost. Most of Britain is in zone 7, the milder areas are zone 8 (though some zone 9 plants can be there), some upland and northern areas are 6 or lower.

Soil: L = Light. M = Medium. H = Heavy.

Shade: F = Succeeds in full shade. S = Succeeds in semi-shade. N = Succeeds in full sun (or no shade).

Moisture: D = Succeeds in dry soils. M = Succeeds in moist soils (the average soil moisture level). We = Succeeds in wet soils. Wa = Succeeds in water.

pH: A = Succeeds in acid soils. N = Succeeds in neutral soils. B = Succeeds in basic (alkaline soils).

Growth rate: S = Slow. M = Medium. F = Fast.

When using this list it is important to remember that it can only contain a small portion of the information we hold on each plant. You are stronglt advised to seek more information on any plant before making use of it in the manner suggested. This is especially important with any of the comments on edibility. Information sheets on individual species can be obtained from Plants For A Future, they cost 10p each to produce.

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Checklist of plants suitable for ground cover

This page list more that 250 plants which can be used for ground cover, we have divided this up into sub-pages for easier browsing. A more readable discussion can be found in the leaflet Ground Cover Plants.

- A
- B
- C
- D-F
- G
- H
- I-L
- M-O
- P
- R-S
- T-X

All these files uses tables. If you can't use tables or want to import the informion into a database then you may find the Plain Text file of use. The old version of this page where all the plants are listed in one very long page is also avaliable, this might be useful for searching.

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Readers Comments:

Checklist of plants suitable for ground cover

Unknown Thu Apr 26 23:00:29 2001

This page would be better if it had some pictures to go along with the Latin names. Hope to see this updated soon! Then I could use it as a valuable source.

Add a Follow up to this comment

Checklist of plants suitable for ground cover

() Tue Jul 9 18:14:13 2002

Would like to see the list using the common name as the source of identification.

Add a Follow up to this comment

Checklist of plants suitable for ground cover

francine aiello (filo@iwon.com) Sat Aug 31 16:52:30 2002

I'm looking for a drought resistant, mowable lawn substitute from Australia that I read about called "O'conners Legume". Does anyone out there know anything else about it & where it can be obtained? Any info appreciated ~ filo@iwon.com

Add a Follow up to this comment

Checklist of plants suitable for ground cover

() Tue May 13 20:34:37 2003

I wonder if Periwinkle will do well in a spot near the mailbox/road where it will get salt and small stones filtering through the snow during the winter. Will it survive better than the grass (dead and gone)?

Add a Follow up to this comment

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Plants for a Future
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Ground cover plants.

When people take up gardening, whatever methods they use, their usual aim is to grow a range of plants very few of which would usually be found wild on their land. It is, of course, wise to try and use those species that are best adapted to the conditions of the particular site but, gardeners being gardeners, we generally want to try and grow a wider range of plants than this. Of course, this means that these plants are at a general disadvantage on the site and the tendency is for the native plants to re-establish themselves. Thus begins the long preoccupation with weeding, the constant battle to maintain those plants we want to grow at the expense of the plants that want to grow there.

There are many ways of trying to control weeds. We can remove them by hoeing them out or by burning them with a flame gun. We can try to prevent them growing by putting down mulches. Each of these methods have their advantages and disadvantages and each has situations where they are applicable. In this leaflet we will look at another method of controlling weeds - by growing carefully selected plants that can spread to cover the ground and that will out-compete the weeds

Like other forms of weed control, ground cover has its advantages and disadvantages. Its primary advantages include:-

1. By covering the ground with a carpet of vegetation it prevents the germination of weed seeds.
2. When established, it prevents the ingress of perennial weeds.
3. It protects the soil from erosion and water loss. This can be particularly useful on steep slopes.
4. It acts as an insulating cover for the soil, keeping it cooler in the summer and warmer in the winter.
5. It is a living mulch that helps to build up humus levels in the soil.
6. It provides habitats and cover for beneficial insects and other predators.
7. It can be very attractive.
8. It can provide us with various other commodities - food, medicines etc.

The disadvantages include:-

1. It can provide a habitat for slugs, snails and other pests. This is to a large extent mitigated by the beneficial creatures it also encourages, but it is best not to grow slug-susceptible plants in a ground cover if you normally have a problem with slugs.

2. It can compete with other plants for food and water.
3. If the ground cover is too vigorous it can overrun the plants you want to grow.

So long as the above factors are taken into account, it is possible to choose ground cover plants that will greatly reduce the work-load of weeding whilst also benefiting the other plants you want to grow.

One important point to remember about ground cover is that it is only an effective weed-suppressor once it is established. In virtually all cases you need to plant into a soil that is free from perennial weeds, and you need to weed the plants until they are established (usually 1 - 3 growing seasons).

Spring is a good time for planting most of the species mentioned below. Planting distances depend upon the vigour of the plants - very fast-growing species can often be planted as much as 1 metre apart whilst slower plants might need to be 15cm apart. Most ground covers spread quite freely and can be divided so it is a simple matter to build up a good stock of plants within a few years.

Ground cover can be used in various situations. It is probably pre-eminently suitable under and around trees and shrubs and there is a very wide range of plants that can be used in such situations. Another good use is as a companion for bulbs. Lilies, for example, like the cooler soil conditions created by the ground cover and can easily grow through the carpet of vegetation. Steep banks are another suitable position. The root system of the plants help to bind the soil and this, together with the foliage, prevents soil erosion. Ground cover can also be used with herbaceous perennials, though greater care is required here in the choice of plants in order to make sure that they do not out-compete the perennials. There are also successful methods of using ground cover with annuals (the Bonfilles method of growing cereals for example) though in general we have found ground cover and annuals do not do well together.

Now we come to a list of species that can be used for ground cover. We have information on over 250 species that can be used (and we have normally only included those species that have additional uses) so we can only include a few of them in this leaflet. We do produce a check-list of all the ground-cover plants and this can be obtained for 6 x first class stamps from the address at the end of this article.

Arctostaphylos uva-ursi: Bearberry is an evergreen shrub growing about 10cm tall and eventually 1 metre wide. A good plant for sunny banks, it requires an acid soil. The fruit is edible.

Asarum canadense: This low-growing herbaceous species does well in a woodland, it is also good under shrubs in the garden. It requires a humus-rich soil. The root can be used as a ginger substitute. A. caudatum, A. europaeum and A. shuttleworthii can be used in the same way.

Campanula poscharskyana: A low-growing evergreen herbaceous plant, this lovely little Harebell spreads very rapidly to form a very good cover in a sunny position. The mild-flavoured leaves can be harvested all year round to be used in salads. C. portenschlagiana can be used similarly, we do not yet know if this species is deciduous or evergreen.

Chamaemelum nobile: Chamomile is a delightful herb to grow in the garden, the cultivar 'Treneague' is a non-flowering form that remains compact and spreads slowly to form a good ground cover in a sunny position (it is sometimes used as a lawn). It needs quite a bit of weeding until it is established, and occasional weeding even when established. Chamomile is a superb companion plant, enhancing the health of plants growing close to it. Many species of bulbs grow well through the chamomile.

Chrysosplenium alternifolium: Golden saxifrage is a native perennial for the bog garden. It prefers a shady position, doing well in wet woodland. About 30cm tall, it creeps slowly to form a good carpet. The leaves are nice in salads. C. oppositifolium is a similar species with the same uses.

Cornus canadensis: Creeping dogwood is a perennial that grows well in light acid woodlands, including amongst conifers. The fruit has a pleasant taste though it is not highly flavoured. Our native C. suecica, the dwarf cornel, has similar uses.

Empetrum nigrum: The crowberry is a native evergreen shrub growing about 30cm tall and spreading slowly. It requires an acid soil and does well in exposed positions. The fruit is not highly flavoured but is acceptable after a frost. Most other members of this genus can be used in a similar way.

Fragaria species: There are many species of strawberry that can be used for ground cover. Some of them have exquisitely flavoured fruits, though they are somewhat smaller than the cultivated strawberries and are often not borne freely. My favourites are F. moschata and F. viridis. They grow best in a sunny position in a well-drained soil but do tolerate some shade. They spread very freely by runners, quickly forming a dense mass of vegetation and swamping out any small plants.

Gaultheria shalloni: Shallon is an evergreen shrub that grows about 1.2 metres tall. It does well in acid soils and under coniferous trees. The fruit is very freely borne and has a pleasant flavour. G. procumbens, Wintergreen, only grows about 15cm tall and spreads fairly quickly in moist acid soils in shade or semi- shade. The fruit has a remarkable flavour, tasting like germolene - some people love it, others are less sure! An essential oil from this plant is used in the linament 'Oil of Wintergreen'.

Hosta species: Most, if not all, hostas can be used for ground cover. They vary in height and width and all do well in woodland conditions (where they produce better foliage but don't flower so well) as well as in sunny positions (where they flower better but the leaves can get scorched). The plants are rather susceptible to slug damage. The petioles (leaf stems) can be eaten raw or cooked, they are somewhat fibrous but have a sweet flavour.

Houttuynia cordata: This is a rampant-growing herbaceous plant, though it dies right down in the winter. It succeeds in moist and wet soils as well as in shallow water. The leaves have a very strong scent of oranges and can be used in salads. Sometimes they have a pleasant flavour, at other times the same plants are not so pleasant. We are not sure of the reasons for this. There are a number of very ornamental forms with multi- coloured leaves.

Liriope graminifolia: This evergreen perennial is about 30cm tall. It is rather slow to spread but eventually forms a good dense cover in a shady position and is drought tolerant. We have not yet tried eating this species, but the root is said to be eaten in China and Japan, where it is also used medicinally. Other members of this genus can also be used.

Mahonia aquifolium: Oregon grape is a very easily grown evergreen shrub about 1.5 metres tall that tolerates most soils and positions, even dense shade. It spreads slowly by suckers.The plant produces edible flowers in late winter, the fruit is ripe in late summer and, though somewhat acid and full of seeds, is quite pleasant eating. M. repens is very similar but lower growing and spreading more rapidly.

Montia sibirica: Pink purslane is a short-lived evergreen perennial about 20cm tall that self-sows freely and forms a dense ground cover. It can succeed in sunny positions and even in the dense shade of a beech wood. The leaves can be eaten in salads.

Origanum vulgare: Oreganum is a very dense growing plant for sunny positions, it makes a good ground cover though it is slow to spread. An excellent flavouring for cooked foods and salads, it is also a very good companion plant and is said to repel insect pests. The sub-species O. vulgare hirtum comes from Greece and is more aromatic.

Peltaria alliacea: Garlic cress tastes just like its name suggests. The plant is evergreen and the leaves can be used as a flavouring in salads or cooked foods, though it turns more bitter in the summer. The plant is about 20cm tall and spreads slowly. It prefers a light soil and a sunny position.

Prunus laurocerasus: Cherry laurel is an easily grown evergreen shrub succeeding in sun or in the dense shade of trees and in most well-drained soils except shallow chalk. It can have a negative effect on nearby plants, however, and I would only use it under mature trees. Some low-growing forms such as 'Otto Luyken' make good ground cover plants. The very ripe fruit has a pleasant flavour and can be eaten in moderation, though some reports say that it is poisonous. An almond flavouring can be distilled from the leaves.

Pulmonaria officinalis: Lungwort is an evergreen perennial about 30cm tall, growing best in the light shade of a woodland. It is slow to spread but makes a good weed-excluding carpet of vegetation. It is sometimes cultivated as a medicinal herb, the bland-flavoured leaves can be added to salads.

Rubus species: There are several members of this genus that can be grown for ground cover in sun or light shade and can also provide edible fruits. Our favourite is R. nepalensis, the Nepalese raspberry. This evergreen plant is only about 10cm tall but spreads freely to form a good carpet. The fruit is ripe from late July to September, somewhat smaller than the cultivated raspberry it has a pleasant acid flavour. Best in light shade, it will often be deciduous in exposed positions and is not hardy in the colder parts of the country. R. illecebrosus. the strawberry raspberry has a large fruit that looks delicious but is rather bland. The plant is about 15cm tall, it spreads freely but dies down in winter. Other species worth trying include R. calycinoides, R. parvus and R. tricolor (this last species is very vigorous and should not be used with small plants).

Sedum species: There are many members of this genus that can be used as low ground cover for sunny positions. They are all very drought tolerant, growing well on hot dry banks, and all the species mentioned here are evergreen. Their leaves are edible raw or cooked, but they are not the most appetizing leaves I've ever eaten. The following are worth trying. S. acre, S. album, S. spathulifolium and S. spurium

Thymus species: The Thymes make very good ground cover in well-drained sunny positions, they are very drought tolerant. Regular consumption of the leaves is said to prolong your life by increasing the life of the body's cells. The following species can be added to salads or cooked foods - T. praecox, T. serpyllum, T. vulgaris and T. x citriodorus. This last, the lemon thyme, is my personal favourite, the leaves have a lovely lemon flavour.

Vaccinium vitis-idaea: The cowberry is an evergreen shrub for acid soils. It succeeds in full sun or in light shade in a coniferous woodland. Rather slow at first, it will eventually be about 30cm tall and up to 1 metre wide. The acid flavoured fruit, which is said to taste better after a frost, is used like cranberries. V. praestans is a deciduous member of the genus with a fairly large delicious fruit that tastes somewhat like a strawberry. It is about 15cm tall, spreading slowly by suckers, and growing well in a moist acid soil in a shady position.

Vinca minor: Periwinkle is an evergreen native shrub growing about 30cm tall and spreading freely when established. A superb ground cover, it succeeds in sunny positions and also in dense shade. The pliable stems can be used in basket making and the plant has many valuable medicinal properties. V. major has similar uses.

Viola species: Several members of this genus can be used in sunny positions. They have mild-flavoured edible leaves and flowers, these are quite mucilaginous and can be used as thickeners in soups and stews in much the same way as okra is used. The following are worth trying. V. cornuta, V. labradorica and V. obliqua.

The following books are recommended for further reading on the subject of ground cover. Plants for Ground Cover. This is a very comprehensive book written by G. S. Thomas and published by J. M. Dent and sons. Its ISBN is 0-460-12609-1. Ground Cover Plants. This handy little booklet from the Royal Horticultural Society was published by Cassells in 1989. Its ISBN no. is 0-304-31089-1

Some one on the Web (Jack Rowe From Seeds of Texas Seeds Exchange) mentioned ATTRA (Appropriate Tech Transfer for Rural Areas). He says "ATTRA will send you the best single packet about cover crops that I know of, as well as on a broad variety of other subjects. These guys are GREAT!". ATTR, PO Box 3657, Fayetteville, AR 72702, 800-346-9140.

And (Andy Clark, san@nal.usda.gov) mentioned the Sustainable Agriculture Network's Managing Cover Crops Profitably. And the UC SAREP Cover Crop Resource Page which has 5,000 items gleaned from more than 600 separate sources. And the Alternative Farming Systems Information Center has a bibliography called Green Manures and Cover Crops.

Also have look at NSOGA Cover Crop Research Project with info on "Make the most of legumes to fix and keep nitrogen in your soil" use of Cover Crops and Mulching.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with

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Readers Comments:

Ground cover plants.

Dr. Mark P. Kraver (drkraver@peganet.com) Thu Apr 27 14:54:55 2000

Many of these plants do not survive well in the sunny south (SW Florida) and need a cool/cold winter. pH , soil types, shade/sun requirements, and etc. can all be altered/accomodated, so it would be nice to have the ranges of climate zones, they do well in, included in your data base. Thank you.

Add a Follow up to this comment

Ground cover plants.

Thu May 18 21:04:28 2000

I have been browsing a book by UK gardening author Hugh Johnson which has a climate chart comparing UK/Europe/USA/Canada by North American models of hardiness.The majority of the south and midlands area of the UK and Ireland fall within the Zone 8 - 10 to 20 degrees farenheit for 270 days category with the warmer southern and coastal areas being Zone 9 which is rated at 20 - 30 degrees f for 330 days. This does not mean that frost and snow are not experienced in these areas in the months December to Feb/March though this is becoming rarer with recent years. Eqivalent areas within the US for zone 8 are N.C, GA., ALA., MISS with the coastal areas of these states obviously falling within the Zone 9 and above categories. I hope this information is helpful.

Hugh Forsyth

Add a Follow up to this comment

Ground cover plants.

Unknown (jwejudith@aol.com) Sat Sep 2 12:56:04 2000

Thank you for the information on the ground cover, however, I need to know if any are salt tolerant. Can you advise?

Details of Growing Condition: Gulfcoast, Florida, Boca Grande island, hot, dry, I need plants that can tolerate shade, salt, and that snails won't gobble..

Add a Follow up to this comment

Ground cover plants.

Mike (michael.p.pochmara@gm.com) Tue Jan 23 16:56:43 2001

I need information about suitable grouncovers for S.E.Michigan,USA. I'm not sure what zone I'm in. It has to be perennial, low growing & low maintenance. It will cover slopes and flat areas, mostly sunny with some shade. Thank you

Add a Follow up to this comment

Ground cover plants.

Unknown Mon Feb 19 02:18:18 2001

I am searching for a ground cover for Texas Beach area...sea water, sand loving, HARDY, erpsoion controling...any suggestions? Advice would be helpful. Thank You.

Details of Growing Condition: Texas Beach Coast.

Add a Follow up to this comment

Ground cover plants.

jo (frankorjo@btinternet.com) Sun Mar 25 23:58:55 2001

I'm interested in growing a chamomile lawn and would be really grateful of any advice cheers

Add a Follow up to this comment

Ground cover plants.

Angela Sat Mar 31 20:24:18 2001

I'm with him! It's nice to read but pictures also would help. Most of all I need to know if I can grow them in the Florida climate!

Please include the hardiness zones of the plants!

Add a Follow up to this comment

Ground cover plants.

Unknown Tue Apr 3 14:24:41 2001

put some pictures of the future plants please.

Add a Follow up to this comment

Ground cover plants.

Irene (ltclady1@aol.com) Thu Apr 5 16:51:54 2001

I too am looking for thyme or moss ort some other form of ground cover that I can plant between flat stones that form my extended patio. Please let me know if you know of any that will thrive in the South Florida heat. Thank you.

Add a Follow up to this comment

Ground cover plants.

Unknown Mon Apr 9 19:52:29 2001

I found your information most useful but agree that pictures or a redirect to a site of plant images would be most useful. And I don't care how you spell it. Thank you for pulling this together.

Add a Follow up to this comment

Ground cover plants.

Debby (Debby1064@aol.com) Fri Apr 20 04:07:15 2001

I'm looking for a ground cover that is native to Philadelphia, PA. We have approximately 20 acres of woods that have been torn up from ATV traffic. We are trying to restore this area with native plants and ground coverings. There are numerous types of small mammals and birds living in these woods and they must be able to eat this vegetation. I would appreciate any ideas you can give.

Details of Growing Condition: Northeast Philadelphia, Pennsylvania. Wooded area all seasons..

Add a Follow up to this comment

Ground cover plants.

Unknown Thu Apr 26 21:55:37 2001

I am looking for a ground cover to plant between flat stones on the ground of my walkway. Any ideas?

Details of Growing Condition: meredith n.h..

Add a Follow up to this comment

Ground cover plants.

Unknown (pam.keith@irwinmanagement.com) Mon May 7 18:30:35 2001

We are trying to find out the name of the ground cover at The Conciergerie prison in Paris. It is growing in a small courtyard there. The leaves are small. Can you help me in finding the name of that groundcover? I have a picture of it.

Add a Follow up to this comment

Ground cover plants.

Mary (minime91746@cs.com) Tue May 22 00:09:18 2001

I think that English Thyme is a lovely ground cover and very durable.

Baby's Tears - Saw it at Longwood Gardens in PA.

Add a Follow up to this comment

Ground cover plants.

Unknown (queenie_71@yahoo.com) Tue Jun 12 23:54:03 2001

I need to know what to use for shade ground cover for a cabin in the woods. We'd like something that will keep the weeds down but also be able to walk on. Can you help with names of plants for this purpose?

Details of Growing Condition: Cabin in Western Wisconsin, close to a trout stream. Lately very wet, mostly shaded areas are what we want to cover with ground cover to keep the weeds down..

Add a Follow up to this comment

Texas Beach area

Buck (buck6@pacbell.net) Wed Jun 13 18:49:44 2001

I don't know if it freezes in the winter. But if it doesn't Try good old "Ice Plant" (common name). Beautiful spring blossums and out here on the Pacific Coast it will go all season on the winter rains. Covers the sand and holds it from blowing in the wind. Just hack off an eighteen inch piece, bury it half way, plant about 2ft. apart and kick back. What doesn't take off in the spring, you could replant, but I just let it fill in. Oh yes plant in the fall or early spring to ketch the rains.

Details of Growing Condition: Pacific Coast sand dunes, South of winter freeze.

.

This comment has also been added to: Mesembryanthemum crystallinum.

Add a Follow up to this comment

Ground cover plants.

Karina Ballester (kbm@ccoqui.net) Fri Jun 22 02:07:08 2001

This site is very good, but it lacks some information that would be very useful at the moment of deciding which ground cover specie suits your main crop, soil and needs. For example, right now I'm interested on the carbon/nitrogen ratio of the plant.

Add a Follow up to this comment

Ground cover plants.

() Fri Jun 22 02:07:08 2001

Try given a bit more detail of the soil, or at least exact location. Next time i check the site, I'll try to help.

Add a Follow up to this comment

Mother of thyme

John nerey (redchev95@aol.com) Thu Jun 28 05:25:59 2001

I am looking for this ground cover called "MOTHER OF THYME" If any one knows were to aquire this plant please advise. My E-MAIl address is redchev95@aol.com Thank you

Add a Follow up to this comment

Ground cover plants.

Christopher S (cstar_mn@hotmail.com) Sun Jul 29 02:51:05 2001

I believe that all the commentors appreciate the job you've done. Now please provide photos (and/or links to photos), hardiness zone, soil acidity, water, and sun/shade requirements. Thank you.

Details of Growing Condition: Minneapolis.

Add a Follow up to this comment

Ground cover plants.

Unknown Wed Aug 29 04:16:58 2001

can someone please suggest an excellent ground cover (perennial) for CA, USA, which is drought tolerant and full sun ?

email:foomail123@yahoo.com

Details of Growing Condition: for CA, USA, which is drought tolerant and full sun .

Add a Follow up to this comment

Ground cover plants.

Lynn Crete (Hull, Quebec...near Ottawa) (LYNN.B.CRETE@PWGSC.GC.CA) Mon Sep 10 12:21:12 2001

I AM LOOKING FOR A VERY SHORT, LOW GROWING GROUND COVER THAT WILL SURVIVE IN ZONE 5 IN PARTIAL SHADE (UNDER A LARGE CRABAPPLE SHADE) AND SURROUNDING LAWN AREA (MORE SUNNY).

CAN YOU HELP?

Add a Follow up to this comment

Ground cover plants.

Unknown (blllmary@aol.com) Thu Sep 20 02:35:54 2001

I really need a list of ground covers that can be used in a garden walkway and can withstand some walking on.

Add a Follow up to this comment

Ground cover plants.

Erik Johnson (e-johnson1@northwestern.edu) Sat Sep 29 05:04:44 2001

Unfortunately, USDA zones aren't useful except for perhaps determining maximum cold resistence (all they measure are miniumum temps). Britain is smack dab in front of the Gulf Stream, so has warm winters. However it is very far north, so has long winters and cool summers. USDA zones 8 and 9 in the US are perhaps equivalent to Europe in the maritime Pacific Northwest and northern California, but not in the Southeast US.

270 frost free days leaves about 95 with frost. # Frost-free days is somewhat useful for annuals but little else. Temperate perennials/trees need winter chilling (hours between 32 and 45 Fahrenheit). I guarrantee that NW FL (USDA zone 8) does not have 95 days of potential frost (& presumptively "chill"). It usually has only 400 (or less) chilling hours, and only about 3-7 days (nights?) of frost. Temps get down to low 20s F (in some cases 15 F), but these killing frosts occur unpredictably, scattered amoungst 60/70 Fahrenheit days from late December to late February. W. European weather is probably more regular. Spain and Italy can raise both subtropical crops (citrus, banana passionfruit)--lack of killing frosts--and European plums/apples/hazels/etc--prolonged winter chill. Neither group is reliable in the Deep South of the US; indeed, native species (mayhaw, rabbiteye blueberry, scuppernong) and a small number of exotics from Asia (kaki) and Uruguay (feijoa, jelly palm) are the only ones to thrive. And if the Limeys saw wild scuppernongs--120+ ft woody lianas with aerial roots (Bartram's "flying buttresses of the live oak forest"), I don't think they'd recommend planting vines, let alone grapes, at "woodland edges." Kinda hard to harvest and control.

I have a hard time taking gardening advice/books from Europe and West Coast USA seriously. Unfortunately most authors come from such areas, so the rest of us waste alot of money planting things and watching them die, in order to find the tiny percentage that work. Some of the species that "work" become weeds--witness Kudzu, which swallowed Georgia after FDR's bureaucrats decided it would be good for errosion control.

Anyone have scuppernong (*Vitis rotundifolia*) recipes?

Details of Growing Condition: Northern Gulf (of Mexico) coast, USA. Conditions as described above, but additionally: 15-60 inches of rain (usually 40), extremely acid, sandy, poor soil, very hot (from May to October) and humid (year round)..

This comment has also been added to: Vitis rotundifolia.

This comment has been added to the web pages: Woodland Garden Plants.

Add a Follow up to this comment

Ground cover plants.

Phill (philltown@yahoo.com) Wed Oct 3 15:53:14 2001

I am interested in the Ayuka (phonetically spelled) species. I know they make great ground cover and have purple green leaves. I thought that they bloomed with purple sprouts also, but I hear they do not from some. Please help me with this delimna.

Add a Follow up to this comment

Ground cover plants.

Unknown Sat Jan 5 20:33:10 2002

I am looking for a plant that can grow even without much light and in damp areas. Thanks.

Add a Follow up to this comment

Ground cover plants.

Unknown Sat Jan 19 04:04:57 2002

I have a large area planted with junipers for erosion control. My problem is controling the grass that grows within the plants. Is there a way to stop the growth of grass and not damage the plants?

Add a Follow up to this comment

Ground cover plants.

Tom Hennen (thennen@houston.rr.com) Tue Jan 22 19:27:12 2002

I need a recommendation for a good ground cover plant for a home located on Galveston Bay south of Houston, Texas. It has been suggested that I use "Asian Jasmine". I have very little knowledge of gardening, let alone this specific plant. Please help! Thanks!

~Tom

Add a Follow up to this comment

Ground cover plants.

Mary (heavensdoor4ever@aol.com) Sun Feb 24 20:37:38 2002

I live literally in the forest in Oklahoma. Our home is surrounded by moderately dense woods. I would like to keep it this way but would like some type of ground cover that will do well around cedar trees. It needs to be very low to the ground to prevent snakes as much as possible. Some of the area is sunny of course but not sunny enough to grow grass well. I want to be able to walk barefooted in the woods. Any suggestions?

Add a Follow up to this comment

Ground cover plants.

johnny loizides (piratetheatre@aol.com) Thu Mar 7 21:32:36 2002

Dont be a Pedant. So what if they spelt Happy wrong. You Idioet, or should that be idiot

Add a Follow up to this comment

Prunus laurocerasus

Una McDermott (umcdermott@kildalton.teagasc.ie) Sat Mar 9 12:25:10 2002

My understanding is that even small amounts of the plant can cause poisoning. The leaves containcyanogenic glycocides. These glycosides yield hydrocyanic acid (cyanide)when enzymes in crushed plant material or the digestive system act on them. Cyanide smells of almonds. Distilling material from the leaves may concentrate the levels of cyanide to a toxic level.

This comment has also been added to: Prunus laurocerasus.

Add a Follow up to this comment

Prunus laurocerasus

Ken Fern (ken.fern@lineone.net) Sat Mar 9 12:27:53 2002

Dear Una McDermott

Many thanks for your email regarding Prunus laurocerasus and the conflicting reports of edibility and poisonousness.

Prunus laurocerasus is in the rose family of plants. This family includes many well-known edible fruits including the apple, pear, plum, strawberry, cherry, apricot, peach, blackberry and raspberry. A very high proportion of plants in the rose family also contain cyanogenic glycosides. This is found, in small quantities, in the leaves and seeds, but also in the fruits and can be detected by the characteristic bitter flavour reminiscent of almonds. Indeed, it is these glycosides that give almonds (also a member of the rose family) their characteristic flavour. Whilst the sweet almonds that are so commonly used as an article of food have only a low concentration of these glycosides, the bitter almonds that are used commercially to make marzipan and other food flavourings contain a much higher content (indeed there are records of three of these bitter almond seeds causing death in a young child). Even the sweet almonds are not totally safe to eat - it has been stimulated that about 900 seeds would constitute a lethal dose for an average healthy adult.

These glycosides are not all bad, however. Indeed, they are used both by conventional medicine and by herbalists as a stimulant for the respiratory system. In conventional medicine, the compound is used in isolation, but herbally many plants rich in these glycosides are used, including the bitter almond and Prunus laurocerasus (the leaves and seeds rather than the fruits).

The fruits of Prunus laurocerasus are usually quite low in glycoside content and are thus completely safe to eat in all but very large quantities. I have eaten quite large quantities on a number of occasions and have also given them to my young children who love them. However, I always make sure the fruit is fully ripe (it acquires a jelly-like consistency) and that it has a sweet rather than bitter flavour. Eaten like this they are completely safe - I first gave them to my son when he was about 2½ years old and he is now a very healthy 7½ year old.

The leaflet on ground cover plants that you read was written about 10 years ago and has not been revised since then. I do feel that the explanation on edibility should be expanded and will make sure that this is done in the near future. The entry for the plant in our database is more clear - I include excerpts from it below:-

The entry for known toxins reads as follows - "All parts of the plant contain hydrogen cyanide, a poison that gives almonds their characteristic flavour. This toxin is found mainly in the leaves and seed and is readily detected by its bitter taste. It is usually present in too small a quantity to do any harm but any very bitter seed or fruit should not be eaten. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death."

The entry for edibility reads as follows -

"Fruit - raw or cooked. Sweet and reasonably pleasant when fully ripe[65, 74, K]. The cultivar 'Camelliifolia' bears huge quantities of fruit[K]. This is the size of a large cherry and, when fully ripe, has a reasonable flavour raw with a jelly-like texture and a slight astringency[K]. Some sources suggest the fruit is poisonous, this probably refers to the unripe fruit[7]. We have eaten this fruit in quite large quantities without the slightest ill effects (this also includes a 2 year old child) and so any toxicity is of a very low order[K]. However, any fruit that is bitter should not be eaten in quantity because the bitterness is caused by the presence of the toxic compounds - see the notes above on toxicity. The fruit is about 8mm in diameter and contains one large seed[200]. Water distilled from the leaves is used as an almond flavouring[2, 46, 61, 183]. It should only be uses in small quantities, it is poisonous in large amounts[183]. Seed - raw or cooked. Do not eat the seed if it is too bitter - see the notes above on toxicity."

I hope this is of us to you. Please do not hesitate to get back in touch with me if you have further questions.

Ken Fern

This comment has also been added to: Prunus laurocerasus.

Add a Follow up to this comment

Ground cover plants.

() Thu Mar 14 17:07:34 2002

I AM LOOKING FOR A WEB SITE THAT WILL SHOW ME VARIETYS OF FLOWERING IC PLANT FOR A HOT CLIMATE. I LIVE IN HEMET CALIFORNIA.

THANK YOU FOR YOUR HELP

JIM

jimpeace01@a0l.com

Add a Follow up to this comment

Ground cover plants.

katalin (katalin@conceptis.com) Fri Mar 22 17:24:21 2002

I think the plant you are looking for is Ajuga. Some varieties have purple leaves, some are variegated (blotched purple, cream, green, and occasionally pink) and some are various shades of plain green. All of these however - to my knowledge - have purple flowers. Ajuga likes a moist shady soil and may 'pout' and fail to flower if it is unhappy.

Add a Follow up to this comment

Ground cover plants.

Bob (daviap@earthlink.net) Thu Apr 11 16:18:53 2002

I am laying down isotoma in a small area in front of my house. Most of it will be strips between stepping stones, but about 10 - 15 sq. ft. will be uninterrupted carpet on one side. Is there any problem with buying mud flats of isotoma and simply removing them from the container and laying them directly on prepared soil for the smaller section?

Thanks!

Details of Growing Condition: 3-4 hours shade per day, followed by 6-7 hours continuous sun. Well-watred daily..

Add a Follow up to this comment

Ground cover plants.

Glenn (kghofman@bellsouth.net) Fri Apr 26 03:04:12 2002

I saw a very low, spreading ground cover (about 1-1/2") at a Botanical Garden in Atlanta. It's common name was "heart vine" and the leaves were heart-shaped. Does anyone know the botanical name and if it can be easily obtained.

Details of Growing Condition: shade to semi-shade; Atlanta area; to be planted around paving stones.

Add a Follow up to this comment

Ground cover plants.

() Thu May 2 00:55:56 2002

HELP ! i'm looking for some ideas on shade loving ground cover. to put around the bottom of my pines i live in southeast Michigan.. would appreciate any feedback.. something low maint. that looks lush... possibly something flowering.. thanks

Add a Follow up to this comment

Ground cover plants.

E. A. Fronk (cat_doglover@lycos.com) Sun May 19 01:37:12 2002

.Hi, have you tried Thymus herba-barona it is good even for the cooking pot. and another is thymus elfin hardy through zone 5. Liz

Add a Follow up to this comment

Ground cover plants.

(twzeskey@yahoo.com) Sun Jun 16 13:22:48 2002

Texas beach front, Try the common name Blanket Flower. I've read it's good on beach fronts. It took just two years to cover my little patch of wildflower gargen (GA). Red/yellow flowers, what I've allowed to stay is almost three feet tall, again. Will take over again if I don't watch it.

Also looking for a short, flowering, cold hardy, LOW maietenance cover native to GA or the southeast to replace bark/pinestraw.

thanks, T.W.Zeskey

Add a Follow up to this comment

Ground cover plants.

Bill (billtgibson@earthlink.net) Mon Jun 17 07:11:01 2002

We have a house in Lake Tahoe at an elevation of 6000 feet. Winter blankets us every year with about 3 feet of snow for 4 months. The soil is sandy and dusty and full of pine needles, and the sunlight is filtered. I’m looking for the best ground cover to create a thick grass-like carpet that my family can recreate on. This is a vacation home and we are rarely there so we can’t water, mow or maintain it. Does such a plant exist? Much thanks.

Details of Growing Condition: 6000 ft elevation, Northern California, snowy winters, sandy soil, filtered sun.

Add a Follow up to this comment

Ground cover plants.

Peter von Rosen (ojardim@mail.telepac.pt) Tue Aug 20 16:51:00 2002

If you want to grow ground cover between flat stones in a hot climate (such as the Algarve or California) one of your best bets is Dichondra micrantha carolensis repens. Also known as "wonder lawn"

Details of Growing Condition: Algarve.

This comment has also been added to: Dichondra micrantha.

Add a Follow up to this comment

Ground cover plants.

Vince Cerullo (vcerullo@ac,net) Thu Feb 27 16:01:33 2003

Can anyone help with an evergreen ground cover for south central NC (Zone 7). Soil is clay and is located on a slope. Water is no problem. Was thinking of ivy, but I am open to suggestions.

Thanks

Add a Follow up to this comment

Ground cover plants.

() Mon Mar 17 00:40:43 2003

i would like to know what the fastest spreading shade loving ground cover plant would be.

Details of Growing Condition: very poor soil.

This comment has also been added to: english ivy.

Add a Follow up to this comment

Ground cover plants.

Toni Kosydar (kosy@netzero.net) Thu Mar 27 19:03:55 2003

Looking for ground cover in a sloppy area to somewhat sloppy area. Southwest Wisconcin. In late fall these areas were seeded with a one time rye grass seed. Also need to know how to do the whole process.

Thanks, any information will be helpful

Add a Follow up to this comment

Ground cover plants.

Ian (I_powers@hotmail.com) Wed Apr 9 22:35:41 2003

Not sure about the salt content of the soil but it sounds like an andora or rug juniper would be the best type of ground covering ans soil retaining plant.

Details of Growing Condition: all junipers grow in well drained soil and thrive in bright light. Also because they are actually a shrub, they have strong and wide root systems..

Add a Follow up to this comment

Ground cover plants.

Mike (mike@1800plasmas.com) Sat Apr 12 18:58:19 2003

I am looking for a way to remove dense, overgrown ground cover. I think it is just too overgrown and I'd prefer to remove it and plant grass. Any ideas?

Details of Growing Condition: Central New York..

Add a Follow up to this comment

Ground cover plants.

Helen (Helen27@machlink.com) Sat Apr 19 21:00:14 2003

I understand that "cotula gruveri" makes a lush, green pathway and when you step on the plants they actually spread. Do you know where I can purchase elfin thyme?

Add a Follow up to this comment

Ground cover plants.

(maugustosky@hotmail.com) Tue May 6 14:32:40 2003

I think you are talking about Ajuga. It is a ground cover with purple/green leaves. Also it can have purple or blue sprouts. It is also deer resistant and good in shade.

Add a Follow up to this comment

Ground cover

() Thu May 8 18:16:15 2003

im eduardo ortiz ...if anybody are interested in ground cover my company produce 300 tons every month... in mexico and we have the best quality my tel is 52 713 133 5617 or 52 713 13 3 55 58

Add a Follow up to this comment

Ground cover plants.

Dell Resweber (paul1012@cox.net) Sat May 10 20:23:40 2003

Does anyone have information about a ground cover called "red threads." I hear that it does well in partial shade.

Add a Follow up to this comment

Add A Comment

All Comments on web pages and plants.

Back to Plants For A Future home page. Jump to Checklist of ground cover plants.

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HTML version prepared by Rich Morris Home Page - Contact Info

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ground cover plants.*

Subject:

Ground cover plants.

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

grdcover.html

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Plants For A Future: Database Search Results

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Mesembryanthemum crystallinum

Common name:	Ice plant	Family:	Aizoaceae
Author:	L.	Botanical references:	50, 200
Synonyms:	Cryophytum crystallinum ((L.)N.E.Br.), Carpobrotus crystallinum		
Known Hazards:	None known		
Range:	S. Africa. Introduced and naturalized in S. Europe.		
Habitat:	Maritime sands and salt marshes[50].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Gasoul crystallinum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buzotu [E], Common Iceplant [B,P],
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Fig-marigold family
Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

Perennial growing to 0.1m by 0.5m . It is hardy to zone 9 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil

and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Fruit; Leaves; Seed.

Leaves and stems - raw or cooked[27, 52, 84, 95, 264]. They can be used as a spinach substitute[2]. The leaves have an acid flavour, they are thick and very succulent with a slightly salty tang[183]. They can also be pickled like cucumbers or used as a garnish[183].

Fruit[84, 106]. No more details are given.

Seed - a famine food used when all else fails[177].

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Demulcent; Diuretic.

The plant is demulcent and diuretic[240]. It is used in the treatment of inflammations of the pulmonary and genito-urinary mucous membranes[240].

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Soap.

The crushed foliage is a soap substitute[84].

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Easily grown in an ordinary well-drained garden soil[1, 52]. Succeeds in any well-drained low-fertility soil so long as it is in a sunny position[200].

A very ornamental plant, it is occasionally cultivated for its edible leaves[1, 264]. It is not very hardy in Britain and will be killed even by a light frost[264]. It is, therefore, usually grown as a half-hardy annual, being sown in a greenhouse in the spring and used for summer bedding[52].

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References for the family Aizoaceae.

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References

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Readers Comments

Texas Beach area

Buck Wed Jun 13 18:49:44 2001

I don't know if it freezes in the winter. But if it doesn't Try good old "Ice Plant" (common name). Beautiful spring blossums and out here on the Pacific Coast it will go all season on the winter rains. Covers the sand and holds it from blowing in the wind. Just hack off an eighteen inch piece, bury it half way, plant about 2ft. apart and kick back. What doesn't take off in the spring, you could replant, but I just let it fill in. Oh yes plant in the fall or early spring to ketch the rains.

Details of Growing Condition: Pacific Coast sand dunes, South of winter freeze.

.

Cross references: *Web-pages:* Ground cover plants..

Mesembryanthemum crystallinum

Unknown Sun Oct 21 08:53:25 2001

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Details of Growing Condition: Canary Islands. Cost area between 0-300 m up the level of the sea. Poor soil, sandy and salty..

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Mesembryanthemum crystallinum*

Subject:

Mesembryanthemum crystallinum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Mesembryanthemum crystallinum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Mother of thyme*

Subject:

Mother of thyme

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

grdcover.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:51:42 2004

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Vitis rotundifolia

Common name:	Muscadine	Family:	Vitaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:	Vitis vulpina (Torr. ex A.Gray. non L.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Delaware to Indiana and Kansas, south to Florida, Texas and Mexico.		
Habitat:	Woods, thickets, sandhills and shores[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. V. cordifolia[B,G,,P] V. cordifolia var. foetida[B,P] V. cordifolia var. sempervirens[B,P] V. illex[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Bullace [L], Frost Grape [P,B,L], Muscadine [P,L,B], Muscadine Grape [DEN2], River-bank Grape [L], Southern Fox Grape [L],
Epithets:	From a Dictionary of Botanical Epithets rotundifolia = round leaved;
Systematics:	From a UDSA Plants Database Order: Rhamnales . Grape family
Other Range Info:	From the Ethnobotany Database

	Us(Amerindian)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious climber growing to 25m. It is hardy to zone 5. It is in flower from June to July, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Leaves.

Fruit - raw or dried for winter use[1, 2, 22, 46]. Thick-skinned[61] with a pleasant musky flavour[11, 200, 219]. Pleasant to eat raw, the fruit is excellent in jellies, pies etc[183]. The fruit is up to 25mm in diameter[200] and is produced in small bunches[235].

Leaves - cooked[55]. Young leaves are wrapped around other foods and then baked, they impart a pleasant flavour.

Young tendrils - raw or cooked[55, 85].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the fresh or dried leaves[168].

Cultivation details

Prefers a deep rich moist well-drained moderately fertile loam[1, 200]. Grows best in a calcareous soil[200]. Succeeds in sun or partial shade though a warm sunny position is required for the fruit to ripen[200]. Prefers a position in full sun[160]

Plants climb by means of tendrils[182]. They grow particularly well up elm trees[18].

Cultivated for its edible fruit in N. America[46, 61], there are some named varieties[183]. Most plants are self-fertile[160], but there are some cultivars that only produce female flowers and require pollination[183].

Any pruning should be carried out in winter when the plants are dormant otherwise they bleed profusely[182, 200].

Resistant to Phylloxera disease, a disease that almost destroyed the European grape crops. This species can be used as a rootstock in areas where the disease is prevalent and can also be used in breeding programmes with V. vinifera in order to impart resistance to that species[160]. Plants are , however, susceptible to infestation by aphis[160].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[K]. Six weeks cold stratification improves the germination rate, and so stored seed is best sown in a cold frame as soon as it is obtained. Germination should take place in the first spring, but sometimes takes another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant out in early summer.

Cuttings of mature wood of the current seasons growth, December/January in a frame. These cuttings can be of wood 15 - 30cm long or they can be of short sections of the stem about 5cm long with just one bud at the top of the section. In this case a thin, narrow strip of the bark about 3cm long is removed from the bottom half of the side of the stem. This will encourage callusing and the formation of roots. Due to the size of these cuttings they need to be kept in a more protected environment than the longer cuttings.

Layering.

Cultivars

'Hunt'

A medium to large fruit, the skin is medium, dull-black with abundant pigment and is prized by manufacturers of wine and frozen pulp[183]. The fruit quality is excellent, it ripens early in large clusters[183]. The fruit is very even in ripening, which is unusual in this genus[183]. One of the best all-purpose cultivars, excellent for wines, unfermented juices, jellies etc[183]. A female cultivar, it requires pollination from a non-female cultivar[183].

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PFAF Web Pages

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See the PFAF Links Pages for other sources

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References

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Notes from observations, tasting etc at Plants For A Future and on field trips.

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Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

Plant Passporting

Rich Wed Sep 26 16:58:15 2001

This information has been taken from DEFRA Guide to Plant Passporting. Which places restrictions on plants which can be traded in the UK and the EU mainly because they are carriers for pests and diseases.

Beta vulgaris (Beet), Chaenomeles (Ornamental quince, Japonica), Citrus (Orange, lemon, lime, grapefruit, etc.), Cotoneaster (Cotoneaster), Crataegus (Hawthorn), Cydonia (Quince), Eriobotrya (Includes loquat), Fortunella and hybrids (Kumquat), Humulus lupulus (Hop (including ornamentals)), Malus (Apple (including ornamentals)), Mespilus (Medlar), Poncirus and hybrids (Ornamental citrus), Prunus (other than Prunus laurocerasus and Prunus lusitanica) (Includes almond, apricot, cherry, damson, greengage, nectarine, peach, plum, sloe and ornamental/flowering varieties), Pyracantha (Firethorn), Pyrus (Pear (including ornamentals)), Solanum (stolon or tuber forming types) (Potato), Sorbus (other than Sorbus intermedia) (Includes rowan and whitebeam), Stranvaesia (Stranvaesia), Vitis (Grape, includes grape vine and ornamental grape).

Many other plants require pasporting for commercial growers, these include Abies, Allium ascalonicum, Allium cepa, Allium porrum, Allium schoenoprasum, Apium graveolens, Plants of the family Araceae, Argyranthemum, Aster, Brassica, Castanea, Capsicum annuum, Cucumis, Dendranthema, Dianthus and hybrids, Euphorbia, Exacum, Fragaria, Gerbera, Gypsophila, Helianthus annuus, Impatiens (all varieties of New Guinea hybrids), Lactuca, Larix, Leucanthemum, Lupinus, Lycopersicon lycopersicum, Plants of the family Marantaceae, Medicago sativa, Plants of the family Musaceae, Nicotiana, Pelargonium, Persea, Phaseolus, Picea, Pinus, Platanus, Populus, Prunus laurocerasus and Prunus lusitanica, Pseudotsuga, Quercus, Rubus, Plants of the family Solanaceae (other than plants of stolon or tuber forming species of Solanum and their hybrids), Solanum melongena, Spinacia, Plants of the family Strelitziaceae, Tanacetum, Tsuga, Verbena.

Cross references: *Plants:* *Beta vulgaris* , *Humulus lupulus*. *Genera:* *Chaenomeles* , *Citrus* , *Cotoneaster* , *Crataegus* , *Cydonia* , *Eriobotrya* , *Fortunella* , *Malus* , *Mespilus* , *Poncirus* , *Prunus* , *Pyracantha* , *Pyrus* , *Solanum* , *Sorbus* , *Stranvaesia* , *Vitis*.

Ground cover plants.

Erik Johnson Sat Sep 29 05:04:44 2001

Unfortunately, USDA zones aren't useful except for perhaps determining maximum cold resistence (all they measure are miniumum temps). Britain is smack dab in front of the Gulf Stream, so has warm winters. However it is very far north, so has long winters and cool summers. USDA zones 8 and 9 in the US are perhaps equivalent to Europe in the maritime Pacific Northwest and northern California, but not in the Southeast US.

270 frost free days leaves about 95 with frost. # Frost-free days is somewhat useful for annuals but

little else. Temperate perennials/trees need winter chilling (hours between 32 and 45 Fahrenheit). I guarrantee that NW FL (USDA zone 8) does not have 95 days of potential frost (& presumptively "chill"). It usually has only 400 (or less) chilling hours, and only about 3-7 days (nights?) of frost. Temps get down to low 20s F (in some cases 15 F), but these killing frosts occur unpredictably, scattered amoungst 60/70 Fahrenheit days from late December to late February. W. European weather is probably more regular. Spain and Italy can raise both subtropical crops (citrus, banana passionfruit)--lack of killing frosts--and European plums/apples/hazels/etc--prolonged winter chill. Neither group is reliable in the Deep South of the US; indeed, native species (mayhaw, rabbiteye blueberry, scuppernong) and a small number of exotics from Asia (kaki) and Uruguay (feijoa, jelly palm) are the only ones to thrive. And if the Limeys saw wild scuppernongs--120+ ft woody lianas with aerial roots (Bartram's "flying buttresses of the live oak forest"), I don't think they'd recommend planting vines, let alone grapes, at "woodland edges." Kinda hard to harvest and control.

I have a hard time taking gardening advice/books from Europe and West Coast USA seriously. Unfortunately most authors come from such areas, so the rest of us waste alot of money planting things and watching them die, in order to find the tiny percentage that work. Some of the species that "work" become weeds--witness Kudzu, which swallowed Georgia after FDR's bureaucrats decided it would be good for errosion control.

Anyone have scuppernong (*Vitis rotundifolia*) recipes?

Details of Growing Condition: Northern Gulf (of Mexico) coast, USA. Conditions as described above, but additionally: 15-60 inches of rain (usually 40), extremely acid, sandy, poor soil, very hot (from May to October) and humid (year round)..

Cross references: *Web-pages:*

The webpage grdcover.html does not exist or cannot be added to
email webmaster@pfaf.org to report bugs.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

Plant information taken from the Plants For A Future - Species Database. Copyright (c) 1997-2000.
WEB search engine by Rich Morris - Home Page- Contact Info
Plants for a Future, The Field, Penpol, Lostwithiel, Cornwall, PL22 0NG, UK.
`www.pfaf.org`

Plants For A Future: Database Search Results

Vitis rotundifolia

Common name:	Muscadine	Family:	Vitaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:	Vitis vulpina (Torr. ex A.Gray. non L.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Delaware to Indiana and Kansas, south to Florida, Texas and Mexico.		
Habitat:	Woods, thickets, sandhills and shores[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	V. cordifolia[B,G,,P] V. cordifolia var. foetida[B,P] V. cordifolia var. sempervirens[B,P] V. illex[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	rotundifolia = round leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Grape family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious climber growing to 25m. It is hardy to zone 5. It is in flower from June to July, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Leaves.

Fruit - raw or dried for winter use[1, 2, 22, 46]. Thick-skinned[61] with a pleasant musky flavour[11, 200, 219]. Pleasant to eat raw, the fruit is excellent in jellies, pies etc[183]. The fruit is up to 25mm in diameter[200] and is produced in small bunches[235].

Leaves - cooked[55]. Young leaves are wrapped around other foods and then baked, they impart a pleasant flavour.

Young tendrils - raw or cooked[55, 85].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the fresh or dried leaves[168].

Cultivation details

Prefers a deep rich moist well-drained moderately fertile loam[1, 200]. Grows best in a calcareous soil[200]. Succeeds in sun or partial shade though a warm sunny position is required for the fruit to ripen[200]. Prefers a position in full sun[160]

Plants climb by means of tendrils[182]. They grow particularly well up elm trees[18].

Cultivated for its edible fruit in N. America[46, 61], there are some named varieties[183]. Most plants are self-fertile[160], but there are some cultivars that only produce female flowers and require pollination[183].

Any pruning should be carried out in winter when the plants are dormant otherwise they bleed profusely[182, 200].

Resistant to Phylloxera disease, a disease that almost destroyed the European grape crops. This species can be used as a rootstock in areas where the disease is prevalent and can also be used in breeding programmes with V. vinifera in order to impart resistance to that species[160]. Plants are , however, susceptible to infestation by aphis[160].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[K]. Six weeks cold stratification improves the germination rate, and so stored seed is best sown in a cold frame as soon as it is obtained. Germination should take place in the first spring, but sometimes takes another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant out in early summer.

Cuttings of mature wood of the current seasons growth, December/January in a frame. These cuttings can be of wood 15 - 30cm long or they can be of short sections of the stem about 5cm long with just one bud at the top of the section. In this case a thin, narrow strip of the bark about 3cm long is removed from the bottom half of the side of the stem. This will encourage callusing and the formation of roots. Due to the size of these cuttings they need to be kept in a more protected environment than the longer cuttings.

Layering.

Cultivars

'Hunt'

A medium to large fruit, the skin is medium, dull-black with abundant pigment and is prized by manufacturers of wine and frozen pulp[183]. The fruit quality is excellent, it ripens early in large clusters[183]. The fruit is very even in ripening, which is unusual in this genus[183]. One of the best all-purpose cultivars, excellent for wines, unfermented juices, jellies etc[183]. A female cultivar, it requires pollination from a non-female cultivar[183].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
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Readers Comments

Plant Passporting

Rich Wed Sep 26 16:58:15 2001

This information has been taken from DEFRA Guide to Plant Passporting. Which places restrictions on plants which can be traded in the UK and the EU mainly because they are carriers for pests and diseases.

Beta vulgaris (Beet), Chaenomeles (Ornamental quince, Japonica), Citrus (Orange, lemon, lime, grapefruit, etc.), Cotoneaster (Cotoneaster), Crataegus (Hawthorn), Cydonia (Quince), Eriobotrya (Includes loquat), Fortunella and hybrids (Kumquat), Humulus lupulus (Hop (including ornamentals)), Malus (Apple (including ornamentals)), Mespilus (Medlar), Poncirus and hybrids (Ornamental citrus), Prunus (other than Prunus laurocerasus and Prunus lusitanica) (Includes almond, apricot, cherry, damson, greengage, nectarine, peach, plum, sloe and ornamental/flowering varieties), Pyracantha (Firethorn), Pyrus (Pear (including ornamentals)), Solanum (stolon or tuber forming types) (Potato), Sorbus (other than Sorbus intermedia) (Includes rowan and whitebeam), Stranvaesia (Stranvaesia), Vitis (Grape, includes grape vine and ornamental grape).

Many other plants require pasporting for commercial growers, these include Abies, Allium ascalonicum, Allium cepa, Allium porrum, Allium schoenoprasum, Apium graveolens, Plants of the family Araceae, Argyranthemum, Aster, Brassica, Castanea, Capsicum annuum, Cucumis, Dendranthema, Dianthus and hybrids, Euphorbia, Exacum, Fragaria, Gerbera, Gypsophila, Helianthus annuus, Impatiens (all varieties of New Guinea hybrids), Lactuca, Larix, Leucanthemum, Lupinus, Lycopersicon lycopersicum, Plants of the family Marantaceae, Medicago sativa, Plants of the family Musaceae, Nicotiana, Pelargonium, Persea, Phaseolus, Picea, Pinus, Platanus, Populus, Prunus laurocerasus and Prunus lusitanica, Pseudotsuga, Quercus, Rubus, Plants of the family Solanaceae (other than plants of stolon or tuber forming species of Solanum and their hybrids), Solanum melongena, Spinacia, Plants of the family Strelitziaceae, Tanacetum, Tsuga, Verbena.

Cross references: *Plants:* Beta vulgaris , Humulus lupulus. *Genera:* Chaenomeles , Citrus , Cotoneaster , Crataegus , Cydonia , Eriobotrya , Fortunella , Malus , Mespilus , Poncirus , Prunus , Pyracantha , Pyrus , Solanum , Sorbus , Stranvaesia , Vitis.

Ground cover plants.

Erik Johnson Sat Sep 29 05:04:44 2001

Unfortunately, USDA zones aren't useful except for perhaps determining maximum cold resistence (all they measure are miniumum temps). Britain is smack dab in front of the Gulf Stream, so has warm winters. However it is very far north, so has long winters and cool summers. USDA zones 8 and 9 in the US are perhaps equivalent to Europe in the maritime Pacific Northwest and northern California, but not in the Southeast US.

270 frost free days leaves about 95 with frost. # Frost-free days is somewhat useful for annuals but little else. Temperate perennials/trees need winter chilling (hours between 32 and 45 Fahrenheit). I guarrantee that NW FL (USDA zone 8) does not have 95 days of potential frost (& presumptively "chill"). It usually has only 400 (or less) chilling hours, and only about 3-7 days (nights?) of frost. Temps get down to low 20s F (in some cases 15 F), but these killing frosts occur unpredictably, scattered amoungst 60/70 Fahrenheit days from late December to late February. W. European weather is probably more regular. Spain and Italy can raise both subtropical crops (citrus, banana passionfruit)--lack of killing frosts--and European plums/apples/hazels/etc--prolonged winter chill. Neither group is reliable in the Deep South of the US; indeed, native species (mayhaw, rabbiteye blueberry, scuppernong) and a small number of exotics from Asia (kaki) and Uruguay (feijoa, jelly palm) are the only ones to thrive. And if the Limeys saw wild scuppernongs--120+ ft woody lianas with aerial roots (Bartram's "flying buttresses of the live oak forest"), I don't think they'd recommend planting vines, let alone grapes, at "woodland edges." Kinda hard to harvest and control.

I have a hard time taking gardening advice/books from Europe and West Coast USA seriously. Unfortunately most authors come from such areas, so the rest of us waste alot of money planting things and watching them die, in order to find the tiny percentage that work. Some of the species that "work" become weeds--witness Kudzu, which swallowed Georgia after FDR's bureaucrats decided it would be good for errosion control.

Anyone have scuppernong (*Vitis rotundifolia*) recipes?

Details of Growing Condition: Northern Gulf (of Mexico) coast, USA. Conditions as described above, but additionally: 15-60 inches of rain (usually 40), extremely acid, sandy, poor soil, very hot (from May to October) and humid (year round)..

Cross references: *Web-pages:*

The webpage grdcover.html does not exist or cannot be added to
email webmaster@pfaf.org to report bugs.

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Humulus lupulus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Hop	Family:	Cannabidaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Skin contact with the plant causes dermatitis in sensitive people[222]. Hops dermatitis has long been recognized. Not only hands and face, but legs have suffered purpuric eruptions due to hop picking. Although only 1 in 3,000 workers is estimated to be treated, one in 30 are believed to suffer dermatitis[269]. Dislodged hairs from the plant can irritate the eyes[222].		
Range:	Britain.		
Habitat:	Hedgerows, woodlands and sunny waste ground[7].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Hop [B,P,H], European Hops [S], Hop [L,H,D], Hoppu [E], Hops [E,H], Hops, European [S], Lupulin [E], Lupulo [E], Omerotu [E], Oubion [E], Serbetciotu [E],
Other Range Info:	From the Ethnobotany Database
	Belgium; Britain; China; Germany; Nepal; Spain; Turkey; Us; Us(Or); Ussr
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

Perennial Climber growing to 6m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from July to August, and the seeds ripen from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge, By Walls, By North Wall, By East Wall.

Edible Uses

Drink; Leaves; Root; Rutin; Tea.

Young leaves and young shoots - cooked[2, 4, 5, 7, 9, 33, 37]. The flavour is unique and, to many tastes, delicious[183]. Young leaves can be eaten in salads[1, 183]. Use before the end of May[12]. The leaves contain rutin[218].

The fleshy rhizomes are sometimes eaten[183].

A tea is made from the leaves and cones[183]. It has a gentle calming effect[4].

The dried flowering heads of female plants are used as a flavouring and preservative in beer[2, 183]. They are also medicinal[2]. The flowering heads are sprinkled with bitter-tasting yellow translucent glands, which appear as a granular substance[4]. This substance prevents gram-negative bacteria from growing in the beer or wort[269]. Much of the hop's use as a flavouring and medicinal plant depends on the abundance of this powdery substance[4]. The seeds contain gamma-linolenic acid, an essential fatty acid that is said to have many important functions in the human body and is rarely found in plant sources[218].

The essential oil in the flowering heads is used as a flavouring in cereal beverages and mineral waters[269]. Extracts from the plant, and the oil, are used as flavouring in non-alcoholic beverages, frozen dairy desserts, candy, baked goods and puddings, with the highest average maximum use level of 0.072% reported for an extract used in baked goods[269].

Medicinal Uses

Disclaimer

Anodyne; Antibacterial; Antiseptic; Antispasmodic; Diuretic; Febrifuge; Galactogogue; Hypnotic; Nervine; Sedative; Stomachic; Tonic.

Hops have a long and proven history of herbal use, where they are employed mainly for their soothing, sedative, tonic and calming effect on the body and the mind. Their strongly bitter flavour largely accounts for their ability to strengthen and stimulate the digestion, increasing gastric and other secretions[254].

The female fruiting body is anodyne, antiseptic, antispasmodic, diuretic, febrifuge, hypnotic, nervine, sedative, stomachic and tonic[4, 9, 21, 46, 165, 192, 218]. Hops are widely used as a folk remedy to treat a wide range of complaints, including boils, bruises, calculus, cancer, cramps, cough, cystitis, debility, delirium, diarrhoea, dyspepsia, fever, fits, hysteria, inflammation, insomnia, jaundice, nerves, neuralgia, rheumatism, and worms[269]. The hairs on the fruits contain lupulin, a sedative and hypnotic drug[213, 218]. When given to nursing mothers, lupulin increases the flow of milk - recent research has shown that it contains a related hormone that could account for this effect[7]. The decoction from the flower is said to remedy swellings and hardness of the uterus[269]. Hop flowers are much used as an infusion or can also be used to stuff pillows where the weight of the head will release the volatile oils[213]. The fruit is also applied externally as a poultice to ulcers, boils, painful swellings etc[4, 218], it is said to remedy painful tumours[269]. The female flowering heads are harvested in the autumn and can be used fresh or dried[238].

Alcoholic extracts of hops in various dosage forms have been used clinically in treating numerous forms of leprosy, pulmonary tuberculosis, and acute bacterial dysentery, with varying degrees of success in China.

The female fruiting body contains humulone and lupulone, these are highly bacteriostatic against gram-positive and acid-fast bacteria[240].

A cataplasm of the leaf is said to remedy cold tumours[269].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Essential; Fibre; Paper.

A fine brown dye is obtained from the leaves and flower heads[4, 100, 269].

An essential oil from the female fruiting heads is used in perfumery[213, 238]. Average yields are 0.4 - 0.5%[240].

Extracts of the plant are used in Europe in skin creams and lotions for their alleged skin-softening properties[269].

A fibre is obtained from the stems[46]. Similar to hemp (Cannabis sativa)[100] but not as strong[115], it is used to make a coarse kind of cloth[4]. It is sometimes used for filler material in corrugated paper or board products, but is unsuited for corrugated paper because of low pulp yield and high chemical requirement, or for production of high-grade pulp for speciality paper[269]. The fibre is very durable but it is difficult to separate, the stems need to be soaked beforehand for a whole winter[4]. A paper can also be made from the fibre, the stems are harvested in the autumn, the leaves removed and the stems steamed until the fibres can be removed. The fibre is cooked for 2 hours with lye and then hand pounded with mallets or ball milled for 2½ hours. The paper is brown in colour[189].

Cultivation details

Easily grown in a good garden soil in sun or semi-shade[1, 53]. Prefers a deep rich loam[37] and a warm sheltered position[187]. Plants can succeed in dry shade if plenty of humus is incorporated into the soil, once established they are also somewhat drought tolerant[190]. Hops are reported to tolerate an annual precipitation of between 31 and 137cm, an annual temperature in the range of 5.6 to 21.3°C and a pH of 4.5 to 8.2[269].

Plants are very hardy tolerating temperatures down to about -20°c when dormant[187]. The young shoots in spring, however, can be damaged by any more than a mild frost[269].

A climbing plant, supporting itself by twining around the branches of other plants[219].

Hops are frequently cultivated, both commercially and on a domestic scale, in temperate zones for their seed heads which have many medicinal qualities and are also used as a flavouring and preservative in beer. There are many named varieties[183]. They grow best between the latitudes of 35 - 51°N and 34 - 43°S, with mean summer temperatures of 16 - 18°C[269]. Generally, for beer making, the unfertilized seed heads are preferred and so most male plants are weeded out[4].

Hops are fairly deep rooted, but with a network of shallow feeding roots. These horizontal feeding roots spread out at depth of 20 - 30 cm in the soil and give rise to fibrous roots in upper layers of soil[269]. The vertical roots develop downwards to a depth of about 150 cm with a spread of 183 - 244 cm and have no fibrous roots[269].

The bruised leaves are refreshingly aromatic whilst the flowers cast a pleasing scent[245].

A food plant for many caterpillars[30].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a cold frame[37]. Germination is fairly quick. Prick out the seedlings into individual pots as soon as they are large enough to handle and plant out in the summer or following spring.

Division in spring as new growth begins[1]. Very easy, you can plant the divisions straight out into their permanent positions if required[K].

Basal cuttings in March. Harvest the shoots when they are about 10 - 15cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Scent

Flowers: Fresh

The flowers cast a pleasing scent.

Leaves: Crushed

The bruised leaves are refreshingly aromatic.

Flowers: Dried

No details on scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Humulus lupulus* (golden hop)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Fiber Plants
- Woodland Garden Plants
- PFAF Plant Catalogue (G-L)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [S]
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *humulus lupulus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens,

stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Plant Passporting

Rich Wed Sep 26 16:58:15 2001

This information has been taken from DEFRA Guide to Plant Passporting. Which places restrictions on plants which can be traded in the UK and the EU mainly because they are carriers for pests and diseases.

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Cross references: *Plants:* *Beta vulgaris* . *Genera:* *Chaenomeles* , *Citrus* , *Cotoneaster* , *Crataegus* , *Cydonia* , *Eriobotrya* , *Fortunella* , *Malus* , *Mespilus* , *Poncirus* , *Prunus* , *Pyracantha* , *Pyrus* , *Solanum* , *Sorbus* , *Stranvaesia* , *Vitis*.

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Plants For A Future: Database Search Results

Humulus lupulus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Hop	Family:	Cannabidaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Skin contact with the plant causes dermatitis in sensitive people[222]. Hops dermatitis has long been recognized. Not only hands and face, but legs have suffered purpuric eruptions due to hop picking. Although only 1 in 3,000 workers is estimated to be treated, one in 30 are believed to suffer dermatitis[269]. Dislodged hairs from the plant can irritate the eyes[222].		
Range:	Britain.		
Habitat:	Hedgerows, woodlands and sunny waste ground[7].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Hop [B,P,H], European Hops [S], Hop [L,H,D], Hoppu [E], Hops [E,H], Hops, European [S], Lupulin [E], Lupulo [E], Omerotu [E], Oubion [E], Serbetciotu [E],
Other Range Info:	From the Ethnobotany Database
	Belgium; Britain; China; Germany; Nepal; Spain; Turkey; Us; Us(Or); Ussr
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

Perennial Climber growing to 6m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from July to August, and the seeds ripen from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge, By Walls, By North Wall, By East Wall.

Edible Uses

Drink; Leaves; Root; Rutin; Tea.

Young leaves and young shoots - cooked[2, 4, 5, 7, 9, 33, 37]. The flavour is unique and, to many tastes, delicious[183]. Young leaves can be eaten in salads[1, 183]. Use before the end of May[12]. The leaves contain rutin[218].

The fleshy rhizomes are sometimes eaten[183].

A tea is made from the leaves and cones[183]. It has a gentle calming effect[4].

The dried flowering heads of female plants are used as a flavouring and preservative in beer[2, 183]. They are also medicinal[2]. The flowering heads are sprinkled with bitter-tasting yellow translucent glands, which appear as a granular substance[4]. This substance prevents gram-negative bacteria from growing in the beer or wort[269]. Much of the hop's use as a flavouring and medicinal plant depends on the abundance of this powdery substance[4]. The seeds contain gamma-linolenic acid, an essential fatty acid that is said to have many important functions in the human body and is rarely found in plant sources[218].

The essential oil in the flowering heads is used as a flavouring in cereal beverages and mineral waters[269]. Extracts from the plant, and the oil, are used as flavouring in non-alcoholic beverages, frozen dairy desserts, candy, baked goods and puddings, with the highest average maximum use level of 0.072% reported for an extract used in baked goods[269].

Medicinal Uses

Disclaimer

Anodyne; Antibacterial; Antiseptic; Antispasmodic; Diuretic; Febrifuge; Galactogogue; Hypnotic; Nervine; Sedative; Stomachic; Tonic.

Hops have a long and proven history of herbal use, where they are employed mainly for their soothing, sedative, tonic and calming effect on the body and the mind. Their strongly bitter flavour largely accounts for their ability to strengthen and stimulate the digestion, increasing gastric and other secretions[254].

The female fruiting body is anodyne, antiseptic, antispasmodic, diuretic, febrifuge, hypnotic, nervine, sedative, stomachic and tonic[4, 9, 21, 46, 165, 192, 218]. Hops are widely used as a folk remedy to treat a wide range of complaints, including boils, bruises, calculus, cancer, cramps, cough, cystitis, debility, delirium, diarrhoea, dyspepsia, fever, fits, hysteria, inflammation, insomnia, jaundice, nerves, neuralgia, rheumatism, and worms[269]. The hairs on the fruits contain lupulin, a sedative and hypnotic drug[213, 218]. When given to nursing mothers, lupulin increases the flow of milk - recent research has shown that it contains a related hormone that could account for this effect[7]. The decoction from the flower is said to remedy swellings and hardness of the uterus[269]. Hop flowers are much used as an infusion or can also be used to stuff pillows where the weight of the head will release the volatile oils[213]. The fruit is also applied externally as a poultice to ulcers, boils, painful swellings etc[4, 218], it is said to remedy painful tumours[269]. The female flowering heads are harvested in the autumn and can be used fresh or dried[238].

Alcoholic extracts of hops in various dosage forms have been used clinically in treating numerous forms of leprosy, pulmonary tuberculosis, and acute bacterial dysentery, with varying degrees of success in China.

The female fruiting body contains humulone and lupulone, these are highly bacteriostatic against gram-positive and acid-fast bacteria[240].

A cataplasm of the leaf is said to remedy cold tumours[269].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Essential; Fibre; Paper.

A fine brown dye is obtained from the leaves and flower heads[4, 100, 269].

An essential oil from the female fruiting heads is used in perfumery[213, 238]. Average yields are 0.4 - 0.5%[240].

Extracts of the plant are used in Europe in skin creams and lotions for their alleged skin-softening properties[269].

A fibre is obtained from the stems[46]. Similar to hemp (Cannabis sativa)[100] but not as strong[115], it is used to make a coarse kind of cloth[4]. It is sometimes used for filler material in corrugated paper or board products, but is unsuited for corrugated paper because of low pulp yield and high chemical requirement, or for production of high-grade pulp for speciality paper[269]. The fibre is very durable but it is difficult to separate, the stems need to be soaked beforehand for a whole winter[4]. A paper can also be made from the fibre, the stems are harvested in the autumn, the leaves removed and the stems steamed until the fibres can be removed. The fibre is cooked for 2 hours with lye and then hand pounded with mallets or ball milled for 2½ hours. The paper is brown in colour[189].

Cultivation details

Easily grown in a good garden soil in sun or semi-shade[1, 53]. Prefers a deep rich loam[37] and a warm sheltered position[187]. Plants can succeed in dry shade if plenty of humus is incorporated into the soil, once established they are also somewhat drought tolerant[190]. Hops are reported to tolerate an annual precipitation of between 31 and 137cm, an annual temperature in the range of 5.6 to 21.3°C and a pH of 4.5 to 8.2[269].

Plants are very hardy tolerating temperatures down to about -20°c when dormant[187]. The young shoots in spring, however, can be damaged by any more than a mild frost[269].

A climbing plant, supporting itself by twining around the branches of other plants[219].

Hops are frequently cultivated, both commercially and on a domestic scale, in temperate zones for their seed heads which have many medicinal qualities and are also used as a flavouring and preservative in beer. There are many named varieties[183]. They grow best between the latitudes of 35 - 51°N and 34 - 43°S, with mean summer temperatures of 16 - 18°C[269]. Generally, for beer making, the unfertilized seed heads are preferred and so most male plants are weeded out[4].

Hops are fairly deep rooted, but with a network of shallow feeding roots. These horizontal feeding roots spread out at depth of 20 - 30 cm in the soil and give rise to fibrous roots in upper layers of soil[269]. The vertical roots develop downwards to a depth of about 150 cm with a spread of 183 - 244 cm and have no fibrous roots[269].

The bruised leaves are refreshingly aromatic whilst the flowers cast a pleasing scent[245].

A food plant for many caterpillars[30].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a cold frame[37]. Germination is fairly quick. Prick out the seedlings into individual pots as soon as they are large enough to handle and plant out in the summer or following spring.

Division in spring as new growth begins[1]. Very easy, you can plant the divisions straight out into their permanent positions if required[K].

Basal cuttings in March. Harvest the shoots when they are about 10 - 15cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Scent

Flowers: Fresh

The flowers cast a pleasing scent.

Leaves: Crushed

The bruised leaves are refreshingly aromatic.

Flowers: Dried

No details on scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Humulus lupulus* (golden hop)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Fiber Plants
- Woodland Garden Plants
- PFAF Plant Catalogue (G-L)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [S]
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *humulus lupulus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens,

stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

Plant Passporting

Rich Wed Sep 26 16:58:15 2001

This information has been taken from DEFRA Guide to Plant Passporting. Which places restrictions on plants which can be traded in the UK and the EU mainly because they are carriers for pests and diseases.

Beta vulgaris (Beet), Chaenomeles (Ornamental quince, Japonica), Citrus (Orange, lemon, lime, grapefruit, etc.), Cotoneaster (Cotoneaster), Crataegus (Hawthorn), Cydonia (Quince), Eriobotrya (Includes loquat), Fortunella and hybrids (Kumquat), Humulus lupulus (Hop (including ornamentals)), Malus (Apple (including ornamentals)), Mespilus (Medlar), Poncirus and hybrids (Ornamental citrus), Prunus (other than Prunus laurocerasus and Prunus lusitanica) (Includes almond, apricot, cherry, damson, greengage, nectarine, peach, plum, sloe and ornamental/flowering varieties), Pyracantha (Firethorn), Pyrus (Pear (including ornamentals)), Solanum (stolon or tuber forming types) (Potato), Sorbus (other than Sorbus intermedia) (Includes rowan and whitebeam), Stranvaesia (Stranvaesia), Vitis (Grape, includes grape vine and ornamental grape).

Many other plants require pasporting for commercial growers, these include Abies, Allium ascalonicum, Allium cepa, Allium porrum, Allium schoenoprasum, Apium graveolens, Plants of the family Araceae, Argyranthemum, Aster, Brassica, Castanea, Capsicum annuum, Cucumis, Dendranthema, Dianthus and hybrids, Euphorbia, Exacum, Fragaria, Gerbera, Gypsophila, Helianthus annuus, Impatiens (all varieties of New Guinea hybrids), Lactuca, Larix, Leucanthemum, Lupinus, Lycopersicon lycopersicum, Plants of the family Marantaceae, Medicago sativa, Plants of the family Musaceae, Nicotiana, Pelargonium, Persea, Phaseolus, Picea, Pinus, Platanus, Populus, Prunus laurocerasus and Prunus lusitanica, Pseudotsuga, Quercus, Rubus, Plants of the family Solanaceae (other than plants of stolon or tuber forming species of Solanum and their hybrids), Solanum melongena, Spinacia, Plants of the family Strelitziaceae, Tanacetum, Tsuga, Verbena.

Cross references: *Plants:* *Beta vulgaris* . *Genera:* *Chaenomeles* , *Citrus* , *Cotoneaster* , *Crataegus* , *Cydonia* , *Eriobotrya* , *Fortunella* , *Malus* , *Mespilus* , *Poncirus* , *Prunus* , *Pyracantha* , *Pyrus* , *Solanum* , *Sorbus* , *Stranvaesia* , *Vitis*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Humulus+lupulus`

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Plants for a Future

A resource centre for edible and other useful plants

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Fiber Plants

People have been using plant fibres for thousands of years in order to make clothing, rope, paper etc. Whilst all land plants contain fibres they are usually too short or too weak to be used for anything other than paper-making, but there are well over 100 species suitable for growing in temperate climates that produce long and relatively strong fibres. These fibres vary greatly in their physical properties and can supply us with cloths ranging from fine and silky to coarse sackcloth or ropes strong enough to berth large ships. We will describe a few of these fibre plants in more detail and, will confine the list to the perennial species. However, we must mention Flax (Linum usitatissimum), a well known fibre (and oil) producing annual which can be grown successfully all over Britain.

We'll start this list with a few native plants. Our common Stinging Nettle (Urtica dioica) probably deserves an article to itself since it has so many uses. Apart from its wildlife value, it can supply us with food, medicine, liquid fertilizer and compost material. It also produces a good quality fibre suitable for cloth, indeed it has in the past been cultivated for this purpose. It prefers a rich soil and is more than capable of fending for itself so doesn't really need to be cultivated. Almost any species of nettle can be utilised for fibre.

The Hop (Humulus lupulus) is often cultivated as a herb or a flavouring for beer. Found wild in hedgerows, it responds very well to generous treatment in the garden, looking especially ornamental in early autumn. Tender young shoots in spring are very nice cooked. The stem fibres are used to produce a coarse cloth.

Those people with more space could grow our native Lime Trees (Tilia cordata, T. x. europaea and T. platyphyllus). The fibre is found in the inner bark and is best from trunks 6-12 inches in diameter so a 10 year coppice rotation is probably the best way of growing these trees. The fibre can be used for cloth or ropes. These trees produce the nicest edible leaf that we've as yet found on a tree. Only eat young leaves, which can be produced from April to October on coppiced plants, they are mucilaginous without any strong flavour. A refreshing herbal tea is made from the dried flowers, the fresh flowers are a magnet to bees and a mixture of fresh flowers and immature fruits is said to make a delicious chocolate substitute.

Moving into S Europe, Spanish Broom (Spartium junceum) is a medium sized shrub growing in dry situations amongst rocks and shrubs. Easily grown in a sunny position and well-drained soil, this plant has become naturalized in S Britain. The stem fibres are a hemp substitute being used mainly for coarse fabrics, cordage and paper. The stems are very pliable and can be used in basketry.

Going much further east we find in China one of the very finest and strongest fibres, Ramie (Boehmeria nivea). This member of the nettle family is probably only suitable for the warmer southern part of Britain, it is a herbaceous perennial and requires a rich well-drained soil. It prefers conditions of high humidity and fairly high rainfall so might need irrigation in dry years. The fibres from this plant are the longest known in the plant world. Their tensile strength is seven to eight times that of silk or cotton and this is actually improved by wetting. Cloth made from this fibre is said to be moth-proof, it is also used for making very strong ropes and nets.

The Paper Mulberry (Broussonetya papyrifera) is a small deciduous tree whose range extends from China to the tropical South Sea Islands and yet it is hardy in Britain if given a warm position and a fairly rich soil. When grown for its fibre it is usually coppiced on an annual basis (though perhaps less often if grown in our cooler climes). To make cloth from this plant the bark is usually cut into strips about 4 x 12 inches and laid out flat on a smooth wooden surface. It is then beaten with wooden mallets, the more it is beaten the thinner and finer it becomes. Size can be increased by overlapping other strips of bark and beating them together. Depending upon the degree of beating the resulting cloth can range from a thick material suitable for sacking to the very finest gossamer thin clothing. This plant also produces a delicious fruit but only a very small proportion of the structure is actually edible which makes it too fiddly to be very worthwhile.

Moving on to New Zealand in this journey around the globe, New Zealand Flax (Phormium tenax) is found growing wild in lowland swamps and on low ground. A member of the Lily family, so completely unrelated to our native flax plants, it is easily grown in most soils and is so tolerant of maritime exposure that it can be grown as a screen and windbreak near the coast. The fibre is found in the long leaves and it can be used to make fine cloth and ropes. There is some difficulty, however, in preparing these fibres due to the presence of a gum in the leaves. The residual leaf pulp can be fermented to make alcohol for fuel, a fast brown dye is produced from the flowers, a strip of leaf can be used as an emergency garden tie and the whole leaf is used in basketry.

Finally to N. America where there are a number of fibre plants. Indian Hemp (Apocynum cannabinum) - not related to Marijuana - is a herbaceous perennial growing in moist or shady places and is easily cultivated in most soils in sun or shade. The fibre, obtained from the stems in early to late autumn, is very strong, does not shrink and retains its strength in water. It is used mainly for sails, twine and garden nets. Two other members of this genus A. androsaemifolium and A. venetum produce a similar though slightly inferior fibre.

Along the Pacific west coast of America grow a number of Iris species (I. douglasiana, I. macrosiphon and I. purdyi) whose leaf fibres produce a beautifully strong and pliable rope. Traditionally the N. American Indians would take just one fibre from each outside edge of the leaves, though I know of no reason why all the fibres could not be used. The Indians would have needed thousands of plants by their method in order to produce any quantity of rope. Usually found wild on grassy slopes, these beautiful plants are easily grown, preferring rich well-drained lime-free soils in sun or semi-shade.

The Milkweeds (Asclepia species) are also very good fibre plants - see our leaflet The Milkweeds.

Obtaining the fibres from the plant is usually a fairly straightforward though smelly and labour intensive process. We don't intend to go into any great details having no experience of the extraction process. The basic principle however is to encourage the softer parts of the plant to rot so that only the stronger fibres remain. This is usually done by either immersing the plants in water or tying them up in bundles outdoors for the dew and rain to work on them. Once the softer parts start to rot the fibres are separated and cleaned and are then ready for use. At least it sounds easy, though we would advise you to read up on the subject before trying it.

(The best internet resoure for using fibers I've found is The Fiber Resources Page)

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Readers Comments:

Fiber Plants

JAG Fri Jun 1 10:29:03 2001

hemp is the primary fibre crop, being used for food and soap and energy

learn more about the myriad products being made today from this most prolific grower!

http://www.hemp-union.karoo.net

Details of Growing Condition: most areas, most climates.

This comment has also been added to: Cannabis sativa.

Add a Follow up to this comment

Fiber Plants

Paul (beanies@losl.net) Sat Jan 5 21:27:49 2002

You need pictures it would make poeple want to read about the pictures it also helps poeple with reasearch.I like the comment thing

Add a Follow up to this comment

Fiber Plants

Richard Fiorino (rich@atlasrr.com) Wed Feb 6 21:56:13 2002

Where can I find bleached line flax for spinning?

Add a Follow up to this comment

Fiber Plants

Gemma Alcantara (Mgseal @ hotmail.com) Sat Oct 12 08:55:15 2002

More fibrous plants which are used extensively as clothing materials, specifically in the Philippines, are the pineapple and banana plants.

Details of Growing Condition: .

This comment has also been added to: .

This comment has also been added to the genera: .

Add a Follow up to this comment

Fiber Plants

me (mitchlover_2006_62863@yahoo.com) Wed Feb 12 16:09:55 2003

these are some of the best facts known to man kind and i really apreciate it.(majurt,uukhae,and dont forget ultide.)

Add a Follow up to this comment

Fiber Plants

gordon soaring hawk (gsoaringhawk@hotmail.com) Tue Apr 1 23:48:06 2003

Apocynum cannabinum - dogbane. As a native American artist, I have extensively used dogbane for fiber material. It is easily separated from the stalks and produces a very strong fiber. I have seen nets used for catching rabbits created by the Paiute Indians. These works of art contain over two miles of hand-made cordage. unfortunately, the state of Utah deems this plant to be a noxious weed, and it is being extirpated along much of its former range. It is getting harder to find, but it rivals the best linen in its strength and softness. I use it for cordage, bowstrings, and lashings for arrows, spears, and other artifacts.

Details of Growing Condition: I usually find it along ditchbanks and open streams, where it grows up to about five feet under optimal conditions. Three feet is average, but once in some particularly rich soil, I found enormous stalks growing six feet tall. This was in a canyon in Uta.

This comment has also been added to: Cannabis sativa , Apocynum cannabinum.

This comment has also been added to the genera: Apocynum cannabinum.

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Plants for a Future
A resource centre for edible and other useful plants

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The Milkweeds

Every so often in our researches we come across a plant with so many uses that we wonder why it has never been commercially exploited. One such group of plant - all of them ideal for the Permaculturalist - is the Milkweeds (*Asclepias* species) from North America. The genus Asclepias contains over a hundred species of mainly perennial herbs growing in temperate and topical regions. We will look at four of these species:-

A. incarnata Swamp Milkweed

Growing to 4ft in swamps, wet thickets and on shores.

A. speciosa Showy Milkweed

Growing to 2.5ft on prairies in sandy and loamy, usually moist soils.

A. syriaca Common Milkweed

Growing to 3ft in thickets, roadsides, dry fields and waste places.

A. tuberosa Pleurisy Root

Growing to 2ft in dry, open soils.

All the above are fairly easy to grow preferring a rich light or peaty soil and a sunny position. A. icarnata is probably the easiest to grow and is the most adaptable to different soil types. They all succeed in most areas of Britain. The only real problem We have has in growing them is that young plants are very attractive to slugs who will totally decimate them. However, established and strong growing plants seem to be little affected.

Virtually all parts of these plants are edible when cooked though there are reports that large quantities can cause stomach upsets. The young shoots, gathered in April-May, can be used as an asparagus substitute whilst the younger parts of old shoots can be cooked like spinach.

Young flower buds have a delicious pea-like flavour as do the very young seed pods (before the seed floss is produced). The flowers are used as a flavouring and a thickener in soups and were also harvested in the early morning when dew was still on them and then boiled down to make a sugary syrup. In hot weather the flowers often produce so much nectar that it forms crystalline lumps. This can either be sucked or picked off the flowers and is a real delicacy. In our experience to date A. tuberosa is the most likely to do this. A. tuberosa, as the name suggests, also produces a tuberous root and this is edible when cooked, with a nutty flavour. The seed of all species are said to be edible raw but we have not tried them, they certainly do look very interesting.

All these edible qualities, though, are just one aspect of the plants uses, they have much more to offer. All the species produce a tough fibre in their stems. This can be used to make cloth, twine, etc and was traditionally harvested from the dead stems in autumn and winter, a fairly simple process. Dry summers produce the strongest fibres.

Mature seed pods contain quite large quantities of floss. This is a lovely white silky material with a number of applications. It can be used as a kapok substitute for stuffing soft toys etc, and being very water repellant, it has been used in life preservers where its buoyancy can keep a person afloat for days. Although difficult to spin on its own, it can be mixed with other fibres to make cloth and it has also been used for making candle wicks.

The plants also contains a latex which can be extracted and made into a good quality rubber. This latex is largely found in the leaves, is produced mainly in hot weather when grown on drier soils and is destroyed by frost. Concentrations vary and are considered to be too low for commercial exploitation. The latex has also been used as a chewing gum and regular applications are said to be a cure for warts.

The seeds contain up to 20% of an edible semi-drying oil. This oil can be used in making soap etc, though, since the seed is quite light, vast quantities of plants would need to be grown in order to obtain reasonable quantities of oil. The plants also have medicinal applications, for more details on these you should consult a good herbal such as 'A modern Herbal' by Mrs M Grieve.

Plants are very easily raised from seed, sown in a cold greenhouse from February to April. Seedlings should be potted up when quite young since they resent much root disturbance. Plant them out in their permanent positions in early summer and look out for slugs. If the plants have been well grown and are in vigorous growth then they are normally alright but any weaker plants are likely to disappear. We have had very little trouble with older plants. If done with great care, plants can be divided in spring when they come into active growth though We have not done this myself since seed is so easy.

One final thought - all of the above plant uses come from wild grown plants, there has been no attempt made, for example, to increase the latex content by selective breeding. We feel that there is vast potential with this group of plants and with many other species for improvements in yield, flavours, etc.

(You might also like to have a look at Milkweeds and Monarch Caterpillars a site with a lot of info about the plant and about the catapillers which like them.)

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Readers Comments:

The Milkweeds

Sheila Chmuhalek (schmuhal@granite.mb.ca) Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

This comment has also been added to the genera: Asclepias.

Add a Follow up to this comment

The Milkweeds

() Thu Apr 12 00:38:39 2001

Your web site is very informative. I ran into it when I was looking for "How To Feed A Catapiller".I am 10 years old and likes web sites without many pictures. Thank you for your information.

Add a Follow up to this comment

The Milkweeds

David Raymond (draymond@cats.ucsc.edu) Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

This comment has also been added to the genera: Asclepias.

Add a Follow up to this comment

The Milkweeds

(hybridpunk80@aol.com) Sat Sep 29 ,1134

Milkweeds are poisonious dweebs

Add a Follow up to this comment

The Milkweeds

Rene Anderson (nenedudette@yahoo.com) Fri Nov 23 18:09:40 2001

This site really helped on my report in the interesting facts section thanks! I never knew that you could make cloth out of the silk!

Add a Follow up to this comment

The Milkweeds

Unknown (hippyofthetimes@hotmail.com) Sun Feb 10 18:03:02 2002

Great site! Would love some more info on the making of twine and such as I have been searching for this sort of information and your site has been the best by far! I am 15 and want to learn more about natural resources!

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Search for Latin Name: Asclepias

New Search: Asclepias Search

Latin Name	Common Name	Family	Synonyms	Rating
Asclepias asperula	Antelope horns	Asclepiadaceae		2
Asclepias brachystephana		Asclepiadaceae		2
Asclepias californica	California milkweed	Asclepiadaceae		2
Asclepias decumbens		Asclepiadaceae	A. tuberosa decumbens.; Asclepias tuberosa decumbens; A. asperula ssp. capricornu; A. asperula var. decumbens; A. capricornu; A. capricornu ssp. occidentalis; Asclepiodora decumbens	2
Asclepias eriocarpa	Woollypod milkweed	Asclepiadaceae	A. fremontii. A. kotolo.; Asclepias kotolo; Asclepias fremontii; A. eriocarpa var. microcarpa	2
Asclepias erosa	Desert milkweed	Asclepiadaceae		2
Asclepias galioides	Bedstraw milkweed	Asclepiadaceae	A. galioides auct. non; A. subverticillata	2
Asclepias hallii	Purple silkweed	Asclepiadaceae		4

Asclepias incarnata	Swamp milkweed	Asclepiadaceae	A. incarnata ssp. pulchra; A. incarnata var. neoscotica; A. incarnata var. pulchra; A. pulchra	5
Asclepias involucrata	Dwarf milkweed	Asclepiadaceae	A. macrosperma	3
Asclepias lanceolata	Purple silkweed	Asclepiadaceae	A. paupercula.; Asclepias paupercula; A. lanceolata var. paupercula	4
Asclepias latifolia	Broadleaf milkweed	Asclepiadaceae	A. obtusifolia var. latifolia	2
Asclepias mexicana		Asclepiadaceae	A. mexicana. Rydb. non Cav. = A. fascicularis. Decne.; Asclepias mexicana; Asclepias fascicularis; A. mexicana auct. non	3
Asclepias ovalifolia		Asclepiadaceae		4
Asclepias pumila	Low milkweed	Asclepiadaceae		3
Asclepias purpurascens	Purple milkweed	Asclepiadaceae		4
Asclepias quadrifolia	Fourleaf milkweed	Asclepiadaceae		3
Asclepias rubra	Red silkweed	Asclepiadaceae	A. laurifolia	4
Asclepias speciosa	Showy milkweed	Asclepiadaceae	A. giffordii	5
Asclepias subulata	Rush milkweed	Asclepiadaceae		2
Asclepias sullivantii		Asclepiadaceae		2
Asclepias syriaca	Common milkweed	Asclepiadaceae	A. cornuttii.; Asclepias cornuttii; A. cornutii; A. intermedia; A. kansana; A. syriaca var. kansana	5
Asclepias tuberosa	Pleurisy root	Asclepiadaceae		5

Asclepias viridiflora	Green milkweed	Asclepiadaceae	A. viridiflora var. lanceolata; A. viridiflora var. linearis; Acerates viridiflora; Acerates viridiflora var. ivesii; Acerates viridiflora var. linearis	3
Marsdenia tenacissima	Rajmahal hemp	Asclepiadaceae	Asclepias tenacissima	2
Vincetoxicum hirundinaria	Swallow wort	Asclepiadaceae	V. officinale. Moench. Cynanchum vincetoxicum.; Asclepias vincetoxicum	1

New Search

Latin Name Asclepias

Common Name

Family

Rating 1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/find_lat?LAT=Asclepias`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/find_lat?LAT=Asclepias`

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Asclepias asperula

Common name:	Antelope horns	Family:	Asclepiadaceae
Author:	(Decne.) Woodson.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	This species is said to be poisonous to livestock[228].		
Range:	South-western N. America.		
Habitat:	Sandy or rocky calcareous soils[228].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Antelope Horns [S], Inmort&aacute;l [S], Inmort&aacute;l, Antelope Horns, Spider Milkweed [S], Inmortal, Antelope Horns [S], Inmortal, Antelope Horns, Spider Milkweed [S], Milkweed, Spider [S], Spider Antelope-horns [B], Spider Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	asper = rough;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 7. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Expectorant.

The plant is used as a snuff in the treatment of catarrh[257].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *asclepias asperula* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*

Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
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[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
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[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
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[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

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Cross references: *Genera:* Asclepias. *Web-pages:* The Milkweeds.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera*: *Asclepias*. *Web-pages*: *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera*: *Asclepias*. *Web-pages*: *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera*: *Asclepias*. *Web-pages*: *The Milkweeds*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+asperula`
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Asclepias asperula

Common name:	Antelope horns	Family:	Asclepiadaceae
Author:	(Decne.) Woodson.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	This species is said to be poisonous to livestock[228].		
Range:	South-western N. America.		
Habitat:	Sandy or rocky calcareous soils[228].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Antelope Horns [S], Inmort&aacute;l [S], Inmort&aacute;l, Antelope Horns, Spider Milkweed [S], Inmortal, Antelope Horns [S], Inmortal, Antelope Horns, Spider Milkweed [S], Milkweed, Spider [S], Spider Antelope-horns [B], Spider Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	asper = rough;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 7. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Expectorant.

The plant is used as a snuff in the treatment of catarrh[257].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *asclepias asperula* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief

cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Search for Latin Name: Asclepias

New Search: Asclepias Search

Latin Name	Common Name	Family	Synonyms	Rating
Asclepias asperula	Antelope horns	Asclepiadaceae		2
Asclepias brachystephana		Asclepiadaceae		2
Asclepias californica	California milkweed	Asclepiadaceae		2
Asclepias decumbens		Asclepiadaceae	A. tuberosa decumbens.; Asclepias tuberosa decumbens; A. asperula ssp. capricornu; A. asperula var. decumbens; A. capricornu; A. capricornu ssp. occidentalis; Asclepiodora decumbens	2
Asclepias eriocarpa	Woollypod milkweed	Asclepiadaceae	A. fremontii. A. kotolo.; Asclepias kotolo; Asclepias fremontii; A. eriocarpa var. microcarpa	2
Asclepias erosa	Desert milkweed	Asclepiadaceae		2
Asclepias galioides	Bedstraw milkweed	Asclepiadaceae	A. galioides auct. non; A. subverticillata	2
Asclepias hallii	Purple silkweed	Asclepiadaceae		4

Asclepias incarnata	Swamp milkweed	Asclepiadaceae	A. incarnata ssp. pulchra; A. incarnata var. neoscotica; A. incarnata var. pulchra; A. pulchra	5
Asclepias involucrata	Dwarf milkweed	Asclepiadaceae	A. macrosperma	3
Asclepias lanceolata	Purple silkweed	Asclepiadaceae	A. paupercula.; Asclepias paupercula; A. lanceolata var. paupercula	4
Asclepias latifolia	Broadleaf milkweed	Asclepiadaceae	A. obtusifolia var. latifolia	2
Asclepias mexicana		Asclepiadaceae	A. mexicana. Rydb. non Cav. = A. fascicularis. Decne.; Asclepias mexicana; Asclepias fascicularis; A. mexicana auct. non	3
Asclepias ovalifolia		Asclepiadaceae		4
Asclepias pumila	Low milkweed	Asclepiadaceae		3
Asclepias purpurascens	Purple milkweed	Asclepiadaceae		4
Asclepias quadrifolia	Fourleaf milkweed	Asclepiadaceae		3
Asclepias rubra	Red silkweed	Asclepiadaceae	A. laurifolia	4
Asclepias speciosa	Showy milkweed	Asclepiadaceae	A. giffordii	5
Asclepias subulata	Rush milkweed	Asclepiadaceae		2
Asclepias sullivantii		Asclepiadaceae		2
Asclepias syriaca	Common milkweed	Asclepiadaceae	A. cornuttii.; Asclepias cornuttii; A. cornutii; A. intermedia; A. kansana; A. syriaca var. kansana	5
Asclepias tuberosa	Pleurisy root	Asclepiadaceae		5

Asclepias viridiflora	Green milkweed	Asclepiadaceae	A. viridiflora var. lanceolata; A. viridiflora var. linearis; Acerates viridiflora; Acerates viridiflora var. ivesii; Acerates viridiflora var. linearis	3
Marsdenia tenacissima	Rajmahal hemp	Asclepiadaceae	Asclepias tenacissima	2
Vincetoxicum hirundinaria	Swallow wort	Asclepiadaceae	V. officinale. Moench. Cynanchum vincetoxicum.; Asclepias vincetoxicum	1

New Search

Latin Name	Asclepias
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Asclepias asperula

Common name:	Antelope horns	Family:	Asclepiadaceae
Author:	(Decne.) Woodson.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	This species is said to be poisonous to livestock[228].		
Range:	South-western N. America.		
Habitat:	Sandy or rocky calcareous soils[228].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Antelope Horns [S], Inmort&aacute;l [S], Inmort&aacute;l, Antelope Horns, Spider Milkweed [S], Inmortal, Antelope Horns [S], Inmortal, Antelope Horns, Spider Milkweed [S], Milkweed, Spider [S], Spider Antelope-horns [B], Spider Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	asper = rough;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 7. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Expectorant.

The plant is used as a snuff in the treatment of catarrh[257].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Asclepias brachystephana

Common name:		Family:	Asclepiadaceae
Author:	Engelm.	Botanical references:	235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Central and Southern N. America - Wyoming to Texas, Arizona and Mexico.		
Habitat:	Dry soils[235].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	&quot;Little&quot; Inmortal [S], Bract Milkweed [P], Inmort&aacute;l, Little [S], Short-crown Milkweed [B],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

Prefers a well-drained light rich or peaty soil[1, 200].

We have very little information on this species but it has been growing with us since 1989 and seems to be cold-hardy in Cornwall[K]. It dislikes wet winters, however, and so must be grown in a well-drained soil[K].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 -

3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

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The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Asclepias brachystephana

Common name:		Family:	Asclepiadaceae
Author:	Engelm.	Botanical references:	235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Central and Southern N. America - Wyoming to Texas, Arizona and Mexico.		
Habitat:	Dry soils[235].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	&quot;Little&quot; Inmortal [S], Bract Milkweed [P], Inmort&aacute;l, Little [S], Short-crown Milkweed [B],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

Prefers a well-drained light rich or peaty soil[1, 200].

We have very little information on this species but it has been growing with us since 1989 and seems to be cold-hardy in Cornwall[K]. It dislikes wet winters, however, and so must be grown in a well-drained soil[K].

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The Milkweeds

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Plants For A Future: Database Search Results

Asclepias brachystephana

Common name:		Family:	Asclepiadaceae
Author:	Engelm.	Botanical references:	235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Central and Southern N. America - Wyoming to Texas, Arizona and Mexico.		
Habitat:	Dry soils[235].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	&quot;Little&quot; Inmortal [S], Bract Milkweed [P], Inmort&aacute;l, Little [S], Short-crown Milkweed [B],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

Prefers a well-drained light rich or peaty soil[1, 200].

We have very little information on this species but it has been growing with us since 1989 and seems to be cold-hardy in Cornwall[K]. It dislikes wet winters, however, and so must be grown in a well-drained soil[K].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias brachystephana*

Subject:

Asclepias brachystephana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias brachystephana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:52:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asclepias californica

Common name:	California milkweed	Family:	Asclepiadaceae
Author:	Greene.	Botanical references:	71
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	South-western N. America.		
Habitat:	Dry slopes below 2200 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Milkweed [P], Round-hood Milkweed [B],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.45m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum; Leaves.

The milky sap of the plant can be boiled until thick and then chewed like chewing gum[257].

The leaves can be roasted and then chewed[257].

Medicinal Uses

Disclaimer

Stings.

The dried and powdered plant can be applied to spider bites[257].

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Web References

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- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Asclepias californica

Common name:	California milkweed	Family:	Asclepiadaceae
Author:	Greene.	Botanical references:	71
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	South-western N. America.		
Habitat:	Dry slopes below 2200 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Milkweed [P], Round-hood Milkweed [B],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.45m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum; Leaves.

The milky sap of the plant can be boiled until thick and then chewed like chewing gum[257].

The leaves can be roasted and then chewed[257].

Medicinal Uses

Disclaimer

Stings.

The dried and powdered plant can be applied to spider bites[257].

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 -

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951

Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

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[169] **Buchanan. R.** *A Weavers Garden.*
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

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Range:	South-western N. America.		
Habitat:	Dry slopes below 2200 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.45m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

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Gum; Leaves.

The milky sap of the plant can be boiled until thick and then chewed like chewing gum[257].

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Disclaimer

Stings.

The dried and powdered plant can be applied to spider bites[257].

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Latex.

Rubber can be made from latex contained in the stems and leaves[112].

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Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 -

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias californica*

Subject:

Asclepias californica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias californica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asclepias decumbens

Common name:		Family:	Asclepiadaceae
Author:	L.	Botanical references:	1, 43, 235
Synonyms:	Asclepias tuberosa decumbens		
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - Illinois and Ohio to North Carolina and Florida..		
Habitat:	Dry open soils[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. asperula ssp. capricornu[B,P] A. asperula var. decumbens[B,P] A. capricornu[B,P] A. capricornu ssp. occidentalis[B,P] Asclepiodora decumbens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Antelopehorns [P],
Epithets:	From a Dictionary of Botanical Epithets
	decumbens = lying down;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.9m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum.

A latex from the stems can be used as a chewing gum[46, 61, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

A very ornamental plant[1], it is closely related to A. tuberosa.

The stems are decumbent, growing along the ground for some distance before becoming erect[235].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established

plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Suppliers

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Web References

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References for *Asclepias asperula ssp. capricornu* (a possible synonym).

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References

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
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[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

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Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. asperula ssp. capricornu[B,P] A. asperula var. decumbens[B,P] A. capricornu[B,P] A. capricornu ssp. occidentalis[B,P] Asclepiodora decumbens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Antelopehorns [P],
Epithets:	From a Dictionary of Botanical Epithets
	decumbens = lying down;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.9m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum.

A latex from the stems can be used as a chewing gum[46, 61, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

A very ornamental plant[1], it is closely related to A. tuberosa.

The stems are decumbent, growing along the ground for some distance before becoming erect[235].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asclepias asperula ssp. capricornu* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+decumbens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+decumbens`

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Plants For A Future: Database Search Results

Asclepias decumbens

Common name:		Family:	Asclepiadaceae
Author:	L.	Botanical references:	1, 43, 235
Synonyms:	Asclepias tuberosa decumbens		
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - Illinois and Ohio to North Carolina and Florida..		
Habitat:	Dry open soils[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. asperula ssp. capricornu[B,P] A. asperula var. decumbens[B,P] A. capricornu[B,P] A. capricornu ssp. occidentalis[B,P] Asclepiodora decumbens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Antelopehorns [P],
Epithets:	From a Dictionary of Botanical Epithets
	decumbens = lying down;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.9m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum.

A latex from the stems can be used as a chewing gum[46, 61, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

A very ornamental plant[1], it is closely related to A. tuberosa.

The stems are decumbent, growing along the ground for some distance before becoming erect[235].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias decumbens*

Subject:

Asclepias decumbens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias decumbens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:52:40 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asclepias eriocarpa

Common name:	Woollypod milkweed	Family:	Asclepiadaceae
Author:	Benth.	Botanical references:	71
Synonyms:	Asclepias kotolo, Asclepias fremontii (Torr. ex Gray.)		
Known Hazards:	The plant is said to be poisonous to sheep[1].		
Range:	South-western N. America - California		
Habitat:	Dry barren places below 2000 metres[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. eriocarpa var. microcarpa[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Indian Milkweed [B], Milkweed [E], Woollypod Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets eriocarpa = woolly fruits;
Systematics:	From a UDSA Plants Database Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database Us(Amerindian); Us(Luiseno)

Physical Characteristics

Perennial growing to 0.9m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and

Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum.

A gum obtained from the latex in the stems can be used for chewing[46, 61, 92, 161, 177]. It is usually boiled in water first until it coagulates and is sometimes mixed with oil[257].

Medicinal Uses

Disclaimer

Antiasthmatic; Skin; Sternutatory; Warts.

A decoction of the plant, and a salve made from it, is used in the treatment of colds[257].

The milky sap is applied on a regular basis to corns in order to gradually remove them[257]. It is also applied to cuts, sores and warts[257].

The powdered dried roots are inhaled to cause sneezing[257].

Smoke from the burning dried plant is inhaled as a treatment for asthma[257].

Other Uses

Fibre; Latex.

A fibre from the stems is used for ropes, clothing etc[46, 61, 92, 95, 257]. The fresh stems are soaked in water, or the dried and decaying stems basted with boiling water, in order to remove the fibre[257].

Rubber can be made from latex in the stems and leaves[46, 61, 92, 161, 177]. The leaves contain up to 2.4% latex[112].

Cultivation details

Prefers a well-drained light rich or peaty soil in full sun[1, 200]. Succeeds in poor soils.

This species is not very hardy in Britain, the plants may need root protection in severe winters[1] but if this is applied as a mulch then it should be removed before new growth begins in the spring because plants are particularly at risk from slugs[K].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias*. *Web-pages: The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

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Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

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The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias*. *Web-pages: The Milkweeds*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+eriocarpa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+eriocarpa`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Asclepias eriocarpa

Common name:	Woollypod milkweed	Family:	Asclepiadaceae
Author:	Benth.	Botanical references:	71
Synonyms:	Asclepias kotolo, Asclepias fremontii (Torr. ex Gray.)		
Known Hazards:	The plant is said to be poisonous to sheep[1].		
Range:	South-western N. America - California		
Habitat:	Dry barren places below 2000 metres[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. eriocarpa var. microcarpa[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	eriocarpa = woolly fruits;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian); Us(Luiseno)

Physical Characteristics

Perennial growing to 0.9m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum.

A gum obtained from the latex in the stems can be used for chewing[46, 61, 92, 161, 177]. It is usually boiled in water first until it coagulates and is sometimes mixed with oil[257].

Medicinal Uses

Disclaimer

Antiasthmatic; Skin; Sternutatory; Warts.

A decoction of the plant, and a salve made from it, is used in the treatment of colds[257].

The milky sap is applied on a regular basis to corns in order to gradually remove them[257]. It is also applied to cuts, sores and warts[257].

The powdered dried roots are inhaled to cause sneezing[257].

Smoke from the burning dried plant is inhaled as a treatment for asthma[257].

Other Uses

Fibre; Latex.

A fibre from the stems is used for ropes, clothing etc[46, 61, 92, 95, 257]. The fresh stems are soaked in water, or the dried and decaying stems basted with boiling water, in order to remove the fibre[257].

Rubber can be made from latex in the stems and leaves[46, 61, 92, 161, 177]. The leaves contain up to 2.4% latex[112].

Cultivation details

Prefers a well-drained light rich or peaty soil in full sun[1, 200]. Succeeds in poor soils.

This species is not very hardy in Britain, the plants may need root protection in severe winters[1] but if this is applied as a mulch then it should be removed before new growth begins in the spring because plants are particularly at risk from slugs[K].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+eriocarpa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+eriocarpa`

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Plants For A Future: Database Search Results

Asclepias eriocarpa

Common name:	Woollypod milkweed	Family:	Asclepiadaceae
Author:	Benth.	Botanical references:	71
Synonyms:	Asclepias kotolo, Asclepias fremontii (Torr. ex Gray.)		
Known Hazards:	The plant is said to be poisonous to sheep[1].		
Range:	South-western N. America - California		
Habitat:	Dry barren places below 2000 metres[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. eriocarpa var. microcarpa[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Indian Milkweed [B], Milkweed [E], Woollypod Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	eriocarpa = woolly fruits;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian); Us(Luiseno)

Physical Characteristics

Perennial growing to 0.9m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum.

A gum obtained from the latex in the stems can be used for chewing[46, 61, 92, 161, 177]. It is usually boiled in water first until it coagulates and is sometimes mixed with oil[257].

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Disclaimer

Antiasthmatic; Skin; Sternutatory; Warts.

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The milky sap is applied on a regular basis to corns in order to gradually remove them[257]. It is also applied to cuts, sores and warts[257].

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Rubber can be made from latex in the stems and leaves[46, 61, 92, 161, 177]. The leaves contain up to 2.4% latex[112].

Cultivation details

Prefers a well-drained light rich or peaty soil in full sun[1, 200]. Succeeds in poor soils.

This species is not very hardy in Britain, the plants may need root protection in severe winters[1] but if this is applied as a mulch then it should be removed before new growth begins in the spring because plants are particularly at risk from slugs[K].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias eriocarpa*

Subject:

Asclepias eriocarpa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias eriocarpa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:52:50 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asclepias erosa

Common name:	Desert milkweed	Family:	Asclepiadaceae
Author:	Torr.	Botanical references:	71
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	South-western N. America.		
Habitat:	Dry slopes and washes below 1500 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Milkweed [S], Desert Milkweed [H,P,B], Lechona [H], Milkweed, California [S], Rush Milkweed [H], White-Stemmed Milkweed [H],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.75m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It

requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum.

The milky sap can be left to solidify, then heated over a fire to be used as a chewing gum[257].

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

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- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

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I love plants!!!!!

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Habitat:	Dry slopes and washes below 1500 metres in California[71].		
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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
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[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
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[169] **Buchanan. R.** *A Weavers Garden.*
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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A nice read, lots of information on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+erosa`
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Plants For A Future: Database Search Results

Asclepias erosa

Common name:	Desert milkweed	Family:	Asclepiadaceae
Author:	Torr.	Botanical references:	71
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	South-western N. America.		
Habitat:	Dry slopes and washes below 1500 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Milkweed [S], Desert Milkweed [H,P,B], Lechona [H], Milkweed, California [S], Rush Milkweed [H], White-Stemmed Milkweed [H],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.75m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum.

The milky sap can be left to solidify, then heated over a fire to be used as a chewing gum[257].

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Suppliers

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias erosa*

Subject:

Asclepias erosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias erosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:52:59 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asclepias galioides

Common name:	Bedstraw milkweed	Family:	Asclepiadaceae
Author:	H. B. K.	Botanical references:	235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Central and southern N. America - Kansas to Colorado, Arizona, New Mexico And Mexico		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. galioides auct. non[P] A. subverticillata[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Horsetail Milkweed [B], Whorled Milkweed [P],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.4m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root; Seedpod.

Young buds[161, 177]. No further details. Does this refer to the flower buds or the young stems?[K]. The young shoots of several other species are used as an asparagus substitute[K].

Young seedpods - raw[161, 177].

Root - raw[161].

Medicinal Uses

Disclaimer

Galactogogue.

The Hopi Indians used this plant to increase the flow of milk, but the part used and method of preparation are not known[213, 216].

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. There is some confusion over nomenclature, A. galioides of several authors, but not H.B.K. = A. subverticillata. Schweig. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

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The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Range:	Central and southern N. America - Kansas to Colorado, Arizona, New Mexico And Mexico		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

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References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants.

Common names are used instead of botanical.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Plants For A Future: Database Search Results

Asclepias galioides

Common name:	Bedstraw milkweed	Family:	Asclepiadaceae
Author:	H. B. K.	Botanical references:	235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Central and southern N. America - Kansas to Colorado, Arizona, New Mexico And Mexico		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. galioides auct. non[P] A. subverticillata[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Horsetail Milkweed [B], Whorled Milkweed [P],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.4m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root; Seedpod.

Young buds[161, 177]. No further details. Does this refer to the flower buds or the young stems?[K]. The young shoots of several other species are used as an asparagus substitute[K].

Young seedpods - raw[161, 177].

Root - raw[161].

Medicinal Uses

Disclaimer

Galactogogue.

The Hopi Indians used this plant to increase the flow of milk, but the part used and method of preparation are not known[213, 216].

Other Uses

Latex.

Rubber can be made from latex contained in the stems and leaves[112].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. There is some confusion over nomenclature, A. galioides of several authors, but not H.B.K. = A. subverticillata. Schweig. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias galioides*

Subject:

Asclepias galioides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias galioides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:53:08 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Asclepias hallii

Common name:	Purple silkweed	Family:	Asclepiadaceae
Author:	A. Gray.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Western N. America - Wyoming to Colorado, south to Nevada and S. Arizona.		
Habitat:	Sandy soils of prairies and roadsides[228].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Hall's Milkweed [P,B],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 3. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no

shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Seed; Seedpod; Sweetener.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

Flower buds - raw or cooked[61, 92]. Tasting somewhat like peas[85].

Young shoots and leaves - cooked[46, 61, 62, 92, 95]. An asparagus substitute[85, 183]. They should not be eaten raw[85].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked. Very appetizing[85].

Flower clusters can be boiled down to make a sugary syrup[85] or they can be eaten raw[161, 183].

Seed - raw[161].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183]. No further details.

Medicinal Uses

Disclaimer

Contraceptive; Warts.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

The latex is used as a cure for warts[168].

A tea made from the whole plant has been used as a contraceptive after childbirth[213].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

A good quality tough fibre is obtained from the bark[92, 99]. It is used in twine, coarse cloth, paper etc[92, 99]. The fibre is 10 - 45mm long[189]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[168, 169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189]. The paper colour varies from white to creamy green depending on how the paper is made[189]. If the stems are used in the summer the latex will often find its way onto the fibres and is hard to remove[189].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[168, 169]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[169]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

This species is closely related to A. purpurascens[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Suppliers

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Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
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[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
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[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

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The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

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Plants For A Future: Database Search Results

Asclepias hallii

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Author:	A. Gray.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Western N. America - Wyoming to Colorado, south to Nevada and S. Arizona.		
Habitat:	Sandy soils of prairies and roadsides[228].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Hall's Milkweed [P,B],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 3. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 4 out of 5 for usefulness.

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Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Seed; Seedpod; Sweetener.

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Seed - raw[161].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183]. No further details.

Medicinal Uses

Disclaimer

Contraceptive; Warts.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

The latex is used as a cure for warts[168].

A tea made from the whole plant has been used as a contraceptive after childbirth[213].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

A good quality tough fibre is obtained from the bark[92, 99]. It is used in twine, coarse cloth, paper etc[92, 99]. The fibre is 10 - 45mm long[189]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[168, 169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189]. The paper colour varies from white to creamy green depending on how the paper is made[189]. If the stems are used in the summer the latex will often find its way onto the fibres and is hard to remove[189].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[168, 169]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[169]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

This species is closely related to A. purpurascens[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+hallii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+hallii`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Asclepias hallii

Common name:	Purple silkweed	Family:	Asclepiadaceae
Author:	A. Gray.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Western N. America - Wyoming to Colorado, south to Nevada and S. Arizona.		
Habitat:	Sandy soils of prairies and roadsides[228].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Hall's Milkweed [P,B],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 3. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Seed; Seedpod; Sweetener.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

Flower buds - raw or cooked[61, 92]. Tasting somewhat like peas[85].

Young shoots and leaves - cooked[46, 61, 62, 92, 95]. An asparagus substitute[85, 183]. They should not be eaten raw[85].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked. Very appetizing[85].

Flower clusters can be boiled down to make a sugary syrup[85] or they can be eaten raw[161, 183].

Seed - raw[161].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183]. No further details.

Medicinal Uses

Disclaimer

Contraceptive; Warts.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

The latex is used as a cure for warts[168].

A tea made from the whole plant has been used as a contraceptive after childbirth[213].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

A good quality tough fibre is obtained from the bark[92, 99]. It is used in twine, coarse cloth, paper etc[92, 99]. The fibre is 10 - 45mm long[189]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[168, 169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189]. The paper colour varies from white to creamy green depending on how the paper is made[189]. If the stems are used in the summer the latex will often find its way onto the fibres and is hard to remove[189].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[168, 169]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[169]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

This species is closely related to A. purpurascens[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+hallii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+hallii`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias hallii*

Subject:

Asclepias hallii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias hallii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:53:19 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asclepias incarnata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Swamp milkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	The leaves and the stems might be poisonous[20].		
Range:	N. America - Quebec to Manitoba and Wyoming, south to Texas and New Mexico.		
Habitat:	Swamps, wet thickets and shores[43].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. incarnata ssp. pulchra[B,P] A. incarnata var. neoscotica[B,P] A. incarnata var. pulchra[B,P] A. pulchra[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asclepiade Couleur De Chair [E], Incarnate Swallowwort [E], Red Milkweed [H], Rode Zijdeplant [E], Rote Schwalbenwurz [E], Rote Seidenpflanze [E], Swamp Milkweed [B,P,H,E,FEIS,L], Swamp Silkweed [E,H],
Epithets:	From a Dictionary of Botanical Epithets
	incarnata = flesh pink;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database

	France; Germany; Netherlands; Us

Physical Characteristics

Perennial growing to 1.2m. It is hardy to zone 3. It is in flower from July to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Flowers; Leaves; Seedpod; Sweetener.

Unopened flower buds - cooked[46, 61, 161]. Tasting somewhat like peas[85]. They can also be dried and stored for later use[183].

Young shoots - cooked. An asparagus substitute[85, 106].

Tips of older shoots are cooked like spinach[85].

Young seed pods, harvested when 3 - 4 cm long - cooked. A pea-like flavour, they are very appetizing[85].

The flower clusters can be boiled down to make a sugary syrup[85].

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Diuretic; Emetic; Laxative; Stomachic.

A tea made from the roots is anthelmintic, carminative, diuretic, emetic, strongly laxative and stomachic[4, 61, 222, 257]. The tea is said to remove tapeworms from the body in one hour[257]. It has also been used in the treatment of asthma, rheumatism, syphilis, worms and as a heart tonic[4, 207, 222].

An infusion of the roots is used as a strengthening bath for children and adults[257].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wax.

A good quality fibre is obtained from the bark[46, 57, 61, 95, 112, 169]. It is used in twine, cloth etc[112]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[112].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[57, 171]. It is a Kapok substitute, it is used in Life Jackets or as a stuffing material[169, 171]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and stems[57].

Pods contain an oil and a wax which are of potential importance[171].

Cultivation details

Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist soil and a sunny position, doing well by water[111, 134]. Succeeds on dry soils and on all soil types[112].

Plants are hardy to at least -25°c[187].

A very ornamental plant[1], the flowers are very attractive to butterflies[169]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- The Milkweeds

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asclepias incarnata ssp. pulchra* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
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[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
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[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
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Readers Comments

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The Milkweeds

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I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

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Asclepias incarnata

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Asclepias incarnata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Swamp milkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	The leaves and the stems might be poisonous[20].		
Range:	N. America - Quebec to Manitoba and Wyoming, south to Texas and New Mexico.		
Habitat:	Swamps, wet thickets and shores[43].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. incarnata ssp. pulchra[B,P] A. incarnata var. neoscotica[B,P] A. incarnata var. pulchra[B,P] A. pulchra[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	incarnata = flesh pink;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Netherlands; Us

Physical Characteristics

Perennial growing to 1.2m. It is hardy to zone 3. It is in flower from July to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Flowers; Leaves; Seedpod; Sweetener.

Unopened flower buds - cooked[46, 61, 161]. Tasting somewhat like peas[85]. They can also be dried and stored for later use[183].

Young shoots - cooked. An asparagus substitute[85, 106].

Tips of older shoots are cooked like spinach[85].

Young seed pods, harvested when 3 - 4 cm long - cooked. A pea-like flavour, they are very appetizing[85].

The flower clusters can be boiled down to make a sugary syrup[85].

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Diuretic; Emetic; Laxative; Stomachic.

A tea made from the roots is anthelmintic, carminative, diuretic, emetic, strongly laxative and stomachic[4, 61, 222, 257]. The tea is said to remove tapeworms from the body in one hour[257]. It has also been used in the treatment of asthma, rheumatism, syphilis, worms and as a heart tonic[4, 207, 222].

An infusion of the roots is used as a strengthening bath for children and adults[257].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wax.

A good quality fibre is obtained from the bark[46, 57, 61, 95, 112, 169]. It is used in twine, cloth etc[112]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[112].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[57, 171]. It is a Kapok substitute, it is used in Life Jackets or as a stuffing material[169, 171]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and stems[57].

Pods contain an oil and a wax which are of potential importance[171].

Cultivation details

Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist soil and a sunny position, doing well by water[111, 134]. Succeeds on dry soils and on all soil types[112].

Plants are hardy to at least -25°c[187].

A very ornamental plant[1], the flowers are very attractive to butterflies[169]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up

and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Milkweeds

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asclepias incarnata ssp. pulchra* (a possible synonym).

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References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias incarnata*

Subject:

Asclepias incarnata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias incarnata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:53:29 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asclepias involucrata

Common name:	Dwarf milkweed	Family:	Asclepiadaceae
Author:	Engelm.	Botanical references:	
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	South-western N. America		
Habitat:	Dry plains and mesas, occasionally with pine, 1000 - 2000 metres in Arizona.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. macrosperma[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dwarf Milkweed [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	involucrata = with involucre;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Us(Hopi)

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Gum; Leaves.

A gum from the latex can be used for chewing[46, 61, 105, 177].

Young shoots - cooked[105, 177]. Used as an asparagus substitute.

Medicinal Uses

Disclaimer

Odontalgic; Stomachic.

An infusion of the plant is used as a stomach medicine[257].

A poultice made from the heated roots is used as a toothache remedy[257].

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[46, 61, 177].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200]. Succeeds on poor or dry soils and on all soil types.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

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Web References

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

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Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+involucrata`
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Habitat:	Dry plains and mesas, occasionally with pine, 1000 - 2000 metres in Arizona.		
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias involucrata*

Subject:

Asclepias involucrata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias involucrata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Your Name:

Your Email Address:

Date: Sun May 16 01:53:38 2004

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Asclepias lanceolata

Common name:	Purple silkweed	Family:	Asclepiadaceae
Author:	Walter.	Botanical references:	200, 204, 235
Synonyms:	Asclepias paupercula		
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - New Jersey to Florida and Texas		
Habitat:	Swamps, mostly near the coast[235].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. lanceolata var. paupercula[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	lanceolata = lance shaped;
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	Order: Gentianales . Milkweed family

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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

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Flowers; Gum; Leaves; Seedpod; Sweetener.

The following uses have been recorded for the closely related A. rubra. They probably also apply to this closely related species[K].

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A chewing gum can be made from the latex contained in the stem and leaves, but it is possibly toxic[207].

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Warts.

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Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

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Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

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The Milkweeds

() Thu Oct 2 20:57:27 2003

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Asclepias lanceolata

Common name:	Purple silkweed	Family:	Asclepiadaceae
Author:	Walter.	Botanical references:	200, 204, 235
Synonyms:	Asclepias paupercula		
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - New Jersey to Florida and Texas		
Habitat:	Swamps, mostly near the coast[235].		
Plants For A Future Rating (1-5):	4		

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias lanceolata*

Subject:

Asclepias lanceolata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias lanceolata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:53:48 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asclepias latifolia

Common name:	Broadleaf milkweed	Family:	Asclepiadaceae
Author:	(Torr.) Raf.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Central and south-western N. America - Nebraska to Colorado, Texas and Arizona		
Habitat:	Dry plains and prairies[43, 235].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. obtusifolia var. latifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Broad-leaf Milkweed [B], Broadleaf Milkweed [P], Lechon [E],
Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Us(Nm)

Physical Characteristics

Perennial growing to 0.75m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Sternutatory.

The leaves and stems can be dried then ground into a powder and inhaled as a snuff in the treatment of catarrh[257].

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[112].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established

plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Ornamental Plants

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

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David Raymond Wed May 30 00:17:57 2001

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Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Plants For A Future: Database Search Results

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+latifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+latifolia`

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Español

Edible Ornamental Plants

Many gardeners like to grow ornamental plants, indeed this aspect of gardening is usually given preference over food production. It is possible, however, to combine these two activities and this leaflet is intended to give a few examples on how it can be done. A number of traditional food plants such as Runner Beans, Ruby Chard and Globe Artichokes do not look at all out of place in a flower border - people can make their own minds up about the merits of including such plants in their ornamental areas. In this leaflet we will look, instead, at some of the more commonly grown ornamental plants that are also edible, for reasons of space, this will be restricted to bulbs and herbaceous perennials. For information on other edible and ornamental plants see our leaflet Edible Shrubs or contact us at the address below.

The family *Campanulaceae* contains many very pretty plants, a number of which are edible. All plants in the genus *Campanula*, which includes our native *Harebells* (or Bluebells, if you live in Scotland), have edible leaves, some also produce edible roots. Most of them are easily grown in a well-drained soil in sun or semi-shade. One of the nicest is *C. versicolor* from Europe, the leaves are very acceptable raw, and are rich in Vitamin C. Also worth trying for their leaves are two British natives *C. latifolia* and *C. persicicfolia*. The North American *C. rapunculoides* also produces a nice edible root but this plant can be quite invasive. The genus *Adenophora* is closely related to Campanulas. *A. latifolia* and *A. ilifolia* are particularly nice and both produce sweet roots that can be eaten raw or cooked. Easily grown in a warm, sunny position, they do unfortunately resent root disturbance so they are not easily divided. However, they are easy from seed and very young shoots can be potted up and will usually grow away well. *Codonopsis* is another relative of the Campanula, producing roots that can be eaten raw or cooked. To date we have not been very successful with this genus, plants are said to prefer a well-drained slightly acid soil in sun or semi-shade and they also resent root disturbance. C. ussuriensis has been our only real success to date, it is a lovely plant but has a very strange smell like over-cooked fried food. Others to try include C. lanceolata, C. ovata and C. pilosula.

Canna indica, often known as Indian Shot, is commonly grown in summer bedding displays, looking somewhat like a banana plant it adds an exotic air to the garden. Although from the tropics it is surprisingly tough and will often survive the winter outdoors especially if well mulched. Otherwise it can be stored in a frost-free place over winter but should not be allowed to dry out. The root is a bit fribrousy but very nice cooked, in the West Indies the root is dried and ground into flour to be used as an arrowroot. Easily grown from seed but usually purchased as plants since there are many named varieties.

Commelina coelestis, the Blue Spider Wort, is a Mexican native that is about as hardy as a Dahlia, surviving mild winters outside, but usually stored over winter in a frost-free place in the same way as Dahlias. Very easy from seed, preferring a light well drained soil and a sunny position, by the end of the first summer each plant should have produced a clump of tuberous roots up to 4" long and about as thick as a baby's finger. These roots are edible, being starchy but with no pronounced flavour. The clump can be divided before replanting in spring but each division must have a growing bud.

Tigridia pavonia, the Tiger Flower, is another Mexican plant and has the same cultivation requirements as Commelina though it seems to be hardier having survived the winter in the ground, both here and in Surrey. Very easy from seed, it flowers in its second year with beautiful blooms 4" or more across. Each flower only lasts one day but they are continually produced from June to October in a good year. The roasted bulb is similar to sweet potatoes.

Another Mexican bulb, which is particularly nice, is the Iron Cross Plant, *Oxalis deppei*. About as hardy as the Commelina and with the same requirements, this plant provides a succession of young leaves and flowers throughout the summer. Both leaves and flowers have a lovely acid-lemon flavour and are a delightful addition to the salad bowl though they shouldn't be eaten in large quantities because they contain oxalic acid. The plants have never set seed with us, but bulbs can be obtained quite cheaply and are best planted out in April. They die down in late autumn and if dug up each bulb will be found to have formed a tap root up to 3 or 4" long and about an inch in diameter with a clump of bulbs at the top. Keep the bulbs for next year and eat the tap root raw or cooked. It has the texture of a crisp juicy apple but, unfortunately, usually has very little flavour through occasionally it develops a lovely lemon flavour. We think this is either connected with climate or cultivation methods.

The Day Lilies, *Hemerocallis* species, are very common garden plants, and rightly so, being of very easy cultivation in most soils and situations though preferring at least some sun. Some species are cultivated for their edible flowers in the Orient, these can be eaten raw or more commonly dried and used as a flavouring in soups. Young shoots in spring can be eaten cooked whilst the root, which has a nutty flavour, can be eaten raw. Any member of this genus can be tried, we recommend H. fulva (especially the variety Kwanso or Green Kwanso) and H. lilio-asphodelus. For more details see our leaflet Hemerocallis Species - The Day Lilies

Violas are very common garden plants and are usually very easy to grow. All members of this genus have edible leaves and flower buds though it is probably best to avoid the yellow flowered species as these can be strongly laxative if eaten in quantity. Eaten raw or cooked, the leaves are often used to thicken soups. So far we've only grown V. odorata, V. mandschurica and V. tricolor but there are many more for you to try.

There are a great many ornamental onions, *Allium* species. All members of this genus have edible leaves, flowers and often bulbs with flavours ranging from mild onion to strong garlic. Most are easily grown in a sunny position and a well drained soil. Among the more ornamental species are A. cernuum, A. neopolitanum, A. senescens and A. victorialis, all are quite strongly flavoured. A. urisnum, our native wild garlic, looks beautiful in spring, growing well in damp shade but it spreads vigorously and looks very untidy after flowering so is best in the wild garden.

The Lily family contains many beautiful plants and a number of these are edible. Many Lily bulbs, for example, are edible cooked and some species are cultivated as vegetables in China and Japan. Perhaps the easiest of these to grow is Lilium lancifolium, the Tiger Lily. This species resists the effects of virus diseases which are a great bane of Lily growing but since it harbours these diseases it should not be grown near other Lilies. Many species are difficult to cultivate but some of the easier ones to try include L. bulbiferum, L. candidum, L. pardalinum and L. speciosum.

Camassia Quamash is a North American bulb related to Lilies, the bulb has a delicious chestnut-like flavour when baked and it is easily grown in most soils and situations. Easily raised from seed, it usually flowers in its third year and thereafter increases quite freely by division. C. leitchlinii can also be used.

Dog's Tooth Violets, *Erythronium* species, are another Lily relative for light soils and some shade. E. dens-canis is a European plant, it is very slow from seed but bulbs divide freely in good conditions and will naturalise in thin grass. The bulb is edible cooked or dried, and ground into a flour, the leaves can be cooked. Other species to try include E. americanum and E. grandiflorum. A word of warning though, the bulbs can cause dermatitis in some sensitive people.

Smilacena racemosa, or False Spikenard, is a plant for most soils and some shade. The seed can be very slow to germinate but otherwise the plant presents no problems in cultivation. The fruit can be eaten raw or cooked and has a bitter-sweet flavour, it can be laxative in large quantities. Young shoots in spring are an asparagus substitute, the rootstock is also edible but should be soaked first to remove a bitter flavour. S. stellata has similar uses and perhaps a nicer fruit.

The Milkweeds, *Asclepias* species, are also very ornamental plants with many uses, see our leaflet The Milkweeds.

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English

Plantas ornamentales comestibles

A muchos jardineros les gusta cultivar plantas ornamentales, aunque a este aspecto de la jardinería se le da preferencia generalmente sobre la producción de comida. Es posible, sin embargo, combinar los dos aspectos, lo ornamental y lo comestible, este artículo intenta darnos algunos ejemplos de como puede lograrse esto. Cierto número de plantas tradicionales comestibles tales como la acelga roja, el frijol de enredadera y alcachofa de globo no se ven fuera de lugar como bordes de bancos de flores - la gente podrá hacer sus propias apreciaciones acerca de los méritos de incluir tales plantas en sus áreas ornamentales. En este folleto veremos, en lugar de eso, algunas de las plantas ornamentales que se cultivan con más frecuencia que también son comestibles, por razones de espacio, nos limitaremos a bulbos y herbáceas perennes. Para mayor información sobre otras plantas ornamentales comestibles vea nuestro folleto Arbustos Comestibles (Español, English) o establezca comunicación con nosotros a la dirección que se muestra más adelante.

La familia *Campanulaceae* contiene muchas plantas muy bonitas, algunas de las cuales son comestibles. Todas las plantas en el género *Campanula*, que incluye a nuestra nativa *Campanilla* (Jacinto silvestre o campanilla azul, si usted vive en Escocia), tienen hojas comestibles y algunas también producen raíces comestibles. La mayoría de ellas se cultivan fácilmente en suelo bien drenado y sol o media sombra. Una de las más bonitas es *C. versicolor* de Europa, Las hojas son muy aceptables crudas y son ricas en vitamina C. Otras que merecen consideración por sus hojas son dos nativas de Bretaña *C. latifolia* y *C. persicicfolia*. La Norteamericana *C. rapunculoides* produce una bonita raíz comestible pero invade rápidamente el lugar. El género *Adenophora* esta relacionado cercanamente con las Campanulas. *A. latifolia* y *A. ilifolia* son particularmente bonitas y ambas producen raíces dulces que pueden comerse crudas o cocidas. Crecen fácilmente en sitio tibio y asoleado, pero desafortunadamente resienten que se moleste a sus raíces de modo que no se pueden dividir fácilmente. Sin embargo, crecen fácil de semilla y brotes jóvenes pueden pasarse a macetas donde crecerán bien. *Codonopsis* es otro pariente de la campanula, produce raíces que pueden ser comidas crudas o cocinadas. A la fecha, no hemos tenido éxito con este género, se dice que las plantas prefieren un suelo ligeramente ácido y bien drenado en sol o media sombra y también resienten que perturben a sus raíces. C. ussuriensis ha sido nuestro único éxito real hasta la fecha, es una planta muy bonita pero tiene un extraño olor a comida frita sobre-cocinada. Otras para probar incluyen C. lanceolata, C. ovata y C. pilosula.

Canna indica, a menudo conocido como "Indian Shot", es cultivado comúnmente en camas en verano, parece una planta de plátano y da un aire exótico al jardín. Aunque es tropical, es sorpresivamente resistente y a menudo sobrevive el invierno en el exterior especialmente con una buena cubierta. De otro modo puede protegerse en un lugar a salvo de heladas durante el invierno pero debe tenerse cuidado de que no se seque. La raíz es algo fibrosa pero muy agradable cocinada, en las Indias Occidentales la raíz se seca y se hace harina para usarse como complemento. Fácilmente crece de la semilla pero generalmente se compra como planta ya que hay muchas variedades nominadas.

Commelina coelestis, La hierba de la araña azul, es una planta mexicana que es casi tan rústica como la Dalia , sobrevive en el exterior inviernos moderados, aunque generalmente se protege al interior durante el invierno de las heladas. Muy fácil de cultivar de la semilla, prefiere un suelo ligero bien drenado y un lugar asoleado, al final del primer verano cada planta debe haber producido un grupo de raíces tuberosas de mas de 10 cm. De largo y del grueso de un dedo de niño. Estas raíces son comestibles, son feculosas pero sin sabor fuerte. El grupo de raíces puede ser dividido para replantar en primavera pero debe de tener cada tubérculo una yema para crecer.

Tigridia pavonia, La flor del Tigre, es otra planta mexicana y tiene los mismos requerimientos que la Commelina aunque parece ser mas dura pues sobrevive el invierno al exterior, tanto aquí como en Surrey. Muy fácil de lograr de las semillas, florece en su segundo año con hermosas flores de 10 cm. o más de diámetro. Cada flor dura solo un día pero florece continuamente desde junio hasta octubre en un buen año. El bulbo, asado, es similar a la papa dulce.

Otro bulbo mexicano, que es particularmente bonito, es la planta de la Cruz de Hierro, *Oxalis deppei*. Tan resistente como la Commelina y con los mismos requisitos, Esta planta provee una sucesión de hojas jóvenes y flores a lo largo del verano. Ambas, las hojas y las flores tienen un agradable sabor a limón ácido y son un delicioso complemento para la ensalada, aunque no deben comerse en grandes cantidades ya que contienen ácido oxálico. Las plantas nunca han asemillado con nosotros, pero pueden obtenerse bulbos fácilmente y se plantan en abril. La planta muere a finales de otoño y si escarba encontrará que cada bulbo habrá formado una raíz de más de 10 cm. de largo y 2 cm. de diámetro y un grupo de bulbos al final. Conserve los bulbos para el próximo año y coma la raíz cruda o cocida. Tiene la textura de una manzana jugosa pero, desafortunadamente, tiene poco sabor aunque a veces desarrolla un suave sabor a limón. Pensamos que depende del clima y los métodos de cultivo.

Los asfodelos, especies *Hemerocallis*, son plantas de jardín muy comunes, y por eso, son de fácil cultivo en la mayoría de los suelos y situaciones aunque prefieren al menos un poco de sol. Algunas especies se cultivan en el Oriente por sus flores comestibles, pueden comerse crudas pero generalmente se secan y se usan como saborizante para las sopas. Los brotes jóvenes en la primavera se pueden comer cocinados mientras que la raíz, que tiene sabor a nuez, puede comerse cruda. Puede probarse con cualquier miembro de este género, recomendamos H. fulva (especialmente la variedad Kwanso ó Kwanso verde) y H. lilio-asphodelus. Para más detalles vea nuestro folleto Hemerocallis Species - The Day Lilies (especies Hemerocallis - Los asfodelos).

Las *Violas* son plantas de jardín muy comunes y generalmente muy fáciles de cultivar. Todos los miembros de este género tienen hojas y botones de flores comestibles aunque es preferible evitar las especies de flores amarillas pues pueden ser muy laxantes si se comen en abundancia. Comidas crudas o cocidas, las hojas a menudo se usan para espesar sopas. Nosotros solo hemos cultivado V.

odorata, V. mandschurica y V. tricolor Pero hay muchas más para probar.

Hay una gran cantidad de cebollas ornamentales, las *Allium*. Todos los miembros de este género tienen hojas comestibles, flores y a menudo bulbos cuyos sabores varían entre el de la cebolla dulce y el fuerte ajo. La mayoría son fácilmente cultivados en una posición asoleada y un suelo bien drenado. Entre las especies más ornamentales A. cernuum, A. neopolitanum, A. senescens y A. victorialis, Todas tienen sabores fuertes. A. urisnum, nuestro ajo silvestre nativo, luce hermoso en primavera, creciendo bien en sombra húmeda pero se propaga vigorosamente y se ve desaliñado después de florear por eso es mejor tenerlo en un jardín silvestre.

La familia de los Lirios o azucenas contiene muy bonitas plantas y algunas de ellas son comestibles. Muchos bulbos de lirio, por ejemplo, son comestibles cocinados y algunas especies se cultivan como vegetales en China y Japón. Quizá la más fácil de cultivar sea Lilium lancifolium, Lirio de tigre. Esta especie resisten los efectos de enfermedades virales que son una gran peste para el cultivo de los Lirios, pero como dan abrigo a estas enfermedades, no deben plantarse junto a otros Lirios. Muchas especies son difíciles de cultivar pero algunas de las más fáciles con las cuales se puede intentar son L. bulbiferum, L. candidum, L. pardalinum y L. speciosum.

Camassia Quamash es un bulbo Norteamericano emparentado con los lirios, el bulbo tiene un delicioso sabor a castaña cuando se hornea y es fácil de cultivar en la mayoria de los suelos y posiciones. Se obtiene fácil de semilla, usualmente florece en su tercer año y de ahí en adelante se divulga libremente por división. También puede usarse C. leitchlinii.

Las Violetas de diente de perro, especies *Erythronium*, son otros parientes del Lirio para suelos ligeros a algo de sombra. E. dens-canis es una planta Europea, es muy lenta para germinar de semilla pero por bulbos se divide libremente en buenas condiciones y se naturalizará en pasto fino. El bulbo es comestible ya sea cocinado o seco y convertido en harina, las hojas pueden ser cocinadas. Otras especies a probar son E. americanum y E. grandiflorum. Una palabra de advertencia, los bulbos pueden causar dermatitis en algunas personas sensibles.

La Smilacena racemosa, o Falsa Espicanardo, es una planta para la mayoría de los suelos con algo de sombra. Las semillas pueden ser muy lentas para germinar pero por otra parte la planta no presenta problemas para su cultivo. El fruto puede ser comido crudo o cocinado y tiene un sabor agridulce, puede laxar si se come con abuso. Los brotes jóvenes en la primavera pueden sustituir al espárrago, Los rizomas son también comestibles pero deben remojarse un tiempo primero para quitar un sabor amargo. S. stellata tiene usos similares y quizá un fruto más agradable.

Las especies *Asclepias*, son tambíen plantas ornamentales con muchos usos, vea nuestro folleto The Milkweeds.(Las asclepias)

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Regresar a la Plantas para un Futuro página principal: Español English

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Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

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Hemerocallis Species - The Day Lilies.

Hemerocallis middendorfii esculenta

Day lilies are commonly grown garden plants, most garden centres will stock at least a few of the many cultivars that are available. These hardy perennials have large and attractive blooms that are similar to lily flowers. They are very easy to grow, many of the forms are tolerant of almost total neglect and will still be seen thriving in a neglected garden long after most of the other cultivated perennial species have been choked out by the invading native plants. What most people do not realise is that day lilies are actually cultivated as food crops in some countries, such as China and Japan. All parts of the plants are edible though it is the flowers that are most frequently used. Day lilies also have a number of other uses and, all in all, deserve to become a standard plant in edible and ornamental gardens.

The genus comprises about 20 species, most if not all of which can be grown outdoors in Britain. The common name day lily was given to the plants because, as well as resembling the true lily, the flowers of most species are very short-lived and often die within a day of opening. The plants do produce a succession of flowers, however, often for a period of a month or more. As well as the species, there are quite literally hundreds of named varieties available. These varieties often have such a long history of hybridisation that it is no longer possible to assign them to any species. So popular have they become that they have largely replaced the true species in cultivation and nowadays you normally have to go to a specialist supplier if you want to obtain any of these original species.

Cultivation

Day lilies must be some of the most easily grown perennial garden plants. They succeed in most soils, from fairly light and dry ones to heavy clays, though they are happiest in a soil that is rich and moist. They grow better and flower more freely when in a sunny position, though they will also tolerate quite a bit of shade. Whilst less flowers are produced on plants in the shade, each flower tends to be longer-lived. Plants prefer a neutral to slightly acid soil and will be unhappy in very acid or alkaline soils. Hardyness varies from species to species, but there are plants that are suitable even for the coldest of British gardens.

Generally free from pests and diseases, the main problem we have encountered has been slugs and snails. These little beasts just adore the fresh new growth in late winter and spring. Most species, fortunately, are quite vigorous and will generally grow away from early damage. Plants most at risk are those that are freshly divided, or small young plants that have just been planted out.

Plants increase by forming new shoots from the roots. Most species and cultivars are quite well behaved, forming quite tight clumps of growth and not spreading too far, but some species are rather more active and their running roots will send up new growths a yard or more away from the main clump. The more vigorous of the clump forming species will grow quite happily in short grass - you can mow the grass around them, but do not mow the clump. Species with running roots will also succeed in grass, though it is impossible not to cut out some of the new growth when mowing.

Propagation

Propagation is exceedingly simple. Seed can be used but, because of the possibilities of hybridisation, you need to either obtain the seed from a known wild source or hand pollinate plants in the garden whilst using some method of excluding pollinating insects from the flowers. Of course, this is only important if you want to breed a species true to type. The seed of cultivars will not usually breed true to type, the seedlings displaying a mixture of characteristics from the parents of the cultivar. Hybridisation has been widely used in order to produce new ornamental cultivars and it does also present the opportunity to start breeding for superior edibility.

Seed is best sown in early to mid spring in a greenhouse. Use a freely draining compost and cover the seeds to twice their diameter. Germination is usually good, taking place in about 3 weeks from sowing. Prick out the seedlings into individual 3 inch pots in a fairly rich compost as soon as they are large enough to handle and then grow them on in the greenhouse for the rest of the growing season. It is often possible to plant out these seedlings in late spring of the following year but, if the plants still look small or you have a slug or snail problem in your garden, then pot them into larger pots and grow them on for another year before planting out in the late spring of the following year.

Division is very easy, and this is the only way of ensuring that named cultivars remain true. Most plants come into growth very early in the year, some species will actually start growing in the previous autumn and will already be an inch or two tall by January. I have found late winter to early spring to be the best time for dividing the clumps, though other growers will also do this in late summer once the plants have finished flowering, or in the autumn once growth has died down.

For maximum increase, simply dig up a clump and break off individual new shoots together with some root. These are probably best potted up so that they can be easily protected from slugs until they are growing away strongly, though you can also plant them out into the open garden. If you do not need such a rapid increase, but want to obtain large clumps quite quickly, then divide the plants into 2 - 4 pieces and replant straight away into the garden. If the clump is so tight that it is difficult to divide, then you can cut your way through with a sharp knife or even chop the root with a garden spade. Another method is to insert two forks back-to-back into the clump with the rear of their prongs touching and the handles about 1 - 2ft apart. You then bring the handles together and this levers the clump apart.

Plants can be a bit slow to settle down after division and it can be a year or more before they really get going again, though they will soon make up for the lost time. One way of dividing a clump without the need to dig it up is to gently tease away young shoots from the outside of the clump. You will normally have to excavate a small amount of soil to make sure that you get some roots with the shoots. Pot them up and then plant them out when well established, usually in mid summer. This form of division is especially easy with those species that have running roots

Uses

Moving on from how to grow them, let us look now at how to eat them. The flowers are my favourite part, I like eating them raw when they are fully open, though they can be eaten at any stage from green bud to when they begin to wither. The flower buds are normally cooked, though they can also be eaten raw. They have a taste somewhat like green beans. If the flowers are harvested when fully open they make a superb and very ornamental addition to the salad bowl. I like picking them and munching on them as I wander around the garden. The petals are quite thick, crisp and juicy with a delicate sweetness at their base due to the nectar they contain. At this stage they are also at their most nutritious, containing reasonable quantities of protein (mainly from their pollen) and carbohydrates (from the nectar) as well as good quantities of iron and vitamin A. In the Orient they usually harvest the flowers just as they begin to wither. The flower are then dried and used as a flavouring and thickener in soups etc.

The young shoots have a pleasant sweet flavour and make an excellent cooked vegetable, though older shoots quickly become tough and fibrous. The heart of the shoots is especially delicious. Depending on the species, young shoots can be harvested from late winter and for much of the spring. I have to add a few words of caution here. There is a report that large quantities of the leaves are hallucinogenic. Blanching the leaves is said to remove this hallucinatory component, but the report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing them in boiling water. As far as I know eating the cooked leaves is perfectly all right, it is only the raw leaves that have the effect. You would also need to eat quite a few pounds of the leaves to obtain the effect.

Many species also produce tuberous roots, or fibrous roots with occasional spindle-like swellings. These roots are also edible - Ive only eaten H. fulva but any of the other species are said to be similar. The roots can be eaten raw or cooked and have a very pleasant nutty flavour that is like a blend of sweetcorn and salsify. Young tubers are the best, though the central portion of older roots can also be used. Dont expect large crops of roots though, this will be just an occasional bonus crop when you are dividing plants.

Hemerocallis also have a number of other uses. Many species make a very good weed-excluding ground cover, succeeding under and around trees and shrubs in low-maintenance gardens. Plant clump- forming species such as H. dumortieri, H. lilioasphodelus and H. middendorfii about 18 inches apart each way. Running species such as H. fulva can be planted up to 1 yard apart. Since the plants die down for the winter, the dead leaves should be left on the ground to ensure effective cover.

Whilst young leaves are sweet and tender, the older leaves become very fibrous. These tough fibrous leaves can be dried and plaited into a cord then used for making footwear etc. The shoes are not going to be that hard wearing, nor will they be waterproof, but they will make a good sandal for the summer.

There are also a number of medicinal properties attributed to these plants. In particular, the juice of the roots is an effective antidote in cases of arsenic poisoning and the roots also have a folk history of use in the treatment of cancer.

The species

Lets move on now to look at a few of the most interesting species in the genus. We are growing all of the species listed below and they should be hardy in most parts of the country.

Hemerocallis dumortieri is a vigorous clump-forming species that grows about 1½ ft tall. Each flowering stem carries up to eight trumpet-shaped flowers that are about three inches long. This is one of the first species to come into flower, in May and June, each flower living less than a day. It is also quite early coming into new growth and makes a good ground cover.

Hemerocallis fulva. This species is one of the most interesting for the gardener, as well as being perhaps the best one as an edible crop. A running species, it grows about 3ft tall and will spread as far as you let it. This species is so vigorous that it has been known to grow through tarmac! It flowers from June to August. There are a number of named forms, most if not all of which are sterile triploids and will not produce seed. The pollen, however, is fertile and can be used to fertilize other plants. Cultivated for its flowers in China and Japan, these are usually harvested as they start to wither and then dried. I prefer to eat them raw when they are fully open, they have very thick petals and are deliciously crunchy - ideal for salads or a munch in the garden. The roots have edible spindle-shaped swellings.

There are a number of named forms of special interest as food plants. Their nomenclature is somewhat confusing so I am going to describe the first three cultivars listed below under the names I was given when I obtained them from the nursery. All of these first three have double flowers, so you get a lot more petals for your flower!

Kwanso is a variegated form with white stripes along the length of the leaves

Green Kwanso is very similar to the above, except its leaves are not variegated. Its roots are somewhat larger than average.

Flore Pleno is rather similar to *Green Kwanso*. The flowers are about 6 inches long. This is the form that is most commonly used in China for its flowers.

Europa is a very vigorous form that is especially good for ground cover. I have been unable to obtain this form so far, if you happen to know of a source then I would love to hear from you.

Hemerocallis lilioasphodelus is a clumping species growing about 3ft tall. This is one of my favourite species and has lovely yellow flowers. These look very attractive in a salad but a word of caution is needed here. Most people find the taste delicious but about half of the women who try it say that it leaves a very unpleasant aftertaste in the mouth. On a couple of instances this has been likened to sweaty armpits (who goes round eating sweaty armpits?). To date, no male has detected this aftertaste. The plant has a long flowering season, from May to July, and individual flowers live longer than in most species, sometimes for three days. The plant has a fibrous root system with occasional spindle-like edible swellings.

Hemerocallis middendorfii esculenta is a vigorous clumping plant growing about 2ft tall. I only obtained this species recently and so have not yet tried the flowers or young shoots, but it is cultivated in the Orient for its edible flowers and so should be well worth growing. The flowers, which are produced in June and July, are up to 4 inches long with 5 - 6 blooms carried on each flowering stem. This species does not have swollen roots.

Hemerocallis minor grows about 1½ft tall, flowering in May and June. The flowers are about 2 inches long with, up to 5 being carried on each flowering stem. They open in the evening and are relatively long- lived, with individual blooms lasting up to 3 days. This species has small bulbous swellings at the ends of its roots, these have a mild radish-like flavour.

If you want a tasty food crop that is easily grown and also very ornamental, then this genus must be worthy of consideration.

Theres lots of other sites on Daylilies. You can get a list of these from the Internet Directory for Botany. Follow the appropriate Subject Category mirror, and then follow gardening links,

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Readers Comments:

Hemerocallis citrina

Juerg Plodeck *(juerg.plodeck@cp.novartis.com) Tue Oct 26 22:36:18 1999*

What I missed in your article is that the H. citrina is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of H. citrina smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the Hemerocallis species.

This comment has also been added to: Hemerocallis citrina.

This comment has also been added to the genera: Hemerocallis.

Add a Follow up to this comment

Hemerocallis citrina

() Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

This comment has also been added to: Hemerocallis citrina.

This comment has also been added to the genera: Hemerocallis.

Add a Follow up to this comment

Hemerocallis Species - The Day Lilies.

Willow MorningSky *(willowmorningsky@hotmail.com) Mon May 28 02:45:46 2001*

*In the opening of your *outstanding* article, you mention that the original, old fashioned day lilies are so rare that they often have to be special ordered. All through your descriptions of the different day lilies, I was searching to find which one is the original, hard-to-find one? I would like to be able to identify the old fashioned, original day lily by name!*

Add a Follow up to this comment

Hemerocallis Species - The Day Lilies.

***Unknown** Wed Jul 11 18:16:12 2001*

H. dumortieri and middendorfill no mention of the colour - i think this may be the one i have already got but don t know Dumortieri mine is yellow what colour is the middendorfill thanksikno

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Hemerocallis citrina

Common name:		Family:	Hemerocallidaceae
Author:	Baroni.	Botanical references:	200
Synonyms:	Hemerocallis baroni		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China.		
Habitat:	The original habitat is obscure[187].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	citrina = lemony;

Physical Characteristics

Perennial growing to 0.75m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. The flowers can be dried and used as a thickener in soups etc. The slender trumpets vary from 12 - 17cm long[205]. There can be from 7 to 65 buds on a flowering stem[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[205]. The flavour is somewhat radish-like but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Plants are hardy to at least -20°c[187].

Hybridizes freely with other members of this genus[200]. This species is said to be self-incompatible[127, 205].

Many of the plants in cultivation under this name are H. thunbergii[205].

The sub-species H. citrina vespertina (Hara.)Erhardt. is a very free-flowering form, producing up to 75 buds per scape and capable of flowering from July to October if the weather is suitable[205].

The plant forms a loose spreading clump[K]. The roots form pseudobulbs[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Individual flowers are very short-lived, they open in the late afternoon and die in the morning[200]. However, plants produce a succession of flowers for several weeks of the summer. The number of flowers on a scape varies from 7 to 65[205]. The flowers have a lemony scent[205]. Another report says that they have a pronounced honeysuckle scent[245].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

> The flowers have a lemony scent. Another report says that they have a pronounced honeysuckle scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[127] **?** *The Plantsman. Vol. 7. 1985 - 1986.* Royal Horticultural Society 1985
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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

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Plants For A Future: Database Search Results

Hemerocallis citrina

Common name:		Family:	Hemerocallidaceae
Author:	Baroni.	Botanical references:	200
Synonyms:	Hemerocallis baroni		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China.		
Habitat:	The original habitat is obscure[187].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	citrina = lemony;

Physical Characteristics

Perennial growing to 0.75m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. The flowers can be dried and used as a thickener in soups etc. The slender trumpets vary from 12 - 17cm long[205]. There can be from 7 to 65 buds on a flowering stem[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[205]. The flavour is somewhat radish-like but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Plants are hardy to at least -20°c[187].

Hybridizes freely with other members of this genus[200]. This species is said to be self-incompatible[127, 205].

Many of the plants in cultivation under this name are H. thunbergii[205].

The sub-species H. citrina vespertina (Hara.)Erhardt. is a very free-flowering form, producing up to 75 buds per scape and capable of flowering from July to October if the weather is suitable[205].

The plant forms a loose spreading clump[K]. The roots form pseudobulbs[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Individual flowers are very short-lived, they open in the late afternoon and die in the morning[200]. However, plants produce a succession of flowers for several weeks of the summer. The number of flowers on a scape varies from 7 to 65[205]. The flowers have a lemony scent[205]. Another report says that they have a pronounced honeysuckle scent[245].

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Search for Latin Name: Hemerocallis

New Search: Hemerocallis Search

Latin Name	**Common Name**	**Family**	**Synonyms**	**Rating**
Aletris spicata		Liliaceae	A. japonica. Hypoxis farinosa. H. spicata.; Hemerocallis japonica; Hemerocallis lancifolia	1
Cardiocrinum cordatum		Liliaceae	Lilium cordatum. L. cordifolium.; Hemerocallis cordata	2
Hemerocallis species		Hemerocallidaceae		4
Hemerocallis altissima		Hemerocallidaceae		4
Hemerocallis aurantiaca		Hemerocallidaceae	Hemerocallis fulva aurantiaca; H. fulva var. aurantiaca	4
Hemerocallis bulbiferum		Hemerocallidaceae		4
Hemerocallis citrina		Hemerocallidaceae	H. baroni.; Hemerocallis baroni	4
Hemerocallis coreana		Hemerocallidaceae		4
Hemerocallis darrowiana		Hemerocallidaceae		4
Hemerocallis dumortieri		Hemerocallidaceae	H. ruticans. H. sieboldii.; Hemerocallis sieboldii; Hemerocallis ruticans	4

Hemerocallis exaltata		Hemerocallidaceae		4
Hemerocallis forrestii		Hemerocallidaceae		2
Hemerocallis fulva	Common day lily	Hemerocallidaceae	H. fulva var. kwanso	5
Hemerocallis fulva longituba		Hemerocallidaceae	H. longituba. Miq.; Hemerocallis longituba	4
Hemerocallis graminea		Hemerocallidaceae		4
Hemerocallis hakunensis		Hemerocallidaceae	H. hakuunensis	4
Hemerocallis lilioasphodelus	Yellow day lily	Hemerocallidaceae	H. flava.; Hemerocallis flava; H. lilio-asphodelus; H. lilioasphodelus var. flava; H. lilioasphodelus var. major	5
Hemerocallis littorea	Coastal day lily	Hemerocallidaceae	H. littorea.; Hemerocallis aurantiaca littorea; H. aurantiaca var. littorea	4
Hemerocallis micrantha		Hemerocallidaceae		4
Hemerocallis middendorffii		Hemerocallidaceae		5
Hemerocallis middendorffii esculenta		Hemerocallidaceae	H. esculenta. Koidz.; Hemerocallis esculenta; H. middendorffii var. esculenta	5
Hemerocallis minor	Grassleaf day lily	Hemerocallidaceae	H. gracilis. H. graminae. H. graminifolia.; Hemerocallis graminifolia; Hemerocallis gracilis	4
Hemerocallis multiflora		Hemerocallidaceae		4

Hemerocallis pedicellata		Hemerocallidaceae		4
Hemerocallis plicata		Hemerocallidaceae		4
Hemerocallis thunbergii		Hemerocallidaceae	H. citrina. Nakai. non Baroni. H. vespertina. Hara.; Hemerocallis vespertina; Hemerocallis citrina	4
Hemerocallis yezoensis		Hemerocallidaceae	H. coreana. Nakai.	4
Hosta plantaginae	August lily	Funkiaceae	H. subcordata.; Hemerocallis plantaginea	2

New Search

Latin Name	Hemerocallis
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Aletris spicata

Common name:		Family:	Liliaceae
Author:	(Thunb.) Franch.	Botanical references:	58, 266
Synonyms:	Hypoxis spicata (Thunb.), Aletris japonica (Houtt.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Hills and low mountains in C. and S. Japan[58]. Forests, thicket margins, scrub, grasslands, streamsides, roadsides at elevations of 100 - 2900 metres in China[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hemerocallis japonica[B,P] Hemerocallis lancifolia[B,P] Hosta japonica[B,G,P] Hosta lancifolia[B,G,P] Niobe japonica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Narrow-leaf Plantain-lily [B], Narrowleaf Plantainlily [P],
Epithets:	From a Dictionary of Botanical Epithets
	spica = spike; spicata = in spikes;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Lily family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Leaves.

Young leaves - cooked. A famine food, used when all else fails[179].

Medicinal Uses

Disclaimer

Antitussive; Vermifuge.

The root is antitussive and vermifuge[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a damp sunny position in peat, leafmold and sand[1]. Requires a sunny position[200].

Propagation

Seed - we have no details for this species but suggest sowing the seed in a greenhouse in early spring. Sow the seed thinly to allow the seedlings to be grown on for their first year without potting them up, but give a liquid feed from time to time to ensure that they do not become nutrient deficient. Prick the young plants out into individual pots the following spring and grow them on in the greenhouse for the next winter. Plant them out into their permanent positions in early summer.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hosta lancifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Liliaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

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[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future Rating (1-5):	1		

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a damp sunny position in peat, leafmold and sand[1]. Requires a sunny position[200].

Propagation

Seed - we have no details for this species but suggest sowing the seed in a greenhouse in early spring. Sow the seed thinly to allow the seedlings to be grown on for their first year without potting them up, but give a liquid feed from time to time to ensure that they do not become nutrient deficient. Prick the young plants out into individual pots the following spring and grow them on in the greenhouse for the next winter. Plant them out into their permanent positions in early summer.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hosta lancifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Liliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

Readers Comments

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Plants For A Future: Database Search Results

Aletris spicata

Common name:		Family:	Liliaceae
Author:	(Thunb.) Franch.	Botanical references:	58, 266
Synonyms:	Hypoxis spicata (Thunb.), Aletris japonica (Houtt.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Hills and low mountains in C. and S. Japan[58]. Forests, thicket margins, scrub, grasslands, streamsides, roadsides at elevations of 100 - 2900 metres in China[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hemerocallis japonica[B,P] Hemerocallis lancifolia[B,P] Hosta japonica[B,G,P] Hosta lancifolia[B,G,P] Niobe japonica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Narrow-leaf Plantain-lily [B], Narrowleaf Plantainlily [P],
Epithets:	From a Dictionary of Botanical Epithets
	spica = spike; spicata = in spikes;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Lily family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Leaves.

Young leaves - cooked. A famine food, used when all else fails[179].

Medicinal Uses

Disclaimer

Antitussive; Vermifuge.

The root is antitussive and vermifuge[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a damp sunny position in peat, leafmold and sand[1]. Requires a sunny position[200].

Propagation

Seed - we have no details for this species but suggest sowing the seed in a greenhouse in early spring. Sow the seed thinly to allow the seedlings to be grown on for their first year without potting them up, but give a liquid feed from time to time to ensure that they do not become nutrient deficient. Prick the young plants out into individual pots the following spring and grow them on in the greenhouse for the next winter. Plant them out into their permanent positions in early summer.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aletris spicata*

Subject:

Aletris spicata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aletris spicata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Cardiocrinum cordatum

Common name:		Family:	Liliaceae
Author:	(Thunb.) Mak.	Botanical references:	200
Synonyms:	Lilium cordifolium, Lilium cordatum ((Thunb.)Koidz.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Conifer, oak and bamboo woods in mountains in cool moist situations, especially in N. Japan[47, 90].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hemerocallis cordata[G] Lilium cordatum var. glehnii[G] Lilium glehnii[G]
Epithets:	From a Dictionary of Botanical Epithets
	cordatum = heart shaped;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Lily family

Physical Characteristics

Bulb growing to 1.8m. It is hardy to zone 7 and is frost tender. It is in flower in August, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Root.

An edible starch is obtained from the bulb[46, 61, 105].

Young leaves - cooked. This use will considerably weaken the plant and is not to be recommended in normal situations[46, 61].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist well-drained position in shade and a soil that is rich in leafmould[47, 200]. Requires a deep, very fertile humus-laden soil[233]. Prefers growing in woodland conditions[42, 200].

The dormant plant is in general hardy to about -10°c but it comes into growth very early in the year, sometimes in February, and the young growth is susceptible to frost damage[90, 200].

A monocarpic plant, the bulb takes about 7 years to reach flowering size but then dies after flowering. However, it produces a number of new bulblets at the base and can be propagated by these[47, 200]. These bulblets take 3 - 5 years to flower[200].

The flowers are sweetly scented[245].

When planting, only just cover the bulb with leafmould[47]. The bulb is very attractive to slugs, mice and voles and may require protection[200].

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame in the autumn. The plant has delayed epigeal germination and will often germinate in the spring but can take up to 2 years especially if the seed is stored prior to being sown[134]. An alternative is to mix the seed with some moist leafmould and seal it in a plastic bag. Keep this at a temperature of 20°c for 3 weeks then pot up any seed that germinates and place the rest in a fridge for 4 - 5 weeks at 3 - 5°c before sowing in a warm place[138]. Seedlings should be grown on in pots in a shaded position in a cold frame or greenhouse for 3 - 4 years before planting them out in their permanent positions[138].

Bulblets are obtained from the base of the old plant after flowering. Pot up and plant out when well established.

Scent

Flowers: Fresh

> The flowers are sweetly scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Liliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[42] **Grey. C. H.** *Hardy Bulbs.* Williams & Norgate. 1938
Rather dated now, but an immense work on bulbs for temperate zones and how to grow them.

Three large volumes.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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A lovely and very readable book dealing with the cultivation of the genus Lilium.

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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[90] **Phillips. R. and Rix. M.** *Bulbs* Pan Books 1989 ISBN 0-330-30253-1
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Cardiocrinum cordatum

Common name:		Family:	Liliaceae
Author:	(Thunb.) Mak.	Botanical references:	200
Synonyms:	Lilium cordifolium, Lilium cordatum ((Thunb.)Koidz.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Conifer, oak and bamboo woods in mountains in cool moist situations, especially in N. Japan[47, 90].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hemerocallis cordata[G] Lilium cordatum var. glehnii[G] Lilium glehnii[G]
Epithets:	From a Dictionary of Botanical Epithets
	cordatum = heart shaped;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Lily family

Physical Characteristics

Bulb growing to 1.8m. It is hardy to zone 7 and is frost tender. It is in flower in August, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Root.

An edible starch is obtained from the bulb[46, 61, 105].

Young leaves - cooked. This use will considerably weaken the plant and is not to be recommended in normal situations[46, 61].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist well-drained position in shade and a soil that is rich in leafmould[47, 200]. Requires a deep, very fertile humus-laden soil[233]. Prefers growing in woodland conditions[42, 200].

The dormant plant is in general hardy to about -10°c but it comes into growth very early in the year, sometimes in February, and the young growth is susceptible to frost damage[90, 200].

A monocarpic plant, the bulb takes about 7 years to reach flowering size but then dies after flowering. However, it produces a number of new bulblets at the base and can be propagated by these[47, 200]. These bulblets take 3 - 5 years to flower[200].

The flowers are sweetly scented[245].

When planting, only just cover the bulb with leafmould[47]. The bulb is very attractive to slugs, mice and voles and may require protection[200].

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame in the autumn. The plant has delayed epigeal germination and will often germinate in the spring but can take up to 2 years especially if the seed is stored prior to being sown[134]. An alternative is to mix the seed with some moist leafmould and seal it in a plastic bag. Keep this at a temperature of 20°c for 3 weeks then pot up any seed that germinates and place the rest in a fridge for 4 - 5 weeks at 3 - 5°c before sowing in a warm place[138]. Seedlings should be grown on in pots in a shaded position in a cold frame or greenhouse for 3 - 4 years before planting them out in their permanent positions[138].

Bulblets are obtained from the base of the old plant after flowering. Pot up and plant out when well established.

Scent

Flowers: Fresh

The flowers are sweetly scented.

Suppliers

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Web References

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Conifer, oak and bamboo woods in mountains in cool moist situations, especially in N. Japan[47, 90].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hemerocallis cordata[G] Lilium cordatum var. glehnii[G] Lilium glehnii[G]
Epithets:	From a Dictionary of Botanical Epithets
	cordatum = heart shaped;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Lily family

Physical Characteristics

Bulb growing to 1.8m. It is hardy to zone 7 and is frost tender. It is in flower in August, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Root.

An edible starch is obtained from the bulb[46, 61, 105].

Young leaves - cooked. This use will considerably weaken the plant and is not to be recommended in normal situations[46, 61].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist well-drained position in shade and a soil that is rich in leafmould[47, 200]. Requires a deep, very fertile humus-laden soil[233]. Prefers growing in woodland conditions[42, 200].

The dormant plant is in general hardy to about -10°c but it comes into growth very early in the year, sometimes in February, and the young growth is susceptible to frost damage[90, 200].

A monocarpic plant, the bulb takes about 7 years to reach flowering size but then dies after flowering. However, it produces a number of new bulblets at the base and can be propagated by these[47, 200]. These bulblets take 3 - 5 years to flower[200].

The flowers are sweetly scented[245].

When planting, only just cover the bulb with leafmould[47]. The bulb is very attractive to slugs, mice and voles and may require protection[200].

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame in the autumn. The plant has delayed epigeal germination and will often germinate in the spring but can take up to 2 years especially if the seed is stored prior to being sown[134]. An alternative is to mix the seed with some moist leafmould and seal it in a plastic bag. Keep this at a temperature of 20°c for 3 weeks then pot up any seed that germinates and place the rest in a fridge for 4 - 5 weeks at 3 - 5°c before sowing in a warm place[138]. Seedlings should be grown on in pots in a shaded position in a cold frame or greenhouse for 3 - 4 years before planting them out in their permanent positions[138].

Bulblets are obtained from the base of the old plant after flowering. Pot up and plant out when well established.

Scent

Flowers: Fresh

The flowers are sweetly scented.

Suppliers

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cardiocrinum+cordatum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cardiocrinum+cordatum`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cardiocrinum cordatum*

Subject:

Cardiocrinum cordatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cardiocrinum cordatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hemerocallis species

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	A range of garden hybrids.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Stafford'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked. They have a delicious sweet flavour, but must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked. The quality varies from cultivar to cultivar. All are pleasantly sweet and crunchy, though some leave an unpleasant after-taste in the mouth. In general, those with yellow or scented flowers are less desirable than those with brown to red flowers[K].

Root - raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

There are many cultivars of garden origin in this genus that cannot be placed as part of a species simply because they are the result of many generations of hybridization. In general they all have edible flowers, young shoots and roots, though the quality will vary considerably from cultivar to cultivar. The following notes are general for the genus.

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers are very short-lived, they open in the late afternoon and fade in the following morning[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good, pot up the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K]. Hemerocallis cultivars will not breed true from seed, though seedlings do offer an opportunity to develop superior varieties for eating[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

'Stafford'

> The flowers are dark red and make very pleasant eating with no noticeable after-taste[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Families
- PFAF Plant Catalogue (G-L)
- The Urban Garden
- Edible Ornamental Plants
- Hemerocallis Species - The Day Lilies.
- PFAF Catalogue: Checklist of plants
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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Hemerocallis species

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	A range of garden hybrids.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Stafford'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked. They have a delicious sweet flavour, but must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked. The quality varies from cultivar to cultivar. All are pleasantly sweet and crunchy, though some leave an unpleasant after-taste in the mouth. In general, those with yellow or scented flowers are less desirable than those with brown to red flowers[K].

Root - raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

There are many cultivars of garden origin in this genus that cannot be placed as part of a species simply because they are the result of many generations of hybridization. In general they all have edible flowers, young shoots and roots, though the quality will vary considerably from cultivar to cultivar. The following notes are general for the genus.

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers are very short-lived, they open in the late afternoon and fade in the following morning[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good, pot up the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K]. Hemerocallis cultivars will not breed true from seed, though seedlings do offer an opportunity to develop superior varieties for eating[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

'Stafford'

> The flowers are dark red and make very pleasant eating with no noticeable after-taste[K].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF Catalogue: Checklist of plants
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

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Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

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Hemerocallis citrina

Common name:		Family:	Hemerocallidaceae
Author:	Baroni.	Botanical references:	200
Synonyms:	Hemerocallis baroni		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China.		
Habitat:	The original habitat is obscure[187].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	citrina = lemony;

Physical Characteristics

Perennial growing to 0.75m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. The flowers can be dried and used as a thickener in soups etc. The slender trumpets vary from 12 - 17cm long[205]. There can be from 7 to 65 buds on a flowering stem[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[205]. The flavour is somewhat radish-like but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Plants are hardy to at least -20°c[187].

Hybridizes freely with other members of this genus[200]. This species is said to be self-incompatible[127, 205].

Many of the plants in cultivation under this name are H. thunbergii[205].

The sub-species H. citrina vespertina (Hara.)Erhardt. is a very free-flowering form, producing up to 75 buds per scape and capable of flowering from July to October if the weather is suitable[205].

The plant forms a loose spreading clump[K]. The roots form pseudobulbs[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Individual flowers are very short-lived, they open in the late afternoon and die in the morning[200]. However, plants produce a succession of flowers for several weeks of the summer. The number of flowers on a scape varies from 7 to 65[205]. The flowers have a lemony scent[205]. Another report says that they have a pronounced honeysuckle scent[245].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

> The flowers have a lemony scent. Another report says that they have a pronounced honeysuckle scent.

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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References

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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[127] **?** *The Plantsman. Vol. 7. 1985 - 1986.* Royal Horticultural Society 1985
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

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Hemerocallis citrina

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Hemerocallis citrina

Common name:		Family:	Hemerocallidaceae
Author:	Baroni.	Botanical references:	200
Synonyms:	Hemerocallis baroni		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China.		
Habitat:	The original habitat is obscure[187].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	citrina = lemony;

Physical Characteristics

Perennial growing to 0.75m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. The flowers can be dried and used as a thickener in soups etc. The slender trumpets vary from 12 - 17cm long[205]. There can be from 7 to 65 buds on a flowering stem[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[205]. The flavour is somewhat radish-like but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Plants are hardy to at least -20°c[187].

Hybridizes freely with other members of this genus[200]. This species is said to be self-incompatible[127, 205].

Many of the plants in cultivation under this name are H. thunbergii[205].

The sub-species H. citrina vespertina (Hara.)Erhardt. is a very free-flowering form, producing up to 75 buds per scape and capable of flowering from July to October if the weather is suitable[205].

The plant forms a loose spreading clump[K]. The roots form pseudobulbs[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Individual flowers are very short-lived, they open in the late afternoon and die in the morning[200]. However, plants produce a succession of flowers for several weeks of the summer. The number of flowers on a scape varies from 7 to 65[205]. The flowers have a lemony scent[205]. Another report says that they have a pronounced honeysuckle scent[245].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

> The flowers have a lemony scent. Another report says that they have a pronounced honeysuckle scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Hemerocallis citrina*

Subject:

Hemerocallis citrina

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis citrina

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Hemerocallis species

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	A range of garden hybrids.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Stafford'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked. They have a delicious sweet flavour, but must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked. The quality varies from cultivar to cultivar. All are pleasantly sweet and crunchy, though some leave an unpleasant after-taste in the mouth. In general, those with yellow or scented flowers are less desirable than those with brown to red flowers[K].

Root - raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

There are many cultivars of garden origin in this genus that cannot be placed as part of a species simply because they are the result of many generations of hybridization. In general they all have edible flowers, young shoots and roots, though the quality will vary considerably from cultivar to cultivar. The following notes are general for the genus.

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers are very short-lived, they open in the late afternoon and fade in the following morning[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good, pot up the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K]. Hemerocallis cultivars will not breed true from seed, though seedlings do offer an opportunity to develop superior varieties for eating[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

'Stafford'

> The flowers are dark red and make very pleasant eating with no noticeable after-taste[K].

Suppliers

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Subject:

Hemerocallis species

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Plant Information

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Hemerocallis altissima

Common name:		Family:	Hemerocallidaceae
Author:	Stout.	Botanical references:	
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	altissima = tallest, highest;

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The tubular flowers are about 5cm long and 7.5cm in diameter[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[205]. The taste is somewhat like radishes but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

The plant forms pseudobulbs, these stand vertically in the ground[205].

Individual flowers are very short-lived, they open in the late afternoon and fade in the following morning[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good, pot up the seedlings in individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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References

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* Hemerocallis citrina. *Genera:* Hemerocallis. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely,

Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

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Plants For A Future: Database Search Results

Hemerocallis altissima

Common name:		Family:	Hemerocallidaceae
Author:	Stout.	Botanical references:	
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	altissima = tallest, highest;

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

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Propagation

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Plants For A Future: Database Search Results

Hemerocallis altissima

Common name:		Family:	Hemerocallidaceae
Author:	Stout.	Botanical references:	
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	altissima = tallest, highest;

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The tubular flowers are about 5cm long and 7.5cm in diameter[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[205]. The taste is somewhat like radishes but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

The plant forms pseudobulbs, these stand vertically in the ground[205].

Individual flowers are very short-lived, they open in the late afternoon and fade in the following morning[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good, pot up the seedlings in individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis altissima*

Subject:

Hemerocallis altissima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis altissima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:54:49 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Hemerocallis aurantiaca

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	Bak.	Botanical references:	58, 200
Synonyms:	Hemerocallis fulva aurantiaca ((Baker.)Hotta.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. fulva var. aurantiaca[G]

Physical Characteristics

An evergreen perennial growing to 0.75m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in leaf all year, in flower from June to September. The flowers are hermaphrodite (have both male and female organs). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Cultivar **'Major'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[105, 177]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked. The tubular flowers are about 7.5cm long and 13cm in diameter[205]. Each stem carries 6 - 8 flowers[205]. The flowers contain carotene and starch[105, 177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked. A radish-like flavour but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

The roots have spindle-shaped swellings[205].

The cultivar 'Major' is smaller than the type species, but has larger flowers, it is sometimes cultivated for these edible flowers in Japan[205]. There is some doubt as to whether this cultivar really is a form of H. aurantiaca[205].

Individual flowers are very short-lived, opening in the morning and withering in the evening[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

There is some doubt as to the origins of this plant, it might have arisen in cultivation at Kew[205]. It is cultivated in Japan, where it is believed to have come from China[58]. It is quite possibly a hybrid since it is sterile unless fertilized by another species[233].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K]. Seed is only set if the plant is fertilized by another species, thus seedlings will not be true to the species type[233].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

'Major'

> This cultivar is smaller than the species but has larger flowers and is sometimes cultivated for these edible flowers[205]. It is quite possible that this cultivar does not really belong to H. aurantiaca[205]. The plant does not produce fertile seed[205].

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

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Author:	Bak.	Botanical references:	58, 200
Synonyms:	Hemerocallis fulva aurantiaca ((Baker.)Hotta.)		
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Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. fulva var. aurantiaca[G]

Physical Characteristics

An evergreen perennial growing to 0.75m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in leaf all year, in flower from June to September. The flowers are hermaphrodite (have both male and female organs). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Cultivar **'Major'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

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Flowers and flower buds - raw or cooked. The tubular flowers are about 7.5cm long and 13cm in diameter[205]. Each stem carries 6 - 8 flowers[205]. The flowers contain carotene and starch[105, 177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

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The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

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Hybridizes freely with other members of this genus[200].

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The cultivar 'Major' is smaller than the type species, but has larger flowers, it is sometimes cultivated for these edible flowers in Japan[205]. There is some doubt as to whether this cultivar really is a form of H. aurantiaca[205].

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Plants take a year or two to become established after being moved[1].

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Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

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Physical Characteristics

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Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

There is some doubt as to the origins of this plant, it might have arisen in cultivation at Kew[205]. It is cultivated in Japan, where it is believed to have come from China[58]. It is quite possibly a hybrid since it is sterile unless fertilized by another species[233].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K]. Seed is only set if the plant is fertilized by another species, thus seedlings will not be true to the species type[233].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

'Major'

> This cultivar is smaller than the species but has larger flowers and is sometimes cultivated for these edible flowers[205]. It is quite possible that this cultivar does not really belong to H. aurantiaca[205]. The plant does not produce fertile seed[205].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis aurantiaca*

Subject:

Hemerocallis aurantiaca

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis aurantiaca

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

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Hemerocallis bulbiferum

Common name:		Family:	Hemerocallidaceae
Author:	L.	Botanical references:	
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	bulbifer = bulb producing; bulbiferum = bulb producing;

Physical Characteristics

Perennial. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in most parts of this country. This species is not mentioned in a monograph of the genus[205], so its authenticity must be questioned. The following notes are based on the general needs of the genus.

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169

An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Plants For A Future: Database Search Results

Hemerocallis bulbiferum

Common name:		Family:	Hemerocallidaceae
Author:	L.	Botanical references:	
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	bulbifer = bulb producing; bulbiferum = bulb producing;

Physical Characteristics

Perennial. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in most parts of this country. This species is not mentioned in a monograph of the genus[205], so its authenticity must be questioned. The following notes are based on the general needs of the genus.

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Web References

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Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

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Plants For A Future: Database Search Results

Hemerocallis bulbiferum

Common name:		Family:	Hemerocallidaceae
Author:	L.	Botanical references:	
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	bulbifer = bulb producing; bulbiferum = bulb producing;

Physical Characteristics

Perennial. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in most parts of this country. This species is not mentioned in a monograph of the genus[205], so its authenticity must be questioned. The following notes are based on the general needs of the genus.

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Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Add a comment on: *Hemerocallis bulbiferum*

Subject:

Hemerocallis bulbiferum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis bulbiferum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Hemerocallis coreana

Common name:		Family:	Hemerocallidaceae
Author:	Nakai.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.4m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flowers can be up to 12cm long[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If this species has swollen roots then they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species has not yet been grown in Europe (1994) so its hardiness is not known[205].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day, however there are 50 - 80 flowers produced on each scape[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

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Plants For A Future: Database Search Results

Hemerocallis coreana

Common name:		Family:	Hemerocallidaceae
Author:	Nakai.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.4m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flowers can be up to 12cm long[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If this species has swollen roots then they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species has not yet been grown in Europe (1994) so its hardiness is not known[205].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day, however there are 50 - 80 flowers produced on each scape[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

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Plants For A Future: Database Search Results

Hemerocallis coreana

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Author:	Nakai.	Botanical references:	205
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Range:	E. Asia - China, Japan, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.4m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flowers can be up to 12cm long[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If this species has swollen roots then they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species has not yet been grown in Europe (1994) so its hardiness is not known[205].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day, however there are 50 - 80 flowers produced on each scape[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis coreana*

Subject:

Hemerocallis coreana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis coreana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Hemerocallis darrowiana

Common name:		Family:	Hemerocallidaceae
Author:	Hu.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.1m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

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Flowers; Leaves; Root.

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Flowers and flower buds - raw or cooked[177]. A flowering stem bears two trumpet-shaped blossoms, each about 6cm long and 6cm in diameter[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If this species has swollen roots then they can be eaten raw or cooked[205].

Medicinal Uses

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Antidote; Diuretic.

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A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species has not been grown in Europe but, coming from the island of Sakhalin in N. Japan, it should prove to be hardy in most parts of Britain[205].

Individual flowers only live for one day[205]. The plant produces short scapes with only two flowers on a scape[205].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

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The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

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Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

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Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies..*

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Hemerocallis darrowiana

Common name:		Family:	Hemerocallidaceae
Author:	Hu.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.1m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. A flowering stem bears two trumpet-shaped blossoms, each about 6cm long and 6cm in diameter[205]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If this species has swollen roots then they can be eaten raw or cooked[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species has not been grown in Europe but, coming from the island of Sakhalin in N. Japan, it should prove to be hardy in most parts of Britain[205].

Individual flowers only live for one day[205]. The plant produces short scapes with only two flowers on a scape[205].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis darrowiana*

Subject:

Hemerocallis darrowiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis darrowiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Hemerocallis dumortieri

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	E. Morr.	Botanical references:	58, 200
Synonyms:	Hemerocallis sieboldii, Hemerocallis ruticans		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - Japan, Korea.		
Habitat:	Meadows in the mountains of N. and C. Japan[58, 187].		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.45m by 0.6m . It is hardy to zone 4 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 177, 183]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177, 205]. The flowers are crisp and juicy with a pleasant sweetness and no unpleasant after-taste[K]. They can be dried and used as a thickener in soups etc[183]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a slowly spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species is hardy to about -20°c[187].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day[205]. The flowers are sweetly scented[245].

Plants form a tight clump that spreads slowly[K]. The roots are cylindrical[205].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

The flowers are sweetly scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hemerocallis Species - The Day Lilies.

Web References

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Hemerocallis dumortieri

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	E. Morr.	Botanical references:	58, 200
Synonyms:	Hemerocallis sieboldii, Hemerocallis ruticans		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - Japan, Korea.		
Habitat:	Meadows in the mountains of N. and C. Japan[58, 187].		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.45m by 0.6m . It is hardy to zone 4 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 177, 183]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177, 205]. The flowers are crisp and juicy with a pleasant sweetness and no unpleasant after-taste[K]. They can be dried and used as a thickener in soups etc[183]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a slowly spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species is hardy to about -20°c[187].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day[205]. The flowers are sweetly scented[245].

Plants form a tight clump that spreads slowly[K]. The roots are cylindrical[205].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

> The flowers are sweetly scented.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis dumortieri*

Subject:

Hemerocallis dumortieri

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis dumortieri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 01:55:34 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hemerocallis exaltata

Common name:		Family:	Hemerocallidaceae
Author:	Stout.	Botanical references:	58
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - Japan, it is only found on Tobishima Island, a small Islet off W. Japan.		
Habitat:	Meadows[187].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	alta = tall; exaltata = very tall;

Physical Characteristics

Perennial growing to 1m by 0.45m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[116, 205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. They can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200, 205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species is hardy to about -15°c[187].

Hybridizes freely with other members of this genus[200].

Some roots are short and enlarged, others long with spindle-shaped tuberous ends. The plant forms a compact clump[233], but it also produces rhizomes that tend to spread[205].

Individual flowers are very short-lived, they open in the morning and wither in the evening[205].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

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Hemerocallis exaltata

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Author:	Stout.	Botanical references:	58
Synonyms:			
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Range:	E. Asia - Japan, it is only found on Tobishima Island, a small Islet off W. Japan.		
Habitat:	Meadows[187].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
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Physical Characteristics

Perennial growing to 1m by 0.45m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[116, 205]. They must be consumed when very young or else they become fibrous[K].

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Medicinal Uses

Disclaimer

Antidote; Diuretic.

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A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200, 205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species is hardy to about -15°c[187].

Hybridizes freely with other members of this genus[200].

Some roots are short and enlarged, others long with spindle-shaped tuberous ends. The plant forms a compact clump[233], but it also produces rhizomes that tend to spread[205].

Individual flowers are very short-lived, they open in the morning and wither in the evening[205].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

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Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	alta = tall; exaltata = very tall;

Physical Characteristics

Perennial growing to 1m by 0.45m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[116, 205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. They can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

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Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[200, 205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species is hardy to about -15°c[187].

Hybridizes freely with other members of this genus[200].

Some roots are short and enlarged, others long with spindle-shaped tuberous ends. The plant forms a compact clump[233], but it also produces rhizomes that tend to spread[205].

Individual flowers are very short-lived, they open in the morning and wither in the evening[205].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Hemerocallis+exaltata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Hemerocallis+exaltata`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis exaltata*

Subject:

Hemerocallis exaltata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis exaltata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:55:43 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hemerocallis forrestii

Common name:		Family:	Hemerocallidaceae
Author:	Diels.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - W. China in Yunnan Province.		
Habitat:	Dry ridges and rocky banks around 250 metres[205].		
Plants For A Future Rating (1-5):	2		

Physical Characteristics

An evergreen perennial growing to 0.4m. It is hardy to zone 5 and is not frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked.

Root - raw or cooked. The roots are swollen and conspicuously enlarged at each end[200].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Some reports say that this species is not hardy in Britain[205], whilst another says that it is hardy to zone 5 (tolerating quite heavy frosts[200]. There is a plant at Kew Botanical Gardens that bears this name and appears to be fully hardy, growing near the base of a west-facing brick wall[K]. It is possible that the plant is actually a hybrid H. forrestii x H. middendorffii[205].

Hybridizes freely with other members of this genus[200].

Individual flowers are very short-lived, usually withering within 24 hours of opening. The plants produce a succession of blooms over a period of a month or more[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Web References

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References

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

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Plants For A Future: Database Search Results

Hemerocallis forrestii

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Author:	Diels.	Botanical references:	200
Synonyms:			
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Range:	E. Asia - W. China in Yunnan Province.		
Habitat:	Dry ridges and rocky banks around 250 metres[205].		
Plants For A Future Rating (1-5):	2		

Physical Characteristics

An evergreen perennial growing to 0.4m. It is hardy to zone 5 and is not frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

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Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

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Succeeds in most soils[1], including dry ones, preferring a rich moist soil[205]. Grows well in heavy clay soils. Succeeding in sun or shade, it produces more flowers in a sunny position though these flowers can be shorter-lived in very sunny positions[205]. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

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Range:	E. Asia - W. China in Yunnan Province.		
Habitat:	Dry ridges and rocky banks around 250 metres[205].		
Plants For A Future Rating (1-5):	2		

Physical Characteristics

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Add a comment on: *Hemerocallis forrestii*

Subject:

Hemerocallis forrestii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site:	http://
Details:	

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Plant names you would like this comment to be added to:

Hemerocallis forrestii

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Your Name:

Your Email Address:

Date: Sun May 16 01:55:52 2004

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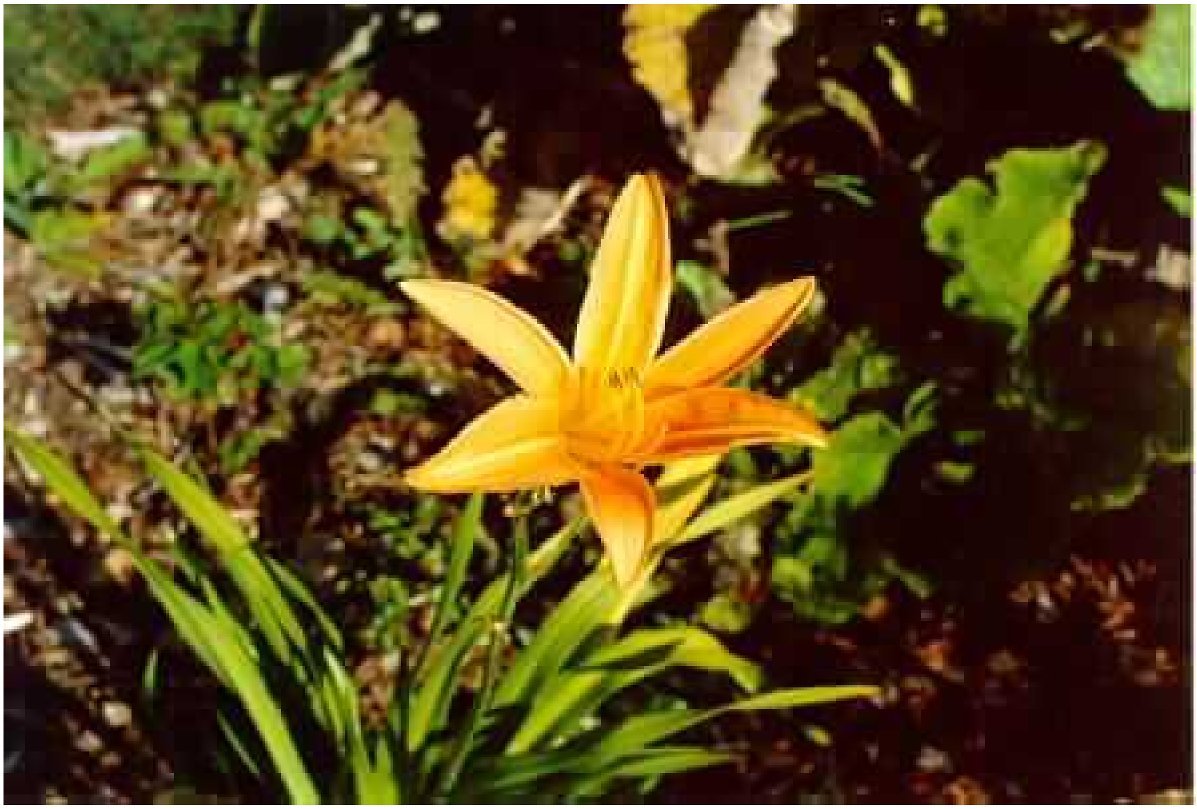
Hemerocallis fulva



Common name:	Common day lily	Family:	Hemerocallidaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic[127, 137]. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	Of uncertain origin. A garden escape in Britain.		

Habitat:	Common and widespread in the wild[205], probably as an escape from cultivation.
Plants For A Future Rating (1-5):	5

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. fulva var. kwanso[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chin Chen Ts'Ai [E], Common Day Lily [L], Hsuan [E], Hsuan Ts'Ao [E], Huang Hua Ts'Ai [E], I Nan [E], Lu Ts'Ung [E], Orange Day-lily [B], Orange Daylily [P], Sina-Kanzo [E], Tawny Daylily [L], Wang Yu [E],
Epithets:	From a Dictionary of Botanical Epithets
	fulva = tawny;
Other Range Info:	From the Ethnobotany Database
	China; Egypt

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs). The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Cultivar **'Flore Pleno'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.
Cultivar **'Green Kwanso'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.
Cultivar **'Kwanso Variegata'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[85, 116, 179, 183]. An asparagus or celery substitute. An excellent sweet tasting vegetable[179, K], though some caution is recommended[127, 137]. The leaves need to be eaten whilst still very young since they quickly become fibrous[K].

Flowers - raw or cooked[62, 100]. The petals are thick and crunchy, making very pleasant eating raw, with a nice sweetness at the base because of the nectar[K]. The flowers can also be dried and used as a thickener in soups etc[62, 183]. In this case, they are picked when somewhat withered and closed[85]. A rich source of iron[218].

Flower buds - raw or cooked[62, 100, 105, 116]. A pea-like flavour[85]. Can be dried and used as a relish[178]. The dried flower contains about 9.3% protein. 25% fat!?, 60% carbohydrate (rich in sugar), 0.9% ash. It is rich in vitamin A[179].

Tubers - raw or cooked[183]. A nutty flavour[62]. Young tubers are best, though the central portion of older tubers is also good[85].

Medicinal Uses

Disclaimer

Anodyne; Antidote; Antiemetic; Antispasmodic; Blood purifier; Cancer; Depurative; Diuretic; Febrifuge; Laxative; Sedative.

Diuretic, febrifuge, laxative (mild)[62, 178, 205].

The flowers are anodyne, antiemetic, antispasmodic, depurative, febrifuge and sedative[218]. In China they are used as an anodyne for women in childbirth[240]. An extract of the flowers is used as a blood purifier[240].

The juice of the roots is an effective antidote in cases of arsenic poisoning[205]. The root also has a folk history of use in the treatment of cancer - extracts from the roots have shown antitumour activity[218].

A tea made from the boiled roots is used as a diuretic[205, 218].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 90cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208]. The cultivar 'Kwanso Flore Pleno' has been especially mentioned[208].

Cultivation details

Succeeds in most soils[1], including dry ones, though it prefers a rich moist soil[111] and a sunny position but tolerating partial shade[88, 111]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species is hardy to about -20°c[187].

Plants take a year or two to become established after being moved[200]. The roots have spindle-shaped swellings and spread freely, the plant can become invasive[205].

A very ornamental plant[1], it is cultivated in China and Japan for its edible flowers and leaves, there are many named varieties[200]. Individual flowers are short-lived, opening in the morning and withering in the evening. The plant, however, produces a succession of flowers over a period of about 6 weeks[205]. The sterile cultivar 'Kwanzo' has double flowers, it has been especially mentioned for these flowers which are said to be crunchy with a nutty aftertaste[137]. 'Flore Pleno' is another form with double-flowers that have a delicious taste[K]. The sterile cultivar 'Europa' is very vigorous, with long stolons, and each piece of root is capable of growing into a new plant[205]. This cultivar, which is the form usually supplied from nurseries, succeeds in lawns and has even been known to grow through tarmac[205].

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The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

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Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

'Kwanso Variegata'

This form produces an abundance of double flowers. It is vigorous and grows about 90cm tall. Very similar to the cultivar 'Kwanzo', differing in its leaves which are strongly variegated with white stripes[205]. It is not as hardy as 'Flore Pleno'.

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This form produces an abundance of double flowers. It is vigorous and grows about 90cm tall. Derived in cultivation from the variegated 'Kwanso'. It is not as hardy as 'Flore Pleno', a cultivar with which it is often confused[205]. The plant is a sterile triploid[205].

'Flore Pleno'

This form produces an abundance of double flowers up to 15cm long[205]. It is a vigorous plant, growing about 75cm tall. Often sold in Britain as the cultivar 'Kwanzo', it is in fact quite different from that plant[205].

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Hemerocallis+fulva`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Hemerocallis+fulva`

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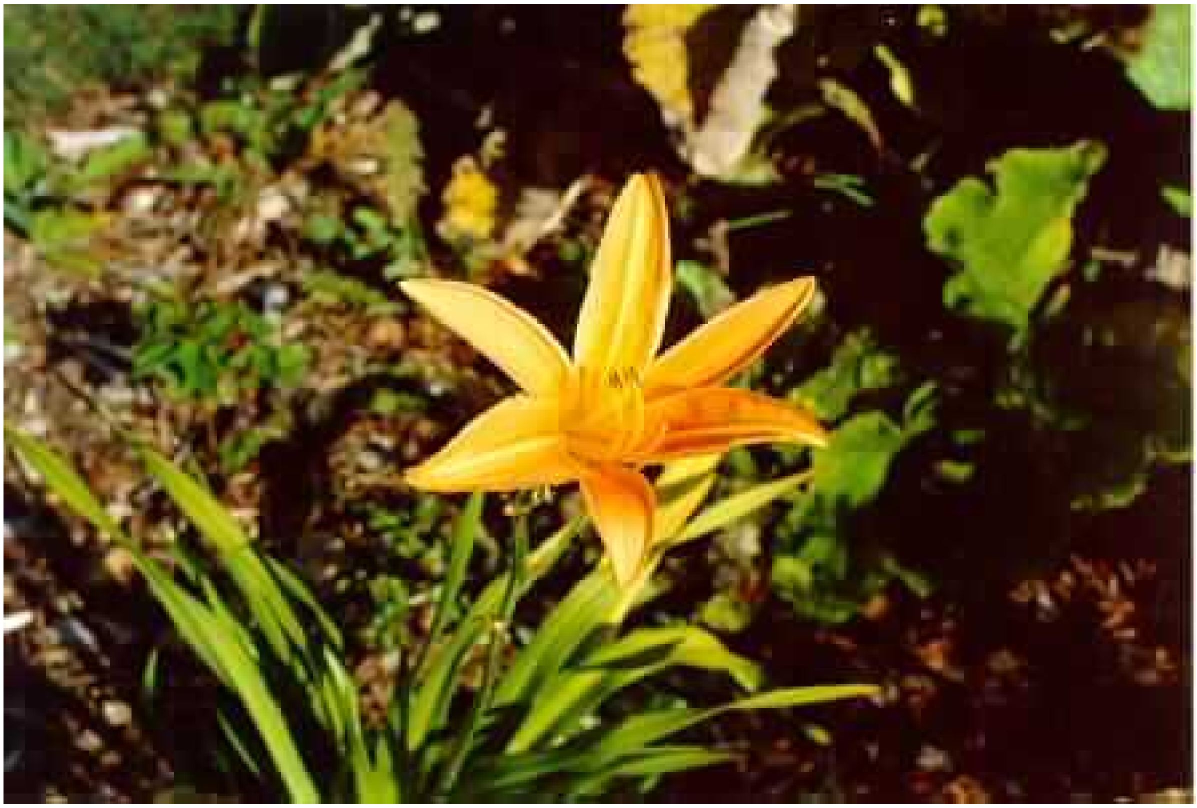
Plants For A Future: Database Search Results

Hemerocallis fulva



Common name:	Common day lily	Family:	Hemerocallidaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic[127, 137]. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	Of uncertain origin. A garden escape in Britain.		
Habitat:	Common and widespread in the wild[205], probably as an escape from cultivation.		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.

	H. fulva var. kwanso[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chin Chen Ts'Ai [E], Common Day Lily [L], Hsuan [E], Hsuan Ts'Ao [E], Huang Hua Ts'Ai [E], I Nan [E], Lu Ts'Ung [E], Orange Day-lily [B], Orange Daylily [P], Sina-Kanzo [E], Tawny Daylily [L], Wang Yu [E],
Epithets:	From a Dictionary of Botanical Epithets
	fulva = tawny;
Other Range Info:	From the Ethnobotany Database
	China; Egypt

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs). The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Cultivar **'Flore Pleno'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.
Cultivar **'Green Kwanso'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.
Cultivar **'Kwanso Variegata'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[85, 116, 179, 183]. An asparagus or celery substitute. An excellent sweet tasting vegetable[179, K], though some caution is recommended[127, 137]. The leaves need to be eaten whilst still very young since they quickly become fibrous[K].

Flowers - raw or cooked[62, 100]. The petals are thick and crunchy, making very pleasant eating raw, with a nice sweetness at the base because of the nectar[K]. The flowers can also be dried and used as a thickener in soups etc[62, 183]. In this case, they are picked when somewhat withered and closed[85]. A rich source of iron[218].

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Anodyne; Antidote; Antiemetic; Antispasmodic; Blood purifier; Cancer; Depurative; Diuretic; Febrifuge; Laxative; Sedative.

Diuretic, febrifuge, laxative (mild)[62, 178, 205].

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Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 90cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208]. The cultivar 'Kwanso Flore Pleno' has been especially mentioned[208].

Cultivation details

Succeeds in most soils[1], including dry ones, though it prefers a rich moist soil[111] and a sunny position but tolerating partial shade[88, 111]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species is hardy to about -20°c[187].

Plants take a year or two to become established after being moved[200]. The roots have spindle-shaped swellings and spread freely, the plant can become invasive[205].

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The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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'Kwanso Variegata'

> This form produces an abundance of double flowers. It is vigorous and grows about 90cm tall. Very similar to the cultivar 'Kwanzo', differing in its leaves which are strongly variegated with white stripes[205]. It is not as hardy as 'Flore Pleno'.

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Tue Jun 27 01:46:20 2000

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Species - The Day Lilies...

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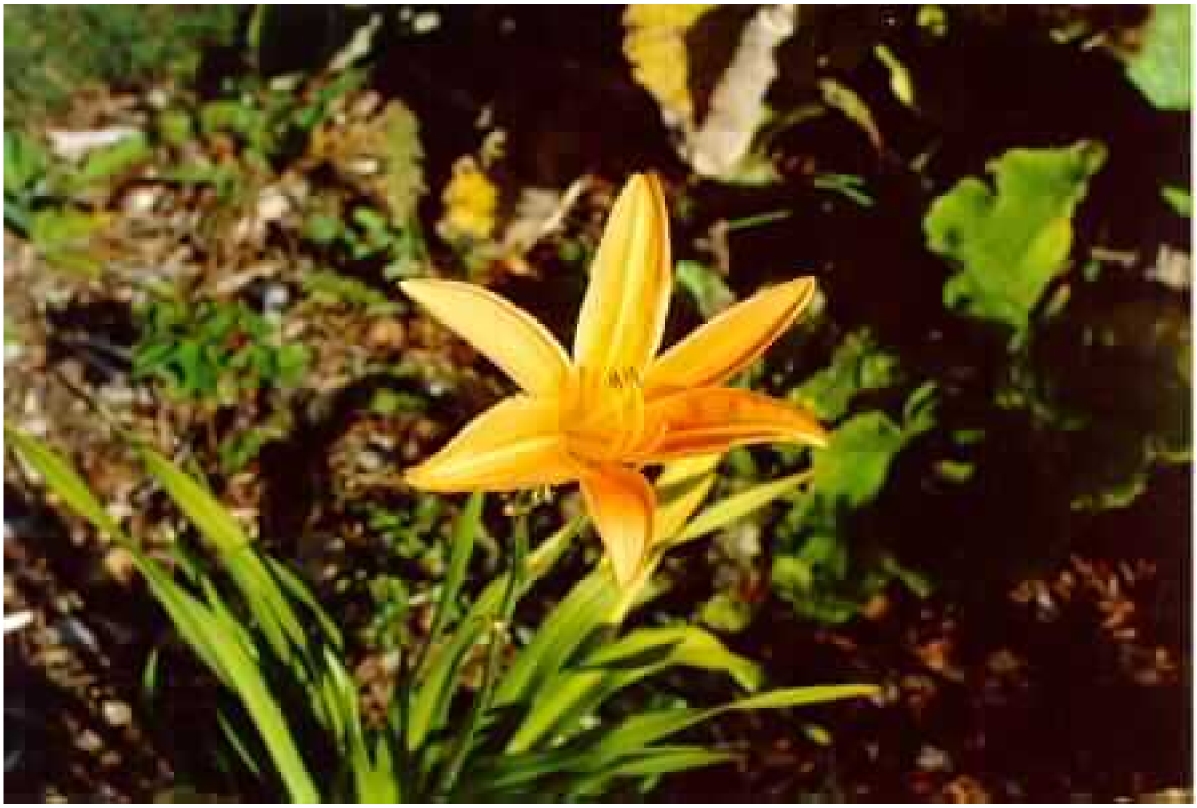
Plants For A Future: Database Search Results

Hemerocallis fulva



Common name:	Common day lily	Family:	Hemerocallidaceae
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Range:	Of uncertain origin. A garden escape in Britain.		
Habitat:	Common and widespread in the wild[205], probably as an escape from cultivation.		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.

	H. fulva var. kwanso[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chin Chen Ts'Ai [E], Common Day Lily [L], Hsuan [E], Hsuan Ts'Ao [E], Huang Hua Ts'Ai [E], I Nan [E], Lu Ts'Ung [E], Orange Day-lily [B], Orange Daylily [P], Sina-Kanzo [E], Tawny Daylily [L], Wang Yu [E],
Epithets:	From a Dictionary of Botanical Epithets
	fulva = tawny;
Other Range Info:	From the Ethnobotany Database
	China; Egypt

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs). The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Cultivar **'Flore Pleno'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.
Cultivar **'Green Kwanso'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.
Cultivar **'Kwanso Variegata'**: Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[85, 116, 179, 183]. An asparagus or celery substitute. An excellent sweet tasting vegetable[179, K], though some caution is recommended[127, 137]. The leaves need to be eaten whilst still very young since they quickly become fibrous[K].

Flowers - raw or cooked[62, 100]. The petals are thick and crunchy, making very pleasant eating raw, with a nice sweetness at the base because of the nectar[K]. The flowers can also be dried and used as a thickener in soups etc[62, 183]. In this case, they are picked when somewhat withered and closed[85]. A rich source of iron[218].

Flower buds - raw or cooked[62, 100, 105, 116]. A pea-like flavour[85]. Can be dried and used as a relish[178]. The dried flower contains about 9.3% protein. 25% fat!?, 60% carbohydrate (rich in sugar), 0.9% ash. It is rich in vitamin A[179].

Tubers - raw or cooked[183]. A nutty flavour[62]. Young tubers are best, though the central portion of older tubers is also good[85].

Medicinal Uses

Disclaimer

Anodyne; Antidote; Antiemetic; Antispasmodic; Blood purifier; Cancer; Depurative; Diuretic; Febrifuge; Laxative; Sedative.

Diuretic, febrifuge, laxative (mild)[62, 178, 205].

The flowers are anodyne, antiemetic, antispasmodic, depurative, febrifuge and sedative[218]. In China they are used as an anodyne for women in childbirth[240]. An extract of the flowers is used as a blood purifier[240].

The juice of the roots is an effective antidote in cases of arsenic poisoning[205]. The root also has a folk history of use in the treatment of cancer - extracts from the roots have shown antitumour activity[218].

A tea made from the boiled roots is used as a diuretic[205, 218].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 90cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208]. The cultivar 'Kwanso Flore Pleno' has been especially mentioned[208].

Cultivation details

Succeeds in most soils[1], including dry ones, though it prefers a rich moist soil[111] and a sunny position but tolerating partial shade[88, 111]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

This species is hardy to about -20°c[187].

Plants take a year or two to become established after being moved[200]. The roots have spindle-shaped swellings and spread freely, the plant can become invasive[205].

A very ornamental plant[1], it is cultivated in China and Japan for its edible flowers and leaves, there are many named varieties[200]. Individual flowers are short-lived, opening in the morning and withering in the evening. The plant, however, produces a succession of flowers over a period of about 6 weeks[205]. The sterile cultivar 'Kwanzo' has double flowers, it has been especially mentioned for these flowers which are said to be crunchy with a nutty aftertaste[137]. 'Flore Pleno' is another form with double-flowers that have a delicious taste[K]. The sterile cultivar 'Europa' is very vigorous, with long stolons, and each piece of root is capable of growing into a new plant[205]. This cultivar, which is the form usually supplied from nurseries, succeeds in lawns and has even been known to grow through tarmac[205].

Hybridizes freely with other members of this genus[200]. Many forms of this plant are sterile triploids, probably of garden origin, and do not set seed[205]. The pollen, however, is fertile and can be used to fertilize other plants[205].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

'Kwanso Variegata'

> This form produces an abundance of double flowers. It is vigorous and grows about 90cm tall. Very similar to the cultivar 'Kwanzo', differing in its leaves which are strongly variegated with white stripes[205]. It is not as hardy as 'Flore Pleno'.

'Green Kwanso' 'Kwanzo'

> This form produces an abundance of double flowers. It is vigorous and grows about 90cm tall. Derived in cultivation from the variegated 'Kwanso'. It is not as hardy as 'Flore Pleno', a cultivar with which it is often confused[205]. The plant is a sterile triploid[205].

'Flore Pleno'

This form produces an abundance of double flowers up to 15cm long[205]. It is a vigorous plant, growing about 75cm tall. Often sold in Britain as the cultivar 'Kwanzo', it is in fact quite different from that plant[205].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Add a comment on: *Hemerocallis fulva*

Subject:

Hemerocallis fulva

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis fulva

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 01:56:03 2004

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Plants For A Future: Database Search Results

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Hemerocallis fulva longituba

Common name:		Family:	Hemerocallidaceae
Author:	(Miq.) Maxim.	Botanical references:	58
Synonyms:	Hemerocallis longituba (Miq.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic[127, 137]. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - C. and S. Japan		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	No-Kanzo [E],
Epithets:	From a Dictionary of Botanical Epithets
	fulva = tawny; longituba = long tubed;

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[105, 116]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. They can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[205]. A pleasant nutty flavour.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[200] but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200]. Hybridizes freely with other members of this genus[200]. Unlike the type species, this form does produce viable seed[187].

Plants take a year or two to become established after being moved[200].

Individual flowers are short-lived, opening in the morning and withering in the evening. The plant, however, produces a succession of flowers over a period of about 6 weeks[205].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Hemerocallis fulva* (day lily)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hemerocallis Species - The Day Lilies.
- Edible Ornamental Plants
- The Urban Garden

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hemerocallis longituba* (a possible synonym).

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

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Range:	E. Asia - C. and S. Japan		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

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Plants For A Future: Database Search Results

Hemerocallis fulva longituba

Common name:		Family:	Hemerocallidaceae
Author:	(Miq.) Maxim.	Botanical references:	58
Synonyms:	Hemerocallis longituba (Miq.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic[127, 137]. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - C. and S. Japan		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	No-Kanzo [E],
Epithets:	From a Dictionary of Botanical Epithets
	fulva = tawny; longituba = long tubed;

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[105, 116]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. They can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[205]. A pleasant nutty flavour.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[200] but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200]. Hybridizes freely with other members of this genus[200]. Unlike the type species, this form does produce viable seed[187].

Plants take a year or two to become established after being moved[200].

Individual flowers are short-lived, opening in the morning and withering in the evening. The plant, however, produces a succession of flowers over a period of about 6 weeks[205].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Hemerocallis fulva* (day lily)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis fulva longituba*

Subject:

Hemerocallis fulva longituba

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis fulva longituba

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:56:12 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hemerocallis graminea

Common name:		Family:	Hemerocallidaceae
Author:	Andrews.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - Siberia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	graminea = grass like;

Physical Characteristics

Perennial growing to 0.75m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200]. This species is closely related to H. minor[205].

Individual flowers are quite short-lived, usually dying after 2 - 3 days, but the plant produces a succession of blooms[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis*

Species - The Day Lilies..

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Hemerocallis graminea

Common name:		Family:	Hemerocallidaceae
Author:	Andrews.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - Siberia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	graminea = grass like;

Physical Characteristics

Perennial growing to 0.75m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200]. This species is closely related to H. minor[205].

Individual flowers are quite short-lived, usually dying after 2 - 3 days, but the plant produces a succession of blooms[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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Plants For A Future: Database Search Results

Hemerocallis graminea

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Author:	Andrews.	Botanical references:	205
Synonyms:			
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Range:	E. Asia - Siberia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	graminea = grass like;

Physical Characteristics

Perennial growing to 0.75m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

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Edible Uses

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Cultivation details

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Add a comment on: *Hemerocallis graminea*

Subject:

Hemerocallis graminea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis graminea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Hemerocallis hakunensis

Common name:		Family:	Hemerocallidaceae
Author:	Nakai.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - S. Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. hakuunensis[G]

Physical Characteristics

Perennial growing to 0.75m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

The hardiness of this species is uncertain[205].

Hybridizes freely with other members of this genus[200]. This species is closely related to H. middendorffii esculenta[205].

Individual flowers are short-lived but the plant produces a succession of blooms[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hemerocallis hakuunensis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces

in 1992 by a new dictionary (see [200]).

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Plants For A Future: Database Search Results

Hemerocallis hakunensis

Common name:		Family:	Hemerocallidaceae
Author:	Nakai.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - S. Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. hakuunensis[G]

Physical Characteristics

Perennial growing to 0.75m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

The hardiness of this species is uncertain[205].

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

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Tue Jun 27 01:46:20 2000

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Plants For A Future: Database Search Results

Hemerocallis hakunensis

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Author:	Nakai.	Botanical references:	205
Synonyms:			
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Range:	E. Asia - S. Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. hakuunensis[G]

Physical Characteristics

Perennial growing to 0.75m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

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Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

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Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

The hardiness of this species is uncertain[205].

Hybridizes freely with other members of this genus[200]. This species is closely related to H. middendorffii esculenta[205].

Individual flowers are short-lived but the plant produces a succession of blooms[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis hakunensis*

Subject:

Hemerocallis hakunensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis hakunensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:56:29 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hemerocallis lilioasphodelus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yellow day lily	Family:	Hemerocallidaceae
Author:	L.	Botanical references:	50, 200
Synonyms:	Hemerocallis flava (L.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	Original habitat is obscure, possibly China. An occasional garden escape in Britain.		
Habitat:	Rocky mountain woods, wet meadows and riversides on foothills of the S.E. Alps in Europe[50].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. lilio-asphodelus[E] H. lilioasphodelus var. flava[B,P] H. lilioasphodelus var. major[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Daylily [E], Hsuan Ts'Ao [E], Yellow Day-lily [B], Yellow Daylily [P,L],
Other Range Info:	From the Ethnobotany Database
	China; Egypt; Europe

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 4 and is not frost tender. It is in flower from May to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - raw or cooked like asparagus or celery[85, 105, 183]. They must be consumed when very young or else they become fibrous[K].

Flower buds - raw or cooked. They taste somewhat like green beans[85, 105]. They contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Flowers - raw or cooked[85, K]. They can be dried and used as a thickener in soups etc[183]. If the flowers are picked just as they start to wither they can be used as a condiment[85].

Root - cooked[85, 105]. They taste like a blend of sweet corn and salsify[183]. We have found them to be tender but fairly bland with a slight sweetness[K]. The swollen roots are quite small and are only really worthwhile using if the plant is being dug up for divisions or some other reason[K].

Medicinal Uses

Disclaimer

Antidote; Cancer; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205]. The root also has a folk history of use in the treatment of cancer - extracts from the roots have shown antitumour activity[218].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88, 111]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Plants are very cold-hardy, tolerating temperatures down to about -25°c[187].

A very vigorous plant, spreading by underground rhizomes[1]. The plant has a fibrous root system with occasional spindle-like swellings[205].

Cultivated as a food and medicinal plant in Japan[127].

Individual flowers are short-lived, they open at night and last for 20 - 76 hours. The plant produces a succession of blooms over a period of about 2 months[205]. The flowers are fragrant[205]. The flowers have a honeysuckle-like scent and this can pervade the air for a considerable distance when warmed by the summer sunshine[245].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

> The flowers have a honeysuckle-like scent and this can pervade the air for a considerable distance when warmed by the summer sunshine.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Hemerocallis Species - The Day Lilies.
- PFAF Plant Catalogue (G-L)

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hemerocallis flava* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

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[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis lilioasphodelus

Mary McKay Thu Feb 13 22:31:48 2003

I would so appreciate if you could tell me where I would be able to purchase the daylily. I live in North Texas. A catalog to order from would be wonderful. Thank you

Link: heritage daylily species Where to Purchase?????????

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Hemerocallis lilioasphodelus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yellow day lily	Family:	Hemerocallidaceae
Author:	L.	Botanical references:	50, 200
Synonyms:	Hemerocallis flava (L.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	Original habitat is obscure, possibly China. An occasional garden escape in Britain.		
Habitat:	Rocky mountain woods, wet meadows and riversides on foothills of the S.E. Alps in Europe[50].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. lilio-asphodelus[E] H. lilioasphodelus var. flava[B,P] H. lilioasphodelus var. major[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Daylily [E], Hsuan Ts'Ao [E], Yellow Day-lily [B], Yellow Daylily [P,L],
Other Range Info:	From the Ethnobotany Database
	China; Egypt; Europe

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 4 and is not frost tender. It is in flower from May to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - raw or cooked like asparagus or celery[85, 105, 183]. They must be consumed when very young or else they become fibrous[K].

Flower buds - raw or cooked. They taste somewhat like green beans[85, 105]. They contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Flowers - raw or cooked[85, K]. They can be dried and used as a thickener in soups etc[183]. If the flowers are picked just as they start to wither they can be used as a condiment[85].

Root - cooked[85, 105]. They taste like a blend of sweet corn and salsify[183]. We have found them to be tender but fairly bland with a slight sweetness[K]. The swollen roots are quite small and are only really worthwhile using if the plant is being dug up for divisions or some other reason[K].

Medicinal Uses

Disclaimer

Antidote; Cancer; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205]. The root also has a folk history of use in the treatment of cancer - extracts from the roots have shown antitumour activity[218].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88, 111]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Plants are very cold-hardy, tolerating temperatures down to about -25°c[187].

A very vigorous plant, spreading by underground rhizomes[1]. The plant has a fibrous root system with occasional spindle-like swellings[205].

Cultivated as a food and medicinal plant in Japan[127].

Individual flowers are short-lived, they open at night and last for 20 - 76 hours. The plant produces a succession of blooms over a period of about 2 months[205]. The flowers are fragrant[205]. The flowers have a honeysuckle-like scent and this can pervade the air for a considerable distance when warmed by the summer sunshine[245].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Hemerocallis Species - The Day Lilies.
- PFAF Plant Catalogue (G-L)

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hemerocallis flava* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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Link: heritage daylily species Where to Purchase?????????

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Plants For A Future Rating (1-5):	5		

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Flowers: Fresh

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Suppliers

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Add a comment on: *Hemerocallis lilioasphodelus*

Subject:

Hemerocallis lilioasphodelus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis lilioasphodelus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 01:56:39 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hemerocallis littorea

Common name:	Coastal day lily	Family:	Hemerocallidaceae
Author:	Mak.	Botanical references:	58
Synonyms:	Hemerocallis aurantiaca littorea (Makino.)Nakai.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic[127, 137]. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - Japan.		
Habitat:	Grassy places near the sea[58, 187].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. aurantiaca var. littorea[G]

Physical Characteristics

Perennial growing to 0.9m by 0.6m . It is hardy to zone 4 and is not frost tender. It is in flower from August to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177]. They can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked. A pleasant nutty flavour. This sub-species has a fibrous root system[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[200] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Plants are hardy to about -15°c[187].

The plant has a fibrous root system[205].

Individual flowers are short-lived, opening in the morning and withering in the evening. The plant, however, produces a succession of flowers over a period of about 6 weeks[205].

Hybridizes freely with other members of this genus[200]. Unlike the type species, this form does produce viable seed[187].

Plants take a year or two to become established after being moved[200]. They can then spread quite freely[K].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

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Subject:

Hemerocallis littorea

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Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis littorea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Hemerocallis micrantha

Common name:		Family:	Hemerocallidaceae
Author:	Nakai	Botanical references:	
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	micrantha = small flowered;

Physical Characteristics

Perennial growing to 0.8m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

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Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

The hardiness of this plant is not known[205].

Hybridizes freely with other members of this genus[200]. This species is probably closely related to H. multiflora and H. plicata[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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---

Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

Add a comment/link:

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URL for Site:	http://
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Hemerocallis micrantha

Common name:		Family:	Hemerocallidaceae
Author:	Nakai	Botanical references:	
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	micrantha = small flowered;

Physical Characteristics

Perennial growing to 0.8m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

The hardiness of this plant is not known[205].

Hybridizes freely with other members of this genus[200]. This species is probably closely related to H. multiflora and H. plicata[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

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Hemerocallis citrina

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Plants For A Future: Database Search Results

Hemerocallis micrantha

Common name:		Family:	Hemerocallidaceae
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Range:	E. Asia - Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	micrantha = small flowered;

Physical Characteristics

Perennial growing to 0.8m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

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Edible Uses

Flowers; Leaves; Root.

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Disclaimer

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A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

The hardiness of this plant is not known[205].

Hybridizes freely with other members of this genus[200]. This species is probably closely related to H. multiflora and H. plicata[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Add a comment on: *Hemerocallis micrantha*

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Hemerocallis micrantha

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis micrantha

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Hemerocallis middendorffii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	Trautv. & Mey.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Meadows in high mountains of N. Japan[58].		
Plants For A Future Rating (1-5):	5		

Physical Characteristics

Perennial growing to 0.9m by 0.5m . It is hardy to zone 5 and is not frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 116, 177, 183]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177, 183]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208]. (This report was for a plant labelled H. middendorfiana, which I have assumed is a mis-spelling of this species[K])

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers are short-lived, but the plant produces a succession of blooms and also flowers again in late summer[205].

The plant has a fibrous root system that does not extend far[205].

Plants take a year or two to become established after being moved but then form large clumps[200, 187].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Hemerocallis citrina

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Plants For A Future: Database Search Results

Hemerocallis middendorffii

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Range:	E. Asia - China, Japan, Korea.		
Habitat:	Meadows in high mountains of N. Japan[58].		
Plants For A Future Rating (1-5):	5		

Physical Characteristics

Perennial growing to 0.9m by 0.5m . It is hardy to zone 5 and is not frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 116, 177, 183]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 177, 183]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208]. (This report was for a plant labelled H. middendorfiana, which I have assumed is a mis-spelling of this species[K])

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers are short-lived, but the plant produces a succession of blooms and also flowers again in late summer[205].

The plant has a fibrous root system that does not extend far[205].

Plants take a year or two to become established after being moved but then form large clumps[200, 187].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces

in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

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Plants For A Future: Database Search Results

Hemerocallis middendorffii

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	Trautv. & Mey.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Meadows in high mountains of N. Japan[58].		
Plants For A Future Rating (1-5):	5		

Physical Characteristics

Perennial growing to 0.9m by 0.5m . It is hardy to zone 5 and is not frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 116, 177, 183]. They must be consumed when very young or else they become fibrous[K].

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Antidote; Diuretic.

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A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Ground cover; Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208]. (This report was for a plant labelled H. middendorfiana, which I have assumed is a mis-spelling of this species[K])

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers are short-lived, but the plant produces a succession of blooms and also flowers again in late summer[205].

The plant has a fibrous root system that does not extend far[205].

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Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis middendorffii*

Subject:

Hemerocallis middendorffii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis middendorffii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hemerocallis middendorffii esculenta

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	(Koidz.) Ohwi.	Botanical references:	58
Synonyms:	Hemerocallis esculenta (Koidz.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China, Japan		
Habitat:	Meadows in high mountains, N. and C. Japan[58, 205].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. middendorffii var. esculenta[G]
Epithets:	From a Dictionary of Botanical Epithets
	esculenta = edible; lenta = pliable;

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5 and is not frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

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Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 116, 177, 183]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 127, 177, 183]. The flowers are crisp and succulent with a delicious sweet flavour and no aftertaste[K]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

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A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208]. (This report was for a plant labelled H. middendorfiana, which I have assumed is a mis-spelling of this species[K])

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day[205].

Plants take a year or two to become established after being moved but then form large clumps[200, 187]. The roots are fibrous without any obvious swellings[205].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hemerocallis middendorffii var. esculenta* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the

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Hemerocallis citrina

Tue Jun 27 01:46:20 2000

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Habitat:	Meadows in high mountains, N. and C. Japan[58, 205].		
Plants For A Future Rating (1-5):	5		

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Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hemerocallis middendorffii var. esculenta* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[127] **?** *The Plantsman. Vol. 7. 1985 - 1986.* Royal Horticultural Society 1985
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Hemerocallis+middendorffii+esculenta`

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Plants For A Future: Database Search Results

Hemerocallis middendorffii esculenta

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	(Koidz.) Ohwi.	Botanical references:	58
Synonyms:	Hemerocallis esculenta (Koidz.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China, Japan		
Habitat:	Meadows in high mountains, N. and C. Japan[58, 205].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. middendorffii var. esculenta[G]
Epithets:	From a Dictionary of Botanical Epithets
	esculenta = edible; lenta = pliable;

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5 and is not frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 116, 177, 183]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[105, 127, 177, 183]. The flowers are crisp and succulent with a delicious sweet flavour and no aftertaste[K]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Plants form a spreading clump and are suitable for ground cover when spaced about 45cm apart each way[208]. The dead leaves should be left on the ground in the winter to ensure effective cover[208]. (This report was for a plant labelled H. middendorfiana, which I have assumed is a mis-spelling of this species[K])

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Individual flowers only live for one day[205].

Plants take a year or two to become established after being moved but then form large clumps[200, 187]. The roots are fibrous without any obvious swellings[205].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis middendorffii esculenta*

Subject:

Hemerocallis middendorffii esculenta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis middendorffii esculenta

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hemerocallis minor

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Grassleaf day lily	Family:	Hemerocallidaceae
Author:	Mill.	Botanical references:	74, 200
Synonyms:	Hemerocallis graminifolia (Schltdl.), Hemerocallis gracilis		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. China, Korea.		
Habitat:	Water meadows, elevated wet places with sandy soils, forest glades, mountain slopes and scrub[74].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Hsuan Ts'Ao [E], Small Daylily [P],
Epithets:	From a Dictionary of Botanical Epithets
	minor = smaller;
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.5m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[2, 20, 46, 61, 183]. They must be consumed when very young or else they become fibrous[K]. One report says that eating these leaves appears to stimulate or intoxicate to some extent[2].

Flowers and flower buds - raw or cooked[2, 20, 46, 61]. Considered to be a great delicacy[177]. The flowers can be dried and used as a relish or a thickener in soups etc[178, 183]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[183, 205]. A radish-like flavour but not so sharp[205].

Medicinal Uses

Disclaimer

Anodyne; Antidote; Cancer; Diuretic; Febrifuge.

Anodyne, antidote, diuretic, febrifuge[178].

The juice of the roots is an effective antidote in cases of arsenic poisoning[205]. The root also has a folk history of use in the treatment of cancer - extracts from the roots have shown antitumour activity[218].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

Hybridizes freely with other members of this genus[200].

A very ornamental plant, its roots are slender and not tuberous, whilst the rhizomes are not spreading[187]. The roots sometimes have bulbous swellings at their tips[205]. The flowers open in the evening and live for about 2 days[205]. The flowers have a powerful scent of honeysuckle[245].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

The flowers have a powerful scent of honeysuckle.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hemerocallis Species - The Day Lilies.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

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Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

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Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis*

Species - The Day Lilies..

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If you know of another site which has good information about this plant fill in the following the details here.

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Hemerocallis+minor`

This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Hemerocallis+minor`

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Author:	Mill.	Botanical references:	74, 200
Synonyms:	Hemerocallis graminifolia (Schltdl.), Hemerocallis gracilis		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. China, Korea.		
Habitat:	Water meadows, elevated wet places with sandy soils, forest glades, mountain slopes and scrub[74].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Hsuan Ts'Ao [E], Small Daylily [P],
Epithets:	From a Dictionary of Botanical Epithets
	minor = smaller;
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.5m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[2, 20, 46, 61, 183]. They must be consumed when very young or else they become fibrous[K]. One report says that eating these leaves appears to stimulate or intoxicate to some extent[2].

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Disclaimer

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Anodyne, antidote, diuretic, febrifuge[178].

The juice of the roots is an effective antidote in cases of arsenic poisoning[205]. The root also has a folk history of use in the treatment of cancer - extracts from the roots have shown antitumour activity[218].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

Hybridizes freely with other members of this genus[200].

A very ornamental plant, its roots are slender and not tuberous, whilst the rhizomes are not spreading[187]. The roots sometimes have bulbous swellings at their tips[205]. The flowers open in the evening and live for about 2 days[205]. The flowers have a powerful scent of honeysuckle[245].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

> The flowers have a powerful scent of honeysuckle.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hemerocallis Species - The Day Lilies.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants: Hemerocallis citrina. Genera: Hemerocallis. Web-pages: Hemerocallis Species - The Day Lilies.*.

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Plants For A Future: Database Search Results

Hemerocallis minor

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Grassleaf day lily	Family:	Hemerocallidaceae
Author:	Mill.	Botanical references:	74, 200
Synonyms:	Hemerocallis graminifolia (Schltdl.), Hemerocallis gracilis		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. China, Korea.		
Habitat:	Water meadows, elevated wet places with sandy soils, forest glades, mountain slopes and scrub[74].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Hsuan Ts'Ao [E], Small Daylily [P],
Epithets:	From a Dictionary of Botanical Epithets
	minor = smaller;
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.5m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[2, 20, 46, 61, 183]. They must be consumed when very young or else they become fibrous[K]. One report says that eating these leaves appears to stimulate or intoxicate to some extent[2].

Flowers and flower buds - raw or cooked[2, 20, 46, 61]. Considered to be a great delicacy[177]. The flowers can be dried and used as a relish or a thickener in soups etc[178, 183]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[183, 205]. A radish-like flavour but not so sharp[205].

Medicinal Uses

Disclaimer

Anodyne; Antidote; Cancer; Diuretic; Febrifuge.

Anodyne, antidote, diuretic, febrifuge[178].

The juice of the roots is an effective antidote in cases of arsenic poisoning[205]. The root also has a folk history of use in the treatment of cancer - extracts from the roots have shown antitumour activity[218].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

Hybridizes freely with other members of this genus[200].

A very ornamental plant, its roots are slender and not tuberous, whilst the rhizomes are not spreading[187]. The roots sometimes have bulbous swellings at their tips[205]. The flowers open in the evening and live for about 2 days[205]. The flowers have a powerful scent of honeysuckle[245].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

The flowers have a powerful scent of honeysuckle.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis minor*

Subject:

Hemerocallis minor

Group:
Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis minor

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Hemerocallis multiflora

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	Stout.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China in Honan, Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered;

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked. Relatively small for a day lily, but the flowers are crisp with a pleasant sweetness and no aftertaste - they make a delicious addition to salads[K]. The flowers can also be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[K]. We have found them to be tender but fairly bland with a slight sweetness[K]. The swollen roots are quite small and are only really worthwhile using if the plant is being dug up for divisions or some other reason[K].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[11] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200]. This species is closely related to H.

micrantha and H. plicata[205].

Individual flowers are short-lived but the plant produces a succession of blooms. Each scape carries between 75 and 100 blooms[205].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (G-L)

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

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Plants For A Future: Database Search Results

Hemerocallis multiflora

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	Stout.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China in Honan, Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered;

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked. Relatively small for a day lily, but the flowers are crisp with a pleasant sweetness and no aftertaste - they make a delicious addition to salads[K]. The flowers can also be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[K]. We have found them to be tender but fairly bland with a slight sweetness[K]. The swollen roots are quite small and are only really worthwhile using if the plant is being dug up for divisions or some other reason[K].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[11] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200]. This species is closely related to H. micrantha and H. plicata[205].

Individual flowers are short-lived but the plant produces a succession of blooms. Each scape carries between 75 and 100 blooms[205].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (G-L)

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

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Plants For A Future: Database Search Results

Hemerocallis multiflora

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Hemerocallidaceae
Author:	Stout.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China in Honan, Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered;

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked. Relatively small for a day lily, but the flowers are crisp with a pleasant sweetness and no aftertaste - they make a delicious addition to salads[K]. The flowers can also be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked[K]. We have found them to be tender but fairly bland with a slight sweetness[K]. The swollen roots are quite small and are only really worthwhile using if the plant is being dug up for divisions or some other reason[K].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[11] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200]. This species is closely related to H. micrantha and H. plicata[205].

Individual flowers are short-lived but the plant produces a succession of blooms. Each scape carries between 75 and 100 blooms[205].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis multiflora*

Subject:

Hemerocallis multiflora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis multiflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Hemerocallis pedicellata

Common name:		Family:	Hemerocallidaceae
Author:	Nakai.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.9m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. The following notes are based on the general needs of the genus.

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is particularly vulnerable[200, K].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Web References

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

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Hemerocallis citrina

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Hemerocallis pedicellata

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Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.9m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

If the roots are swollen they can be eaten raw or cooked.

Medicinal Uses

Disclaimer

Antidote; Diuretic.

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A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. The following notes are based on the general needs of the genus.

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is particularly vulnerable[200, K].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

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Range:	E. Asia - N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.9m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

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Flowers; Leaves; Root.

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Weaving.

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. The following notes are based on the general needs of the genus.

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The plants are very susceptible to slug and snail damage, the young growth in spring is particularly vulnerable[200, K].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Hemerocallis+pedicellata`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis pedicellata*

Subject:

Hemerocallis pedicellata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis pedicellata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 01:57:43 2004

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Hemerocallis plicata

Common name:		Family:	Hemerocallidaceae
Author:	Stapf.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - S.W. and W. China.		
Habitat:	Sub-alpine woods and alpine meadows[205].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	plicata = pleated;

Physical Characteristics

Perennial growing to 0.5m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked. A radish-like flavour, but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

The string-like roots have spindle-shaped swellings near their ends[205].

Hybridizes freely with other members of this genus[200]. This species is closely related to H. multiflora, differing mainly in height, number of flowers on a scape and the folding of the leaves[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis*

Species - The Day Lilies..

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Plants For A Future: Database Search Results

Hemerocallis plicata

Common name:		Family:	Hemerocallidaceae
Author:	Stapf.	Botanical references:	205
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - S.W. and W. China.		
Habitat:	Sub-alpine woods and alpine meadows[205].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	plicata = pleated;

Physical Characteristics

Perennial growing to 0.5m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked. A radish-like flavour, but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

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Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

The string-like roots have spindle-shaped swellings near their ends[205].

Hybridizes freely with other members of this genus[200]. This species is closely related to H. multiflora, differing mainly in height, number of flowers on a scape and the folding of the leaves[205].

Plants take a year or two to become established after being moved[1].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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Plants For A Future: Database Search Results

Hemerocallis plicata

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Author:	Stapf.	Botanical references:	205
Synonyms:			
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Range:	E. Asia - S.W. and W. China.		
Habitat:	Sub-alpine woods and alpine meadows[205].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	plicata = pleated;

Physical Characteristics

Perennial growing to 0.5m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves; Root.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[177]. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Root - raw or cooked. A radish-like flavour, but not so sharp[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position but tolerating partial shade. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

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Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

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Add a comment on: *Hemerocallis plicata*

Subject:

Hemerocallis plicata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis plicata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

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Date: Sun May 16 01:57:52 2004

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Add Comment Reset

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Hemerocallis thunbergii

Common name:		Family:	Hemerocallidaceae
Author:	Bak.	Botanical references:	58, 200
Synonyms:	Hemerocallis vespertina (Hara.), Hemerocallis citrina (Nakai. non Baroni.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. China, Japan, Korea.		
Habitat:	Mountains in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.5m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds- raw or cooked[105, 177]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[200]. They increase by means of runners[205] and form loose spreading clumps[K]. The roots are not swollen[233].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

The fragrant flowers are very short-lived, they open in the late afternoon and die in the morning[200, 205]. However, plants produce a succession of flowers for several weeks of the summer, each scape carrying between 4 and 20 blooms[205].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hemerocallis citrina* (a possible synonym).

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References for *Hemerocallis vespertina* (a possible synonym).

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

Tue Jun 27 01:46:20 2000

Hemerocallis are not hallucinogenic! That is a mistaken idea. But eating too many leaves may cause loose bowels.When I was the horticulturist for Daylily Discounters, our yearly garden tour would feature fresh buds dipped in batter and fried with a dip of tomatoe chutney. Sincerely, Douglas Glick Horticulturist

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

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Plants For A Future: Database Search Results

Hemerocallis thunbergii

Common name:		Family:	Hemerocallidaceae
Author:	Bak.	Botanical references:	58, 200
Synonyms:	Hemerocallis vespertina (Hara.), Hemerocallis citrina (Nakai. non Baroni.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. China, Japan, Korea.		
Habitat:	Mountains in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.5m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds- raw or cooked[105, 177]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[200]. They increase by means of runners[205] and form loose spreading clumps[K]. The roots are not swollen[233].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

The fragrant flowers are very short-lived, they open in the late afternoon and die in the morning[200, 205]. However, plants produce a succession of flowers for several weeks of the summer, each scape carrying between 4 and 20 blooms[205].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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Plants For A Future: Database Search Results

Hemerocallis thunbergii

Common name:		Family:	Hemerocallidaceae
Author:	Bak.	Botanical references:	58, 200
Synonyms:	Hemerocallis vespertina (Hara.), Hemerocallis citrina (Nakai. non Baroni.)		
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - N. China, Japan, Korea.		
Habitat:	Mountains in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Physical Characteristics

Perennial growing to 0.5m by 0.5m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[205]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds- raw or cooked[105, 177]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

Hybridizes freely with other members of this genus[200].

Plants take a year or two to become established after being moved[200]. They increase by means of runners[205] and form loose spreading clumps[K]. The roots are not swollen[233].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

The fragrant flowers are very short-lived, they open in the late afternoon and die in the morning[200, 205]. However, plants produce a succession of flowers for several weeks of the summer, each scape carrying between 4 and 20 blooms[205].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis thunbergii*

Subject:

Hemerocallis thunbergii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site: ☐

URL for Site: http://

Details: ☐

Details of Location and growing conditions:

☐

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis thunbergii

Please use the exact Latin Names of the plants as specified in this database, one per line.

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☐

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Hemerocallis yezoensis

Common name:		Family:	Hemerocallidaceae
Author:	Hara.	Botanical references:	58
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Grassy places and marshy meadows near the sea[187].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	yezoensis = from Hokkaido;

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 177]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[205]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

The roots are slender and not swollen[187]. The scapes carry between 4 and 12 blooms[205].

Hybridizes freely with other members of this genus[200]. It is closely related to H. vespertina Hara.[58].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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Readers Comments

Hemerocallis citrina

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Tue Jun 27 01:46:20 2000

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Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

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Plants For A Future: Database Search Results

Hemerocallis yezoensis

Common name:		Family:	Hemerocallidaceae
Author:	Hara.	Botanical references:	58
Synonyms:			
Known Hazards:	Large quantities of the leaves are said to be hallucinogenic. Blanching the leaves removes this hallucinatory component[205]. (This report does not make clear what it means by blanching, it could be excluding light from the growing shoots or immersing in boiling water[K].)		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Grassy places and marshy meadows near the sea[187].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	yezoensis = from Hokkaido;

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Flowers; Leaves.

Leaves and young shoots - cooked[105, 177]. They must be consumed when very young or else they become fibrous[K].

Flowers and flower buds - raw or cooked[205]. The flowers can be dried and used as a thickener in soups etc. The flower buds contain about 43mg vitamin C per 100g, 983 IU vitamin A and 3.1% protein[205].

Medicinal Uses

Disclaimer

Antidote; Diuretic.

The juice of the roots is an effective antidote in cases of arsenic poisoning[205].

A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

The roots are slender and not swollen[187]. The scapes carry between 4 and 12 blooms[205].

Hybridizes freely with other members of this genus[200]. It is closely related to H. vespertina Hara.[58].

Plants take a year or two to become established after being moved[200].

Plants seem to be immune to the predations of rabbits[233].

The plants are very susceptible to slug and snail damage, the young growth in spring is especially at risk[200].

Propagation

Seed - sow in the middle of spring in a greenhouse. Germination is usually fairly rapid and good. Prick out the seedlings into individual pots when they are large enough to handle. Grow the plants on for their first winter in a greenhouse and plant out in late spring[K].

Division in spring or after flowering in late summer or autumn[200]. Division is very quick and easy, succeeding at almost any time of the year[K]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants

that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[205] **Erhardt. W.** *Hemerocallis. Day Lilies.* Batsford. 1992 ISBN 0-7134-7065-8
A comprehensive book on the species with a short section on their uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

Readers Comments

Hemerocallis citrina

Juerg Plodeck Tue Oct 26 22:36:18 1999

What I missed in your article is that the *H. citrina* is the normally used plant in China for eating its flowers. The flowers will be harvested shortly before they open (they open in the evening and flower in the night). The flowers of *H. citrina* smell a little bit a citron, that is the reason why it got that name. I believe if you could taste that flower you would be even more enthusiastic about that flower than about all the others of the *Hemerocallis* species.

Cross references: *Plants:* *Hemerocallis citrina*. *Genera:* *Hemerocallis*. *Web-pages:* *Hemerocallis Species - The Day Lilies.*.

Hemerocallis citrina

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Plants For A Future: Database Search Results

Hemerocallis yezoensis

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Author:	Hara.	Botanical references:	58
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Habitat:	Grassy places and marshy meadows near the sea[187].		
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Epithets:	From a Dictionary of Botanical Epithets
	yezoensis = from Hokkaido;

Physical Characteristics

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A tea made from the boiled roots is used as a diuretic[205].

Other Uses

Weaving.

The tough dried foliage is plaited into cord and used for making footwear[205].

Cultivation details

Succeeds in most soils[1], including dry ones, preferring a rich moist soil and a sunny position[111] but tolerating partial shade[88]. Plants flower less freely in a shady position though the flowers can last longer in such a position[205]. Grows well in heavy clay soils. Succeeds in short grass if the soil is moist[1]. Prefers a pH between 6 and 7[200].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

The roots are slender and not swollen[187]. The scapes carry between 4 and 12 blooms[205].

Hybridizes freely with other members of this genus[200]. It is closely related to H. vespertina Hara.[58].

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Propagation

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hemerocallis yezoensis*

Subject:

Hemerocallis yezoensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hemerocallis yezoensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:58:10 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Hosta plantaginae

Common name:	August lily	Family:	Funkiaceae
Author:	(Lam.) Asch.	Botanical references:	200
Synonyms:	Hosta subcordata		
Known Hazards:	One report suggests the plant may be poisonous[178].		
Range:	E. Asia - China, Japan.		
Habitat:	Roadside thickets and waste places in N. America, where it is naturalized[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. plantaginea[B,G,P] Hemerocallis plantaginea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Fragrant Plantain-lily [B], Fragrant Plantainlily [P],

Physical Characteristics

Perennial growing to 0.6m by 1.2m . It is hardy to zone 4 and is frost tender. It is in flower from July to September, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Leaves; Stem.

Young leaves and leaf stems - cooked[105, 177]. One report suggests the plant may be poisonous[178].

Medicinal Uses

Disclaimer

Cancer.

The flowers are said to have anticancer activity[218].

Other Uses

Essential; Ground cover.

An essential oil is obtained from the leaves, used in perfumery[178].

A useful ground cover plant, succeeding in dense shade, though rather slow spreading[197]. Plants should be spaced about 60cm apart each way[208].

Cultivation details

Thrives in most fertile soils if they are rich in humus[200]. Grows well in heavy clay soils and in sandy ones[208]. Very limy soils inhibit growth, but plants can thrive in such a situation if plenty of humus is added[208]. Prefers a pH between 6 and 7[200]. Requires a rich soil that does not dry out readily[1]. Succeeds in full sun as well as in deep shade, growing well in the semi-shade of a woodland[200, 233]. In general, the sunnier the position the moister the soil should be[233]. Plants are best not grown under trees in town gardens since the soot washed from the leaves of the trees in wet weather will tend to remain on the hosta[208]. Plants flower better when grown in a sunny position but the foliage is better when the plant is in a shady position[200]. This species tolerates quite a lot of sun[187].

Plants are in general fully hardy in Britain, but young leaves in spring can be destroyed by frost. New leaves are only produced in the spring and very early summer, so any damage at this time has a deep effect on the plant[233].

The plant forms open clumps[200].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Plants are very attractive to slugs and snails, the young shoots in spring are especially at risk[111, K].

A very ornamental plant[1], there are some named varieties[187]. The flowers open in the evening[188] and have a delicious lily-like fragrance[233]. The plant only flowers well when grown in a warm position[233], and is not really satisfactory when grown in most areas north of London[251]..

Hybridizes freely with other members of this genus[200].

Propagation

Seed - sow spring in a lightly shaded position in a greenhouse and only just cover the seed. Germination usually takes place within 1 - 3 months at 10°c. Make sure you keep the compost moist. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division is possible at almost any time of the year so long as there is sufficient moisture[233]. It is best carried out in March as growth commences or in early autumn if the soil is not too dry[200]. Hostas can be left undivided for many years and should not be divided any more frequently than once every 3 - 5 years to allow the leaves to reach maturity[200].

Scent

Flowers: Fresh

> The flowers open in the evening and have a delicious lily-like fragrance.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: H
- Checklist of plants suitable for ground cover

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hosta plantaginea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[251] **Grenfell. Diana** *The Gardener's Guide to Growing Hostas* David &Charles 1996 ISBN 0-7153-0431-3
Excellent cover of the genus, though it concentrates mainly on the cultivars and does not go much into plant uses.

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If you know of another site which has good information about this plant fill in the following the details here.

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Leaves; Stem.

Young leaves and leaf stems - cooked[105, 177]. One report suggests the plant may be poisonous[178].

Medicinal Uses

Disclaimer

Cancer.

The flowers are said to have anticancer activity[218].

Other Uses

Essential; Ground cover.

An essential oil is obtained from the leaves, used in perfumery[178].

A useful ground cover plant, succeeding in dense shade, though rather slow spreading[197]. Plants should be spaced about 60cm apart each way[208].

Cultivation details

Thrives in most fertile soils if they are rich in humus[200]. Grows well in heavy clay soils and in sandy ones[208]. Very limy soils inhibit growth, but plants can thrive in such a situation if plenty of humus is added[208]. Prefers a pH between 6 and 7[200]. Requires a rich soil that does not dry out readily[1]. Succeeds in full sun as well as in deep shade, growing well in the semi-shade of a woodland[200, 233]. In general, the sunnier the position the moister the soil should be[233]. Plants are best not grown under trees in town gardens since the soot washed from the leaves of the trees in wet weather will tend to remain on the hosta[208]. Plants flower better when grown in a sunny position but the foliage is better when the plant is in a shady position[200]. This species tolerates quite a lot of sun[187].

Plants are in general fully hardy in Britain, but young leaves in spring can be destroyed by frost. New leaves are only produced in the spring and very early summer, so any damage at this time has a deep effect on the plant[233].

The plant forms open clumps[200].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Plants are very attractive to slugs and snails, the young shoots in spring are especially at risk[111, K].

A very ornamental plant[1], there are some named varieties[187]. The flowers open in the evening[188] and have a delicious lily-like fragrance[233]. The plant only flowers well when grown in a warm position[233], and is not really satisfactory when grown in most areas north of London[251]..

Hybridizes freely with other members of this genus[200].

Propagation

Seed - sow spring in a lightly shaded position in a greenhouse and only just cover the seed. Germination usually takes place within 1 - 3 months at 10°c. Make sure you keep the compost moist. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division is possible at almost any time of the year so long as there is sufficient moisture[233]. It is best carried out in March as growth commences or in early autumn if the soil is not too dry[200]. Hostas can be left undivided for many years and should not be divided any more frequently than once every 3 - 5 years to allow the leaves to reach maturity[200].

Scent

Flowers: Fresh

> The flowers open in the evening and have a delicious lily-like fragrance.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: H
- Checklist of plants suitable for ground cover

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hosta plantaginea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of

edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[251] **Grenfell. Diana** *The Gardener's Guide to Growing Hostas* David &Charles 1996 ISBN 0-7153-0431-3
Excellent cover of the genus, though it concentrates mainly on the cultivars and does not go much into plant uses.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Hosta+plantaginae`

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Checklist of plants suitable for ground cover: H

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Hebe 'Great Orme'		Sh	E	1.00	6	LMH	N	M	ANB	M	Can also be used as a hedge. Tolerates maritime exposure.
Hebe rakaiensis		Sh	E	1.00	6	LMH	N	M	ANB	M	Can also be grown as a hedge.
Hedera helix	Ivy	Cl	E	15.00	5	LMH	FSN	MWe	ANB	M	Dye, hair shampoo. An excellent plant for wildlife.
Herniaria glabra	Rupture wort	Bi/P		0.02	5	LM	N	DM	ANB	S	Medicinal.
Heuchera americana	Rock geranium	P	E	0.45	4	LM	SN	M	ANB		Mordant.
Heuchera cylindrica	Alum root	P	E	0.45	4	LM	SN	M	ANB		Edible leaves. Mordant.
Heuchera diversifolia	Alum root	P	E	0.45	5	LM	SN	M	ANB		Edible leaves. Mordant.
Heuchera glabra		P	E	0.60	4	LM	SN	M	ANB		Edible leaves. Mordant.
Heuchera micrantha	Alum root	P	E	0.60	5	LM	SN	M	ANB		Edible leaves. Mordant.
Heuchera sanguinea	Alum root	P	E	0.60	6	LM	SN	M	ANB		Mordant.

Heuchera versicolor		P	E	0.20	9	LM	SN	M	ANB		Mordant.
Hosta crispula		P		0.30		LMH	SN	M	ANB	M	Edible leaves and stems.
Hosta longipes		P		0.30		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta plantaginae		P		0.25		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta rectifolia		P		0.20		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta sieboldiana		P		0.60		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta undulata		P		0.30		LMH	FSN	M	ANB	M	Edible leaves and stems.
Hosta ventricosa		P		0.25	5	LMH	FSN	M	ANB	M	Edible leaves and stems.
Houttuynia cordata	Tsi	P		0.60	5	LMH	S	MWeWa	ANB	F	Edible leaves.
Hydrangea anomala		Cl	D	12.00	5	LMH	FSN	M	ANB	M	Edible leaves. Sugar. Paper. Wind tolerant.
Hypericum androsaemum	Tutsan	Sh	D	1.00	6	LMH	SN	DM	ANB	M	Medicinal. Wind tolerant.
Hypericum bellum		Sh	E	0.70	6	LMH	SN	M	ANB		
Hypericum calycinum	Rose of Sharon	Sh	E	0.30	6	LMH	FSN	DM	ANB	F	Dye.

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Checklist of plants suitable for ground cover: G

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Galium mollugo	Hedge bedstraw	P		1.20	3	LMH	S	DM	ANB	M	Edible leaves. Dye.
Galium odoratum	Sweet woodruff	P		0.15	5	LMH	fs	DM	ANB	M	Edible leaves, tea. Dye. Medicinal.
Gaultheria adenothrix		Sh	E	0.30	9	LM	FS	M	AN	M	Edible fruit.
Gaultheria depressa	Mountain snowberry	Sh	E	0.10	9	LM	sn	M	AN	M	Edible fruit.
Gaultheria hispidula	Creeping snowberry	Sh	E	0.10	6	LM	S	M	AN	F	Edible fruit.
Gaultheria humifusa	Alpine wintergreen	Sh	E	0.10	7	LM	sn	M	AN		Edible fruit.
Gaultheria macrostigma		Sh	E	0.50	8	LM	S	M	A		Edible fruit.
Gaultheria mucronata		Sh	E	1.50	6	LM	SN	M	A		Edible fruit.
Gaultheria myrsinoides		Sh	E	0.15	9	LM	SN	M	A		Edible fruit.
Gaultheria nummularioides		Sh	E	0.10	9	LM	SN	M	AN		Edible fruit.
Gaultheria ovatifolia	Checkerberry	Sh	E	0.15	6	LM	FS	M	AN	M	Edible fruit.
Gaultheria procumbens	Checkerberry	Sh	E	0.15	4	LM	FS	DM	AN	M	Edible fruit and leaves. Tea. Essential oil, Medicinal.
Gaultheria pumila leucocarpa		Sh	E	0.20	7	LM	SN	M	A	F	Edible fruit.
Gaultheria shallon	Shallon	Sh	E	1.20	5	LM	FS	DM	A	M	Edible fruit. Tea. Dye.

Gaultheria tricophylla		Sh	E	0.10	8	LM	SN	M	AN		Edible fruit.
Gaultheria x wisleyensis		Sh	E	1.00	6	LM	FS	M	A		Edible fruit.
Gaylussacia brachycera	Box huckleberry	Sh	E	0.45	6	LMH	SN	DM	A		Edible fruit.
Genista hispanica	Spanish gorse	Sh	D	0.50	6	LM	N	DM	ANB		Medicinal. Drought tolerant.
Geranium macrorrhizum		P		0.50	4	LMH	SN	DM	NB	F	Essential oil.
Geranium sylvaticum	Wood cranesbill	P		0.60	4	LMH	FSN	M	ANB	F	Essential oil.
Geranium wallichianum		P		0.30	7	LMH	sn	M	ANB	F	Dye.
Glechoma hederacea	Ground ivy	P	E	0.20		MH	S	M	ANB	F	Edible leaves. Tea.

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Checklist of plants suitable for ground cover: D - F

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Dactylis glomerata	Cock's foot	P		1.00	5	LMH	SN	M	ANB	F	A food plant for native wildlife.
Darmera peltata	Umbrella plant	P		2.00	6	LMH	SN	WeWa	ANB		Edible leaf stalk. Soil stabilization.
Deschampsia caespitosa	Tussock grass	P		1.50	5	LMH	SN	MWe	ANB	M	Edible seed.
Dianthus gratianopolitanus	Cheddar pink	P		0.30	3	LMH	N	D	NB	M	
Dryas octopetala	Mountain avens	Sh	E	0.10	2	LMH	N	M	ANB	M	Tea substitute.
Dryopteris felix-mas	Male Fern	F		1.20	2	LMH	S	DM	AN	M	Edible young fronds - must be cooked.
Duchesnea indica		P		0.10	6	LMH	N	M	ANB	F	Edible fruit.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes	Elymus arenarius	Lyme grass	P		1.20	6	LMH	N	DM	ANB	F	Weaving, soil stabilization. Tolerates maritime exposure.
Empetrum atropurpureum	Purple crowberry	Sh	E	0.20		LM	SN	M	A	S	Edible fruit. Wind tolerant.												
Empetrum eamesii	Rockberry	Sh	E	0.15	3	LM	SN	M	A	S	Edible fruit. Wind tolerant.												
Empetrum eamesii hermaphroditum	Mountain crowberry	Sh	E	0.30	3	LMH	N	M	AN	S	Edible fruit. Wind tolerant.												

Empetrum nigrum	Crowberry	Sh	E	0.30	3	LMH	SN	M	AN	S	Edible fruit. Dye. Wind tolerant.
Empetrum rubrum		Sh	E	0.30	8	LMH	sn	M	AN	S	Edible fruit. Wind tolerant.
Epigaea asiatica		Sh	E	0.10	4	LM	FS	M	AN		Edible fruit.
Epimedium grandiflorum		P		0.35	5	LMH	S	M	ANB		Young leaves - cooked.
Epimedium sagittatum		P		0.50	6	LMH	S	M	ANB		Young leaves - cooked.
Erica vagans	Cornish heath	Sh	E	0.75	5	LM	N	DM	AN	M	Dye, brooms, thatching.
Erica x darleyensis		Sh	E	0.60	6	LM	N	M	ANB	M	Dye, brooms, thatching.
Euonymus fortunei		Sh	E	4.50	5	LMH	FSN	DM	ANB	M	Plants can also be grown as a hedge.

Botanical name	**Common name**	**Habit**	**Evergreen/ Decidious**	**Height (meters)**	**Hardyness zone**	**Soil**	**Shade**	**Moisture**	**pH**	**Growth rate**	**Notes**	Fragaria californica	Californian strawberry	P	0.30	LMH	SN	M	ANB	F	Edible fruit.
Fragaria daltoniana		P		0.30		LMH	SN	M	ANB	F	Edible fruit.										
Fragaria moschata	Hautbois strawberry	P		0.45	6	LMH	SN	M	ANB	F	Edible fruit.										
Fragaria viridis	Green strawberry	P		0.30	6	LMH	SN	M	ANB	F	Edible fruit.										

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Checklist of plants suitable for ground cover: C

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Calluna vulgaris	Heather	Sh	E	0.60	4	LM	SN	DM	A	M	Tea, dye, thatching, basketry, brooms.
Campanula portenschlagiana		P		0.25	3	LM	SN	M	NB	F	Edible leaves.
Campanula poscharskyana		P	E	0.25	3	LM	SN	M	NB	F	Edible leaves.
Campsis radicans	Trumpet vine	Cl	D	12.00	4	LMH	SN	M	ANB	F	Medicinal.
Carex elata	Tufted sedge	P	E	1.20	7	LMH	SN	MWe	ANB	M	Edible root and seed.
Ceanothus prostratus	Squaw carpet	Sh	E	0.05	7	LM	SN	DM	ANB	M	Dye, soap substitute.
Ceanothus purpureus	Hollyleaf ceanothus	Sh	E	2.00	8	LM	SN	DM	ANB	M	Dye, soap substitute.
Ceanothus thyrsiflorus	Blue brush	Sh	E	4.50	7	LM	SN	DM	ANB	M	Dye, soap substitute. Tolerates maritime exposure.
Centaurea montana	Mountain cornflower	P		0.45	3	LMH	N	DM	ANB	F	Succeeds in poor soils.
Cephalotaxus fortunei	Chinese plum yew	Sh	E	6.00	7	LMH	FSN	M	ANB	S	Edible seed and fruit.
Chaenomeles speciosa	Japanese quince	Sh	D	3.00	5	LMH	FSN	M	ANB	M	Edible fruit.
Chaenomeles x superba	Dwarf quince	Sh	D	1.00	5	LMH	FSN	M	ANB	F	Edible fruit.

Chamaemelum nobile	Chamomile	P	E	0.15	4	LMH	SN	DM	ANB	M	Tea, condiment, hair shampoo, dye, companion plant, liquid feed and plant tonic, medicinal.
Chelidonium majus	Greater celandine	P		0.50	6	LMH	FSN	M	ANB	F	Medicinal. A weed in the garden, only use it in wild areas.
Chrysosplenium alternifolium	Golden saxifrage	P		0.30	4	LMH	SN	MWe	ANB	M	Edible leaves.
Chrysosplenium americanum	Water mat	P		0.10	3	LMH	SN	MWe	ANB	M	Condiment.
Chrysosplenium oppositifolium	Golden saxifrage	P		0.15	5	LMH	SN	MWe	ANB	M	Edible leaves.
Cistus salviifolius	Rock rose	Sh	E	0.60	8	LM	N	DM	ANB	M	Condiment. Tolerates maritime exposure.
Clematis orientalis		Cl	D	2.00	6	LMH	SN	M	ANB	F	Medicinal.
Convallaria keiskei	Lily of the valley	P		0.30	3	LMH	FSN	DMWe	ANB	S	Medicinal.
Convallaria majalis	Lily of the valley	P		0.15	3	LMH	FSN	DMWe	ANB	S	Essential oil, dye. Medicinal.
Coprosma acerosa brunnea		Sh	E	0.10	8	LM	SN	M	AN	S	Edible fruit. Coffee substitute. Dye.
Coptis brachypetala		P	E	0.22		LM	S	M	A	M	Dye.
Coptis chinensis		P	E	0.20		LMH	SN	MWe	A		Medicinal.
Coptis deltoidea		P	E			LMH	SN	MWe	A		Medicinal.
Coptis japonica		P	E	0.22	7	LMH	SN	M	A		Medicinal.
Coptis occidentalis		P	E	0.15	4	LMH	SN	M	A		Dye. Medicinal.
Coptis teeta		P	E	0.15		LMH	SN	M	A		Medicinal.
Coptis teetoides		P	E			LMH	SN	M	A		Medicinal.
Coptis trifolia	Goldthread	P	E	0.15	2	LMH	S	M	A		Dye. Medicinal.

Coriaria microphylla		Sh	D	1.20	8	LMH	SN	M	ANB	M	Dye, ink, tannin.
Cornus canadensis	Creeping dogwood	P		0.25	2	LMH	SN	M	AN	M	Edible fruit.
Cornus suecica	Dwarf cornel	P		0.15	2	LM	SN	M	AN	M	Edible fruit.
Coronilla varia	Crown vetch	P		0.30	6	LMH	N	DM	ANB	M	Insecticide. Soil stabilizer. Tolerates maritime exposure and poor soils.
Cotoneaster conspicuus		Sh	E	3.00	6	LMH	SN	M	ANB	M	Dye. Wind tolerant.
Cotoneaster microphyllus		Sh	E	1.00	5	LMH	SN	M	ANB	S	Dye. Wind tolerant.
Cyathodes colensoi		Sh	E	0.45	8	LMH	S	M	AN	S	Edible fruit.
Cyathodes fraseri		Sh	E	0.15	8	LMH	FS	M	AN	S	Edible fruit.
Cystopterus bulbifera		F			5	LMH	FS	M	ANB	F	Edible root. The plant can become invasive.
Cytisus scoparius	Broom	Sh	D	2.40	5	LMH	SN	DM	ANB	F	Succeeds on poor soils. Condiment, coffee substitute, fibre, dye, brooms. Medicinal.

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Checklist of plants suitable for ground cover: B

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Baccharis pilularis	Chaparral broom	Sh	E	0.50	8	LMH	N	DM	ANB	M	Tolerates poor soils. A good ground stabilizer.
Baccharis viminea	Mule fat	Sh	E	4.00	8	LMH	N	DM	ANB	M	Tolerates poor soils. A good ground stabilizer.
Ballota pseudodictamnus		P	E	0.60	8	LMH	N	DM	ANB	M	Flowers are used as candle wicks.
Bergenia ciliata		P	E	0.30	7	LMH	SN	M	ANB	M	Medicinal. Tolerates poor soils.
Bergenia crassifolia		P	E	0.30	3	LMH	FSN	M	ANB	S	A tea is made from the leaves.
Bergenia purpurascens		P	E	0.45	4	LMH	SN	M	ANB	S	Medicinal.
Blechnum spicant	Hard Fern	F	E	0.30	5	LMH	FSN	M	AN	S	Root and young leaves - cooked.
Brachyglottis 'Sunshine'		Sh	E	1.50	8	LMH	N	M	ANB	S	Tolerates maritime exposure and drought.

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Checklist of plants suitable for ground cover: A

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Acaenia anserinifolia	Pirri-pirri bur	P	E	0.10	6	LMH	SN	M	ANB	F	Leaves used for tea.
Acanthus mollis	Bear's breeches	P		1.20		LM	SN	DM	ANB	S	Drought tolerant.
Adiantum venustum		F	E	0.25	9	LMH	S	M	ANB	M	
Aegopodium podagraria	Ground elder	P		0.60	5	LMH	FSN	M	ANB	F	Edible leaves.
Ajuga australis		P	E	0.15	6	LMH	N	DM	ANB	F	
Ajuga reptans	Bugle	P	E	0.30	6	LMH	FSN	DMWe	ANB	M	Edible young shoots. Drought tolerant.
Alchemilla vulgaris	Lady's mantle	P		0.30	5	LMH	SN	DM	NB	S	Edible young leaves.
Antennaria dioica	Catsfoot	P	E	0.12	5	L	N	DM	ANB	S	Tolerates poor soil and drought.
Arabis caucasica	Rock cress	P	E	0.15	4	LMH	SN	DM	ANB	M	Edible leaves. Tolerates poor soil and drought.
Arctostaphylos nevadensis	Pine-mat manzanita	Sh	E	0.10	6	LM	SN	M	A	M	Edible fruit and seed. Dye.
Arctostaphylos uva-ursi	Bearberry	Sh	E	0.10	4	LM	FSN	M	ANB	M	Edible fruit. Dye.
Arisarum vulgare	Friar's cowl	P		0.45	7	LM	FS	M	ANB		Edible root if thoroughly cooked.

Armeria maritima	Thrift	P	E	0.10	4	LM	N	DM	ANB	M	Edible leaves. Tolerates maritime exposure.
Artemesia ludoviciana	White sage	P		1.00	5	LM	SN	DM	NB	M	Condiment, leaves, tea. Drought tolerant.
Artemesia stelleriana	Beach wormwood	P	E	0.50	3	LM	N	DM	ANB	M	Condiment, tea. Medicinal. Drought tolerant.
Asarum canadense	Snake root	P		0.30	2	LMH	FS	M	ANB	S	Root is a ginger substitute. Medicinal.
Asarum caudatum		P	E	0.10	7	LMH	FS	M	AN	S	Root is a ginger substitute.
Asarum europaeum	Asarabacca	P	E	0.10	4	LMH	FS	M	ANB	S	Dye. Medicinal.
Asarum shuttleworthii		P	E	0.10	6	LMH	FS	M	AN	S	Root is a ginger substitute.
Aspidistra elatior	Aspidistra	P	E	0.60	7	LMH	FS	DM	ANB	S	Medicinal. Tolerates drought and poor soils.
Asplenium scolopendrium	Hart's tongue Fern	F	E	0.60	5	LM	FS	DM	ANB	M	Medicinal.
Athyrium felix-femina	Lady Fern	F		0.60	2	LMH	FS	M	ANB	M	Edible young shoots and root - they must be well cooked.
Aubrietia deltoidea	Aubretia	P	E	0.15	7	LM	SN	DM	ANB	M	Drought tolerant.
Aurinia saxatilis	Golden alyssum	P	E	0.25	3	LMH	N	DM	ANB	M	Tolerates drought and poor soils.

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Checklist of plants suitable for ground cover: I - L

Botanical name	Common name	Habit	Evergreen/ Deciduous	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Imperata cylindrica		P		1.20	8	LMH	N	DM	ANB	F	Edible young shoots and root. Weaving, paper making, thatching. Tolerates maritime exposure
Iris foetidissima	Stinking gladwin	P	E	0.60	6	LMH	FSN	DM	ANB	S	Medicinal. Tolerates maritime exposure.
Juniperus communis	Juniper	Sh	E	9.00	2	LMH	SN	DM	ANB	S	Edible fruit, condiment, coffee, tea. Essential oil, incense, insect repellent. Medicinal.
Juniperus communis nana	Juniper	Sh	E	9.00	2	LMH	SN	DM	ANB	S	Same as above.
Juniperus conferta	Shore juniper	Sh	E		5	LMH	SN	DM	ANB	S	Edible fruit. Tolerates maritime exposure.
Juniperus horizontalis	Creeping juniper	Sh	E	1.00	4	LMH	N	DM	ANB	S	Coffee, tea. Tolerates maritime exposure.

Juniperus sabina	Savine	Sh	E	4.00	3	LMH	N	DM	ANB	S	Essential oil, parasiticide, insect repellent.
Juniperus squamata	Flaky juniper	Sh	E	8.00	5	LMH	N	DM	ANB	S	Medicinal. Drought tolerant.
Lamium album	White dead nettle	P		0.60	4	LMH	SN	M	ANB	M	Edible young leaves.
Lamium galeobdolon	Yellow archangel	P		0.30	6	LMH	FSN	M	ANB	F	Edible young leaves and flowers.
Lathyrus latifolius	Perennial sweet pea	P Cl		2.00	5	LMH	SN	DM	ANB	F	Seed, seedpods and young plants might be edible. Drought tolerant.
Liriope graminifolia		P	E	0.30	8	LM	SN	DM	ANB	M	Edible root. Drought tolerant.
Liriope minor		P	E	0.30	8	LM	SN	DM	ANB	M	Edible root. Drought tolerant.
Liriope muscari		P	E	0.45	8	LM	FSN	DM	ANB	M	Edible root. Drought tolerant.
Liriope spicata		P	E	0.30	4	LM	SN	DM	ANB	M	Edible root. Drought tolerant.
Lonicera henryi		Cl	E	4.00	4	LMH	SN	M	ANB	F	Edible flowers, leaves and stems.
Lonicera japonica		Cl	E	5.00	4	LMH	SN	DM	ANB	F	Edible flowers. Tea.
Lonicera nitida	Boxleaf honeysuckle	Sh	E	3.60	7	LMH	FSN	M	ANB	F	Can also be used as a hedge.
Lonicera pileata		Sh	E	0.20	5	LMH	FSN	DM	ANB	M	Tolerates maritime exposure.
Lysimachia nummularia	Creeping Jenny	P	E	0.15	4	LMH	SN	MWeWa	ANB	M	Tea.

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Checklist of plants suitable for ground cover: M - O

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Mahonia aquifolium	Oregon grape	Sh	E	2.00	5	LMH	FSN	DM	ANB	M	Edible fruit and flowers. Dye.
Mahonia repens	Oregon grape	Sh	E	0.30	6	LMH	SN	DM	ANB	M	Edible fruit. Dye.
Maianthemum canadense		P		0.20	3	LMH	FS	M	ANB	M	The fruit might be edible.
Matteuccia struthiopteris	Ostrich Fern	F		0.90	2	LMH	S	M	AN	M	Edible young leaves and root.
Meehania urticifolia		P		0.30	5	LMH	S	M	ANB		Edible young leaves.
Mentha requienii	Corsican mint	P		0.10	6	LMH	SN	M	ANB	S	Edible young leaves. Tea.
Millium effusum	Wood millet	P		1.80	6	LMH	FS	DM	ANB	M	Edible seed. Weaving, soil stabilization.
Miscanthus sinensis	Eulalia	P		4.00	4	LMH	SN	M	ANB	F	Biomass. Wind tolerant.
Mitchella repens	Partridge berry	Sh	E	0.30	3	LM	SN	M	AN		Edible fruit.
Mitchella undulata		P	E	0.10	6	LM	SN	M	AN		Edible fruit.
Montia sibirica	Pink purslane	A/P		0.15	3	LMH	FSN	DM	ANB	M	Edible leaves and flowers.
Muehlenbeckia axillaris		Cl	D	0.30	8	LMH	SN	M	ANB	M	Edible fruit.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Oenanthe javanica	Water dropwort	P		1.00	10	LMH	N	WeWa	ANB		Edible root, leaves and seed.
Onoclea sensibilis	Sensitive Fern	F		1.20	4	LMH	FS	MWe	AN		Edible young leaves and root.
Ophiopogon japonicus		P	E	0.30	7	LM	SN	MWeWa	ANB		Edible root.

Origanum vulgare	Oreganum	P		0.60	5	LMH	SN	DM	ANB	M	Edible leaves, tea, condiment. Essential oil, dye, insect repellent. Medicinal.
Origanum vulgare hirtum	Greek oregano	P		0.60	5	LMH	SN	DM	ANB	M	As above.
Oxalis oregana	Redwood sorrel	P		0.20	7	LMH	FSN	M	ANB	M	Edible young leaves.

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Checklist of plants suitable for ground cover: P

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Pachyphragma macrophylla		P	E	0.40	7	LMH	FS	DM	ANB		Edible leaves?
Pachysandra terminalis		Sh	E	0.20	5	LMH	FS	DM	ANB	M	Edible fruit. Drought tolerant.
Paronychia argentea	Algerian tea	P		0.10	7	LM	N	DM	ANB		Tea substitute.
Parthenocissus quinquefolia	Virginia creeper	Cl	D	30.00	3	LMH	SN	M	ANB	F	Edible fruit and stems. Dye.
Parthenocissus tricuspidata	Boston ivy	Cl	D	18.00	4	LMH	SN	M	ANB	F	Edible sap.
Peltaria alliacea	Garlic cress	P	E	0.30	6	LM	SN	M	ANB	M	Edible leaves.
Pennisetum alopecuroides		P		1.50	7	LM	N	DM	ANB		Edible seed.
Petasites albus	Butterbur	P		0.60	5	LMH	FSN	M	ANB	F	Edible leaf stems.
Petasites frigidus	Sweet coltsfoot	P		0.15	5	LMH	FSN	MWe	ANB	F	Edible leaves, stems and roots.
Petasites japonicus	Sweet coltsfoot	P		1.50	5	LMH	FSN	MWe	ANB	F	Edible leaf stems and flowers.
Phalaris arundinacea	Canary grass	P		1.50	4	LMH	SN	DMWe	ANB	F	
Phlomis fruticosa	Jerusalem sage	Sh	E	1.30	7	LMH	N	DM	ANB	M	Succeeds in poor soils.
Phlomis russeliana		P		1.00	7	LMH	SN	DM	ANB	F	Drought tolerant.
Phlomis samia		P		1.00	7	LMH	SN	DM	ANB	F	
Phyla nodiflora	Frogfruit	P		0.20	10	LMH	N	DM	ANB		Edible leaves. Tea.

Picea abies	Norway spruce	T	E	60.00	4	LMH	N	MWe	AN	F	Selected dwarf cultivars are used. Edible cones, inner bark, tea. Adhesive, turpentine.
Pinus mugo	Dwarf mountain pine	T	E	4.50	3	LM	N	DM	AN	M	Condiment, dye. Soil stabilization.
Platycrater arguta		Sh	D	0.20	8	LMH	S	M	ANB		Tea. Wind tolerant.
Pleioblastus humilis		B	E	2.00	7	LMH	S	M	ANB	F	Soil stabilization.
Pleioblastus humilis pumilus		B	E	1.00	7	LMH	S	M	ANB	F	Soil stabilization.
Pleioblastus pygmaeus	Fern-leaf bamboo	B	E	0.25	6	LMH	SN	M	ANB	F	Soil stabilization.
Pleioblastus pygmaeus distichus		B	E	0.75	6	LMH	SN	M	ANB	F	Soil stabilization.
Pleioblastus variegatus	White-striped bamboo	B	E	0.75	7	LMH	SN	M	ANB	F	Soil stabilization.
Polypodium vulgare	Polypody	F	E	0.30	3	LMH	FS	DM	ANB	M	Edible root.
Potentilla fruticosa	Shrubby cinquefoil	Sh	D	1.20	6	LMH	SN	M	ANB	M	Tea. Drought tolerant.
Primula vulgaris	Primrose	P		0.30	6	LMH	SN	M	ANB	M	Edible young leaves and flowers.
Prunella grandiflora		P	E	0.15	5	LMH	SN	M	ANB	M	Edible leaves.
Prunella vulgaris	Self-heal	P		0.15	3	LMH	SN	M	ANB	M	Edible leaves, drink. Dye.
Prunus laurocerasus	Cherry laurel	Sh	E	6.00	7	LMH	FSN	M	ANB	M	Edible fruit? Dye. Use selected cultivars.
Pueraria lobata	Kudzu vine	P Cl		15.00	6	LMH	N	M	ANB	F	Edible root, stem and leaves. Fibre.
Pulmonaria officinalis	Lungwort	P	E	0.30	4	LMH	FS	M	ANB	M	Edible leaves.
Pulmonaria saccharata	Jerusalem sage	P	E	0.30	3	LMH	FSN	M	ANB	M	Condiment.

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Checklist of plants suitable for ground cover: R - S

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes
Reineckia carnea		P	E	0.10	7	LMH	FS	M	AN		
Rheum palmatum	Turkey rhubarb	P		3.00	7	MH	SN	M	ANB	M	Edible leaf stem. Insecticide.
Ribes glandulosum	Skunk currant	Sh	D	0.40	2	LMH	SN	M	ANB		Edible fruit.
Rosa wichuraiana		Sh	D	0.30	5	LMH	SN	M	ANB	M	Edible fruit and young shoots.
Rosmarinus officinalis	Rosemary	Sh	E	2.00	6	LM	N	DM	ANB	M	Condiment, tea. Insect repellent, incense, hair shampoo, essential oil, medicinal.
Rubus arizonicus		Sh	D	0.20		LMH	SN	M	ANB		Edible fruit. Dye.
Rubus calycinoides		Sh	E	0.08		LMH	FSN	M	ANB		Edible fruit. Dye.
Rubus hispidus	Swamp dewberry	Sh	E	0.20	3	LMH	SN	M	ANB		Edible fruit. Dye.
Rubus illecebrosus	Strawberry-raspberry	Sh	D	0.60	5	LMH	SN	M	ANB	M	Edible fruit. Dye.
Rubus nepalensis	Nepalese raspberry	Sh	E	0.20	9	LMH	SN	M	ANB	M	Edible fruit. dye.
Rubus parvus		Sh	E	0.20	9	LMH	SN	M	ANB		Edible fruit, sap. Dye.
Rubus tricolor	Creeping bramble	Sh	E	0.30	7	LMH	FSN	DM	ANB	F	Edible fruit. dye.
Ruscus aculeatus	Butcher's broom	Sh	E	1.00	7	LMH	FS	DM	ANB	S	Edible shoots, coffee. Scourer.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes

Salix repens	Creeping willow	Sh	D	1.50	5	LMH	SN	M	ANB		Soil stabilizer and soil reclamation..
Salvia officinalis	Sage	Sh	E	0.60	5	LM	N	DM	NB	M	Condiment, tea. Essential oil, insect repellent.
Sanicula europaea	Wood sanicle	P		0.60	6	LMH	SN	M	ANB		Edible leaves?
Santolina chamaecyparissus	Lavender-cotton	Sh	E	0.60	7	LM	N	DM	ANB	M	Condiment. Essential oil, insect repellent, dye.
Sasa veitchii	Kuma-zasa	B	E	1.50	8	LMH	S	M	ANB	F	
Saxifraga stolonifera	Strawberry saxifrage	P		0.40	5	LMH	S	M	ANB		Edible leaves and flowering stem.
Schizophragma hydrangioides		Cl	D	6.00	5	LMH	SN	M	ANB	S	Edible leaves.
Sedum acre	Common stonecrop	P	E	0.12	5	LMH	N	DM	ANB	F	Edible leaves, condiment. Tolerates drought.
Sedum album	Small houseleek	P		0.10	6	LMH	N	DM	ANB	F	Edible leaves. Tolerates maritime exposure.
Sedum anacampseros	Loce restorer	P		0.10	6	LMH	SN	DM	AN		Edible leaves.
Sedum spathulifolium		P	E	0.15	7	LMH	N	DM	ANB	M	Edible leaves.
Sedum spurium		P	E	0.15	7	LMH	N	DM	ANB	M	Edible leaves.
Shibataea kumasasa	Okame-zasa	B	E	0.75	6	LMH	S	M	ANB	F	
Stephanandra incisa		Sh	D	2.50	5	LMH	SN	M	ANB		Edible young leaves.
Symphytum tuberosum		P		0.60	5	LMH	SN	M	ANB	F	Coffee substitute.

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Checklist of plants suitable for ground cover: T - X

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes											
Thymus praecox		Sh	E	0.05	5	LM	N	DM	ANB	M	Condiment. Essential oil, medicinal.											
Thymus serpyllum	Wild thyme	Sh	E	0.10	5	LM	N	DM	ANB	M	Edible leaves, tea. Essential oil, insect repellent, fungicide, medicinal. Wind tolerant.											
Thymus vulgaris	Common thyme	Sh	E	0.20	7	LM	N	DM	NB	M	As above.											
Thymus x citriodorus	Lemon thyme	Sh	E	0.20	7	LM	N	DM	NB	M	As above.											
Tiarella cordifolia	Foamflower	P	E	0.20	3	LMH	SN	M	ANB	S	Medicinal.											
Tolmiea menziesii	Youth on age	P		0.60	7	LMH	FS	DM	ANB	M	Edible young shoots.											
Trachelospermum asiaticum		Cl	E	6.00	9	LMH	SN	M	ANB	S	Trifolium repens	White clover	P	E	0.10	4	LMH	N	M	ANB	M	Edible leaves and flowers. Tea.

Botanical name	Common name	Habit	Evergreen/ Decidious	Height (meters)	Hardyness zone	Soil	Shade	Moisture	pH	Growth rate	Notes

Vaccinium crassifolium	Creeping blueberry	Sh	E	0.10	7	LM	SN	M	A		Edible fruit.
Vaccinium nummularia		Sh	E	0.10		LM	SN	M	A		Edible fruit
Vaccinium praestans	Kamchatka bilberry	Sh	D	0.15	4	LM	S	M	A	S	Edible fruit.
Vaccinium vitis-idaea	Cowberry	Sh	E	0.35	5	LM	SN	M	A		Edible fruit, tea. Dye.
Vinca minor	Lesser periwinkle	Sh	E	0.20	4	LMH	FSN	DM	ANB	M	Basket making. Medicinal. Drought tolerant.
Viola cornuta	Viola	P	E	0.30	5	LMH	SN	M	AN		Edible leaves, flowers, tea.
Viola labradorica	Labrador violet	P	E	0.10	2	LMH	FSN	M	AN		Edible leaves and flowers.
Viola obliqua	Marsh blue violet	P		0.15		LMH	SN	MWe	ANB		Edible flowers, leaves, tea.
Vitis coignetiae	Crimson glory vine	Cl	D	20.00	5	LMH	SN	DM	ANB	F	Edible leaves and stems. Dye.
Vitis davidii	Spiny vitis	Cl	D	20.00	7	LMH	SN	DM	ANB		Edible fruit and leaves. Dye.
Xanthorrhiza simplicissima	Yellowroot	Sh	D	1.00	6	LMH	SN	MWe	A		Dye.

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Readers Comments:

Checklist of plants suitable for ground cover: T-X

stacy chandler Tue Dec 4 00:29:36 2001

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Plants For A Future - Readers Comments

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Add a comment on: *Checklist of plants suitable for ground cover: T-X*

Subject:

Checklist of plants suitable for ground cover: T-X

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

ground12.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:58:34 2004

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Add a comment on: *Checklist of plants suitable for ground cover: R-S*

Subject:

Checklist of plants suitable for ground cover: R-S

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Pages in the PFAF site you would like this comment to be added to:

ground11.html

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Your Email Address:

Date: Sun May 16 01:58:36 2004

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Add a comment on: *Checklist of plants suitable for ground cover: P*

Subject:

Checklist of plants suitable for ground cover: P

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

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Pages in the PFAF site you would like this comment to be added to:

ground10.html

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Date: Sun May 16 01:58:38 2004

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Add a comment on: *Checklist of plants suitable for ground cover: M-O*

Subject:

Checklist of plants suitable for ground cover: M-O

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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Pages in the PFAF site you would like this comment to be added to:

ground9.html

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Your Name:

Your Email Address:

Date: Sun May 16 01:58:40 2004

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Add a comment on: *Checklist of plants suitable for ground cover: I-L*

Subject:

Checklist of plants suitable for ground cover: I-L

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

ground8.html

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Your Name:

Your Email Address:

Date: Sun May 16 01:58:42 2004

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Add a comment on: *Checklist of plants suitable for ground cover: H*

Subject:

Checklist of plants suitable for ground cover: H

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

ground7.html

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Your Email Address:

Date: Sun May 16 01:58:44 2004

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Add a comment on: *Checklist of plants suitable for ground cover: G*

Subject:

Checklist of plants suitable for ground cover: G

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

ground6.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 01:58:46 2004

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Add a comment on: *Checklist of plants suitable for ground cover: D-F*

Subject:

Checklist of plants suitable for ground cover: D-F

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

ground5.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:58:48 2004

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Add a comment on: *Checklist of plants suitable for ground cover: C*

Subject:

Checklist of plants suitable for ground cover: C

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

ground4.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 01:58:50 2004

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Add a comment on: *Checklist of plants suitable for ground cover: B*

Subject:

Checklist of plants suitable for ground cover: B

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site: ☐

URL for Site: http://

Details: ☐

Details of Location and growing conditions:

☐

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

☐

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

☐

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

ground3.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:58:52 2004

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Plants for a Future
A resource centre for edible and other useful plants

Back to Plants For A Future home page.

Checklist of plants suitable for ground cover

A more readable is also available. The data here is TAB-deliminated to allow it to be imported into a database.

```
Botanical name  Common name     Habit   Evergreen/Decidious     Height (meters)
Hardyness zone  Soil    Shade   Moisture        pH      Growth rate     Notes

Acaenia anserinifolia   Pirri-pirri bur P       E       0.10    6       LMH     SN
M       ANB     F       Leaves used for tea.
Acanthus mollis Bear's breeches P               1.20            LM      SN      DM
ANB     S       Drought tolerant.
Adiantum venustum               F       E       0.25    9       LMH     S       M
ANB     M
Aegopodium podagraria   Ground elder    P               0.60    5       LMH     FSN
M       ANB     F       Edible leaves.
Ajuga australis         P       E       0.15    6       LMH     N       DM      ANB
F
Ajuga reptans   Bugle   P       E       0.30    6       LMH     FSN     DMWe    ANB
M       Edible young shoots. Drought tolerant.
Alchemilla vulgaris     Lady's mantle   P               0.30    5       LMH     SN
DM      NB      S       Edible young leaves.
Antennaria dioica       Catsfoot        P       E       0.12    5       L       N
DM      ANB     S       Tolerates poor soil and drought.
Arabis caucasica        Rock cress      P       E       0.15    4       LMH     SN
DM      ANB     M       Edible leaves. Tolerates poor soil and drought.
Arctostaphylos nevadensis       Pine-mat manzanita      Sh      E       0.10    6
LM      SN      M       A       M       Edible fruit and seed. Dye.
Arctostaphylos uva-ursi Bearberry       Sh      E       0.10    4       LM      FSN
M       ANB     M       Edible fruit. Dye.
Arisarum vulgare        Friar's cowl    P               0.45    7       LM      FS
M       ANB             Edible root if thoroughly cooked.
Armeria maritima        Thrift  P       E       0.10    4       LM      N       DM
ANB     M       Edible leaves. Tolerates maritime exposure.
Artemesia ludoviciana   White sage      P               1.00    5       LM      SN
DM      NB      M       Condiment, leaves, tea. Drought tolerant.
Artemesia stelleriana   Beach wormwood  P       E       0.50    3       LM      N
DM      ANB     M       Condiment, tea. Medicinal. Drought tolerant.
Asarum canadense        Snake root      P               0.30    2       LMH     FS
M       ANB     S       Root is a ginger substitute. Medicinal.
Asarum caudatum         P       E       0.10    7       LMH     FS      M       AN
S       Root is a ginger substitute.
Asarum europaeum        Asarabacca      P       E       0.10    4       LMH     FS
M       ANB     S       Dye. Medicinal.
Asarum shuttleworthii           P       E       0.10    6       LMH     FS      M
AN      S       Root is a ginger substitute.
Aspidistra elatior      Aspidistra      P       E       0.60    7       LMH     FS
DM      ANB     S       Medicinal. Tolerates drought and poor soils.
```

Asplenium scolopendrium	Hart's tongue Fern	F	E	0.60	5	LM	FS	DM	ANB	M	Medicinal.
Athyrium felix-femina	Lady Fern	F		0.60	2	LMH	FS	M	ANB	M	Edible young shoots and root - they must be well cooked.
Aubrietia deltoidea	Aubretia	P	E	0.15	7	LM	SN	DM	ANB	M	Drought tolerant.
Aurinia saxatilis	Golden alyssum	P	E	0.25	3	LMH	N	DM	ANB	M	Tolerates drought and poor soils.
Baccharis pilularis	Chaparral broom	Sh	E	0.50	8	LMH	N	DM	ANB	M	Tolerates poor soils. A good ground stabilizer.
Baccharis viminea	Mule fat	Sh	E	4.00	8	LMH	N	DM	ANB	M	Tolerates poor soils. A good ground stabilizer.
Ballota pseudodictamnus		P	E	0.60	8	LMH	N	DM	ANB	M	Flowers are used as candle wicks.
Bergenia ciliata		P	E	0.30	7	LMH	SN	M	ANB	M	Medicinal. Tolerates poor soils.
Bergenia crassifolia		P	E	0.30	3	LMH	FSN	M	ANB	S	A tea is made from the leaves.
Bergenia purpurascens		P	E	0.45	4	LMH	SN	M	ANB	S	Medicinal.
Blechnum spicant	Hard Fern	F	E	0.30	5	LMH	FSN	M	AN	S	Root and young leaves - cooked.
Brachyglottis 'Sunshine'		Sh	E	1.50	8	LMH	N	M	ANB	S	Tolerates maritime exposure and drought.
Calluna vulgaris	Heather	Sh	E	0.60	4	LM	SN	DM	A	M	Tea, dye, thatching, basketry, brooms.
Campanula portenschlagiana		P		0.25	3	LM	SN	M	NB	F	Edible leaves.
Campanula poscharskyana		P	E	0.25	3	LM	SN	M	NB	F	Edible leaves.
Campsis radicans	Trumpet vine	Cl	D	12.00	4	LMH	SN	M	ANB	F	Medicinal.
Carex elata	Tufted sedge	P	E	1.20	7	LMH	SN	MWe	ANB	M	Edible root and seed.
Ceanothus prostratus	Squaw carpet	Sh	E	0.05	7	LM	SN	DM	ANB	M	Dye, soap substitute.
Ceanothus purpureus	Hollyleaf ceanothus	Sh	E	2.00	8	LM	SN	DM	ANB	M	Dye, soap substitute.
Ceanothus thyrsiflorus	Blue brush	Sh	E	4.50	7	LM	SN	DM	ANB	M	Dye, soap substitute. Tolerates maritime exposure.
Centaurea montana	Mountain cornflower	P		0.45	3	LMH	N	DM	ANB	F	Succeeds in poor soils.
Cephalotaxus fortunei	Chinese plum yew	Sh	E	6.00	7	LMH	FSN	M	ANB	S	Edible seed and fruit.
Chaenomeles speciosa	Japanese quince	Sh	D	3.00	5	LMH	FSN	M	ANB	M	Edible fruit.
Chaenomeles x superba	Dwarf quince	Sh	D	1.00	5	LMH	FSN	M	ANB	F	Edible fruit.
Chamaemelum nobile	Chamomile	P	E	0.15	4	LMH	SN	DM	ANB	M	Tea, condiment, hair shampoo, dye, companion plant, liquid feed and plant tonic, medicinal.
Chelidonium majus	Greater celandine	P		0.50	6	LMH	FSN	M	ANB	F	Medicinal. A weed in the garden, only use it in wild areas.
Chrysosplenium alternifolium	Golden saxifrage	P		0.30	4	LMH	SN	MWe	ANB	M	Edible leaves.

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Chrysosplenium americanum       Water mat       P               0.10    3       LMH
SN      MWe     ANB     M       Condiment.
Chrysosplenium oppositifolium   Golden saxifrage        P               0.15    5
LMH     SN      MWe     ANB     M       Edible leaves.
Cistus salviifolius     Rock rose       Sh      E       0.60    8       LM      N
DM      ANB     M       Condiment. Tolerates maritime exposure.
Clematis orientalis             Cl      D       2.00    6       LMH     SN      M
ANB     F       Medicinal.
Convallaria keiskei     Lily of the valley      P               0.30    3       LMH
FSN     DMWe    ANB     S       Medicinal.
Convallaria majalis     Lily of the valley      P               0.15    3       LMH
FSN     DMWe    ANB     S       Essential oil, dye. Medicinal.
Coprosma acerosa brunnea                Sh      E       0.10    8       LM      SN
M       AN      S       Edible fruit. Coffee substitute. Dye.
Coptis brachypetala             P       E       0.22            LM      S       M
A       M       Dye.
Coptis chinensis                P       E       0.20            LMH     SN      MWe
A               Medicinal.
Coptis deltoidea                P       E                       LMH     SN      MWe
A               Medicinal.
Coptis japonica         P       E       0.22    7       LMH     SN      M       A
Medicinal.
Coptis occidentalis             P       E       0.15    4       LMH     SN      M
A               Dye. Medicinal.
Coptis teeta            P       E       0.15            LMH     SN      M       A
Medicinal.
Coptis teetoides                P       E                       LMH     SN      M
A               Medicinal.
Coptis trifolia Goldthread      P       E       0.15    2       LMH     S       M
A               Dye. Medicinal.
Coriaria microphylla            Sh      D       1.20    8       LMH     SN      M
ANB     M       Dye, ink, tannin.
Cornus canadensis       Creeping dogwood        P               0.25    2       LMH
SN      M       AN      M       Edible fruit.
Cornus suecica  Dwarf cornel    P               0.15    2       LM      SN      M
AN      M       Edible fruit.
Coronilla varia Crown vetch     P               0.30    6       LMH     N       DM
ANB     M       Insecticide. Soil stabilizer. Tolerates maritime exposure and poor
soils.
Cotoneaster conspicuus          Sh      E       3.00    6       LMH     SN      M
ANB     M       Dye. Wind tolerant.
Cotoneaster microphyllus                Sh      E       1.00    5       LMH     SN
M       ANB     S       Dye. Wind tolerant.
Cyathodes colensoi              Sh      E       0.45    8       LMH     S       M
AN      S       Edible fruit.
Cyathodes fraseri               Sh      E       0.15    8       LMH     FS      M
AN      S       Edible fruit.
Cystopterus bulbifera           F                       5       LMH     FS      M
ANB     F       Edible root. The plant can become invasive.
Cytisus scoparius       Broom   Sh      D       2.40    5       LMH     SN      DM
ANB     F       Succeeds on poor soils. Condiment, coffee substitute, fibre, dye,
brooms. Medicinal.

Dactylis glomerata      Cock's foot     P               1.00    5       LMH     SN
M       ANB     F       A food plant for native wildlife.
Darmera peltata Umbrella plant  P               2.00    6       LMH     SN      WeWa
ANB             Edible leaf stalk. Soil stabilization.
Deschampsia caespitosa  Tussock grass   P               1.50    5       LMH     SN
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MWe     ANB     M       Edible seed.
Dianthus gratianopolitanus      Cheddar pink    P               0.30    3       LMH
N       D       NB      M
Dryas octopetala        Mountain avens  Sh      E       0.10    2       LMH     N
M       ANB     M       Tea substitute.
Dryopteris felix-mas    Male Fern       F               1.20    2       LMH     S
DM      AN      M       Edible young fronds - must be cooked.
Duchesnea indica                P               0.10    6       LMH     N       M
ANB     F       Edible fruit.

Elymus arenarius        Lyme grass      P               1.20    6       LMH     N
DM      ANB     F       Weaving, soil stabilization. Tolerates maritime exposure.
Empetrum atropurpureum  Purple crowberry        Sh      E       0.20            LM
SN      M       A       S       Edible fruit. Wind tolerant.
Empetrum eamesii        Rockberry       Sh      E       0.15    3       LM      SN
M       A       S       Edible fruit. Wind tolerant.
Empetrum eamesii hermaphroditum Mountain crowberry      Sh      E       0.30    3
LMH     N       M       AN      S       Edible fruit. Wind tolerant.
Empetrum nigrum Crowberry       Sh      E       0.30    3       LMH     SN      M
AN      S       Edible fruit. Dye. Wind tolerant.
Empetrum rubrum         Sh      E       0.30    8       LMH     sn      M       AN
S       Edible fruit. Wind tolerant.
Epigaea asiatica                Sh      E       0.10    4       LM      FS      M
AN              Edible fruit.
Epimedium grandiflorum          P               0.35    5       LMH     S       M
ANB             Young leaves - cooked.
Epimedium sagittatum            P               0.50    6       LMH     S       M
ANB             Young leaves - cooked.
Erica vagans    Cornish heath   Sh      E       0.75    5       LM      N       DM
AN      M       Dye, brooms, thatching.
Erica x darleyensis             Sh      E       0.60    6       LM      N       M
ANB     M       Dye, brooms, thatching.
Euonymus fortunei               Sh      E       4.50    5       LMH     FSN     DM
ANB     M       Plants can also be grown as a hedge.

Fragaria californica    Californian strawberry  P               0.30            LMH
SN      M       ANB     F       Edible fruit.
Fragaria daltoniana             P               0.30            LMH     SN      M
ANB     F       Edible fruit.
Fragaria moschata       Hautbois strawberry     P               0.45    6       LMH
SN      M       ANB     F       Edible fruit.
Fragaria viridis        Green strawberry        P               0.30    6       LMH
SN      M       ANB     F       Edible fruit.

Galium mollugo  Hedge bedstraw  P               1.20    3       LMH     S       DM
ANB     M       Edible leaves. Dye.
Galium odoratum Sweet woodruff  P               0.15    5       LMH     fs      DM
ANB     M       Edible leaves, tea. Dye. Medicinal.
Gaultheria adenothrix           Sh      E       0.30    9       LM      FS      M
AN      M       Edible fruit.
Gaultheria depressa     Mountain snowberry      Sh      E       0.10    9       LM
sn      M       AN      M       Edible fruit.
Gaultheria hispidula    Creeping snowberry      Sh      E       0.10    6       LM
S       M       AN      F       Edible fruit.
Gaultheria humifusa     Alpine wintergreen      Sh      E       0.10    7       LM
sn      M       AN              Edible fruit.
Gaultheria macrostigma          Sh      E       0.50    8       LM      S       M
A               Edible fruit.
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Gaultheria mucronata            Sh      E       1.50    6       LM      SN      M
A               Edible fruit.
Gaultheria myrsinoides          Sh      E       0.15    9       LM      SN      M
A               Edible fruit.
Gaultheria nummularioides               Sh      E       0.10    9       LM      SN
M       AN              Edible fruit.
Gaultheria ovatifolia   Checkerberry    Sh      E       0.15    6       LM      FS
M       AN      M       Edible fruit.
Gaultheria procumbens   Checkerberry    Sh      E       0.15    4       LM      FS
DM      AN      M       Edible fruit and leaves. Tea. Essential oil, Medicinal.
Gaultheria pumila leucocarpa            Sh      E       0.20    7       LM      SN
M       A       F       Edible fruit.
Gaultheria shallon      Shallon Sh      E       1.20    5       LM      FS      DM
A       M       Edible fruit. Tea. Dye.
Gaultheria tricophylla          Sh      E       0.10    8       LM      SN      M
AN              Edible fruit.
Gaultheria x wisleyensis                Sh      E       1.00    6       LM      FS
M       A               Edible fruit.
Gaylussacia brachycera  Box huckleberry Sh      E       0.45    6       LMH     SN
DM      A               Edible fruit.
Genista hispanica       Spanish gorse   Sh      D       0.50    6       LM      N
DM      ANB             Medicinal. Drought tolerant.
Geranium macrorrhizum           P               0.50    4       LMH     SN      DM
NB      F       Essential oil.
Geranium sylvaticum     Wood cranesbill P               0.60    4       LMH     FSN
M       ANB     F       Essential oil.
Geranium wallichianum           P               0.30    7       LMH     sn      M
ANB     F       Dye.
Glechoma hederacea      Ground ivy      P       E       0.20            MH      S
M       ANB     F       Edible leaves. Tea.

Hebe 'Great Orme'               Sh      E       1.00    6       LMH     N       M
ANB     M       Can also be used as a hedge. Tolerates maritime exposure.
Hebe rakaiensis         Sh      E       1.00    6       LMH     N       M       ANB
M       Can also be grown as a hedge.
Hedera helix    Ivy     Cl      E       15.00   5       LMH     FSN     MWe     ANB
M       Dye, hair shampoo. An excellent plant for wildlife.
Herniaria glabra        Rupture wort    Bi/P            0.02    5       LM      N
DM      ANB     S       Medicinal.
Heuchera americana      Rock geranium   P       E       0.45    4       LM      SN
M       ANB             Mordant.
Heuchera cylindrica     Alum root       P       E       0.45    4       LM      SN
M       ANB             Edible leaves. Mordant.
Heuchera diversifolia   Alum root       P       E       0.45    5       LM      SN
M       ANB             Edible leaves. Mordant.
Heuchera glabra         P       E       0.60    4       LM      SN      M       ANB
Edible leaves. Mordant.
Heuchera micrantha      Alum root       P       E       0.60    5       LM      SN
M       ANB             Edible leaves. Mordant.
Heuchera sanguinea      Alum root       P       E       0.60    6       LM      SN
M       ANB             Mordant.
Heuchera versicolor             P       E       0.20    9       LM      SN      M
ANB             Mordant.
Hosta crispula          P               0.30            LMH     SN      M       ANB
M       Edible leaves and stems.
Hosta longipes          P               0.30            LMH     FSN     M       ANB
M       Edible leaves and stems.
Hosta plantaginae               P               0.25            LMH     FSN     M
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ANB     M       Edible leaves and stems.
Hosta rectifolia                P               0.20            LMH     FSN     M
ANB     M       Edible leaves and stems.
Hosta sieboldiana               P               0.60            LMH     FSN     M
ANB     M       Edible leaves and stems.
Hosta undulata          P               0.30            LMH     FSN     M       ANB
M       Edible leaves and stems.
Hosta ventricosa                P               0.25    5       LMH     FSN     M
ANB     M       Edible leaves and stems.
Houttuynia cordata      Tsi     P               0.60    5       LMH     S       MWeWa
ANB     F       Edible leaves.
Hydrangea anomala               Cl      D       12.00   5       LMH     FSN     M
ANB     M       Edible leaves. Sugar. Paper. Wind tolerant.
Hypericum androsaemum   Tutsan  Sh      D       1.00    6       LMH     SN      DM
ANB     M       Medicinal. Wind tolerant.
Hypericum bellum                Sh      E       0.70    6       LMH     SN      M
ANB
Hypericum calycinum     Rose of Sharon  Sh      E       0.30    6       LMH     FSN
DM      ANB     F       Dye.

Imperata cylindrica             P               1.20    8       LMH     N       DM
ANB     F       Edible young shoots and root. Weaving, papermaking, thatching.
Tolerates maritime exposure
Iris foetidissima       Stinking gladwin        P       E       0.60    6       LMH
FSN     DM      ANB     S       Medicinal. Tolerates maritime exposure.

Juniperus communis      Juniper Sh      E       9.00    2       LMH     SN      DM
ANB     S       Edible fruit, condiment, coffee, tea. Essential oil, incense, insect
repellent. Medicinal.
Juniperus communis nana Juniper Sh      E       9.00    2       LMH     SN      DM
ANB     S       Same as above.
Juniperus conferta      Shore juniper   Sh      E               5       LMH     SN
DM      ANB     S       Edible fruit. Tolerates maritime exposure.
Juniperus horizontalis  Creeping juniper        Sh      E       1.00    4       LMH
N       DM      ANB     S       Coffee, tea. Tolerates maritime exposure.
Juniperus sabina        Savine  Sh      E       4.00    3       LMH     N       DM
ANB     S       Essential oil, parasiticide, insect repellent.
Juniperus squamata      Flaky juniper   Sh      E       8.00    5       LMH     N
DM      ANB     S       Medicinal. Drought tolerant.

Lamium album    White dead nettle       P               0.60    4       LMH     SN
M       ANB     M       Edible young leaves.
Lamium galeobdolon      Yellow archangel        P               0.30    6       LMH
FSN     M       ANB     F       Edible young leaves and flowers.
Lathyrus latifolius     Perennial sweet pea     P Cl            2.00    5       LMH
SN      DM      ANB     F       Seed, seedpods and young plants might be edible.
Drought tolerant.
Liriope graminifolia            P       E       0.30    8       LM      SN      DM
ANB     M       Edible root. Drought tolerant.
Liriope minor           P       E       0.30    8       LM      SN      DM      ANB
M       Edible root. Drought tolerant.
Liriope muscari         P       E       0.45    8       LM      FSN     DM      ANB
M       Edible root. Drought tolerant.
Liriope spicata         P       E       0.30    4       LM      SN      DM      ANB
M       Edible root. Drought tolerant.
Lonicera henryi         Cl      E       4.00    4       LMH     SN      M       ANB
F       Edible flowers, leaves and stems.
Lonicera japonica               Cl      E       5.00    4       LMH     SN      DM
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ANB     F       Edible flowers. Tea.
Lonicera nitida Boxleaf honeysuckle     Sh      E       3.60    7       LMH     FSN
M       ANB     F       Can also be used as a hedge.
Lonicera pileata                Sh      E       0.20    5       LMH     FSN     DM
ANB     M       Tolerates maritime exposure.
Lysimachia nummularia   Creeping Jenny  P       E       0.15    4       LMH     SN
MWeWa   ANB     M       Tea.

Mahonia aquifolium      Oregon grape    Sh      E       2.00    5       LMH     FSN
DM      ANB     M       Edible fruit and flowers. Dye.
Mahonia repens  Oregon grape    Sh      E       0.30    6       LMH     SN      DM
ANB     M       Edible fruit. Dye.
Maianthemum canadense           P               0.20    3       LMH     FS      M
ANB     M       The fruit might be edible.
Matteuccia struthiopteris       Ostrich Fern    F               0.90    2       LMH
S       M       AN      M       Edible young leaves and root.
Meehania urticifolia            P               0.30    5       LMH     S       M
ANB             Edible young leaves.
Mentha requienii        Corsican mint   P               0.10    6       LMH     SN
M       ANB     S       Edible young leaves. Tea.
Millium effusum Wood millet     P               1.80    6       LMH     FS      DM
ANB     M       Edible seed. Weaving, soil stabilization.
Miscanthus sinensis     Eulalia P               4.00    4       LMH     SN      M
ANB     F       Biomass. Wind tolerant.
Mitchella repens        Partridge berry Sh      E       0.30    3       LM      SN
M       AN              Edible fruit.
Mitchella undulata              P       E       0.10    6       LM      SN      M
AN              Edible fruit.
Montia sibirica Pink purslane   A/P             0.15    3       LMH     FSN     DM
ANB     M       Edible leaves and flowers.
Muehlenbeckia axillaris         Cl      D       0.30    8       LMH     SN      M
ANB     M       Edible fruit.

Oenanthe javanica       Water dropwort  P               1.00    10      LMH     N
WeWa    ANB             Edible root, leaves and seed.
Onoclea sensibilis      Sensitive Fern  F               1.20    4       LMH     FS
MWe     AN              Edible young leaves and root.
Ophiopogon japonicus            P       E       0.30    7       LM      SN      MWeWa
ANB             Edible root.
Origanum vulgare        Oreganum        P               0.60    5       LMH     SN
DM      ANB     M       Edible leaves, tea, condiment. Essential oil, dye, insect
repellent. Medicinal.
Origanum vulgare hirtum Greek oregano   P               0.60    5       LMH     SN
DM      ANB     M       As above.
Oxalis oregana  Redwood sorrel  P               0.20    7       LMH     FSN     M
ANB     M       Edible young leaves.

Pachyphragma macrophylla                P       E       0.40    7       LMH     FS
DM      ANB             Edible leaves?
Pachysandra terminalis          Sh      E       0.20    5       LMH     FS      DM
ANB     M       Edible fruit. Drought tolerant.
Paronychia argentea     Algerian tea    P               0.10    7       LM      N
DM      ANB             Tea substitute.
Parthenocissus quinquefolia     Virginia creeper        Cl      D       30.00   3
LMH     SN      M       ANB     F       Edible fruit and stems. Dye.
Parthenocissus tricuspidata     Boston ivy      Cl      D       18.00   4       LMH
SN      M       ANB     F       Edible sap.
Peltaria alliacea       Garlic cress    P       E       0.30    6       LM      SN
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M       ANB     M       Edible leaves.
Pennisetum alopecuroides                P               1.50    7       LM      N
DM      ANB             Edible seed.
Petasites albus Butterbur       P               0.60    5       LMH     FSN     M
ANB     F       Edible leaf stems.
Petasites frigidus      Sweet coltsfoot P               0.15    5       LMH     FSN
MWe     ANB     F       Edible leaves, stems and roots.
Petasites japonicus     Sweet coltsfoot P               1.50    5       LMH     FSN
MWe     ANB     F       Edible leaf stems and flowers.
Phalaris arundinacea    Canary grass    P               1.50    4       LMH     SN
DMWe    ANB     F
Phlomis fruticosa       Jerusalem sage  Sh      E       1.30    7       LMH     N
DM      ANB     M       Succeeds in poor soils.
Phlomis russeliana              P               1.00    7       LMH     SN      DM
ANB     F       Drought tolerant.
Phlomis samia           P               1.00    7       LMH     SN      DM      ANB
F
Phyla nodiflora Frogfruit       P               0.20    10      LMH     N       DM
ANB             Edible leaves. Tea.
Picea abies     Norway spruce   T       E       60.00   4       LMH     N       MWe
AN      F       Selected dwarf cultivars are used. Edible cones, inner bark, tea.
Adhesive, turpentine.
Pinus mugo      Dwarf mountain pine     T       E       4.50    3       LM      N
DM      AN      M       Condiment, dye. Soil stabilization.
Platycrater arguta              Sh      D       0.20    8       LMH     S       M
ANB             Tea. Wind tolerant.
Pleioblastus humilis            B       E       2.00    7       LMH     S       M
ANB     F       Soil stabilization.
Pleioblastus humilis pumilus            B       E       1.00    7       LMH     S
M       ANB     F       Soil stabilization.
Pleioblastus pygmaeus   Fern-leaf bamboo        B       E       0.25    6       LMH
SN      M       ANB     F       Soil stabilization.
Pleioblastus pygmaeus distichus         B       E       0.75    6       LMH     SN
M       ANB     F       Soil stabilization.
Pleioblastus variegatus White-striped bamboo    B       E       0.75    7       LMH
SN      M       ANB     F       Soil stabilization.
Polypodium vulgare      Polypody        F       E       0.30    3       LMH     FS
DM      ANB     M       Edible root.
Potentilla fruticosa    Shrubby cinquefoil      Sh      D       1.20    6       LMH
SN      M       ANB     M       Tea. Drought tolerant.
Primula vulgaris        Primrose        P               0.30    6       LMH     SN
M       ANB     M       Edible young leaves and flowers.
Prunella grandiflora            P       E       0.15    5       LMH     SN      M
ANB     M       Edible leaves.
Prunella vulgaris       Self-heal       P               0.15    3       LMH     SN
M       ANB     M       Edible leaves, drink. Dye.
Prunus laurocerasus     Cherry laurel   Sh      E       6.00    7       LMH     FSN
M       ANB     M       Edible fruit? Dye. Use selected cultivars.
Pueraria lobata Kudzu vine      P Cl            15.00   6       LMH     N       M
ANB     F       Edible root, stem and leaves. Fibre.
Pulmonaria officinalis  Lungwort        P       E       0.30    4       LMH     FS
M       ANB     M       Edible leaves.
Pulmonaria saccharata   Jerusalem sage  P       E       0.30    3       LMH     FSN
M       ANB     M       Condiment.

Reineckia carnea                P       E       0.10    7       LMH     FS      M
AN
Rheum palmatum  Turkey rhubarb  P               3.00    7       MH      SN      M
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									ANB	M	Edible leaf stem. Insecticide.
Ribes glandulosum	Skunk currant	Sh	D	0.40	2	LMH	SN	M	ANB		Edible fruit.
Rosa wichuraiana		Sh	D	0.30	5	LMH	SN	M	ANB	M	Edible fruit and young shoots.
Rosmarinus officinalis	Rosemary	Sh	E	2.00	6	LM	N	DM	ANB	M	Condiment, tea. Insect repellent, incense, hair shampoo, essential oil, medicinal.
Rubus arizonicus		Sh	D	0.20		LMH	SN	M	ANB		Edible fruit. Dye.
Rubus calycinoides		Sh	E	0.08		LMH	FSN	M	ANB		Edible fruit. Dye.
Rubus hispidus	Swamp dewberry	Sh	E	0.20	3	LMH	SN	M	ANB		Edible fruit. Dye.
Rubus illecebrosus	Strawberry-raspberry	Sh	D	0.60	5	LMH	SN	M	ANB	M	Edible fruit. Dye.
Rubus nepalensis	Nepalese raspberry	Sh	E	0.20	9	LMH	SN	M	ANB	M	Edible fruit. dye.
Rubus parvus		Sh	E	0.20	9	LMH	SN	M	ANB		Edible fruit, sap. Dye.
Rubus tricolor	Creeping bramble	Sh	E	0.30	7	LMH	FSN	DM	ANB	F	Edible fruit. dye.
Ruscus aculeatus	Butcher's broom	Sh	E	1.00	7	LMH	FS	DM	ANB	S	Edible shoots, coffee. Scourer.
Salix repens	Creeping willow	Sh	D	1.50	5	LMH	SN	M	ANB		Soil stabilizer and soil reclamation..
Salvia officinalis	Sage	Sh	E	0.60	5	LM	N	DM	NB	M	Condiment, tea. Essential oil, insect repellent.
Sanicula europaea	Wood sanicle	P		0.60	6	LMH	SN	M	ANB		Edible leaves?
Santolina chamaecyparissus	Lavender-cotton	Sh	E	0.60	7	LM	N	DM	ANB	M	Condiment. Essential oil, insect repellent, dye.
Sasa veitchii	Kuma-zasa	B	E	1.50	8	LMH	S	M	ANB	F	
Saxifraga stolonifera	Strawberry saxifrage	P		0.40	5	LMH	S	M	ANB		Edible leaves and flowering stem.
Schizophragma hydrangioides		Cl	D	6.00	5	LMH	SN	M	ANB	S	Edible leaves.
Sedum acre	Common stonecrop	P	E	0.12	5	LMH	N	DM	ANB	F	Edible leaves, condiment. Tolerates drought.
Sedum album	Small houseleek	P		0.10	6	LMH	N	DM	ANB	F	Edible leaves. Tolerates maritime exposure.
Sedum anacampseros	Loce restorer	P		0.10	6	LMH	SN	DM	AN		Edible leaves.
Sedum spathulifolium		P	E	0.15	7	LMH	N	DM	ANB	M	Edible leaves.
Sedum spurium		P	E	0.15	7	LMH	N	DM	ANB	M	Edible leaves.
Shibataea kumasasa	Okame-zasa	B	E	0.75	6	LMH	S	M	ANB	F	
Stephanandra incisa		Sh	D	2.50	5	LMH	SN	M	ANB		Edible young leaves.
Symphytum tuberosum		P		0.60	5	LMH	SN	M	ANB	F	Coffee substitute.
Thymus praecox		Sh	E	0.05	5	LM	N	DM	ANB	M	Condiment. Essential oil, medicinal.

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Thymus serpyllum        Wild thyme      Sh      E       0.10    5       LM      N
DM      ANB     M       Edible leaves, tea. Essential oil, insect repellent,
fungicide, medicinal. Wind tolerant.
Thymus vulgaris Common thyme    Sh      E       0.20    7       LM      N       DM
NB      M       As above.
Thymus x citriodorus    Lemon thyme     Sh      E       0.20    7       LM      N
DM      NB      M       As above.
Tiarella cordifolia     Foamflower      P       E       0.20    3       LMH     SN
M       ANB     S       Medicinal.
Tolmiea menziesii       Youth on age    P               0.60    7       LMH     FS
DM      ANB     M       Edible young shoots.
Trachelospermum asiaticum               Cl      E       6.00    9       LMH     SN
M       ANB     S
Trifolium repens        White clover    P       E       0.10    4       LMH     N
M       ANB     M       Edible leaves and flowers. Tea.

Vaccinium crassifolium  Creeping blueberry      Sh      E       0.10    7       LM
SN      M       A               Edible fruit.
Vaccinium nummularia            Sh      E       0.10            LM      SN      M
A               Edible fruit
Vaccinium praestans     Kamchatka bilberry      Sh      D       0.15    4       LM
S       M       A       S       Edible fruit.
Vaccinium vitis-idaea   Cowberry        Sh      E       0.35    5       LM      SN
M       A               Edible fruit, tea. Dye.
Vinca minor     Lesser periwinkle       Sh      E       0.20    4       LMH     FSN
DM      ANB     M       Basket making. Medicinal. Drought tolerant.
Viola cornuta   Viola   P       E       0.30    5       LMH     SN      M       AN
Edible leaves, flowers, tea.
Viola labradorica       Labrador violet P       E       0.10    2       LMH     FSN
M       AN              Edible leaves and flowers.
Viola obliqua   Marsh blue violet       P               0.15            LMH     SN
MWe     ANB             Edible flowers, leaves, tea.
Vitis coignetiae        Crimson glory vine      Cl      D       20.00   5       LMH
SN      DM      ANB     F       Edible leaves and stems. Dye.
Vitis davidii   Spiny vitis     Cl      D       20.00   7       LMH     SN      DM
ANB             Edible fruit and leaves. Dye.

Xanthorrhiza simplicissima      Yellowroot      Sh      D       1.00    6       LMH
SN      MWe     A               Dye.
```

KEY.

Habit: A = Annual. B = Bamboo. Bi = Biennial. Cl - Climber. F = Fern. Sh = Shrub. T = Tree.

Deciduous/Evergreen: D = Deciduous. E = Evergreen.

Hardyness zone: 1 = Succeeds in the Arctic zone. 10 = Does not tolerate frost. Most of Britain is in zone 7, the milder areas are zone 8 (though some zone 9 plants can be there), some upland and northern areas are 6 or lower.

Soil: L = Light. M = Medium. H = Heavy.

Shade: F = Succeeds in full shade. S = Succeeds in semi-shade. N = Succeeds in full sun (or no shade).

Moisture: D = Succeeds in dry soils. M = Succeeds in moist soils (the average soil moisture level). We = Succeeds in wet soils. Wa = Succeeds in water.

pH: A = Succeeds in acid soils. N = Succeeds in neutral soils. B = Succeeds in basic (alkaline soils).

Growth rate: S = Slow. M = Medium. F = Fast.

When using this list it is important to remember that it can only contain a small portion of the information we hold on each plant. You are stronglt advised to seek more information on any plant before making use of it in the manner suggested. This is especially important with any of the comments on edibility. Information sheets on individual species can be obtained from Plants For A Future, they cost 10p each to produce.

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Plants For A Future: Database Search Results

Hosta plantaginae

Common name:	August lily	Family:	Funkiaceae
Author:	(Lam.) Asch.	Botanical references:	200
Synonyms:	Hosta subcordata		
Known Hazards:	One report suggests the plant may be poisonous[178].		
Range:	E. Asia - China, Japan.		
Habitat:	Roadside thickets and waste places in N. America, where it is naturalized[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. plantaginea[B,G,P] Hemerocallis plantaginea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Fragrant Plantain-lily [B], Fragrant Plantainlily [P],

Physical Characteristics

Perennial growing to 0.6m by 1.2m . It is hardy to zone 4 and is frost tender. It is in flower from July to September, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Leaves; Stem.

Young leaves and leaf stems - cooked[105, 177]. One report suggests the plant may be poisonous[178].

Medicinal Uses

Disclaimer

Cancer.

The flowers are said to have anticancer activity[218].

Other Uses

Essential; Ground cover.

An essential oil is obtained from the leaves, used in perfumery[178].

A useful ground cover plant, succeeding in dense shade, though rather slow spreading[197]. Plants should be spaced about 60cm apart each way[208].

Cultivation details

Thrives in most fertile soils if they are rich in humus[200]. Grows well in heavy clay soils and in sandy ones[208]. Very limy soils inhibit growth, but plants can thrive in such a situation if plenty of humus is added[208]. Prefers a pH between 6 and 7[200]. Requires a rich soil that does not dry out readily[1]. Succeeds in full sun as well as in deep shade, growing well in the semi-shade of a woodland[200, 233]. In general, the sunnier the position the moister the soil should be[233]. Plants are best not grown under trees in town gardens since the soot washed from the leaves of the trees in wet weather will tend to remain on the hosta[208]. Plants flower better when grown in a sunny position but the foliage is better when the plant is in a shady position[200]. This species tolerates quite a lot of sun[187].

Plants are in general fully hardy in Britain, but young leaves in spring can be destroyed by frost. New leaves are only produced in the spring and very early summer, so any damage at this time has a deep effect on the plant[233].

The plant forms open clumps[200].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Plants are very attractive to slugs and snails, the young shoots in spring are especially at risk[111, K].

A very ornamental plant[1], there are some named varieties[187]. The flowers open in the evening[188] and have a delicious lily-like fragrance[233]. The plant only flowers well when grown in a warm position[233], and is not really satisfactory when grown in most areas north of London[251]..

Hybridizes freely with other members of this genus[200].

Propagation

Seed - sow spring in a lightly shaded position in a greenhouse and only just cover the seed. Germination usually takes place within 1 - 3 months at 10°c. Make sure you keep the compost moist. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division is possible at almost any time of the year so long as there is sufficient moisture[233]. It is best carried out in March as growth commences or in early autumn if the soil is not too dry[200]. Hostas can be left undivided for many years and should not be divided any more frequently than once every 3 - 5 years to allow the leaves to reach maturity[200].

Scent

Flowers: Fresh

> The flowers open in the evening and have a delicious lily-like fragrance.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Hosta plantaginae

Group:
Plant Information

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Enter your comment about this plant here.

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Optional web-link:

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Plant names you would like this comment to be added to:

Hosta plantaginae

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Search for Latin Name: Hemerocallis

New Search: Hemerocallis Search

Latin Name	**Common Name**	**Family**	**Synonyms**	**Rating**
Aletris spicata		Liliaceae	A. japonica. Hypoxis farinosa. H. spicata.; Hemerocallis japonica; Hemerocallis lancifolia	1
Cardiocrinum cordatum		Liliaceae	Lilium cordatum. L. cordifolium.; Hemerocallis cordata	2
Hemerocallis species		Hemerocallidaceae		4
Hemerocallis altissima		Hemerocallidaceae		4
Hemerocallis aurantiaca		Hemerocallidaceae	Hemerocallis fulva aurantiaca; H. fulva var. aurantiaca	4
Hemerocallis bulbiferum		Hemerocallidaceae		4
Hemerocallis citrina		Hemerocallidaceae	H. baroni.; Hemerocallis baroni	4
Hemerocallis coreana		Hemerocallidaceae		4
Hemerocallis darrowiana		Hemerocallidaceae		4
Hemerocallis dumortieri		Hemerocallidaceae	H. ruticans. H. sieboldii.; Hemerocallis sieboldii; Hemerocallis ruticans	4

Hemerocallis exaltata		Hemerocallidaceae		4
Hemerocallis forrestii		Hemerocallidaceae		2
Hemerocallis fulva	Common day lily	Hemerocallidaceae	H. fulva var. kwanso	5
Hemerocallis fulva longituba		Hemerocallidaceae	H. longituba. Miq.; Hemerocallis longituba	4
Hemerocallis graminea		Hemerocallidaceae		4
Hemerocallis hakunensis		Hemerocallidaceae	H. hakuunensis	4
Hemerocallis lilioasphodelus	Yellow day lily	Hemerocallidaceae	H. flava.; Hemerocallis flava; H. lilio-asphodelus; H. lilioasphodelus var. flava; H. lilioasphodelus var. major	5
Hemerocallis littorea	Coastal day lily	Hemerocallidaceae	H. littorea.; Hemerocallis aurantiaca littorea; H. aurantiaca var. littorea	4
Hemerocallis micrantha		Hemerocallidaceae		4
Hemerocallis middendorffii		Hemerocallidaceae		5
Hemerocallis middendorffii esculenta		Hemerocallidaceae	H. esculenta. Koidz.; Hemerocallis esculenta; H. middendorffii var. esculenta	5
Hemerocallis minor	Grassleaf day lily	Hemerocallidaceae	H. gracilis. H. graminae. H. graminifolia.; Hemerocallis graminifolia; Hemerocallis gracilis	4
Hemerocallis multiflora		Hemerocallidaceae		4

Hemerocallis pedicellata		Hemerocallidaceae		4
Hemerocallis plicata		Hemerocallidaceae		4
Hemerocallis thunbergii		Hemerocallidaceae	H. citrina. Nakai. non Baroni. H. vespertina. Hara.; Hemerocallis vespertina; Hemerocallis citrina	4
Hemerocallis yezoensis		Hemerocallidaceae	H. coreana. Nakai.	4
Hosta plantaginae	August lily	Funkiaceae	H. subcordata.; Hemerocallis plantaginea	2

New Search

Latin Name	Hemerocallis
Common Name	
Family	
Rating	1 — 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Hemerocallis citrina

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Plant Information

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Subject:

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Subject:

Edible Ornamental Plants

Group:
Comments on Web-Pages

Comment:

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Plants For A Future: Database Search Results

Asclepias latifolia

Common name:	Broadleaf milkweed	Family:	Asclepiadaceae
Author:	(Torr.) Raf.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Central and south-western N. America - Nebraska to Colorado, Texas and Arizona		
Habitat:	Dry plains and prairies[43, 235].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. obtusifolia var. latifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Broad-leaf Milkweed [B], Broadleaf Milkweed [P], Lechon [E],
Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Us(Nm)

Physical Characteristics

Perennial growing to 0.75m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Sternutatory.

The leaves and stems can be dried then ground into a powder and inhaled as a snuff in the treatment of catarrh[257].

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[112].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

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Subject:

Asclepias latifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Plant names you would like this comment to be added to:

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Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Date: Sun May 16 01:59:20 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asclepias mexicana

Common name:		Family:	Asclepiadaceae
Author:	Cav.	Botanical references:	
Synonyms:	Asclepias mexicana (Rydb. non Cav), Asclepias fascicularis (Decne.)		
Known Hazards:	The flowers are considered to be poisonous by some Indian tribes[161, 177].		
Range:	South-western N. America - C. Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. mexicana auct. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mexican Milkweed [S], Mexican Whorled Milkweed [P], Narrow-leaf Milkweed [B],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 6. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers.

Young blossoms - cooked[161, 177]. Some caution is advised, see the notes on toxicity at the top of the page.

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[112].

Cultivation details

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200]. Succeeds in poor soils.

There is some confusion over nomenclature. A. mexicana. Rydb. is a synonym of A. fascicularis and the reports on the uses of this plant did not specify the authors name[60]. We have assumed that the uses refer to A. mexicana. Cav. There is also some confusion over the hardiness of this plant with one report saying that it needs greenhouse protection in Britain[1] whilst another says that it is hardy to zone 6, or about -20°c[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+mexicana`
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Range:	South-western N. America - C. Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

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Young blossoms - cooked[161, 177]. Some caution is advised, see the notes on toxicity at the top of the page.

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Disclaimer

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Range:	South-western N. America - C. Mexico.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias mexicana*

Subject:

Asclepias mexicana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias mexicana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 01:59:30 2004

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Add Comment Reset

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Asclepias ovalifolia

Common name:		Family:	Asclepiadaceae
Author:	Decne.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	The following report relates to the closely related A. syriaca and is probably also appropriate for this species[K]. The older leaves are poisonous if eaten in large quantities[20, 21].		
Range:	Central N. America.		
Habitat:	Sandy, gravelly or clayey soils of prairies and woodlands[228].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Oval-leaf Milkweed [B], Ovalleaf Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	ovalifolia = oval leaved;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 6. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to the closely related A. syriaca, and are probably also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to the closely related A. syriaca, and are probably also appropriate for this species[K].

A good quality fibre is obtained from the bark and is used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

This species is closely related to A. syriaca[200].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established

plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

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Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Plants For A Future: Database Search Results

Asclepias ovalifolia

Common name:		Family:	Asclepiadaceae
Author:	Decne.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	The following report relates to the closely related A. syriaca and is probably also appropriate for this species[K]. The older leaves are poisonous if eaten in large quantities[20, 21].		
Range:	Central N. America.		
Habitat:	Sandy, gravelly or clayey soils of prairies and woodlands[228].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Oval-leaf Milkweed [B], Ovalleaf Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	ovalifolia = oval leaved;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 6. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to the closely related A. syriaca, and are probably also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

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The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

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The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

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Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

This species is closely related to A. syriaca[200].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Range:	Central N. America.		
Habitat:	Sandy, gravelly or clayey soils of prairies and woodlands[228].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Oval-leaf Milkweed [B], Ovalleaf Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	ovalifolia = oval leaved;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 6. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to the closely related A. syriaca, and are probably also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to the closely related A. syriaca, and are probably also appropriate for this species[K].

A good quality fibre is obtained from the bark and is used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

This species is closely related to A. syriaca[200].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+ovalifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+ovalifolia`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias ovalifolia*

Subject:

Asclepias ovalifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias ovalifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Asclepias pumila

Common name:	Low milkweed	Family:	Asclepiadaceae
Author:	(A. Gray.) Vail.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	This species is said to be poisonous to livestock[228].		
Range:	Western N. America - Iowa to South Dakota, Arkansas, Wyoming, Texas, Colorado and New Mexico.		
Habitat:	Sandy, clayey or rocky calcareous or gypseous soils of prairies[228].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Low Milkweed [B], Plains Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	pumila = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.35m. It is hardy to zone 6. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

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Medicinal Uses

Disclaimer

Astringent.

An infusion of the leaves is used in the treatment of diarrhoea, the remedy can be given to children[257].

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Fibre; Latex; Oil; Pollution; Stuffing; Wick.

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9

A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

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If you know of another site which has good information about this plant fill in the following the details here.

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Details:	

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Asclepias pumila

Common name:	Low milkweed	Family:	Asclepiadaceae
Author:	(A. Gray.) Vail.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	This species is said to be poisonous to livestock[228].		
Range:	Western N. America - Iowa to South Dakota, Arkansas, Wyoming, Texas, Colorado and New Mexico.		
Habitat:	Sandy, clayey or rocky calcareous or gypseous soils of prairies[228].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	pumila = dwarf;
Systematics:	From a UDSA Plants Database
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Physical Characteristics

Perennial growing to 0.35m. It is hardy to zone 6. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

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Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

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Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951

Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[228] **McGregor. R. L. & Barkley. T. M.** *Flora of the Great Plains.* University Press of Kansas. 1986 ISBN 070060295x
A useful source of habitats.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN

0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+pumila`

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Plants For A Future: Database Search Results

Asclepias pumila

Common name:	Low milkweed	Family:	Asclepiadaceae
Author:	(A. Gray.) Vail.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	This species is said to be poisonous to livestock[228].		
Range:	Western N. America - Iowa to South Dakota, Arkansas, Wyoming, Texas, Colorado and New Mexico.		
Habitat:	Sandy, clayey or rocky calcareous or gypseous soils of prairies[228].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Low Milkweed [B], Plains Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	pumila = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.35m. It is hardy to zone 6. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Astringent.

An infusion of the leaves is used in the treatment of diarrhoea, the remedy can be given to children[257].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias pumila*

Subject:

Asclepias pumila

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias pumila

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asclepias purpurascens

Common name:	Purple milkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	200, 204
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - South Dakota to Minnesota, south to Tennessee.		
Habitat:	Dry to moist thickets, woods and openings[204].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Purple Milkweed [B,L,P],
Epithets:	From a Dictionary of Botanical Epithets
	purpurascens = purplish;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 2. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Root; Seed; Seedpod; Sweetener.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

Flower buds - raw or cooked[61, 92]. Tasting somewhat like peas[85].

Young shoots and leaves - cooked[46, 61, 62, 92, 95]. An asparagus substitute[85, 183]. They should not be eaten raw[85].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked. Very appetizing[85].

Flower clusters can be boiled down to make a sugary syrup[85] or they can be eaten raw[161, 183].

Seed - raw[161].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183].No further details.

Medicinal Uses

Disclaimer

Warts.

The latex is used as a cure for warts[168].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

A good quality tough fibre is obtained from the bark[92, 99]. It is used in twine, coarse cloth, paper etc[92, 99]. The fibre is 10 - 45mm long[189]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[168, 169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189]. The paper colour varies from white to creamy green depending on how the paper is made[189]. If the stems are used in the summer the latex will often find its way onto the fibres and is hard to remove[189].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[168, 169]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[169]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

A very ornamental plant[1], it is closely related to A. speciosa[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
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[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[204] **Livingstone. B.** *Flora of Canada* National Museums of Canada 1978 ISBN 0-660-00025-3
In 4 volumes, it does not deal with plant uses but gives descriptions and habitats.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Plants For A Future: Database Search Results

Asclepias purpurascens

Common name:	Purple milkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	200, 204
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - South Dakota to Minnesota, south to Tennessee.		
Habitat:	Dry to moist thickets, woods and openings[204].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Purple Milkweed [B,L,P],
Epithets:	From a Dictionary of Botanical Epithets
	purpurascens = purplish;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 2. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Root; Seed; Seedpod; Sweetener.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

Flower buds - raw or cooked[61, 92]. Tasting somewhat like peas[85].

Young shoots and leaves - cooked[46, 61, 62, 92, 95]. An asparagus substitute[85, 183]. They should not be eaten raw[85].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked. Very appetizing[85].

Flower clusters can be boiled down to make a sugary syrup[85] or they can be eaten raw[161, 183].

Seed - raw[161].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183].No further details.

Medicinal Uses

Disclaimer

Warts.

The latex is used as a cure for warts[168].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

A good quality tough fibre is obtained from the bark[92, 99]. It is used in twine, coarse cloth, paper etc[92, 99]. The fibre is 10 - 45mm long[189]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[168, 169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189]. The paper colour varies from white to creamy green depending on how the paper is made[189]. If the stems are used in the summer the latex will often find its way onto the fibres and is hard to remove[189].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[168, 169]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[169]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

A very ornamental plant[1], it is closely related to A. speciosa[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 -

3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[204] **Livingstone. B.** *Flora of Canada* National Museums of Canada 1978 ISBN 0-660-00025-3
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Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Plants For A Future: Database Search Results

Asclepias purpurascens

Common name:	Purple milkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	200, 204
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - South Dakota to Minnesota, south to Tennessee.		
Habitat:	Dry to moist thickets, woods and openings[204].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Purple Milkweed [B,L,P],
Epithets:	From a Dictionary of Botanical Epithets
	purpurascens = purplish;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 2. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Root; Seed; Seedpod; Sweetener.

The following uses have been recorded for A. speciosa, it is fairly safe to assume they can also be applied to this closely related species[K].

Flower buds - raw or cooked[61, 92]. Tasting somewhat like peas[85].

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Flower clusters can be boiled down to make a sugary syrup[85] or they can be eaten raw[161, 183].

Seed - raw[161].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183].No further details.

Medicinal Uses

Disclaimer

Warts.

The latex is used as a cure for warts[168].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

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Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

A very ornamental plant[1], it is closely related to A. speciosa[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 -

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Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias purpurascens*

Subject:

Asclepias purpurascens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias purpurascens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:00:00 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asclepias quadrifolia

Common name:	Fourleaf milkweed	Family:	Asclepiadaceae
Author:	Jacq.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	The plant is potentially poisonous[222]. No more details are given.		
Range:	Eastern N. America - New Hampshire to South Carolina, west to Kansas and Minnesota.		
Habitat:	Open deciduous woods and forest margins[222].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Four-leaf Milkweed [B], Fourleaf Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	quadrifolia = 4 leaved;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Diuretic; Laxative; VD; Warts.

A tea made from the roots is diuretic and laxative[222, 257]. It has also been used in the treatment of venereal diseases[257].

The leaves have been rubbed on warts in order to remove them[222]. The latex from the leaves is used, it needs to be applied daily for some time in order to be effective[K].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

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The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

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Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

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The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

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The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias*. *Web-pages: The Milkweeds*.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Asclepias quadrifolia

Common name:	Fourleaf milkweed	Family:	Asclepiadaceae
Author:	Jacq.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	The plant is potentially poisonous[222]. No more details are given.		
Range:	Eastern N. America - New Hampshire to South Carolina, west to Kansas and Minnesota.		
Habitat:	Open deciduous woods and forest margins[222].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	quadrifolia = 4 leaved;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Diuretic; Laxative; VD; Warts.

A tea made from the roots is diuretic and laxative[222, 257]. It has also been used in the treatment of venereal diseases[257].

The leaves have been rubbed on warts in order to remove them[222]. The latex from the leaves is used, it needs to be applied daily for some time in order to be effective[K].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

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Cultivation details

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A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

The small, pale-lilac flowers are sweetly scented[245].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

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	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Diuretic; Laxative; VD; Warts.

A tea made from the roots is diuretic and laxative[222, 257]. It has also been used in the treatment of venereal diseases[257].

The leaves have been rubbed on warts in order to remove them[222]. The latex from the leaves is used, it needs to be applied daily for some time in order to be effective[K].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

The small, pale-lilac flowers are sweetly scented[245].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Scent

Flowers: Fresh

> The small, pale-lilac flowers are sweetly scented.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+quadrifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+quadrifolia`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List](#) or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias quadrifolia*

Subject:

Asclepias quadrifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias quadrifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:00:11 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment   Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asclepias rubra

Common name:	Red silkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - New Jersey and Pennsylvania to Florida, Missouri, Louisiana and Texas.		
Habitat:	Moist soils[235].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. laurifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Red Milkweed [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	rubra = red;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1.2m. It is hardy to zone 5. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Seedpod; Sweetener.

Flower buds - cooked as potherbs or added to soups[207].

Young shoots and leaves - cooked as potherbs or added to soups[207].

Young seed pods, 3 - 4 cm long, cooked[207].

Flower clusters can be boiled down to make a sugary syrup[207].

A chewing gum can be made from the latex contained in the stem and leaves, but it is possibly toxic[207].

Medicinal Uses

Disclaimer

Warts.

The latex is used as a cure for warts[168].

Other Uses

Fibre; Latex; Stuffing.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

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Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

A very ornamental plant[1], it is closely related to A. lanceolata[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Web References

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Useful wild plants of America. A pocket guide.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

Asclepias rubra

Michelle Tue Oct 15 02:37:46 2002

Does anyone know where I can aquire this milkweed as either plant or seed?

Asclepias rubra

Wolf Wed Mar 5 06:08:11 2003

I have been looking for Red Milkweed(Asclepias rubra)seeds for a long time,and also looking for Slim Milkweed(Asclepias linearis)and Four-Leaved Milkweed(Asclepias quadrifolia)seeds. Does any one have any?

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+rubra`
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Plants For A Future: Database Search Results

Asclepias rubra

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Habitat:	Moist soils[235].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada*
Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

Asclepias rubra

Michelle Tue Oct 15 02:37:46 2002

Does anyone know where I can aquire this milkweed as either plant or seed?

Asclepias rubra

Wolf Wed Mar 5 06:08:11 2003

I have been looking for Red Milkweed(Asclepias rubra)seeds for a long time,and also looking for Slim Milkweed(Asclepias linearis)and Four-Leaved Milkweed(Asclepias quadrifolia)seeds. Does any one have any?

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+rubra`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+rubra`

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Plants For A Future: Database Search Results

Asclepias rubra

Common name:	Red silkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - New Jersey and Pennsylvania to Florida, Missouri, Louisiana and Texas.		
Habitat:	Moist soils[235].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. laurifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Red Milkweed [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	rubra = red;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1.2m. It is hardy to zone 5. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Seedpod; Sweetener.

Flower buds - cooked as potherbs or added to soups[207].

Young shoots and leaves - cooked as potherbs or added to soups[207].

Young seed pods, 3 - 4 cm long, cooked[207].

Flower clusters can be boiled down to make a sugary syrup[207].

A chewing gum can be made from the latex contained in the stem and leaves, but it is possibly toxic[207].

Medicinal Uses

Disclaimer

Warts.

The latex is used as a cure for warts[168].

Other Uses

Fibre; Latex; Stuffing.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

A very ornamental plant[1], it is closely related to A. lanceolata[200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias rubra*

Subject:

Asclepias rubra

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias rubra

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:00:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asclepias speciosa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Showy milkweed	Family:	Asclepiadaceae
Author:	Torr.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	One report says that the root is considered poisonous in large quantities by some native North American Indian tribes[257].		
Range:	Western N. America - Minnesota to British Columbia, south to Kansas, Utah and California.		
Habitat:	Prairies, in sandy and loamy, usually moist soils[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. giffordii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Milkweed [E], Lechones [S], Milkweed, Showy [S], Showy Milkweed [S,B,P],
Epithets:	From a Dictionary of Botanical Epithets
	speciosa = showy;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Flathead)

Physical Characteristics

Perennial growing to 0.75m by 0.6m . It is hardy to zone 2. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Root; Seed; Seedpod; Sweetener.

Flower buds - raw or cooked[61, 92]. They taste somewhat like peas[85]. They can be used to thicken soups[257].

Young shoots and leaves - cooked[46, 61, 62, 92, 95]. An asparagus substitute[85, 183]. One report says that they should not be eaten raw[85], whilst another says that the young spring shoots were eaten raw by some native American tribes[257].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long - raw or cooked[85, 257]. Very appetizing[85]. The immature pods are peeled before being eaten[257].

Flower clusters can be boiled down to make a sugary syrup[85] or they can be eaten raw[161, 183].

Seed - raw[161, 257].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183]. No further details are given, but another report says that the root can be poisonous in large quantities[257].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Ophthalmic; Skin; Stomachic; VD; Warts.

The latex is used as a cure for warts[168, 257]. The latex needs to be applied at least once a day of a period of some weeks for it to be effective[K]. The latex has antiseptic properties and has been used to treat skin sores, cuts and ringworm[257].

A decoction of the plant tops can be strained and used to treat blindness and snow-blindness[257].

The root is either chewed when fresh, or dried, ground into a powder then boiled, and used in the treatment of stomach ache[257]. A decoction of the roots has been used in small doses to treat venereal diseases and also to treat coughs, especially from TB[257]. A poultice of the mashed roots has been applied to rheumatic joints[257]. Some caution should be employed when using the root since there is a report that it can be poisonous in large quantities[257].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

A good quality tough fibre is obtained from the bark[92, 99]. It is used in twine, coarse cloth, paper etc[92, 99]. The fibre is 10 - 45mm long[189]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[168, 169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189]. The paper colour varies from white to creamy green depending on how the paper is made[189]. If the stems are used in the summer the latex will often find its way onto the fibres and is hard to remove[189].

The seed floss is used to stuff pillows etc, or is mixed with other fibres to make cloth[168, 169]. It has also been used as a baby's nappy[257]. The seed floss is a Kapok substitute, used in Life Jackets or as a stuffing material[169]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

A very ornamental plant[1], it is closely related to A. purpurascens[200]. The roots can spread quite freely when the plant is in a suitable position[233].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

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Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- The Milkweeds

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking*. Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Asclepias speciosa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Showy milkweed	Family:	Asclepiadaceae
Author:	Torr.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	One report says that the root is considered poisonous in large quantities by some native North American Indian tribes[257].		
Range:	Western N. America - Minnesota to British Columbia, south to Kansas, Utah and California.		
Habitat:	Prairies, in sandy and loamy, usually moist soils[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. giffordii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Milkweed [E], Lechones [S], Milkweed, Showy [S], Showy Milkweed [S,B,P],
Epithets:	From a Dictionary of Botanical Epithets
	speciosa = showy;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Flathead)

Physical Characteristics

Perennial growing to 0.75m by 0.6m . It is hardy to zone 2. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is

self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Root; Seed; Seedpod; Sweetener.

Flower buds - raw or cooked[61, 92]. They taste somewhat like peas[85]. They can be used to thicken soups[257].

Young shoots and leaves - cooked[46, 61, 62, 92, 95]. An asparagus substitute[85, 183]. One report says that they should not be eaten raw[85], whilst another says that the young spring shoots were eaten raw by some native American tribes[257].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long - raw or cooked[85, 257]. Very appetizing[85]. The immature pods are peeled before being eaten[257].

Flower clusters can be boiled down to make a sugary syrup[85] or they can be eaten raw[161, 183].

Seed - raw[161, 257].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183]. No further details are given, but another report says that the root can be poisonous in large quantities[257].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Ophthalmic; Skin; Stomachic; VD; Warts.

The latex is used as a cure for warts[168, 257]. The latex needs to be applied at least once a day of a period of some weeks for it to be effective[K]. The latex has antiseptic properties and has been used to treat skin sores, cuts and ringworm[257].

A decoction of the plant tops can be strained and used to treat blindness and snow-blindness[257].

The root is either chewed when fresh, or dried, ground into a powder then boiled, and used in the treatment of stomach ache[257]. A decoction of the roots has been used in small doses to treat venereal diseases and also to treat coughs, especially from TB[257]. A poultice of the mashed roots has been applied to rheumatic joints[257]. Some caution should be employed when using the root since there is a report that it can be poisonous in large quantities[257].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

A good quality tough fibre is obtained from the bark[92, 99]. It is used in twine, coarse cloth, paper etc[92, 99]. The fibre is 10 - 45mm long[189]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[168, 169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189]. The paper colour varies from white to creamy green depending on how the paper is made[189]. If the stems are used in the summer the latex will often find its way onto the fibres and is hard to remove[189].

The seed floss is used to stuff pillows etc, or is mixed with other fibres to make cloth[168, 169]. It has also been used as a baby's nappy[257]. The seed floss is a Kapok substitute, used in Life Jackets or as a stuffing material[169]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

A very ornamental plant[1], it is closely related to A. purpurascens[200]. The roots can spread quite freely when the plant is in a suitable position[233].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Milkweeds

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is

referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* [Asclepias](). *Web-pages:* [The Milkweeds]().

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* Asclepias. *Web-pages:* The Milkweeds.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+speciosa`

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Plants For A Future: Database Search Results

Asclepias speciosa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Showy milkweed	Family:	Asclepiadaceae
Author:	Torr.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	One report says that the root is considered poisonous in large quantities by some native North American Indian tribes[257].		
Range:	Western N. America - Minnesota to British Columbia, south to Kansas, Utah and California.		
Habitat:	Prairies, in sandy and loamy, usually moist soils[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. giffordii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Milkweed [E], Lechones [S], Milkweed, Showy [S], Showy Milkweed [S,B,P],
Epithets:	From a Dictionary of Botanical Epithets
	speciosa = showy;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Flathead)

Physical Characteristics

Perennial growing to 0.75m by 0.6m . It is hardy to zone 2. It is in flower from June to August, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). The plant is

self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Root; Seed; Seedpod; Sweetener.

Flower buds - raw or cooked[61, 92]. They taste somewhat like peas[85]. They can be used to thicken soups[257].

Young shoots and leaves - cooked[46, 61, 62, 92, 95]. An asparagus substitute[85, 183]. One report says that they should not be eaten raw[85], whilst another says that the young spring shoots were eaten raw by some native American tribes[257].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long - raw or cooked[85, 257]. Very appetizing[85]. The immature pods are peeled before being eaten[257].

Flower clusters can be boiled down to make a sugary syrup[85] or they can be eaten raw[161, 183].

Seed - raw[161, 257].

A chewing gum can be made from the latex contained in the stem and leaves[46, 61, 92, 183].

Root[183]. No further details are given, but another report says that the root can be poisonous in large quantities[257].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Ophthalmic; Skin; Stomachic; VD; Warts.

The latex is used as a cure for warts[168, 257]. The latex needs to be applied at least once a day of a period of some weeks for it to be effective[K]. The latex has antiseptic properties and has been used to treat skin sores, cuts and ringworm[257].

A decoction of the plant tops can be strained and used to treat blindness and snow-blindness[257].

The root is either chewed when fresh, or dried, ground into a powder then boiled, and used in the treatment of stomach ache[257]. A decoction of the roots has been used in small doses to treat venereal diseases and also to treat coughs, especially from TB[257]. A poultice of the mashed roots has been applied to rheumatic joints[257]. Some caution should be employed when using the root since there is a report that it can be poisonous in large quantities[257].

Other Uses

Dye; Fibre; Latex; Oil; Paper; Pollution; Stuffing.

A good quality tough fibre is obtained from the bark[92, 99]. It is used in twine, coarse cloth, paper etc[92, 99]. The fibre is 10 - 45mm long[189]. It is easily harvested in late autumn, after the plants have died down, by simply pulling it off the dead stems[168, 169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189]. The paper colour varies from white to creamy green depending on how the paper is made[189]. If the stems are used in the summer the latex will often find its way onto the fibres and is hard to remove[189].

The seed floss is used to stuff pillows etc, or is mixed with other fibres to make cloth[168, 169]. It has also been used as a baby's nappy[257]. The seed floss is a Kapok substitute, used in Life Jackets or as a stuffing material[169]. It is very water repellent. The floss has also been used to mop up oil spills at sea.

Rubber can be made from latex contained in the leaves and the stems[57, 92, 112]. The yield is up to 3%[112].

Pods contain an oil and a wax which are of potential importance.

A green dye is obtained from the flowers and leaves combined[168].

Cultivation details

Prefers a well-drained light rich or peaty soil and a sunny position[1, 134, 200].

A very ornamental plant[1], it is closely related to A. purpurascens[200]. The roots can spread quite freely when the plant is in a suitable position[233].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias speciosa*

Subject:

Asclepias speciosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias speciosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:00:31 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asclepias subulata

Common name:	Rush milkweed	Family:	Asclepiadaceae
Author:	Decne.	Botanical references:	71, 200
Synonyms:			
Known Hazards:	One report says that the plant is considered poisonous by some native North American Indian tribes[257].		
Range:	South-western N. America.		
Habitat:	Desert washes and sandy places below 600 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Desert Milkweed [S], Milkweed, Desert [S], Rush Milkweed [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	subulata = awl shaped;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Mexico; Mexico(Seri)

Physical Characteristics

Perennial growing to 2m. It is hardy to zone 6. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emetic; Ophthalmic; Purgative; Stomachic.

The plant is emetic, ophthalmic, purgative and stomachic[61, 257]. The reports do not specify which part of the plant is used.

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[61, 112, 171].

Cultivation details

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

A xerophytic plant, it looks like a species of Ephedra[200].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

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Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Plants For A Future: Database Search Results

Asclepias subulata

Common name:	Rush milkweed	Family:	Asclepiadaceae
Author:	Decne.	Botanical references:	71, 200
Synonyms:			
Known Hazards:	One report says that the plant is considered poisonous by some native North American Indian tribes[257].		
Range:	South-western N. America.		
Habitat:	Desert washes and sandy places below 600 metres in California[71].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Desert Milkweed [S], Milkweed, Desert [S], Rush Milkweed [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	subulata = awl shaped;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Mexico; Mexico(Seri)

Physical Characteristics

Perennial growing to 2m. It is hardy to zone 6. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emetic; Ophthalmic; Purgative; Stomachic.

The plant is emetic, ophthalmic, purgative and stomachic[61, 257]. The reports do not specify which part of the plant is used.

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[61, 112, 171].

Cultivation details

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200]. Succeeds in poor soils.

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

A xerophytic plant, it looks like a species of Ephedra[200].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

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Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

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References

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Author:	Decne.	Botanical references:	71, 200
Synonyms:			
Known Hazards:	One report says that the plant is considered poisonous by some native North American Indian tribes[257].		
Range:	South-western N. America.		
Habitat:	Desert washes and sandy places below 600 metres in California[71].		
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	subulata = awl shaped;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Mexico; Mexico(Seri)

Physical Characteristics

Perennial growing to 2m. It is hardy to zone 6. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emetic; Ophthalmic; Purgative; Stomachic.

The plant is emetic, ophthalmic, purgative and stomachic[61, 257]. The reports do not specify which part of the plant is used.

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[61, 112, 171].

Cultivation details

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias subulata*

Subject:

Asclepias subulata

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias subulata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Asclepias sullivantii

Common name:		Family:	Asclepiadaceae
Author:	Engelm.	Botanical references:	1, 43, 235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	N. America - Ontario to Ohio, Minnesota, Nebraska, Missouri and Kansas.		
Habitat:	Moist lowland areas[112], in rich ground and on prairies[43].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Prairie Milkweed [B,P],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1.2m. . It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[112]. The plant is a potential commercial source of rubber[110]. It contains up to 8% latex[112].

Cultivation details

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[110] **Polhamus. L. G.** *Rubber: Botany, Cultivation and Utilization.*

Mainly tropical plants with a small section on temperate plants for rubber.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
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[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Plants For A Future: Database Search Results

Asclepias sullivantii

Common name:		Family:	Asclepiadaceae
Author:	Engelm.	Botanical references:	1, 43, 235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	N. America - Ontario to Ohio, Minnesota, Nebraska, Missouri and Kansas.		
Habitat:	Moist lowland areas[112], in rich ground and on prairies[43].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Prairie Milkweed [B,P],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1.2m. . It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[112]. The plant is a potential commercial source of rubber[110]. It contains up to 8% latex[112].

Cultivation details

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[110] **Polhamus. L. G.** *Rubber: Botany, Cultivation and Utilization.*
Mainly tropical plants with a small section on temperate plants for rubber.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

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Plants For A Future: Database Search Results

Asclepias sullivantii

Common name:		Family:	Asclepiadaceae
Author:	Engelm.	Botanical references:	1, 43, 235
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	N. America - Ontario to Ohio, Minnesota, Nebraska, Missouri and Kansas.		
Habitat:	Moist lowland areas[112], in rich ground and on prairies[43].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Prairie Milkweed [B,P],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1.2m. . It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

Rubber can be made from latex contained in the leaves and the stems[112]. The plant is a potential commercial source of rubber[110]. It contains up to 8% latex[112].

Cultivation details

Prefers a well-drained light rich or peaty soil in a sunny position[1, 200].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias sullivantii*

Subject:

Asclepias sullivantii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias sullivantii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:00:50 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

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Asclepias syriaca

Common name:	Common milkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	43, 200
Synonyms:	Asclepias cornuttii (Decne.)		
Known Hazards:	The older leaves are poisonous if eaten in large quantities[20, 21]. The plant contains cardioactive compounds and is potentially toxic[222].		
Range:	Eastern N. America - New Brunswick to Saskatchewan, south to N. Carolina, Kansas and Georgia.		
Habitat:	Thickets, roadsides, dry fields and waste places[21, 43].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. cornutii[H] A. intermedia[B,P] A. kansana[B,P] A. syriaca var. kansana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Milkweed [H,P,B,L], Ipek Fidani [E], Milkweed [E], Milkweed, Common [S], Silkweed [L],
Epithets:	From a Dictionary of Botanical Epithets
	syriaca = from Syria;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database

	Turkey; Us; Us(Appalachia); Us(Pamunkey); Us(Rappahannock)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 3. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. They have a mucilaginous texture and a pleasant flavour, they can be used as a flavouring and a thickener in soups etc[55, 102, 257].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up they make a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is a suitable replacement for chicle and can be made into a chewing gum[46, 61, 269]. It is not really suitable for use in tyres[269]. The latex is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Anodyne; Contraceptive; Diaphoretic; Diuretic; Emetic; Expectorant; Homeopathy; Purgative; Warts.

The root is anodyne, diaphoretic, diuretic, emetic, expectorant and purgative[4, 21, 222]. It has been used in the treatment of asthma, kidney stones, venereal disease etc[254, 257]. Caution is advised, see the notes above on toxicity.

An infusion of the pounded roots has been used by the women of some native North American Indian tribes to promote temporary sterility[213, 257].

The leaves and/or the latex are used in folk remedies for treating cancer and tumours[269]. The milky latex from the stems and leaves is used in the treatment of warts[4, 159, 222, 257]. The latex needs to be applied at least daily over a period of up to a few weeks to be effective.

The stems can be cooked and applied as a poultice on rheumatic joints[257].

One reported Mohawk antifertility concoction contained milkweed and jack-in-the-pulpit, both considered contraceptive. Dried and pulverized, a fistful of milkweed and three Arisaema rhizomes were infused in a pint of water for 20 minutes. The infusion was drunk, a cupful an hour, to induce temporary sterility[269].

The rhizome is used in homeopathy as an antioedemic and emmenagogue in the treatment of dropsy and dysmenorrhoea[269].

Other Uses

Adhesive; Fibre; Latex; Oil; Pollution; Stuffing; Wick.

A good quality fibre is obtained from the inner bark of the stems. It is long and quite strong, but brittle[269]. It can be used in making twine, cloth, paper etc[95, 112, 169]. The fibre is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169]. It is estimated that yields of 1,356 kilos per hectare could be obtained from wild plants[269].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss absorbs oil whilst repelling water and so has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207]. In cultivation, only 1 - 3% of the flowers produce mature pods[269]. It is estimated that yields of 1,368 kilos per hectare could be obtained from wild plants[269].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields of 197 kilos per hectare can be expected from wild plants, it is estimated that by selection these yields could be increased to 897 kilos[269]. Yields are higher on dry soils[112]. The latex can also be used as a glue for fixing precious stones into necklaces, earrings etc[257]. The latex contains 0.1 - 1.5% caoutchouc, 16 - 17% dry matter, and 1.23% ash. It also contains the digitalis-like mixture of a- and b-asclepiadin, the antitumor b-sitosterol, and a- and b-amyrin and its acetate, dextrose and wax[269].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

Plants are hardy to about -25°c[187].

A very ornamental plant[1], though it can be invasive by means of its spreading root system[200]. The flowers diffuse a delicious scent into the garden. This scent attracts bees, who obtain copious supplies of nectar from the plants[50, 74, K], though unfortunately the plants do not always flower in Britain[K]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

This plant has a very wide range of uses and merits attention as a food, fibre and rubber crop[K]. It was possibly cultivated at one time by the North American Indians for its many uses[159]. It is considered by some to be the greatest underachiever among plants. Its potential appears great, yet until now it has never been continuously processed for commercial purposes[269].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

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Scent

Flowers: Fresh

> The flowers diffuse a delicious scent into the garden.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Milkweeds

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asclepias cornutii* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *asclepias syriaca* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978

ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
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A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

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The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

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The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+syriaca`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+syriaca`

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Plants For A Future: Database Search Results

Asclepias syriaca

Common name:	Common milkweed	Family:	Asclepiadaceae
Author:	L.	Botanical references:	43, 200
Synonyms:	Asclepias cornuttii (Decne.)		
Known Hazards:	The older leaves are poisonous if eaten in large quantities[20, 21]. The plant contains cardioactive compounds and is potentially toxic[222].		
Range:	Eastern N. America - New Brunswick to Saskatchewan, south to N. Carolina, Kansas and Georgia.		
Habitat:	Thickets, roadsides, dry fields and waste places[21, 43].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. cornutii[H] A. intermedia[B,P] A. kansana[B,P] A. syriaca var. kansana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Milkweed [H,P,B,L], Ipek Fidani [E], Milkweed [E], Milkweed, Common [S], Silkweed [L],
Epithets:	From a Dictionary of Botanical Epithets
	syriaca = from Syria;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Appalachia); Us(Pamunkey); Us(Rappahannock)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 3. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. They have a mucilaginous texture and a pleasant flavour, they can be used as a flavouring and a thickener in soups etc[55, 102, 257].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up they make a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is a suitable replacement for chicle and can be made into a chewing gum[46, 61, 269]. It is not really suitable for use in tyres[269]. The latex is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Anodyne; Contraceptive; Diaphoretic; Diuretic; Emetic; Expectorant; Homeopathy; Purgative; Warts.

The root is anodyne, diaphoretic, diuretic, emetic, expectorant and purgative[4, 21, 222]. It has been used in the treatment of asthma, kidney stones, venereal disease etc[254, 257]. Caution is advised, see the notes above on toxicity.

An infusion of the pounded roots has been used by the women of some native North American Indian tribes to promote temporary sterility[213, 257].

The leaves and/or the latex are used in folk remedies for treating cancer and tumours[269]. The milky latex from the stems and leaves is used in the treatment of warts[4, 159, 222, 257]. The latex needs to be applied at least daily over a period of up to a few weeks to be effective.

The stems can be cooked and applied as a poultice on rheumatic joints[257].

One reported Mohawk antifertility concoction contained milkweed and jack-in-the-pulpit, both considered contraceptive. Dried and pulverized, a fistful of milkweed and three Arisaema rhizomes were infused in a pint of water for 20 minutes. The infusion was drunk, a cupful an hour, to induce temporary sterility[269].

The rhizome is used in homeopathy as an antioedemic and emmenagogue in the treatment of dropsy and dysmenorrhoea[269].

Other Uses

Adhesive; Fibre; Latex; Oil; Pollution; Stuffing; Wick.

A good quality fibre is obtained from the inner bark of the stems. It is long and quite strong, but brittle[269]. It can be used in making twine, cloth, paper etc[95, 112, 169]. The fibre is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169]. It is estimated that yields of 1,356 kilos per hectare could be obtained from wild plants[269].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss absorbs oil whilst repelling water and so has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207]. In cultivation, only 1 - 3% of the flowers produce mature pods[269]. It is estimated that yields of 1,368 kilos per hectare could be obtained from wild plants[269].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields of 197 kilos per hectare can be expected from wild plants, it is estimated that by selection these yields could be increased to 897 kilos[269]. Yields are higher on dry soils[112]. The latex can also be used as a glue for fixing precious stones into necklaces, earrings etc[257]. The latex contains 0.1 - 1.5% caoutchouc, 16 - 17% dry matter, and 1.23% ash. It also contains the digitalis-like mixture of a- and b-asclepiadin, the antitumor b-sitosterol, and a- and b-amyrin and its acetate, dextrose and wax[269].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

Plants are hardy to about -25°c[187].

A very ornamental plant[1], though it can be invasive by means of its spreading root system[200]. The flowers diffuse a delicious scent into the garden. This scent attracts bees, who obtain copious supplies of nectar from the plants[50, 74, K], though unfortunately the plants do not always flower in Britain[K]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

This plant has a very wide range of uses and merits attention as a food, fibre and rubber crop[K]. It was possibly cultivated at one time by the North American Indians for its many uses[159]. It is considered by some to be the greatest underachiever among plants. Its potential appears great, yet until now it has never been continuously processed for commercial purposes[269].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Scent

Flowers: Fresh

The flowers diffuse a delicious scent into the garden.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Milkweeds

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical

Database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asclepias cornutii* (a possible synonym).

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References for *asclepias syriaca* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World*. Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal*. Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening*. Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book*. Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany*. American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+syriaca`
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Milkweed [H,P,B,L], Ipek Fidani [E], Milkweed [E], Milkweed, Common [S], Silkweed [L],
Epithets:	From a Dictionary of Botanical Epithets
	syriaca = from Syria;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Appalachia); Us(Pamunkey); Us(Rappahannock)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 3. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Seed; Seedpod; Sweetener.

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. They have a mucilaginous texture and a pleasant flavour, they can be used as a flavouring and a thickener in soups etc[55, 102, 257].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up they make a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is a suitable replacement for chicle and can be made into a chewing gum[46, 61, 269]. It is not really suitable for use in tyres[269]. The latex is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Anodyne; Contraceptive; Diaphoretic; Diuretic; Emetic; Expectorant; Homeopathy; Purgative; Warts.

The root is anodyne, diaphoretic, diuretic, emetic, expectorant and purgative[4, 21, 222]. It has been used in the treatment of asthma, kidney stones, venereal disease etc[254, 257]. Caution is advised, see the notes above on toxicity.

An infusion of the pounded roots has been used by the women of some native North American Indian tribes to promote temporary sterility[213, 257].

The leaves and/or the latex are used in folk remedies for treating cancer and tumours[269]. The milky latex from the stems and leaves is used in the treatment of warts[4, 159, 222, 257]. The latex needs to be applied at least daily over a period of up to a few weeks to be effective.

The stems can be cooked and applied as a poultice on rheumatic joints[257].

One reported Mohawk antifertility concoction contained milkweed and jack-in-the-pulpit, both considered contraceptive. Dried and pulverized, a fistful of milkweed and three Arisaema rhizomes were infused in a pint of water for 20 minutes. The infusion was drunk, a cupful an hour, to induce temporary sterility[269].

The rhizome is used in homeopathy as an antioedemic and emmenagogue in the treatment of dropsy and dysmenorrhoea[269].

Other Uses

Adhesive; Fibre; Latex; Oil; Pollution; Stuffing; Wick.

A good quality fibre is obtained from the inner bark of the stems. It is long and quite strong, but brittle[269]. It can be used in making twine, cloth, paper etc[95, 112, 169]. The fibre is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169]. It is estimated that yields of 1,356 kilos per hectare could be obtained from wild plants[269].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss absorbs oil whilst repelling water and so has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207]. In cultivation, only 1 - 3% of the flowers produce mature pods[269]. It is estimated that yields of 1,368 kilos per hectare could be obtained from wild plants[269].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields of 197 kilos per hectare can be expected from wild plants, it is estimated that by selection these yields could be increased to 897 kilos[269]. Yields are higher on dry soils[112]. The latex can also be used as a glue for fixing precious stones into necklaces, earrings etc[257]. The latex contains 0.1 - 1.5% caoutchouc, 16 - 17% dry matter, and 1.23% ash. It also contains the digitalis-like mixture of a- and b-asclepiadin, the antitumor b-sitosterol, and a- and b-amyrin and its acetate, dextrose and wax[269].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

Plants are hardy to about -25°c[187].

A very ornamental plant[1], though it can be invasive by means of its spreading root system[200]. The flowers diffuse a delicious scent into the garden. This scent attracts bees, who obtain copious supplies of nectar from the plants[50, 74, K], though unfortunately the plants do not always flower in Britain[K]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

This plant has a very wide range of uses and merits attention as a food, fibre and rubber crop[K]. It was possibly cultivated at one time by the North American Indians for its many uses[159]. It is considered by some to be the greatest underachiever among plants. Its potential appears great, yet until now it has never been continuously processed for commercial purposes[269].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Scent

Flowers: Fresh

> The flowers diffuse a delicious scent into the garden.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+syriaca`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+syriaca`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias syriaca*

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Asclepias syriaca

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Asclepias tuberosa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pleurisy root	Family:	Asclepiadaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	The plant is poisonous if eaten in large quantities[20, 62]. Very large doses can cause diarrhoea and vomiting[268].		
Range:	N. America - S. Ontario and New York to Minnesota, south to Florida and Colorado.		
Habitat:	Dry open sandy and gravelly soils and grassy places by the sides of roads[43, 187, 268].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below. Asclepiade Tubereux [E], Butterfly Milkweed [P,B], Butterfly Weed [H], Butterfly-weed [L], Knollige Schwalbenwurz [E], Knollige Seidenpflanze [E], Knollseidenwurzel [E], Knolzijdewortel [E], Milkweed, Butterfly [S], Pleurisy Root [S,H,E], Pleurisy-root [L], Pleurisyroot [E], Tuberous Swallowwort [E], Yanagi-Towata [E],
Epithets:	From a Dictionary of Botanical Epithets tuberosa = tuberous;
Systematics:	From a UDSA Plants Database Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database

	France; Germany; Mexico; Netherlands; Us; Us(Amerindian); Us(Appalachia); Us(Sc)

Physical Characteristics

Perennial growing to 0.75m by 0.45m . It is hardy to zone 3. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Leaves; Root; Seedpod; Sweetener.

Whilst most parts of this plant have been used as food, some caution is advised since large doses can cause diarrhoea and vomiting - see the notes above on toxicity.

Flower buds - cooked. They taste somewhat like peas[85].

Young shoots - cooked. An asparagus substitute[2, 4, 46, 85, 183].

The tips of older shoots are cooked like spinach[85].

Young seed pods - cooked. Harvested when 3 - 4 cm long and before the seed floss begins to form, they are very appetizing[2, 4, 21, 61, 85].

The flower clusters can be boiled down to make a sugary syrup[2, 4, 85, 183]. In hot weather the flowers produce so much nectar that it crystallises out into small lumps which can be eaten like sweets, they are delicious[K].

Root - cooked[2, 4, 46, 61, 85, 105]. A nutty flavour[165]. Some reports say that it is poisonous[183].

An edible oil is obtained from the seed[112]. The seed is very small, however, and commercial usage would not be very viable.

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Cathartic; Diaphoretic; Diuretic; Expectorant; Poultice; Tonic; Vasodilator.

Pleurisy root is a bitter, nutty-flavoured tonic herb that increases perspiration, relieves spasms and acts as an expectorant[238]. It was much used by the North American Indians and acquired a reputation as a heal-all amongst the earlier white settlers[254, 257]. Its main use in present day herbalism is for relieving the pain and inflammation of pleurisy[254].

The root is antispasmodic, carminative, mildly cathartic, diaphoretic, diuretic, expectorant, tonic and vasodilator[4, 21, 46, 165]. The root was very popular as a medicinal herb for the treatment of a range of lung diseases, it was considered especially useful as an expectorant[4, 213, 254]. It has never been scientifically examined and warrants further investigation[213]. It has also been used internally with great advantage in the treatment of diarrhoea, dysentery, rheumatism etc[4]. Use with caution[21], This remedy should not be prescribed for pregnant women[238]. See also the notes above on toxicity. The root is harvested in the autumn and can be used fresh or dried[238].

A poultice of the dried, powdered roots is used in the treatment of swellings, bruises, wounds, ulcers, lameness etc[222, 238, 268].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing.

A good quality fibre is obtained from the bark and is used in making twine, cloth etc[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[169]. It is a kapok substitute, used in life jackets or as a stuffing material[169]. Very water repellent. The floss has also been used to mop up oil spills at sea.

The plant is a potential source of latex, used for making rubber[57]. This species is the only member of the genus that does not have latex in its sap[213].

The seedpods contain an oil and a wax which are of potential importance.

Candle wicks are made from the seed floss.

The seed contains up to 21% of a semi-drying oil[112].

Cultivation details

Prefers a well-drained light, rich or peaty soil[1, 200]. Prefers a sandy soil and a sunny position[111, 233]. Prefers a slightly acid soil[238]. Prefers a dry soil[187, 238].

Plants are hardy to about -20°c[187]. Another report says that this species is only suited to the warmer areas of Britain[233].

A very ornamental plant[1], but it is not easy to establish or to keep in British gardens[233].

Resents root disturbance[4, 134], plants should be pot-grown from seed and planted out in their permanent positions when young. Plants are particularly at risk from slugs, however, and some protection will probably be required until the plants are established and also in the spring when the new shoots come into growth[K].

The flower can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Milkweeds

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *asclepias tuberosa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* Asclepias. *Web-pages:* The Milkweeds.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Asclepias tuberosa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pleurisy root	Family:	Asclepiadaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	The plant is poisonous if eaten in large quantities[20, 62]. Very large doses can cause diarrhoea and vomiting[268].		
Range:	N. America - S. Ontario and New York to Minnesota, south to Florida and Colorado.		
Habitat:	Dry open sandy and gravelly soils and grassy places by the sides of roads[43, 187, 268].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Asclepiade Tubereux [E], Butterfly Milkweed [P,B], Butterfly Weed [H], Butterfly-weed [L], Knollige Schwalbenwurz [E], Knollige Seidenpflanze [E], Knollseidenwurzel [E], Knolzijdewortel [E], Milkweed, Butterfly [S], Pleurisy Root [S,H,E], Pleurisy-root [L], Pleurisyroot [E], Tuberous Swallowwort [E], Yanagi-Towata [E],
Epithets:	From a Dictionary of Botanical Epithets
	tuberosa = tuberous;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Mexico; Netherlands; Us; Us(Amerindian); Us(Appalachia); Us(Sc)

Physical Characteristics

Perennial growing to 0.75m by 0.45m . It is hardy to zone 3. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Leaves; Root; Seedpod; Sweetener.

Whilst most parts of this plant have been used as food, some caution is advised since large doses can cause diarrhoea and vomiting - see the notes above on toxicity.

Flower buds - cooked. They taste somewhat like peas[85].

Young shoots - cooked. An asparagus substitute[2, 4, 46, 85, 183].

The tips of older shoots are cooked like spinach[85].

Young seed pods - cooked. Harvested when 3 - 4 cm long and before the seed floss begins to form, they are very appetizing[2, 4, 21, 61, 85].

The flower clusters can be boiled down to make a sugary syrup[2, 4, 85, 183]. In hot weather the flowers produce so much nectar that it crystallises out into small lumps which can be eaten like sweets, they are delicious[K].

Root - cooked[2, 4, 46, 61, 85, 105]. A nutty flavour[165]. Some reports say that it is poisonous[183].

An edible oil is obtained from the seed[112]. The seed is very small, however, and commercial usage would not be very viable.

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Cathartic; Diaphoretic; Diuretic; Expectorant; Poultice; Tonic; Vasodilator.

Pleurisy root is a bitter, nutty-flavoured tonic herb that increases perspiration, relieves spasms and acts as an expectorant[238]. It was much used by the North American Indians and acquired a reputation as a heal-all amongst the earlier white settlers[254, 257]. Its main use in present day herbalism is for relieving the pain and inflammation of pleurisy[254].

The root is antispasmodic, carminative, mildly cathartic, diaphoretic, diuretic, expectorant, tonic and vasodilator[4, 21, 46, 165]. The root was very popular as a medicinal herb for the treatment of a range of lung diseases, it was considered especially useful as an expectorant[4, 213, 254]. It has never been scientifically examined and warrants further investigation[213]. It has also been used internally with great advantage in the treatment of diarrhoea, dysentery, rheumatism etc[4]. Use with caution[21], This remedy should not be prescribed for pregnant women[238]. See also the notes above on toxicity. The root is harvested in the autumn and can be used fresh or dried[238].

A poultice of the dried, powdered roots is used in the treatment of swellings, bruises, wounds, ulcers, lameness etc[222, 238, 268].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing.

A good quality fibre is obtained from the bark and is used in making twine, cloth etc[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[169]. It is a kapok substitute, used in life jackets or as a stuffing material[169]. Very water repellent. The floss has also been used to mop up oil spills at sea.

The plant is a potential source of latex, used for making rubber[57]. This species is the only member of the genus that does not have latex in its sap[213].

The seedpods contain an oil and a wax which are of potential importance.

Candle wicks are made from the seed floss.

The seed contains up to 21% of a semi-drying oil[112].

Cultivation details

Prefers a well-drained light, rich or peaty soil[1, 200]. Prefers a sandy soil and a sunny position[111, 233]. Prefers a slightly acid soil[238]. Prefers a dry soil[187, 238].

Plants are hardy to about -20°c[187]. Another report says that this species is only suited to the warmer areas of Britain[233].

A very ornamental plant[1], but it is not easy to establish or to keep in British gardens[233].

Resents root disturbance[4, 134], plants should be pot-grown from seed and planted out in their permanent positions when young. Plants are particularly at risk from slugs, however, and some protection will probably be required until the plants are established and also in the spring when the new shoots come into growth[K].

The flower can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Milkweeds

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *asclepias tuberosa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[112] **Whiting. A. G.** *A Summary of the Literature on Milkweeds (Asclepias spp) and their utilization.*
A technical paper covering the many uses of the genus Asclepias.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

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Plants For A Future: Database Search Results

Asclepias tuberosa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pleurisy root	Family:	Asclepiadaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	The plant is poisonous if eaten in large quantities[20, 62]. Very large doses can cause diarrhoea and vomiting[268].		
Range:	N. America - S. Ontario and New York to Minnesota, south to Florida and Colorado.		
Habitat:	Dry open sandy and gravelly soils and grassy places by the sides of roads[43, 187, 268].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Asclepiade Tubereux [E], Butterfly Milkweed [P,B], Butterfly Weed [H], Butterfly-weed [L], Knollige Schwalbenwurz [E], Knollige Seidenpflanze [E], Knollseidenwurzel [E], Knolzijdewortel [E], Milkweed, Butterfly [S], Pleurisy Root [S,H,E], Pleurisy-root [L], Pleurisyroot [E], Tuberous Swallowwort [E], Yanagi-Towata [E],
Epithets:	From a Dictionary of Botanical Epithets
	tuberosa = tuberous;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Mexico; Netherlands; Us; Us(Amerindian); Us(Appalachia); Us(Sc)

Physical Characteristics

Perennial growing to 0.75m by 0.45m . It is hardy to zone 3. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Leaves; Root; Seedpod; Sweetener.

Whilst most parts of this plant have been used as food, some caution is advised since large doses can cause diarrhoea and vomiting - see the notes above on toxicity.

Flower buds - cooked. They taste somewhat like peas[85].

Young shoots - cooked. An asparagus substitute[2, 4, 46, 85, 183].

The tips of older shoots are cooked like spinach[85].

Young seed pods - cooked. Harvested when 3 - 4 cm long and before the seed floss begins to form, they are very appetizing[2, 4, 21, 61, 85].

The flower clusters can be boiled down to make a sugary syrup[2, 4, 85, 183]. In hot weather the flowers produce so much nectar that it crystallises out into small lumps which can be eaten like sweets, they are delicious[K].

Root - cooked[2, 4, 46, 61, 85, 105]. A nutty flavour[165]. Some reports say that it is poisonous[183].

An edible oil is obtained from the seed[112]. The seed is very small, however, and commercial usage would not be very viable.

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Cathartic; Diaphoretic; Diuretic; Expectorant; Poultice; Tonic; Vasodilator.

Pleurisy root is a bitter, nutty-flavoured tonic herb that increases perspiration, relieves spasms and acts as an expectorant[238]. It was much used by the North American Indians and acquired a reputation as a heal-all amongst the earlier white settlers[254, 257]. Its main use in present day herbalism is for relieving the pain and inflammation of pleurisy[254].

The root is antispasmodic, carminative, mildly cathartic, diaphoretic, diuretic, expectorant, tonic and vasodilator[4, 21, 46, 165]. The root was very popular as a medicinal herb for the treatment of a range of lung diseases, it was considered especially useful as an expectorant[4, 213, 254]. It has never been scientifically examined and warrants further investigation[213]. It has also been used internally with great advantage in the treatment of diarrhoea, dysentery, rheumatism etc[4]. Use with caution[21], This remedy should not be prescribed for pregnant women[238]. See also the notes above on toxicity. The root is harvested in the autumn and can be used fresh or dried[238].

A poultice of the dried, powdered roots is used in the treatment of swellings, bruises, wounds, ulcers, lameness etc[222, 238, 268].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing.

A good quality fibre is obtained from the bark and is used in making twine, cloth etc[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[169]. It is a kapok substitute, used in life jackets or as a stuffing material[169]. Very water repellent. The floss has also been used to mop up oil spills at sea.

The plant is a potential source of latex, used for making rubber[57]. This species is the only member of the genus that does not have latex in its sap[213].

The seedpods contain an oil and a wax which are of potential importance.

Candle wicks are made from the seed floss.

The seed contains up to 21% of a semi-drying oil[112].

Cultivation details

Prefers a well-drained light, rich or peaty soil[1, 200]. Prefers a sandy soil and a sunny position[111, 233]. Prefers a slightly acid soil[238]. Prefers a dry soil[187, 238].

Plants are hardy to about -20°c[187]. Another report says that this species is only suited to the warmer areas of Britain[233].

A very ornamental plant[1], but it is not easy to establish or to keep in British gardens[233].

Resents root disturbance[4, 134], plants should be pot-grown from seed and planted out in their permanent positions when young. Plants are particularly at risk from slugs, however, and some protection will probably be required until the plants are established and also in the spring when the new shoots come into growth[K].

The flower can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asclepias tuberosa*

Subject:

Asclepias tuberosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias tuberosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:01:12 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

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Asclepias viridiflora

Common name:	Green milkweed	Family:	Asclepiadaceae
Author:	Raf.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - west and south to Arizona and Mexico.		
Habitat:	Sandy or rocky calcareous soils in prairies[228].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. viridiflora var. lanceolata[B,P] A. viridiflora var. linearis[B,P] Acerates viridiflora[B,P] Acerates viridiflora var. ivesii[B,P] Acerates viridiflora var. linearis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Green Comet Milkweed [B], Green Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; viridiflora = green flowered;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1m by 1m . . It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Root; Seed; Seedpod; Sweetener.

The root can be dried and stored for use as a flavouring in soups[257].

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Antirheumatic; Galactogogue; Ophthalmic; Poultice.

A poultice made from the chewed roots can be applied to rashes, a nursing baby's sore gums and rheumatic joints[257]. It can also be used as a poultice on sore eyes[257]. The root can also be chewed as a treatment for sore throats whilst an infusion has been used to treat diarrhoea in children[257].

An infusion of the whole plant has been used to increase the milk flow of a nursing mother[257].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

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Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

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Web References

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References

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Readers Comments

The Milkweeds

Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera:* Asclepias. *Web-pages:* The Milkweeds.

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

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Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Asclepias viridiflora

Common name:	Green milkweed	Family:	Asclepiadaceae
Author:	Raf.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - west and south to Arizona and Mexico.		
Habitat:	Sandy or rocky calcareous soils in prairies[228].		
Plants For A Future Rating (1-5):	3		

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	flora = flowered; viridiflora = green flowered;
Systematics:	From a UDSA Plants Database
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Physical Characteristics

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shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Root; Seed; Seedpod; Sweetener.

The root can be dried and stored for use as a flavouring in soups[257].

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

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Disclaimer

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Cultivation details

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Sheila Chmuhalek Sat 27 Sept 1997

I found your web site while I was searching for information on milkweed, and the milkweeds page showed up. I am a professor of textiles at the University of Manitoba in Canada. Congratulations on having such an interesting site. I'll be back.

Has your group thought about plants as dyes? I found the page on fibre but was surprised that dyes weren't mentioned. If anyone's interested, Milkweed is a terrific dye source, as well.

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

David Raymond Wed May 30 00:17:57 2001

I ran across an article on commercial trials of milkweed as a kapok -fluff-producer in the US. I will try to track it down for you. The US military, or agriculture department, initially looked at milkweed as a source for a petroleum substitute in the event of war. As you note, it is not very productive in that respect. So there is now research on the use of the fluff, which is as warm as down but does not mat down when it gets wet. Keep up the good work. David Raymond

Cross references: *Genera: Asclepias. Web-pages: The Milkweeds.*

The Milkweeds

Charlis Meador (charlis1@msn.com) Sun Sep 14 02:01:43 2003

I think this is probably the article about milkweed fibre production that David Raymond is

referring to: http://www.hort.purdue.edu/newcrop/proceedings1993/V2-428.html

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

The Milkweeds

() Thu Oct 2 20:57:27 2003

I love plants!!!!!

Cross references: *Genera:* *Asclepias*. *Web-pages:* *The Milkweeds*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asclepias+viridiflora`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asclepias+viridiflora`

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Plants For A Future: Database Search Results

Asclepias viridiflora

Common name:	Green milkweed	Family:	Asclepiadaceae
Author:	Raf.	Botanical references:	200, 228
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, there are reports of toxicity to mammals for some members of this genus, so some caution should be exercised.		
Range:	Eastern N. America - west and south to Arizona and Mexico.		
Habitat:	Sandy or rocky calcareous soils in prairies[228].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. viridiflora var. lanceolata[B,P] A. viridiflora var. linearis[B,P] Acerates viridiflora[B,P] Acerates viridiflora var. ivesii[B,P] Acerates viridiflora var. linearis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Green Comet Milkweed [B], Green Milkweed [P],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; viridiflora = green flowered;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family

Physical Characteristics

Perennial growing to 1m by 1m . . It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, insects and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no

shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Gum; Leaves; Oil; Root; Seed; Seedpod; Sweetener.

The root can be dried and stored for use as a flavouring in soups[257].

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

Unopened flower buds - cooked. They taste somewhat like peas. They are used like broccoli[183].

Flowers and young flower buds - cooked. Used as a flavouring and a thickener in soups etc[55, 102].

The flower clusters can be boiled down to make a sugary syrup[2, 85]. The flowers are harvested in the early morning with the dew still on them[95]. When boiled up it makes a brown sugar[95].

Young shoots - cooked. An asparagus substitute[2, 4, 43, 55, 62, 95, 183]. They should be used when less than 20cm tall[159]. A slightly bitter taste[159].

Tips of older shoots are cooked like spinach[85, 183].

Young seed pods, 3 - 4 cm long, cooked[2, 43, 55, 85]. They are very appetizing. Best used when about 2 - 4cm long and before the seed floss forms, on older pods remove any seed floss before cooking them[85, 159]. If picked at the right time, the pods resemble okra[183].

The sprouted seeds can be eaten[183].

An edible oil is obtained from the seed[55, 171].

The latex in the stems is made into a chewing gum[46, 61]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Medicinal Uses

Disclaimer

Antirheumatic; Galactogogue; Ophthalmic; Poultice.

A poultice made from the chewed roots can be applied to rashes, a nursing baby's sore gums and rheumatic joints[257]. It can also be used as a poultice on sore eyes[257]. The root can also be chewed as a treatment for sore throats whilst an infusion has been used to treat diarrhoea in children[257].

An infusion of the whole plant has been used to increase the milk flow of a nursing mother[257].

Other Uses

Fibre; Latex; Oil; Pollution; Stuffing; Wick.

The following reports refer to other members of this genus and are possibly also appropriate for this species[K].

A good quality fibre is obtained from the bark, used in making twine, cloth, paper etc[95, 112, 169]. It is of poor quality in wet seasons[112]. It is easily harvested in late autumn after the plant has died down by simply pulling the fibres off the dried stems[169].

The seed floss is used to stuff pillows etc or is mixed with other fibres to make cloth[112, 159, 169, 171]. It is a Kapok substitute, used in Life Jackets or as a stuffing material[112]. Very water repellent, it can yield up to 550 kilos per hectare[112]. The floss has also been used to mop up oil spills at sea. Candlewicks can be made from the seed floss[112, 207].

Rubber can be made from latex contained in the leaves and the stems[46, 57, 102, 159]. It is found mainly in the leaves and is destroyed by frost[112]. Yields are higher on dry soils[112].

Pods contain an oil and a wax which are of potential importance.

The seed contains up to 20% of an edible semi-drying oil[74, 112]. It is also used in making liquid soap[74].

Cultivation details

Succeeds in any good soil[187]. Prefers a well-drained light rich or peaty soil[1, 200]. Requires a moist peaty soil and a sunny position[111, 134].

A good bee plant[50, 74]. The flower of many members of this genus can trap insects between its anther cells, the struggles of the insect in escaping ensure the pollination of the plant[207].

Many members of this genus seem to be particularly prone to damage by slugs. The young growth in spring is especially vulnerable, but older growth is also attacked and even well-established plants have been destroyed in wet years[K].

Plants resent root disturbance and are best planted into their final positions whilst small[134].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in the autumn or in late winter[134, 169]. We have also had good results from sowing the seed in the greenhouse in early spring[K], though stored seed might need 2 - 3 weeks cold stratification[134]. Germination usually takes place in 1 - 3 months at 18°c[134]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in the greenhouse for their first winter. Plant out when they are in active growth in late spring or early summer and give them some protection from slugs until they are growing away strongly.

Division in spring. With great care since the plant resents root disturbance. Pot the divisions up and place them in a lightly shaded position in the greenhouse until they are growing away strongly, then plant them out in the summer, giving them some protection from slugs until they are established..

Basal cuttings in late spring. Use shoots about 10cm long with as much of their white underground stem as possible. Pot them up individually and place them in a lightly shaded position in a greenhouse until they are rooting and growing actively. If the plants grow sufficiently, they can be put into their permanent positions in the summer, otherwise keep them in the greenhouse until the following spring and when they are in active growth plant them out into their permanent positions. Give them some protection from slugs until they are established.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Asclepias viridiflora*

Subject:

Asclepias viridiflora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asclepias viridiflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Marsdenia tenacissima

Common name:	Rajmahal hemp	Family:	Asclepiadaceae
Author:	Wight. & Arn.	Botanical references:	146, 266
Synonyms:	Asclepias tenacissima (Roxb.)		
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Hedges, waste places and amongst shrubs[146].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	tenacissima = most tenacious;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	India; India(Munda)

Physical Characteristics

Climber growing to 10m. . The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Latex; Wood.

A very strong fibre can be obtained from the bark of young shoots. It is used for making rope[14, 158]. The stems yield very strong fibers, reputedly among the strongest produced by any plant, that are used for making cords and strings[266].

A latex (the coagulated milky sap) is obtained from the stem. It can be used like India-rubber[158].

Wood - moderately hard[146].

Cultivation details

Thrives on poor land[146].

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Marsdenia tenacissima

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Author:	Wight. & Arn.	Botanical references:	146, 266
Synonyms:	Asclepias tenacissima (Roxb.)		
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Hedges, waste places and amongst shrubs[146].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	tenacissima = most tenacious;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	India; India(Munda)

Physical Characteristics

Climber growing to 10m. . The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Latex; Wood.

A very strong fibre can be obtained from the bark of young shoots. It is used for making rope[14, 158]. The stems yield very strong fibers, reputedly among the strongest produced by any plant, that are used for making cords and strings[266].

A latex (the coagulated milky sap) is obtained from the stem. It can be used like India-rubber[158].

Wood - moderately hard[146].

Cultivation details

Thrives on poor land[146].

Propagation

Seed -

Suppliers

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	tenacissima = most tenacious;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	India; India(Munda)

Physical Characteristics

Climber growing to 10m. . The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

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Propagation

Seed -

Suppliers

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Add a comment on: *Marsdenia tenacissima*

Subject:

Marsdenia tenacissima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Marsdenia tenacissima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

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Date: Sun May 16 02:01:31 2004

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Vincetoxicum hirundinaria

Common name:	Swallow wort	Family:	Asclepiadaceae
Author:	Medik.	Botanical references:	1, 50, 200
Synonyms:	Vincetoxicum officinale (Moench.), Cynanchum vincetoxicum ((L.) Pers.)		
Known Hazards:	The plant is poisonous[51].		
Range:	Europe to E. Asia.		
Habitat:	Wood margins and open places, north to latitude 60° 30' north in Europe[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Asclepias vincetoxicum[G] Cynanchum vicetoxicum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Panzehirotu [E], Schwalbenwurz [E], Swallowwort [E], Vencetosigo [E], Vincetoxicum [L], White Swallow-wort [B], White Swallowwort [P], Witte Engbloem [D],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Europe; Germany; Spain; Turkey

Physical Characteristics

Perennial growing to 1m. . It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Diaphoretic; Diuretic; Emetic.

Diaphoretic, diuretic, emetic[4, 61]. Used in the treatment of dropsy[4].

Other Uses

None known

Cultivation details

Succeeds in ordinary garden soil[1].

A polymorphic species.

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse in spring. When they are large enough to handle, prick out the seedlings into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cynanchum vicetoxicum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Cynanchum vincetoxicum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *Vincetoxicum officinale* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *vincetoxicum hirundinaria* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Asclepiadaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[50] **?** *Flora Europaea* Cambridge University Press 1964
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[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Vincetoxicum hirundinaria

Common name:	Swallow wort	Family:	Asclepiadaceae
Author:	Medik.	Botanical references:	1, 50, 200
Synonyms:	Vincetoxicum officinale (Moench.), Cynanchum vincetoxicum ((L.) Pers.)		
Known Hazards:	The plant is poisonous[51].		
Range:	Europe to E. Asia.		
Habitat:	Wood margins and open places, north to latitude 60° 30' north in Europe[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Asclepias vincetoxicum[G] Cynanchum vicetoxicum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Panzehirotu [E], Schwalbenwurz [E], Swallowwort [E], Vencetosigo [E], Vincetoxicum [L], White Swallow-wort [B], White Swallowwort [P], Witte Engbloem [D],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Europe; Germany; Spain; Turkey

Physical Characteristics

Perennial growing to 1m. . It is in flower in May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Diaphoretic; Diuretic; Emetic.

Diaphoretic, diuretic, emetic[4, 61]. Used in the treatment of dropsy[4].

Other Uses

None known

Cultivation details

Succeeds in ordinary garden soil[1].

A polymorphic species.

Propagation

Seed - we have no information on this species but suggest sowing the seed in a greenhouse in spring. When they are large enough to handle, prick out the seedlings into individual pots and grow them on in a lightly shaded position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for *vincetoxicum hirundinaria* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References for the family Asclepiadaceae.

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References

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Range:	Europe to E. Asia.		
Habitat:	Wood margins and open places, north to latitude 60° 30' north in Europe[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Gentianales . Milkweed family
Other Range Info:	From the Ethnobotany Database
	Europe; Germany; Spain; Turkey

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Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

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Diaphoretic, diuretic, emetic[4, 61]. Used in the treatment of dropsy[4].

Other Uses

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Subject:

Vincetoxicum hirundinaria

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details:

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Vincetoxicum hirundinaria

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Subject:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Plant Genera you would like this comment to be added to:

Asclepias

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Pages in the PFAF site you would like this comment to be added to:

milkweed.html

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Subject:

The Milkweeds

Group:
Gush

Comment:

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Pages in the PFAF site you would like this comment to be added to:

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Subject:

The Milkweeds

Group:
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Comment:

Enter your comment about this plant here.

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Add a comment on: *Asclepias asperula*

Subject:

Asclepias asperula

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Asclepias asperula

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Cannabis sativa

Common name:	Hemp	Family:	Cannabidaceae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	The plant is a narcotic[19, 76]. Its action is almost entirely on the higher nerve centres, it can produce an exhilarating intoxication with hallucinations and is a widely used street drug[4]. It has also been widely used in the past by mystics and sages wanting to communicate with the higher forces of nature. The nature of its effect does depend much on the temperament of the individual[4]. The use of cannabis is considered to be less harmful than alcohol or tobacco by many people, nevertheless its use has been banned in many countries of the world including most western countries, New Zealand and Australia.		
Range:	W. Asia - Iran to India. A casual in Britain[17].		
Habitat:	Fluvial deposits on crags and stony slopes[74]. It is occasionally found as a casual on waste ground in Britain[17]. It is especially found as a weed of nitrogen-rich soils near human habitations[238]		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. chinense[H] C. indica[H]
	From various places around the Web, may not be correct. See below.

Other Common Names:	Bangue [E], Bhang [E], Canamo [E], Canamo Indio [E], Chanvre [H], Ganeb [H], Ganja [E,H], Han Ma [E], Hanf [H], Hemp [L,E], Hemp,Indian [E], Hennep [D], Hint Keneviri [E], Hops [H], Huang Ma [E], Huo Ma [E], Indian Hemp [H], Kenevir [E], Kif [H], Ma Fen [E], Ma Jen Chiu [E], Mariguana [E], Marijuana [L,B,S,P], Qunnab [E], Ta Ma [E], Tchene [E], Tekrouri [H],
Epithets:	From a Dictionary of Botanical Epithets sativa = cultivated;
Other Range Info:	From the Ethnobotany Database Belgium; Chile; China; Dominican Republic; Ei; Europe; Greece; Haiti; India; India(Santal); Java; Lesotho; Mexico; Morocco; Pakistan; South Africa; Spain; Trinidad; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Illinois, Minnesota, Missouri, North Dakota, Pennsylvania, West Virginia, Victoria, Western Australia.

Physical Characteristics

Annual growing to 2.5m by 0.8m . It is hardy to zone 9. It is in flower in July. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Oil; Seed.

Seed - raw or cooked. It can be parched and eaten as a condiment or made into cakes and fried[2, 85, 177, 183]. The seed is quite tasty, but it is very difficult to separate from the husk. We have tried grinding the seed, husk and all, and eating it this way, but it does then have a very gritty texture[K]. The seed contains about 27.1% protein, 25.6% fat, 7.4% carbohydrate, 6.1% ash[179]. A nutritional analysis is available calculated on a zero moisture basis[218].

A highly nutritious edible oil, rich in essential fatty acids, is obtained from the seed[105, 183].

Leaves. Used in soups[269]. The leaves contain 0.215% carotene[179].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 487 Protein: 31.4 Fat: 29.6 Carbohydrate: 31.9 Fibre: 23.5 Ash: 7.1
In milligrammes per 100g weight of food:
Calcium: 139 Phosphorus: 1123 Iron: 13.9 VitaminA: 518 Thiamine: 0.37 Riboflavin: 0.2
Niacin: 2.43 VitaminC: 0
Source: [218]

Medicinal Uses

Disclaimer

Analgesic; Anodyne; Anthelmintic; Antibacterial; Antiperiodic; Antispasmodic; Cancer; Cholagogue; Demulcent; Diuretic; Emmenagogue; Emollient; Febrifuge; Hypnotic; Laxative; Narcotic; Ophthalmic; Sedative; Tonic.

Hemp, or more appropriately cannabis since the form grown for fibre contains much less of the medicinally active compounds, has a very long history of medicinal use, though it is illegal to grow in many countries since the leaves and other parts of the plant are widely used as a narcotic drug[4]. The leaves and the resin that exudes from them are the parts mainly used, though all parts of the plant contain the active ingredients[4]. Cannabis contains a wide range of active ingredients, perhaps the most important of which is THC. The principal uses of the plant are as a pain-killer, sleep-inducer and reliever of the nausea caused by chemotherapy, whilst it also has a soothing influence in nervous disorders[4]. Although cannabis does not effect a cure for many of the problems it is prescribed to treat, it is a very safe and effective medicine for helping to reduce the symptoms of many serious diseases. For example, it relieves the MS sufferer of the distressing desire to urinate, even when the bladder is empty. As long as it is used regularly, it also greatly reduces the pressure in the eye to relieve the symptoms of glaucoma.

The whole plant is anodyne, anthelmintic, antiemetic, anti-inflammatory, antiperiodic, antispasmodic, cholagogue, diuretic, emollient, hypnotic, hypotensive, laxative, narcotic, ophthalmic and sedative[4, 7, 21, 46, 147, 176, 178, 192, 238, 243]. It is used to relieve some of the unpleasant side effects suffered by people undergoing chemotherapy for cancer - in particular it is very effective in removing the feelings of nausea and indeed helps to create an appetite and positive attitude of mind which is so important to people undergoing this treatment[K]. It has also been found of use in the treatment of glaucoma[200, 222, 238] and relieves the distressing constant desire to urinate that is suffered by many people with multiple sclerosis. Given to patients suffering from AIDS, it helps them to put on weight[238]. Since it strongly increases the desire for food it has been found of benefit in treating anorexia nervosa. It is used externally as a poultice for corns, sores, varicose veins, gout and rheumatism[218, 238].

Few plants have a greater array of folk medicine uses. Cannabis has been used in the treatment of a wide range of conditions including alcohol withdrawal, anthrax, asthma, blood poisoning, bronchitis, burns, catarrh, childbirth, convulsions, coughs, cystitis, delirium, depression, diarrhoea, dysentery, dysmenorrhoea, epilepsy, fever, gonorrhoea, gout, inflammation, insomnia, jaundice, lockjaw, malaria, mania, menorrhagia, migraine, morphine withdrawal, neuralgia, palsy, rheumatism, scalds, snakebite, swellings, tetanus, toothache, uteral prolapse, and whooping cough[269].

The seed is anodyne, anthelmintic, demulcent, diuretic, emollient, emmenagogue, febrifuge, laxative, narcotic and tonic[218]. It is used to treat constipation caused by debility or fluid retention[238]. The seed is an important source of essential fatty acids and can be very helpful in the treatment of many nervous diseases.

A high content of very active antibacterial and analgesic substances has been found in the plant[240]. It has bactericidal effects on gram-positive micro-organisms, in some cases up to a dilution of 1:150,000[240].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Paper; Repellent.

A drying oil is obtained from the seed. It is used for lighting, soap making, paints, varnish etc[4, 7, 21, 46, 57, 171]. In the temperate zone, oil is produced from females which have been left to stand after the fibre-producing males have been harvested[269]. A varnish is made from the pressed seeds[269]. Seed is harvested from the female plants when most of it falls off when the plant is shaken. Best time of day to harvest seed is in early morning when fruits are turgid and conditions damp. As fruits dry out by mid-day, seed loss increases due to shattering. Usually stems are cut and the seeds shaken out over canvas sheets or beaten with sticks to extract the seeds[269].

A fibre is obtained from the stem. It is strong and very durable[171] and is used in making coarse fabrics, rope etc[1, 7, 21, 46, 57, 61]. Male plants produce the best fibres and they are harvested when the plants turn brown and the flowers begin to open[123, 171, 269]. When used for making paper the stems are harvested in the autumn and either retted or steamed until the fibres can be removed. The fibre is cooked for 2 hours or more with lye and then beaten in a ball mill or Hollander beater. The paper is off-white in colour[189].

A good companion plant for cabbages and other brassicas, it repels the cabbage white butterfly[4, 18, 20, 201] and also secretes a volatile essence from its roots that inhibits pathogenic micro-organisms in the soil[201].

Cultivation details

Cannabis is very adaptable to soil and climatic conditions[269]. It prefers a rich loamy soil with plenty of humus[171] but it succeeds in ordinary garden soil[1] and also in calcareous soils[171]. When grown for fibre, it requires a mild temperate climate with at least 67cm annual rainfall, with abundant rain whilst the seeds are germinating and until young plants become established[269]. Cannabis thrives on rich, fertile, neutral to slightly alkaline, well-drained silt or clay loams with moisture retentive subsoils, it does not grow well on acid, sandy soils[269]. Of the many types of hemp, some are adapted to most vegetated terrains and climates[269]. Cannabis is reported to tolerate an annual precipitation range of 30 to 400cm, an average annual temperature range of 6 to 27°C and a pH in the range of 4.5 to 8.2[269].

Plants require little cultivation, except for weeding during early stages of growth. Hemp grows rapidly and soon crowds out weeds[269]. After the plants are 20 cm tall, weeding is abandoned. Hemp tends to exhaust the soil of nutrients, though some nutrients are returned to the soil after plants are harvested[269].

Hemp is commonly cultivated for its fibre, edible seed and oil in many areas of the world, it is also a socially acceptable drug in areas of Asia and the Middle East[238]. However, it is illegal to grow in Britain and many other western countries (plus Australia and New Zealand) because it contains certain narcotic principles and is a commonly used narcotic drug[20, 123, 238].

As Cannabis sativa has been cultivated for over 4,500 years for different purposes, many varieties and cultivars have been selected for specific purposes, as fibre, oil or narcotics. Drug-producing selections grow better and produce more drug in the tropics; oil and fibre producing plants thrive better in the temperate and subtropical areas. Many of the cultivars and varieties have been named as to the locality where it is grown mainly. However, all so called varieties freely interbreed and produce various combinations of the characters. The form of the plant and the yield of fibre from it vary according to climate and particular variety. Varieties cultivated particularly for their fibres have long stalks, branch very little, and yield only small quantities of seed. Varieties which are grown for the oil from their seed are short in height, mature early and produce large quantities of seed. Varieties grown for the drugs are short, much-branched with smaller dark-green leaves. Between these three main types of plants are numerous varieties which differ from the main one in height, extent of branching and other characteristics[269]. At least one variety has been selected for its virtually insignificant content of the narcotic principles[141]. This form is monoecious whereas most other forms are dioecious[141]. There is also said to be a tall Chinese form that has no narcotic effect[179]. However in 1999 even these varieties are illegal to grow in Britain without a special licence. Certain varieties do not form many side-shoots and these are the forms most commonly grown for their fibre[123]. Plants grown in warmer climates tend to be best for medicinal use, whilst those grown in more northerly latitudes produce the better fibre[4].

The seed is very attractive to birds and is often included in bird seed mixtures[7].

Propagation

Seed - sow in early spring in the greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in early summer. Seeds germinate well at low temperatures, but not below 1°C[269].

The seed can also be sown outdoors in situ in mid spring.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- Alternative Lighting: Plant Oils and Waxes

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *cannabis sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979

Details of beneficial and antagonistic relationships between neighbouring plants.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
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[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
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[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[123] **?** *Encyclopaedia Britannica. 15th edition.*
It contains a few things of interest to the plant project.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese

methods.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal PayPal DONATE

Readers Comments

Fiber Plants

JAG Fri Jun 1 10:29:03 2001

hemp is the primary fibre crop, being used for food and soap and energy

learn more about the myriad products being made today from this most prolific grower!

http://www.hemp-union.karoo.net

Details of Growing Condition: most areas, most climates.

Cross references: *Web-pages:* *Fiber Plants*.

Cannabis sativa

Unknown Sat Jun 23 11:29:12 2001

I´m not a "user" of this plant, but since tobacco and alchool are institutionalized why not Cannabis sativa? Reasons are obvious - it reduces stress, it´s a "non violence inducing" drug (unlike alchool for ex.) and does not causes dependence (unlike nicotine or cafeine and theobromine - chocolate). I work in the Biotecnology area, and do think this issue sould be reviewed. Besides, it would end up with small "dealers" that earn money by selling Cannabis in the streets, sometimes being the plant chemicaly adulterated.

Cannabis sativa

Mon Sep 10 20:22:54 2001

I don't know if you know but cannabis is actually the most botaniocally advanced plant in the world today and has many more uses than stated here to read a good book on the subject see 'the emporer wears no clothes' -i forget the author it's on amazon have a look.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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WEB search engine by Rich Morris - Home Page- Contact Info
Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cannabis+sativa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cannabis+sativa`

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(You can copy, distribute, display this works but: Attribution is required, its for Non-Commercial purposes, and it's Share Alike (GNUish/copyleft) i.e. has an identical license.)
We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cannabis sativa

Common name:	Hemp	Family:	Cannabidaceae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	The plant is a narcotic[19, 76]. Its action is almost entirely on the higher nerve centres, it can produce an exhilarating intoxication with hallucinations and is a widely used street drug[4]. It has also been widely used in the past by mystics and sages wanting to communicate with the higher forces of nature. The nature of its effect does depend much on the temperament of the individual[4]. The use of cannabis is considered to be less harmful than alcohol or tobacco by many people, nevertheless its use has been banned in many countries of the world including most western countries, New Zealand and Australia.		
Range:	W. Asia - Iran to India. A casual in Britain[17].		
Habitat:	Fluvial deposits on crags and stony slopes[74]. It is occasionally found as a casual on waste ground in Britain[17]. It is especially found as a weed of nitrogen-rich soils near human habitations[238]		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. chinense[H] C. indica[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bangue [E], Bhang [E], Canamo [E], Canamo Indio [E], Chanvre [H], Ganeb [H], Ganja [E,H], Han Ma [E], Hanf [H], Hemp [L,E], Hemp,Indian [E], Hennep [D], Hint Keneviri [E], Hops [H], Huang Ma [E], Huo Ma [E], Indian Hemp [H], Kenevir [E], Kif [H], Ma Fen [E], Ma Jen Chiu [E], Mariguana [E], Marijuana [L,B,S,P], Qunnab [E], Ta Ma [E], Tchene [E], Tekrouri [H],

Epithets:	From a Dictionary of Botanical Epithets sativa = cultivated;
Other Range Info:	From the Ethnobotany Database Belgium; Chile; China; Dominican Republic; Ei; Europe; Greece; Haiti; India; India(Santal); Java; Lesotho; Mexico; Morocco; Pakistan; South Africa; Spain; Trinidad; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Illinois, Minnesota, Missouri, North Dakota, Pennsylvania, West Virginia, Victoria, Western Australia.

Physical Characteristics

Annual growing to 2.5m by 0.8m . It is hardy to zone 9. It is in flower in July. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Oil; Seed.

Seed - raw or cooked. It can be parched and eaten as a condiment or made into cakes and fried[2, 85, 177, 183]. The seed is quite tasty, but it is very difficult to separate from the husk. We have tried grinding the seed, husk and all, and eating it this way, but it does then have a very gritty texture[K]. The seed contains about 27.1% protein, 25.6% fat, 7.4% carbohydrate, 6.1% ash[179]. A nutritional analysis is available calculated on a zero moisture basis[218].

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Source: [218]

Medicinal Uses

Disclaimer

Analgesic; Anodyne; Anthelmintic; Antibacterial; Antiperiodic; Antispasmodic; Cancer; Cholagogue; Demulcent; Diuretic; Emmenagogue; Emollient; Febrifuge; Hypnotic; Laxative; Narcotic; Ophthalmic; Sedative; Tonic.

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We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Paper; Repellent.

A drying oil is obtained from the seed. It is used for lighting, soap making, paints, varnish etc[4, 7, 21, 46, 57, 171]. In the temperate zone, oil is produced from females which have been left to stand after the fibre-producing males have been harvested[269]. A varnish is made from the pressed seeds[269]. Seed is harvested from the female plants when most of it falls off when the plant is shaken. Best time of day to harvest seed is in early morning when fruits are turgid and conditions damp. As fruits dry out by mid-day, seed loss increases due to shattering. Usually stems are cut and the seeds shaken out over canvas sheets or beaten with sticks to extract the seeds[269].

A fibre is obtained from the stem. It is strong and very durable[171] and is used in making coarse fabrics, rope etc[1, 7, 21, 46, 57, 61]. Male plants produce the best fibres and they are harvested when the plants turn brown and the flowers begin to open[123, 171, 269]. When used for making paper the stems are harvested in the autumn and either retted or steamed until the fibres can be removed. The fibre is cooked for 2 hours or more with lye and then beaten in a ball mill or Hollander beater. The paper is off-white in colour[189].

A good companion plant for cabbages and other brassicas, it repels the cabbage white butterfly[4, 18, 20, 201] and also secretes a volatile essence from its roots that inhibits pathogenic micro-organisms in the soil[201].

Cultivation details

Cannabis is very adaptable to soil and climatic conditions[269]. It prefers a rich loamy soil with plenty of humus[171] but it succeeds in ordinary garden soil[1] and also in calcareous soils[171]. When grown for fibre, it requires a mild temperate climate with at least 67cm annual rainfall, with abundant rain whilst the seeds are germinating and until young plants become established[269]. Cannabis thrives on rich, fertile, neutral to slightly alkaline, well-drained silt or clay loams with moisture retentive subsoils, it does not grow well on acid, sandy soils[269]. Of the many types of hemp, some are adapted to most vegetated terrains and climates[269]. Cannabis is reported to tolerate an annual precipitation range of 30 to 400cm, an average annual temperature range of 6 to 27°C and a pH in the range of 4.5 to 8.2[269].

Plants require little cultivation, except for weeding during early stages of growth. Hemp grows rapidly and soon crowds out weeds[269]. After the plants are 20 cm tall, weeding is abandoned. Hemp tends to exhaust the soil of nutrients, though some nutrients are returned to the soil after plants are harvested[269].

Hemp is commonly cultivated for its fibre, edible seed and oil in many areas of the world, it is also a socially acceptable drug in areas of Asia and the Middle East[238]. However, it is illegal to grow in Britain and many other western countries (plus Australia and New Zealand) because it contains certain narcotic principles and is a commonly used narcotic drug[20, 123, 238].

As Cannabis sativa has been cultivated for over 4,500 years for different purposes, many varieties and cultivars have been selected for specific purposes, as fibre, oil or narcotics. Drug-producing selections grow better and produce more drug in the tropics; oil and fibre producing plants thrive better in the temperate and subtropical areas. Many of the cultivars and varieties have been named as to the locality where it is grown mainly. However, all so called varieties freely interbreed and produce various combinations of the characters. The form of the plant and the yield of fibre from it vary according to climate and particular variety. Varieties cultivated particularly for their fibres have long stalks, branch very little, and yield only small quantities of seed. Varieties which are grown for the oil from their seed are short in height, mature early and produce large quantities of seed. Varieties grown for the drugs are short, much-branched with smaller dark-green leaves. Between these three main types of plants are numerous varieties which differ from the main one in height, extent of branching and other characteristics[269]. At least one variety has been selected for its virtually insignificant content of the narcotic principles[141]. This form is monoecious whereas most other forms are dioecious[141]. There is also said to be a tall Chinese form that has no narcotic effect[179]. However in 1999 even these varieties are illegal to grow in Britain without a special licence. Certain varieties do not form many side-shoots and these are the forms most commonly grown for their fibre[123]. Plants grown in warmer climates tend to be best for medicinal use, whilst those grown in more northerly latitudes produce the better fibre[4].

The seed is very attractive to birds and is often included in bird seed mixtures[7].

Propagation

Seed - sow in early spring in the greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in early summer. Seeds germinate well at low temperatures, but not below 1°C[269].

The seed can also be sown outdoors in situ in mid spring.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- Alternative Lighting: Plant Oils and Waxes

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *cannabis sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0

Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[123] **?** *Encyclopaedia Britannica. 15th edition.*
It contains a few things of interest to the plant project.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese

Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN

0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

Fiber Plants

JAG Fri Jun 1 10:29:03 2001

hemp is the primary fibre crop, being used for food and soap and energy

learn more about the myriad products being made today from this most prolific grower!

http://www.hemp-union.karoo.net

Details of Growing Condition: most areas, most climates.

Cross references: *Web-pages: Fiber Plants*.

Cannabis sativa

Unknown Sat Jun 23 11:29:12 2001

I´m not a "user" of this plant, but since tobacco and alchool are institutionalized why not Cannabis sativa? Reasons are obvious - it reduces stress, it´s a "non violence inducing" drug (unlike alchool for ex.) and does not causes dependence (unlike nicotine or cafeine and theobromine - chocolate). I work in the Biotecnology area, and do think this issue sould be reviewed. Besides, it would end up with small "dealers" that earn money by selling Cannabis in the streets, sometimes being the plant chemicaly adulterated.

Cannabis sativa

Mon Sep 10 20:22:54 2001

I don't know if you know but cannabis is actually the most botaniocally advanced plant in the world today and has many more uses than stated here to read a good book on the subject see 'the emporer wears no clothes' -i forget the author it's on amazon have a look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cannabis+sativa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cannabis+sativa`

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Plants For A Future - Database Search

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Canned Queries

This page contains a selection of useful word you can search for with simple one click links. The numbers give an approximate indication for how many plants match the given term.

There are also canned queries on some of the other pages:

- **Edible Uses** including Tastes & Smells, Vitamins and Minerals, Types of Acid.
- **Medicinal Uses**
- **Other Uses** including Dyes & Inks.
- **Native Ranges**
- **Latin Names** full list of all the Latin names.
- **Common Names** all the common names.
- **Families** all the families.

On this page you will find queries for:

- Habitats
- Soil Types
- Favorite searches by people on the net

Habitats

Meadow	ANY	Lawn	ANY	Pond	ANY	Bog Garden	ANY	Rock Garden	ANY
Hedge	ANY	Hedgerow	ANY	Woodland	ANY	Canopy	ANY	Secondary	ANY
Cultivated Beds	ANY	Sunny Edge	ANY	Dappled Shade	ANY	Shady Edge	ANY	Deep Shade	ANY
Walls	ANY	North	ANY	South	ANY	East	ANY	West	ANY

Submit Reset

The following queries search for specific phrases:

Altitudes of habitat:

sea level sea-level lowland (271), upland (99), 1000-1400m 1500-2000m 2100-3000m 3100-4000m 4100-5000m.

Hills & Mountains:

mountain (824), montane (130), hill (295), slopes (721), valley (192), ravine (91), canyons (49), ridges (61), cliff (106), alpine (284), screes (25), ledges (28), crevices (29), gullies (29).

Rivers and wetlands:

stream (649), pond (228), river (271), ditches (98), lake (196). swamps (257), bog (351), marsh (291), flats (59), estuaries (9), bottomlands (28).

Costal:

coast (484), sea (100), dunes (129), beaches (22), shores (141), headlands (7), bluffs (44).

Heaths, Moors and Fens:

heath (91), moor (96), fens (44).

Grasslands:

prairies (128), plains (112), grassy (256), grasslands (158), grass (450), steppes (62).

Fields, Meadows, Pastures:

meadows (448), pastures (115), fields (310), arable land (66).

Deserts + Wastelands:

desert (90), roadsides (220), waste ground (353), open ground (12), tundra (17).

Woodland:

woodland (902). woods (1079), forests (536).

deciduous woods (49), evergreen woods (23), coniferous woods (10), mixed woods (10), oak woods (66), pine woods (96), eucalyptus forrests (16), broadleaved forrests (16).

open woods (75), open forest (29), light woods (63), thin woodlands (63), moist woods (101), wet woods (36), dry woods (70), damp woods (64), sandy woods (23), rocky woods (18).

woodland garden (141), forest edges (35), woodland edges (62), forest margins (26), woodland margins (15), woodland borders (7), woodland clearings (4). forest clearings (14), glades (25), copses (19).

Thickets, Scrub & Hedges:

Thickets (597), scrub (272), Shrubberies (86), hedges (209).

Other Habitats:

clearings (117). walls (163), paddy fields (17), banks (hedge, mountain, river etc.) (509).

Other Terms:

dry (981), moist (543), damp (347), wet (373), stony (195), rocky (541), rocks (228), open (609), shady (179), shade (62), semi-shaded (982), sheltered (1349), Not known in the wild (300).

Soil types

Best results are obtained by using the following queries on specific fields in the database.

Soil:	ANY	Well-drained:	ANY	Heavy clay:	ANY	Poor soil:	ANY
pH:	ANY	Acid:	ANY	Alkaline:	ANY	Saline:	ANY

Submit Reset

L = light (sandy), M = medium (loam), H = heavy (clay), A = acid, N = neutral, B = basic (alkaline).

The following queries search for specific phrases:

- acidic soil (30), acid soil (676), slightly acid soil, neutral soil (102), basic soil (17), base-poor soil (17), alkaline soil (467), circum-neutral soil (62), acid or neutral soil, neutral to acid soil, basic or neutral, neutral or alkaline soil.
- calcareous (347), chalky (128+92), limestone (77), limey (38), limy (66), lime-free soil (177).
- silt (5), silt loam (1), clay (872), heavy clay.
- loam (1180), acid loam (17), loamy acid soil (1), acidic loam (4), circum-neutral loam (1), loamy neutral soil (49), alkaline loam (43), loamy alkaline soil (13), well-drained loam (561), loamy+well-drained soil (14), sandy loam (278), rich loam (140), moist loam (127), moisture-retentive loam (126), fertile loam (117), good loam (106), light loam (105), retentive loam (85), gravelly loam (66), deep loam (60), sound loam (47), humus-rich loam (39), open loam (34), lime-free loam (27), heavy loam (24), peaty loam (13), wet loam (10), stiff loam (7), strong loam (6), gritty loam (5), sand loam (5), turfy loam (4), clay loam (3), draining loam (3), swampy loam (3), calcareous loam (2), loess loam (1), sweet loam (1), medium loam (1), limey loam (1), dry loam (1), medium-heavy loam (1), ordinary loam (1),
- sandy (672), gravelly (55), stony soil (26), gritty soil (33), rocky soil (32).
- moist soil (541), water-logged (106), wet soil (211), damp soil (88), flooded soil (62), ill-drained soil (62), freely-drained soil (67), well-drained soil (3877), free draining soil (23), moisture retentive (196), dry soil (629), dryish soil (12), drier soil (25).
- rich soil, alluvial soil (28), good soil (188), execellent soil (12), reasonable soil (24), cultivated soil (10), humus-rich soil (243), garden soil (615), fertile soil (655).
- poor soil (385), poorer soil (17), open soil (30), disturbed soil (8), bare soil (7), thin soil (19), low-fertility soil (45), impoverished soil (16), compacted soil.
- heavy soil (204), heavier soil (19), medium soil (31), light soil (161).
- any soil (243), most soil (1060), saline soil (49), peaty soil (244), marshy soil (13), boggy soil (21), nitrogen-rich soil (57), gypseous soil (1), shallow soil (93), sterilized soil (93), deep soil (19), woodland soil (99), warm soil (11), leafy soil (48).

Favorite searches by people on the net

Over a period of about six month these were the things search for most often. In total there were 29365 search for Latin names, 5172 searches for different uses 3323 general searches and 30795 plant description lookups. The number here give how many times this use has been search for.

Our Favorite plants

Top Plants (142).

These are the plants we consider to be the most useful.

Search for Latin or Common names

rose (52), dandelion (47), tomato (42), rosemary (38), lavender (31), garlic (31), echinacea (27), apple (26), palm (26), acer (26), cattail (25), basil (24), echinacea (24), oak (23), fern (23), salix (23), thyme (23), potato (22), dogwood (22), Compositae (22), Tomato (21), pepper (21), bamboo (21), clover (21), lemon (20), salvia (20), ginger (20), grape (20), sage (20), chamomile (20), sunflower (19), ginseng (19), willow (19), Solanaceae (18), hemp (18), carrot (18), strawberry (18), oregano (18), maple (17), azalea (17), Equisetaceae (17), prunus (17), yucca (17), st. john's wort (17), yarrow (17), lily (17), musa (17), comfrey (17), corn (17), chickweed (16), aloe (16), euphorbia (16), poison ivy (16), violet (16), Orchidaceae (16), daisy (16), plantain (16), clematis (16), cherry (16), nettle (16), Banana (15), valerian (15), mustard (15), buckthorn (15), stachys (15), Leguminosae (15), aster (15), Labiatae (15), pine (15), hypericum (15), lilac (15), jasmine (15), pineapple (15),

Plant Uses

Hallucinogenic (49), Fruit (38), Aphrodisiac (32), Narcotic (27), Tea (26), Antibiotic (26), Coffee (23), Sweetener (23), Cancer (22), Chocolate (21), Dye (19), Fibre (19), Analgesic (18), Women's complaints (18), Anaesthetic (18), Flowers (18), Egg (17), Leaves (17), Anaphrodisiac (17), Hypnotic (17), Abortifacient (16), Antibacterial (16), Basketry (16), Fungicide (15), Cosmetic (14), Sedative (14), Root (14), Warts (13), Insecticide (13), Hair (12), Decongestant (12), Condiment (12), Stimulant (12), Milk (11), Antiinflammatory (11), Soap (11), Seed (11), Antifungal (11), Adaptogen (11), Manna (11), Antiviral (11), Hypoglycaemic (11),

And the most common individual plant description lookups:

Taraxacum officinale (Dandelion, 114), Ceratonia siliqua (Carob, 98), Acacia dealbata (Mimosa, 81), Hypericum perforatum (St. John's wort, 80), Cannabis sativa (Hemp, 77), Lycopersicon esculentum (Tomato, 72), Achillea millefolium (Yarrow, 70), Rosmarinus officinalis (Rosemary, 64), Aloe vera (63), Asimina triloba (Papaw, 61), Smilax bona-nox (Greenbriar, 61), Echinacea purpurea (Purple coneflower, 56), Allium sativum (Garlic, 51), Acorus calamus (Sweet flag, 50), Urtica dioica (Nettle, 49), Helianthus annuus (Sunflower, 48), Citrus limon (Lemon, 43), Actinidia deliciosa (Kiwi fruit, 42), Cynara cardunculus (Cardoon, 41), Acer saccharum (Sugar maple, 40), Asparagus officinalis (Asparagus, 40), Stevia rebaudiana (40),

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Back to PFAF Home Page, Main Search Page, Help, Bibliography.

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Edible uses

To make it easy to search the database for plants which fulfil a specific use, a table has been created which indexes the different plants by their edible uses. You can select one of the uses shown below and then do a search to find all plants with that use. More detailed on the uses is contained in the edible uses field in the main database table. You can click on a use to show those plants with a given use, numbers refer to the number of plants listed with that use.

Chocolate (8)

substitutes for chocolate, that is.

Coffee (219)

the various substitutes that can be used instead of coffee.

Colouring (47)

edible dyes

Condiment (530)

the various plants that are used as flavourings (683), either as herbs (256), spices (50) or condiments (126).

Curdling agent (16)

used to curdle soya milk in making cheese. See also rennet/Coagulant (13).

Drink (112)

not including plant saps, tea or coffee substitutes. See also beer (71) and beverage (56).

Egg (5)

Substitutes for eggs.

Flowers (657)

Speaks for itself.

Fruit (1666)

Including berries (50).

Gelatine (3)

substitutes that is.

Gum (110)

can be chewed as a chewing gum or can often be used as a sweetener or thickening agent in foods.

Inner bark (131)

the bark that is found just beneath the tough outer bark of trees and shrubs.

Leaves (2368)

Speaks for itself.

Manna (39)

this is a sweet substance that exudes naturally from certain plants, usually from the stems.

Milk (7)

made from plants, that is.

Nectar (23)

produced in such abundance by some flowers that it can be harvested fairly easily.

Oil (221)

Usually obtained from seeds, it is used in cooking, for salad dressings etc.

Pectin (13)

a substance that is used to thicken jams etc and as a culture medium in laboratories.

Pollen (18)

Most pollens are edible, they are normally too fiddly to harvest.

Root (1145)

includes bulbs, corms, tubers, rhizomes etc.

Rutin (17)

often used as a food supplement.

Salt (16)

plants that provide a substitute for salt.

Sap (77)

usually of trees and usually but not always used as a drink.

Seed (1274)

includes nuts (46), cereals (246), peas (43) and beans (44).

Seedpod (107)

things such as Okra, French and Runner beans.

Stabilizer (1)

this is often a gum and could perhaps be included there.

Stem (329)

this often intergrades into leaves.

Sweetener (79)

includes sugar substitutes.

Tea (599)

the various herb teas that can be used in place of tea, plus the genuine article.

Heres some other food uses which you may find useful:
bread (578), salad (700), garnish (139), pies (220), Jellies (130), cake (155), biscuits (70), jams (100), preserves (229), fermented (200), soup (492), stew (161), sauces (57), pickle (127), puddings (127), salep (158) a fine powder obtained from orchids. It is a starch-like substance with a sweetish taste and a faint somewhat unpleasant smell. It is made into a drink or can be added to cereals and used in making bread. One ounce of salep is said to be enough to sustain a person for a day. spice (50), starch (349), sugar (228), meal (99), curry (38), spinach substitute (162), asparagus substitute (162), potato substitute (88), rice substitute or flavouring (61), okra substitute (50), mustard (97), syrup (158), porridge (158), vinegar (44), dessert (44), nectar (43), confections (32), gruel (31), dumplings (25).

Tastes & Smells

Flavour

flavour (2140), pleasant flavour (110), good flavour (30), agreeable flavour (29), delicious flavour (45), aromatic flavour (34), little flavour (28), nice flavour (23), excellent flavour (14), food flavouring (111).

almonds flavour (160), bitter flavour (118), onion flavour (95), juicy flavour (86), vanilla flavour (63), nutty flavour (58), lemony flavour (58), sorrel flavour (53), salty flavour (27), arrowroot flavour (25), spicy flavour (25), spinach flavour (23), mustard flavour (20), peppery flavour (19), sweet flavour (130), mild flavour (104), acid flavour (77), resinous flavour (42), cress-like flavour (29), bland flavour (28), garlic flavour (24), sharp flavour (22), strong flavour (21), pungent flavour (20), delicate flavour (18), aniseed flavour (14), creamy flavour (13), sour flavour (11), rich flavour (11), pleasantly flavour (10), hot flavour (10), cucumber flavour (10), milder flavour (9), sweetish flavour (9), well flavour (8), strongly flavour (8), cabbage flavour (8), liquorice flavour (7), anise flavour (6), celery-like flavour (6), starchy flavour (6), watercress flavour (6), cherry flavour (5), pea flavour (5), tart flavour (5), poor flavour (5), acrid flavour (5),

Taste

taste (888), good taste (7), delicious taste (19), aromatic taste (4), bitter taste (199), simple taste (69), sweet taste (59), pleasant taste (34), acid taste (27), acrid taste (22), nutty taste (22), sweetish taste (19), sour taste (13), astringent taste (9), salty taste (8), hot taste (7), pungent taste (5), sub-acid taste (4), peppery taste (4), agreeable taste (4), strong taste (3), soapy taste (3), refreshing taste (3), spicy taste (3), mellow taste (2), unpleasant taste (6), rank taste (6), terrible taste (2), nauseating taste (1).

Texture

wooly in texture (25), mucilaginous texture (17), mealy texture (15), floury texture (13), flouy texture (13), open texture (10), juicy texture (10), crisp texture (9), soft texture (8), oily texture (6), tender texture (5), pleasant texture (4), gritty texture (4), crunchy texture (3),

Aroma

fragrance (95), scent (317), aroma (750), very aromatic (60), strongly aromatic (30),

Smell

smell (319), foetid smell (82), unpleasant smell (44), aromatic smell (17), pungent smell (12), hawthorn-like smell (8), strong smell (7), resinous smell (4), sweet smell (4),

Properties of Plants

Vitamins & Minerals

Proteins, Fats etc.

Protein (309), Rich in Protein (40), Fat (309) mono and poly-unsaturated (12), Carbohydrate (100), Fibre (423), Ash (180).

Minerals

minerals (453), sodium (11), potassium (32), calcium (179), phosphorus (21), magnesium (22), iron (76), sulphur (69), zinc (7), copper (31), iodine (4), manganese (2).

Vitamins

Vitamins (695), Vitamin A (40) (Retinol), Vitamin B (130), Vitamin B1 (10) (Thiamine (11)), Vitamin B2 (1) (Riboflavin (12)), Vitamin B3 (Niacin (14)), Vitamin B6 (3) (Pyridoxine), Vitamin B12 (Cobalamin) (2), Vitamin B17 (4), choline (1), Vitamin C (177) (Ascorbic Acid (7)), Vitamin D (1), Vitamin E (60), Vitamin F (Linoleic Acid (12), Linolenic Acid (8), Essential Fatty Acids (109)), Vitamin K (4) (Napthaquinone), Vitamin P (1) (bioflavinoids (1)).

Types of Acid

oxalic acid (317), prussic acid (126), hydrocyanic acid (122), cyanide (120), salicylic acid (90), erucic acid (7), equisetic acid (6), aristolochic acid (5), amino acid (3), acetic acid (3), malic acid (3), gamma-linolenic acid (3), sulphuric acid (2), comisic acid (1), arabinic acid (1), linoleic acid (1), salycylic acid (1), phenolic acid (1), oleic acid (1), lactic acid (1), l-glutamic acid (1), fumaric acid (1), citric acid (1).

acid flavour (77), acid taste (27), aspirin (24), acid fruits (6), acid tasting (3), acid lysine (2), acid lemony (2), acid creosote (2), acid sorrel-like (2).

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Plants For A Future: Database Search

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Search for

Edible Use: Chocolate (8);

Latin Name	Common Name	Description	PFAF Rating
Castanea dentata	American sweet chestnut	Chocolate	3
Ceratonia siliqua	Carob	Chocolate	1
Geum canadense	White avens	Chocolate	2
Geum rivale	Water avens	Chocolate	3
Tilia americana	American basswood	Chocolate	3
Tilia cordata	Small leaved lime	Chocolate	5
Tilia platyphyllos	Large leaved lime	Chocolate	5
Tilia x europaea	Common lime	Chocolate	5

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`http://www.ibiblio.org/pfaf/cgi-bin/find_use?ED_USE=Chocolate&CAN=EDIB`

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Plants For A Future: Database Search Results

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Castanea dentata

Common name:	American sweet chestnut	Family:	Fagaceae
Author:	(Marsh.) Borkh.	Botanical references:	11, 43, 200
Synonyms:	Castanea americana ((Michx.)Raf.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine and Ontario to Michigan, Georgia and Arkansas.		
Habitat:	Dry, gravelly or rocky, mostly acid soils[43]. This species is virtually extinct in America due to chestnut blight[11].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Fagus-Castanea dentata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Chestnut [B,P,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	castanea = chestnut colored; casta = spotless; dentata = with teeth;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database

	Us; Us(Amerindian)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 15m . It is hardy to zone 4. It is in flower in July, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Kelly'**: Woodland, Canopy.

Edible Uses

Chocolate; Coffee; Oil; Seed.

Seed - raw or cooked[2, 62, 63, 102, 117]. Rather on the small side, but these are the sweetest seeds of any species in this genus[183]. The seed contains about 7% fat, 11% protein[159]. It can be dried, ground into powder and then be added to cereals when making bread, cakes etc[213].

A delicious oil can be extracted from the seed by crushing the nuts, boiling them in water and then skimming off the oil as it comes to the surface[213]. It can be used as a topping for various puddings[213].

The roasted nut can be used as a coffee substitute and a chocolate substitute can also be made from it[183] (no further details).

Medicinal Uses

Disclaimer

Astringent; Expectorant.

A warm water infusion of the leaves has been used to calm the respiratory nerves and promote expectoration[213, 257]. The infusion has also been used in the treatment of whooping cough but modern opinion is that the leaves are no more than a mild astringent[213].

Other Uses

Dye; Tannin; Wood.

The bark is a good source of tannin[46, 61, 171, 223]. The dried leaves contain 9% tannin[213]. The wood and the seed husks also contain tannin[223]. The husks contain 10 - 13% tannin[223].

A brown dye is obtained from the bark[257].

Wood - soft, not strong, light, very durable, liable to warp. It weighs 28lb per cubic foot. Easy to split, it is used for making cheap furniture, fence posts, in construction etc[61, 82, 117, 171, 229, 235].

Cultivation details

Prefers a good well-drained slightly acid loam but succeeds in dry soils and in hot sunny sites[1, 11, 188, 200]. Once established, it is very drought tolerant[11, 200]. Very tolerant of highly acid, infertile dry sands[200]. Averse to calcareous soils but succeeds on harder limestones[11, 200].

Although it is very winter-hardy, this species only really thrives in areas with hot summers[200]. A tree at Kew in 1985 was 15 metres tall and thriving[11].

At one time widely cultivated in N. America for its edible seed, it is now virtually extinct in the wild due to chestnut blight[11]. There are some named varieties[183]. Trees are possibly becoming resistant, some suckering stands in America are producing fruit[11]. Suckers often reach 4 - 6 metres tall before succumbing to blight, but they rarely manage to produce fruit[229].

An excellent soil-enriching understorey in pine forests[200].

Flowers are produced on wood of the current year's growth[229]. Plants are fairly self-sterile[200]. They hybridize freely with other members of this genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - where possible sow the seed as soon as it is ripe in a cold frame or in a seed bed outdoors[78]. The seed must be protected from mice and squirrels. The seed has a short viability and must not be allowed to become dry. It can be stored in a cool place, such as the salad compartment of a fridge, for a few months if it is kept moist, but check regularly for signs of germination. The seed should germinate in late winter or early spring. If sown in an outdoor seedbed, the plants can be left in situ for 1 - 2 years before planting them out in their permanent positions. If grown in pots, the plants can be put out into their permanent positions in the summer or autumn, making sure to give them some protection from the cold in their first winter[K].

Cultivars

'Watertown #3'

> A small nut with a very good flavour and good kernel filling[183]. A hardy and productive tree, selected from the wild in New York[183].

'Kelly'

> The small to medium-size nuts have a very good flavour[183]. A vigorous, upright healthy tree, this cultivar has exhibited the most resistance to blight in America, and is a very consistent bearer in Ontario[183].

'Essex'

> A small nut with a very good flavour and good kernel filling[183]. A hardy and productive tree, this is a selection from the wild that shows good resistance to blight in America[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[117] **Rosengarten. jnr. F.** *The Book of Edible Nuts.* Walker & Co. 1984 ISBN 0802707699
A very readable and comprehensive guide. Well illustrated.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a

few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Castanea+dentata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Castanea+dentata`

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Plants For A Future: Database Search Results

Castanea dentata

Common name:	American sweet chestnut	Family:	Fagaceae
Author:	(Marsh.) Borkh.	Botanical references:	11, 43, 200
Synonyms:	Castanea americana ((Michx.)Raf.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine and Ontario to Michigan, Georgia and Arkansas.		
Habitat:	Dry, gravelly or rocky, mostly acid soils[43]. This species is virtually extinct in America due to chestnut blight[11].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Fagus-Castanea dentata[G]
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Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 15m . It is hardy to zone 4. It is in flower in July, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

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Cultivar **'Kelly'**: Woodland, Canopy.

Edible Uses

Chocolate; Coffee; Oil; Seed.

Seed - raw or cooked[2, 62, 63, 102, 117]. Rather on the small side, but these are the sweetest seeds of any species in this genus[183]. The seed contains about 7% fat, 11% protein[159]. It can be dried, ground into powder and then be added to cereals when making bread, cakes etc[213].

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Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[117] **Rosengarten. jnr. F.** *The Book of Edible Nuts.* Walker & Co. 1984 ISBN 0802707699
A very readable and comprehensive guide. Well illustrated.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5

Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Castanea dentata

Common name:	American sweet chestnut	Family:	Fagaceae
Author:	(Marsh.) Borkh.	Botanical references:	11, 43, 200
Synonyms:	Castanea americana ((Michx.)Raf.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine and Ontario to Michigan, Georgia and Arkansas.		
Habitat:	Dry, gravelly or rocky, mostly acid soils[43]. This species is virtually extinct in America due to chestnut blight[11].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Fagus-Castanea dentata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Chestnut [B,P,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	castanea = chestnut colored; casta = spotless; dentata = with teeth;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 15m . It is hardy to zone 4. It is in flower in July, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Kelly'**: Woodland, Canopy.

Edible Uses

Chocolate; Coffee; Oil; Seed.

Seed - raw or cooked[2, 62, 63, 102, 117]. Rather on the small side, but these are the sweetest seeds of any species in this genus[183]. The seed contains about 7% fat, 11% protein[159]. It can be dried, ground into powder and then be added to cereals when making bread, cakes etc[213].

A delicious oil can be extracted from the seed by crushing the nuts, boiling them in water and then skimming off the oil as it comes to the surface[213]. It can be used as a topping for various puddings[213].

The roasted nut can be used as a coffee substitute and a chocolate substitute can also be made from it[183] (no further details).

Medicinal Uses

Disclaimer

Astringent; Expectorant.

A warm water infusion of the leaves has been used to calm the respiratory nerves and promote expectoration[213, 257]. The infusion has also been used in the treatment of whooping cough but modern opinion is that the leaves are no more than a mild astringent[213].

Other Uses

Dye; Tannin; Wood.

The bark is a good source of tannin[46, 61, 171, 223]. The dried leaves contain 9% tannin[213]. The wood and the seed husks also contain tannin[223]. The husks contain 10 - 13% tannin[223].

A brown dye is obtained from the bark[257].

Wood - soft, not strong, light, very durable, liable to warp. It weighs 28lb per cubic foot. Easy to split, it is used for making cheap furniture, fence posts, in construction etc[61, 82, 117, 171, 229, 235].

Cultivation details

Prefers a good well-drained slightly acid loam but succeeds in dry soils and in hot sunny sites[1, 11, 188, 200]. Once established, it is very drought tolerant[11, 200]. Very tolerant of highly acid, infertile dry sands[200]. Averse to calcareous soils but succeeds on harder limestones[11, 200].

Although it is very winter-hardy, this species only really thrives in areas with hot summers[200]. A tree at Kew in 1985 was 15 metres tall and thriving[11].

At one time widely cultivated in N. America for its edible seed, it is now virtually extinct in the wild due to chestnut blight[11]. There are some named varieties[183]. Trees are possibly becoming resistant, some suckering stands in America are producing fruit[11]. Suckers often reach 4 - 6 metres tall before succumbing to blight, but they rarely manage to produce fruit[229].

An excellent soil-enriching understorey in pine forests[200].

Flowers are produced on wood of the current year's growth[229]. Plants are fairly self-sterile[200]. They hybridize freely with other members of this genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - where possible sow the seed as soon as it is ripe in a cold frame or in a seed bed outdoors[78]. The seed must be protected from mice and squirrels. The seed has a short viability and must not be allowed to become dry. It can be stored in a cool place, such as the salad compartment of a fridge, for a few months if it is kept moist, but check regularly for signs of germination. The seed should germinate in late winter or early spring. If sown in an outdoor seedbed, the plants can be left in situ for 1 - 2 years before planting them out in their permanent positions. If grown in pots, the plants can be put out into their permanent positions in the summer or autumn, making sure to give them some protection from the cold in their first winter[K].

Cultivars

'Watertown #3'

A small nut with a very good flavour and good kernel filling[183]. A hardy and productive tree, selected from the wild in New York[183].

'Kelly'

The small to medium-size nuts have a very good flavour[183]. A vigorous, upright healthy tree, this cultivar has exhibited the most resistance to blight in America, and is a very consistent bearer in Ontario[183].

'Essex'

A small nut with a very good flavour and good kernel filling[183]. A hardy and productive tree, this is a selection from the wild that shows good resistance to blight in America[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Castanea dentata*

Subject:

Castanea dentata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Castanea dentata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Ceratonia siliqua

Common name:	Carob	Family:	Leguminosae
Author:	L.	Botanical references:	89, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Rocky places near the sea shore[89].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Algaroba [H], Algarrobo [E], Carob [H], Carob-Tree [H], Caroube [E], John's Bread [H], Keciboynuzu Agaci [E], St John's Bread [H,P], St John's-bread [B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Egypt; Spain; Turkey

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from August to October. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in

very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

Chocolate; Coffee; Egg; Gum; Seed; Seedpod.

Seedpods - raw or ground into a powder[1, 7, 74, 89, 177]. The seedpods are filled with a saccharine pulp and can be eaten both green or dried[2]. They are very sweet but fibrous[183], the pulp can be used as a chocolate substitute in cakes, drinks etc[183]. It is rich in sugars and protein[183]. The pods contain about 55% sugars, 10% protein[100] and 6% fat[74].

Seed - rich in protein. A flour is made from them which is 60% protein, it is free from sugar and starch and is suitable for baking[64, 171]. It can be used as a chocolate substitute[148].

An edible gum is extracted from the seed, a substitute for Gum Tragacanth (see Astragalus species)[64]. A stabilizer and thickening agent[142, 183], it is also used as an egg substitute[61, 64, 142].

The roasted seed is a coffee substitute[61, 105, 183].

Medicinal Uses

Disclaimer

Astringent; Demulcent; Emollient; Purgative.

The pulp in the seedpods of carob is very nutritious and, due to its high sugar content, sweet-tasting and mildly laxative[254]. However, the pulp in the pods is also astringent and, used in a decoction, will treat diarrhoea and gently help to cleanse and also relieve irritation within the gut[240, 254]. Whilst these appear to be contradictory effects, carob is an example of how the body responds to herbal medicines in different ways, according to how the herb is prepared and according to the specific medical problem[254]. The seedpods are also used in the treatment of coughs[240]. A flour made from the ripe seedpods is demulcent and emollient[7]. It is used in the treatment of diarrhoea[7].

The seed husks are astringent and purgative[240].

The bark is strongly astringent[254]. A decoction is used in the treatment of diarrhoea[254].

Other Uses

Cosmetic; Tannin; Wood.

A flour made from the seedpods is used in the cosmetic industry to make face-packs[7].

Tannin is obtained from the bark[7].

Wood - hard, lustrous. Highly valued by turners, it is also used for marquetry and walking sticks[7, 61, 89, 100].

Cultivation details

Requires a very sunny position in any well-drained moderately fertile soil[200]. Does well in calcareous, gravelly or rocky soils[132, 166]. Tolerates salt laden air[132]. Tolerates a pH in the range 6.2 to 8.6. The tree is very drought resistant, thriving even under arid conditions, the roots penetrating deep into the soil to find moisture[4, 64, 132, 200].

This species is not very hardy in Britain but it succeeds outdoors in favoured areas of S. Cornwall[1], tolerating temperatures down to about -5°c when in a suitable position[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The carob is frequently cultivated in warm temperate zones for its edible seed and seed pods[1]. Mature trees in a suitable environment can yield up to 400 kilos of seedpods annually[64]. There are named varieties with thicker pods[64, 183]. Seeds are unlikely to be produced in Britain since the tree is so near (if not beyond) the limits of its cultivation[K].

The seed is very uniform in size and weight, it was the original 'carat' weight of jewellers[1, 89].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak for 24 hours in warm water prior to sowing. If the seed has not swollen then give it another soaking in warm water until it does swell up. Sow in a greenhouse in April[200]. Germination should take place within 2 months. As soon as they are large enough to handle, prick the seedlings out into individual deep pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Give them some protection from the cold for their first few winters outdoors.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[148] **Niebuhr. A. D.** *Herbs of Greece*. Herb Society of America. 1970
A pleasant little book about Greek herbs.

[166] **Taylor. J.** *The Milder Garden*. Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[171] **Hill. A. F.** *Economic Botany*. The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption*. Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants*. Kampong Publications 1990 ISBN 0-9628087-0-9
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992*. MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement)*. Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Ceratonia siliqua

saracoglu ibrahim adnan Sat Mar 23 16:11:14 2002

Link: prof.dr.saracoglu against low libido, asthma, and increase the active sperm level

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Plants For A Future: Database Search Results

Ceratonia siliqua

Common name:	Carob	Family:	Leguminosae
Author:	L.	Botanical references:	89, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Rocky places near the sea shore[89].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Egypt; Spain; Turkey

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Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

Chocolate; Coffee; Egg; Gum; Seed; Seedpod.

Seedpods - raw or ground into a powder[1, 7, 74, 89, 177]. The seedpods are filled with a saccharine pulp and can be eaten both green or dried[2]. They are very sweet but fibrous[183], the pulp can be used as a chocolate substitute in cakes, drinks etc[183]. It is rich in sugars and protein[183]. The pods contain about 55% sugars, 10% protein[100] and 6% fat[74].

Seed - rich in protein. A flour is made from them which is 60% protein, it is free from sugar and starch and is suitable for baking[64, 171]. It can be used as a chocolate substitute[148].

An edible gum is extracted from the seed, a substitute for Gum Tragacanth (see Astragalus species)[64]. A stabilizer and thickening agent[142, 183], it is also used as an egg substitute[61, 64, 142].

The roasted seed is a coffee substitute[61, 105, 183].

Medicinal Uses

Disclaimer

Astringent; Demulcent; Emollient; Purgative.

The pulp in the seedpods of carob is very nutritious and, due to its high sugar content, sweet-tasting and mildly laxative[254]. However, the pulp in the pods is also astringent and, used in a decoction, will treat diarrhoea and gently help to cleanse and also relieve irritation within the gut[240, 254]. Whilst these appear to be contradictory effects, carob is an example of how the body responds to herbal medicines in different ways, according to how the herb is prepared and according to the specific medical problem[254]. The seedpods are also used in the treatment of coughs[240]. A flour made from the ripe seedpods is demulcent and emollient[7]. It is used in the treatment of diarrhoea[7].

The seed husks are astringent and purgative[240].

The bark is strongly astringent[254]. A decoction is used in the treatment of diarrhoea[254].

Other Uses

Cosmetic; Tannin; Wood.

A flour made from the seedpods is used in the cosmetic industry to make face-packs[7].

Tannin is obtained from the bark[7].

Wood - hard, lustrous. Highly valued by turners, it is also used for marquetry and walking sticks[7, 61, 89, 100].

Cultivation details

Requires a very sunny position in any well-drained moderately fertile soil[200]. Does well in calcareous, gravelly or rocky soils[132, 166]. Tolerates salt laden air[132]. Tolerates a pH in the range 6.2 to 8.6. The tree is very drought resistant, thriving even under arid conditions, the roots penetrating deep into the soil to find moisture[4, 64, 132, 200].

This species is not very hardy in Britain but it succeeds outdoors in favoured areas of S. Cornwall[1], tolerating temperatures down to about -5°c when in a suitable position[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The carob is frequently cultivated in warm temperate zones for its edible seed and seed pods[1]. Mature trees in a suitable environment can yield up to 400 kilos of seedpods annually[64]. There are named varieties with thicker pods[64, 183]. Seeds are unlikely to be produced in Britain since the tree is so near (if not beyond) the limits of its cultivation[K].

The seed is very uniform in size and weight, it was the original 'carat' weight of jewellers[1, 89].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak for 24 hours in warm water prior to sowing. If the seed has not swollen then give it another soaking in warm water until it does swell up. Sow in a greenhouse in April[200]. Germination should take place within 2 months. As soon as they are large enough to handle, prick the seedlings out into individual deep pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Give them some protection from the cold for their first few winters outdoors.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[148] **Niebuhr. A. D.** *Herbs of Greece*. Herb Society of America. 1970
A pleasant little book about Greek herbs.

[166] **Taylor. J.** *The Milder Garden*. Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[171] **Hill. A. F.** *Economic Botany*. The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption*. Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants*. Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992*. MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement)*. Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Ceratonia siliqua

saracoglu ibrahim adnan Sat Mar 23 16:11:14 2002

Link: prof.dr.saracoglu against low libido, asthma, and increase the active sperm level

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Plants For A Future: Database Search Results

Ceratonia siliqua

Common name:	Carob	Family:	Leguminosae
Author:	L.	Botanical references:	89, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Rocky places near the sea shore[89].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Algaroba [H], Algarrobo [E], Carob [H], Carob-Tree [H], Caroube [E], John's Bread [H], Keciboynuzu Agaci [E], St John's Bread [H,P], St John's-bread [B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Egypt; Spain; Turkey

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from August to October. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

Chocolate; Coffee; Egg; Gum; Seed; Seedpod.

Seedpods - raw or ground into a powder[1, 7, 74, 89, 177]. The seedpods are filled with a saccharine pulp and can be eaten both green or dried[2]. They are very sweet but fibrous[183], the pulp can be used as a chocolate substitute in cakes, drinks etc[183]. It is rich in sugars and protein[183]. The pods contain about 55% sugars, 10% protein[100] and 6% fat[74].

Seed - rich in protein. A flour is made from them which is 60% protein, it is free from sugar and starch and is suitable for baking[64, 171]. It can be used as a chocolate substitute[148].

An edible gum is extracted from the seed, a substitute for Gum Tragacanth (see Astragalus species)[64]. A stabilizer and thickening agent[142, 183], it is also used as an egg substitute[61, 64, 142].

The roasted seed is a coffee substitute[61, 105, 183].

Medicinal Uses

Disclaimer

Astringent; Demulcent; Emollient; Purgative.

The pulp in the seedpods of carob is very nutritious and, due to its high sugar content, sweet-tasting and mildly laxative[254]. However, the pulp in the pods is also astringent and, used in a decoction, will treat diarrhoea and gently help to cleanse and also relieve irritation within the gut[240, 254]. Whilst these appear to be contradictory effects, carob is an example of how the body responds to herbal medicines in different ways, according to how the herb is prepared and according to the specific medical problem[254]. The seedpods are also used in the treatment of coughs[240]. A flour made from the ripe seedpods is demulcent and emollient[7]. It is used in the treatment of diarrhoea[7].

The seed husks are astringent and purgative[240].

The bark is strongly astringent[254]. A decoction is used in the treatment of diarrhoea[254].

Other Uses

Cosmetic; Tannin; Wood.

A flour made from the seedpods is used in the cosmetic industry to make face-packs[7].

Tannin is obtained from the bark[7].

Wood - hard, lustrous. Highly valued by turners, it is also used for marquetry and walking sticks[7, 61, 89, 100].

Cultivation details

Requires a very sunny position in any well-drained moderately fertile soil[200]. Does well in calcareous, gravelly or rocky soils[132, 166]. Tolerates salt laden air[132]. Tolerates a pH in the range 6.2 to 8.6. The tree is very drought resistant, thriving even under arid conditions, the roots penetrating deep into the soil to find moisture[4, 64, 132, 200].

This species is not very hardy in Britain but it succeeds outdoors in favoured areas of S. Cornwall[1], tolerating temperatures down to about -5°c when in a suitable position[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The carob is frequently cultivated in warm temperate zones for its edible seed and seed pods[1]. Mature trees in a suitable environment can yield up to 400 kilos of seedpods annually[64]. There are named varieties with thicker pods[64, 183]. Seeds are unlikely to be produced in Britain since the tree is so near (if not beyond) the limits of its cultivation[K].

The seed is very uniform in size and weight, it was the original 'carat' weight of jewellers[1, 89].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak for 24 hours in warm water prior to sowing. If the seed has not swollen then give it another soaking in warm water until it does swell up. Sow in a greenhouse in April[200]. Germination should take place within 2 months. As soon as they are large enough to handle, prick the seedlings out into individual deep pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Give them some protection from the cold for their first few winters outdoors.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ceratonia siliqua*

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Ceratonia siliqua

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ceratonia siliqua

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Geum canadense

Common name:	White avens	Family:	Rosaceae
Author:	Jacq.	Botanical references:	200, 204, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, Georgia, Minnesota and Kansas.		
Habitat:	Rich thickets and borders of woods[204].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	White Avens [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	canadense = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

Perennial growing to 0.8m. It is hardy to zone 3 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Chocolate.

The boiled roots are a chocolate substitute[183]. The roots are also gathered in spring before the plant comes into growth and are used as a flavouring and preservative in ale[207].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in any moderately good garden soil that is well-drained[1]. Prefers a soil rich in organic matter[200].

Plants are hardy to at least -15°c[200].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - sow spring or autumn in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer'

Division in spring or autumn. This should be done every 3 - 4 years in order to maintain the vigour of the plant[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[204] **Livingstone. B.** *Flora of Canada* National Museums of Canada 1978 ISBN 0-660-00025-3
In 4 volumes, it does not deal with plant uses but gives descriptions and habitats.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6

A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Geum canadense

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Author:	Jacq.	Botanical references:	200, 204, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, Georgia, Minnesota and Kansas.		
Habitat:	Rich thickets and borders of woods[204].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	White Avens [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	canadense = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

Perennial growing to 0.8m. It is hardy to zone 3 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Chocolate.

The boiled roots are a chocolate substitute[183]. The roots are also gathered in spring before the plant comes into growth and are used as a flavouring and preservative in ale[207].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in any moderately good garden soil that is well-drained[1]. Prefers a soil rich in organic matter[200].

Plants are hardy to at least -15°c[200].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - sow spring or autumn in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer'

Division in spring or autumn. This should be done every 3 - 4 years in order to maintain the vigour of the plant[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Web References

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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[204] **Livingstone. B.** *Flora of Canada* National Museums of Canada 1978 ISBN 0-660-00025-3
In 4 volumes, it does not deal with plant uses but gives descriptions and habitats.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6

A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

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Plants For A Future: Database Search Results

Geum canadense

Common name:	White avens	Family:	Rosaceae
Author:	Jacq.	Botanical references:	200, 204, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Ontario, Georgia, Minnesota and Kansas.		
Habitat:	Rich thickets and borders of woods[204].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	White Avens [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	canadense = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

Perennial growing to 0.8m. It is hardy to zone 3 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Chocolate.

The boiled roots are a chocolate substitute[183]. The roots are also gathered in spring before the plant comes into growth and are used as a flavouring and preservative in ale[207].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in any moderately good garden soil that is well-drained[1]. Prefers a soil rich in organic matter[200].

Plants are hardy to at least -15°c[200].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - sow spring or autumn in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer'

Division in spring or autumn. This should be done every 3 - 4 years in order to maintain the vigour of the plant[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Geum canadense*

Subject:

Geum canadense

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Geum canadense

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:02:47 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Geum rivale

Common name:	Water avens	Family:	Rosaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Damp places, such as moist ditches and streamsides, most frequently in the shade[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Avens, Purple [S], Cure All [H], Drooping Avens [H], Herb Robert [E], Indian Chocolate [H], Knikkend Nagelkruid [D], Nodding Avens [H], Purple Avens [B,S,P,L], Su Meryemotu [E], Sukaranfili [E], Water Avens [H,L], Water Flower [H],
Epithets:	From a Dictionary of Botanical Epithets
	rivale = growing by streams;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Europe; Turkey; Us; Us(Appalachia)

Physical Characteristics

Perennial growing to 0.3m by 0.3m . It is hardy to zone 3 and is not frost tender. It is in flower from May to September, and the seeds ripen from June to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Chocolate; Condiment; Drink.

The dried or fresh root can be boiled in water to make a delicious chocolate-like drink[85, 95, 106, 183, 213]. It can also be used as a seasoning[102, 183]. It is best harvested in the spring or autumn but can be used all year round[213]. Fragrant[161], it was once used to flavour ales[2, 183].

Medicinal Uses

Disclaimer

Antiinflammatory; Antiseptic; Aromatic; Astringent; Diaphoretic; Febrifuge; Stomachic; Styptic; Tonic.

The root is anti-inflammatory, antiseptic, aromatic, astringent, diaphoretic, febrifuge, stomachic, styptic and tonic[4, 21]. An infusion is taken internally in the treatment of diarrhoea (and is suitable for children to use), intestinal and stomach complaints, liver disorders etc, it is also applied externally as a wash to various skin afflictions - it is said to remove spots, freckles and eruptions from the face[4, 9]. This plant has similar properties but is less active than the related G. urbanum and so is seldom used medicinally[9, 238].

The root is best harvested in the spring, since at this time it is most fragrant[4]. Much of the fragrance can be lost on drying, so the root should be dried with great care then stored in a cool dry place in an airtight container, being sliced and powdered only when required for use[4].

The root is rich in tannin and is a powerful astringent[213, 222].

Other Uses

Ground cover; Repellent.

The dried root repels moths.

Plants are suitable for ground cover when spaced about 30cm apart each way[208]. The cultivar 'Leonard's Variety' is the best for this purpose[208].

Cultivation details

Easily grown in any moderately good garden soil that is well-drained[1]. Easily grown in a moist or shady border[28, 187]. Prefers a soil rich in organic matter[200]. Prefers a base rich soil[17].

Hybridizes freely with other members of this genus, especially with G. urbanum[187]. There are some named varieties selected for their ornamental value[208, 233].

Propagation

Seed - sow spring or autumn in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer'

Division in spring or autumn. This should be done every 3 - 4 years in order to maintain the vigour of the plant[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Crushed

> The bruised root is aromatic.

Cultivars

'Leonard's Variety'

> This cultivar is slightly smaller than the species and makes a better ground cover plant[208].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Geum rivale* (water avens)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine
- [S] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *geum rivale* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951 Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

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A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[28] **Knight. F. P.** *Plants for Shade.* Royal Horticultural Society. 1980 ISBN 0-900629-78-9
A small but informative booklet listing plants that can be grown in shady positions with a few cultivation details.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Geum rivale

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Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Damp places, such as moist ditches and streamsides, most frequently in the shade[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK

How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Geum rivale* (water avens)

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Web References

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[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
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[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6

A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Geum+rivale`

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Plants For A Future: Database Search Results

Geum rivale

Common name:	Water avens	Family:	Rosaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Damp places, such as moist ditches and streamsides, most frequently in the shade[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Avens, Purple [S], Cure All [H], Drooping Avens [H], Herb Robert [E], Indian Chocolate [H], Knikkend Nagelkruid [D], Nodding Avens [H], Purple Avens [B,S,P,L], Su Meryemotu [E], Sukaranfili [E], Water Avens [H,L], Water Flower [H],
Epithets:	From a Dictionary of Botanical Epithets
	rivale = growing by streams;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Europe; Turkey; Us; Us(Appalachia)

Physical Characteristics

Perennial growing to 0.3m by 0.3m . It is hardy to zone 3 and is not frost tender. It is in flower from May to September, and the seeds ripen from June to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Chocolate; Condiment; Drink.

The dried or fresh root can be boiled in water to make a delicious chocolate-like drink[85, 95, 106, 183, 213]. It can also be used as a seasoning[102, 183]. It is best harvested in the spring or autumn but can be used all year round[213]. Fragrant[161], it was once used to flavour ales[2, 183].

Medicinal Uses

Disclaimer

Antiinflammatory; Antiseptic; Aromatic; Astringent; Diaphoretic; Febrifuge; Stomachic; Styptic; Tonic.

The root is anti-inflammatory, antiseptic, aromatic, astringent, diaphoretic, febrifuge, stomachic, styptic and tonic[4, 21]. An infusion is taken internally in the treatment of diarrhoea (and is suitable for children to use), intestinal and stomach complaints, liver disorders etc, it is also applied externally as a wash to various skin afflictions - it is said to remove spots, freckles and eruptions from the face[4, 9]. This plant has similar properties but is less active than the related G. urbanum and so is seldom used medicinally[9, 238].

The root is best harvested in the spring, since at this time it is most fragrant[4]. Much of the fragrance can be lost on drying, so the root should be dried with great care then stored in a cool dry place in an airtight container, being sliced and powdered only when required for use[4].

The root is rich in tannin and is a powerful astringent[213, 222].

Other Uses

Ground cover; Repellent.

The dried root repels moths.

Plants are suitable for ground cover when spaced about 30cm apart each way[208]. The cultivar 'Leonard's Variety' is the best for this purpose[208].

Cultivation details

Easily grown in any moderately good garden soil that is well-drained[1]. Easily grown in a moist or shady border[28, 187]. Prefers a soil rich in organic matter[200]. Prefers a base rich soil[17].

Hybridizes freely with other members of this genus, especially with G. urbanum[187]. There are some named varieties selected for their ornamental value[208, 233].

Propagation

Seed - sow spring or autumn in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer'

Division in spring or autumn. This should be done every 3 - 4 years in order to maintain the vigour of the plant[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Crushed

The bruised root is aromatic.

Cultivars

'Leonard's Variety'

This cultivar is slightly smaller than the species and makes a better ground cover plant[208].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK

How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Geum rivale* (water avens)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Geum rivale*

Subject:

Geum rivale

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Geum rivale

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:02:56 2004

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Plants For A Future: Database Search Results

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Tilia americana

Common name:	American basswood	Family:	Tiliaceae
Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	Frequent consumption of the tea made from the flowers may cause heart damage[222].		
Range:	Central and Eastern N. America - New Brunswick to Florida, west to Texas and Manitoba.		
Habitat:	Rich, often moist, soils of woods and bottomlands, often forming pure stands[82, 227].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Basswood [P,B,DEN1], American Linden [H], Basswood [L,FEIS,H], Basswood Tree [H], Lime-tree [L], Whitewood [L],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian)

Physical Characteristics

A decidious tree growing to 25m by 12m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Flowers; Leaves; Sap; Sweetener; Tea.

Young leaves - raw or cooked[257]. A mild flavour and a tender but mucilaginous texture, they are very nice in salads[K]. The leaves can be cooked as greens[257].

Sap - obtained from next to the bark and used as a refreshing drink[105, 161, 177]. It can also be concentrated into a syrup and used as a sweetener[183].

Flowers - raw. They can be added to salads[183].

The flowers are used as a tea substitute. They are sweet and fragrant[183].

A very good chocolate substitute is made from a paste of the ground fruits and flowers[2, 105, 177, 183]. Trials on marketing the product failed because the paste decomposes readily[2].

Medicinal Uses

Disclaimer

Antispasmodic; Demulcent; Diaphoretic; Diuretic; Ophthalmic; Poultice; Sedative; Vermifuge.

A tea made from the inner bark is applied to burns - it soothes and softens the skin[213]. It is taken internally in the treatment of lung complaints, dysentery, heart burn and weak stomach[222, 257].

The bark is diuretic[257]. An infusion has been taken to promote urination[257]. A decoction of the bark, mixed with cornmeal, has been used as a poultice to draw out boils[222, 257].

A tea made from the fresh or dried flowers is antispasmodic, diaphoretic and sedative[226]. It is used in the treatment of hypertension, hardening of the arteries, digestive complaints associated with anxiety, feverish colds, respiratory catarrh, migraine etc[238]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

An infusion of the leaves has been used as an eyewash[257]. A poultice of the leaves has been used in the treatment of burns and scalds, broken bones and swollen areas[257].

A tea or tincture made from the leaves, flowers and buds has traditionally been used for nervous headaches, restlessness and painful digestion[222]. Use with caution, see notes above on toxicity.

A decoction of the roots and the bark has been taken in the treatment of internal haemorrhaging[257].

A decoction of the roots has been used as a vermifuge to rid the body of worms[257].

Other Uses

Fibre; Shelterbelt; Wood.

A tough fibre is obtained from the inner bark[46, 227]. The bark is soaked in water then boiled. It is then rubbed on a stick to separate the fibres which can then be used for making thread for sewing, fine yarn for weaving bags, clothing etc and cordage for making nets, shoes, twine, mats etc[189, 226, 227, 257].

A fairly wind resistant tree, it can be grown as part of a shelterbelt planting[200].

Wood - soft, straight grained, light, weak, not durable, easily worked, resistant to splitting, it holds nails badly, holds glue, paint and lacquer well, seasons well but shrinks considerably. It weighs 28lb per cubic foot[227], is odourless and bland-tasting[226]. A commercially important timber in its native range[226, 229]. The white wood is excellent for turning and carving, it is used for making woodenware such as spoons, cheap furniture, pulp etc[46, 82, 171, 227, 229].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but succeeds on slightly acid soils[11, 200]. Grows poorly on any very dry or very wet soils[200]. Dislikes exposed positions[200]. Another entry in the same book says that it is fairly wind tolerant[200]. Succeeds in full sun or semi-shade[188].

A fast-growing and moderately long-lived tree in the wild, it starts producing seed when about 15 years old and continues for at least another 85 years[229]. It is generally unsatisfactory in Britain, preferring a continental climate and growing more slowly and not usually producing fertile seed in areas with cool summers[200].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[200]. They are highly shade-tolerant according to another report[226].

Trees respond well to coppicing, sending up lots of suckers from the roots[226].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

A good bee plant[61, 159].

Trees are usually attacked by aphids which cover the ground and the leaves with a sticky honeydew[188].

Quite tolerant of root disturbance, semi-mature trees up to 5 metres tall have been transplanted successfully.

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
- Trees and Shrubs for Shelterbelts: Q-U
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Tiliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN

0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN

0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Tilia americana

Blaze (BiggDogg087@aol.com) Tue Mar 2 19:34:46 2004

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If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Tilia americana

Common name:	American basswood	Family:	Tiliaceae
Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	Frequent consumption of the tea made from the flowers may cause heart damage[222].		
Range:	Central and Eastern N. America - New Brunswick to Florida, west to Texas and Manitoba.		
Habitat:	Rich, often moist, soils of woods and bottomlands, often forming pure stands[82, 227].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Basswood [P,B,DEN1], American Linden [H], Basswood [L,FEIS,H], Basswood Tree [H], Lime-tree [L], Whitewood [L],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian)

Physical Characteristics

A decidious tree growing to 25m by 12m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Flowers; Leaves; Sap; Sweetener; Tea.

Young leaves - raw or cooked[257]. A mild flavour and a tender but mucilaginous texture, they are very nice in salads[K]. The leaves can be cooked as greens[257].

Sap - obtained from next to the bark and used as a refreshing drink[105, 161, 177]. It can also be concentrated into a syrup and used as a sweetener[183].

Flowers - raw. They can be added to salads[183].

The flowers are used as a tea substitute. They are sweet and fragrant[183].

A very good chocolate substitute is made from a paste of the ground fruits and flowers[2, 105, 177, 183]. Trials on marketing the product failed because the paste decomposes readily[2].

Medicinal Uses

Disclaimer

Antispasmodic; Demulcent; Diaphoretic; Diuretic; Ophthalmic; Poultice; Sedative; Vermifuge.

A tea made from the inner bark is applied to burns - it soothes and softens the skin[213]. It is taken internally in the treatment of lung complaints, dysentery, heart burn and weak stomach[222, 257].

The bark is diuretic[257]. An infusion has been taken to promote urination[257]. A decoction of the bark, mixed with cornmeal, has been used as a poultice to draw out boils[222, 257].

A tea made from the fresh or dried flowers is antispasmodic, diaphoretic and sedative[226]. It is used in the treatment of hypertension, hardening of the arteries, digestive complaints associated with anxiety, feverish colds, respiratory catarrh, migraine etc[238]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

An infusion of the leaves has been used as an eyewash[257]. A poultice of the leaves has been used in the treatment of burns and scalds, broken bones and swollen areas[257].

A tea or tincture made from the leaves, flowers and buds has traditionally been used for nervous headaches, restlessness and painful digestion[222]. Use with caution, see notes above on toxicity.

A decoction of the roots and the bark has been taken in the treatment of internal haemorrhaging[257].

A decoction of the roots has been used as a vermifuge to rid the body of worms[257].

Other Uses

Fibre; Shelterbelt; Wood.

A tough fibre is obtained from the inner bark[46, 227]. The bark is soaked in water then boiled. It is then rubbed on a stick to separate the fibres which can then be used for making thread for sewing, fine yarn for weaving bags, clothing etc and cordage for making nets, shoes, twine, mats etc[189, 226, 227, 257].

A fairly wind resistant tree, it can be grown as part of a shelterbelt planting[200].

Wood - soft, straight grained, light, weak, not durable, easily worked, resistant to splitting, it holds nails badly, holds glue, paint and lacquer well, seasons well but shrinks considerably. It weighs 28lb per cubic foot[227], is odourless and bland-tasting[226]. A commercially important timber in its native range[226, 229]. The white wood is excellent for turning and carving, it is used for making woodenware such as spoons, cheap furniture, pulp etc[46, 82, 171, 227, 229].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but succeeds on slightly acid soils[11, 200]. Grows poorly on any very dry or very wet soils[200]. Dislikes exposed positions[200]. Another entry in the same book says that it is fairly wind tolerant[200]. Succeeds in full sun or semi-shade[188].

A fast-growing and moderately long-lived tree in the wild, it starts producing seed when about 15 years old and continues for at least another 85 years[229]. It is generally unsatisfactory in Britain, preferring a continental climate and growing more slowly and not usually producing fertile seed in areas with cool summers[200].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[200]. They are highly shade-tolerant according to another report[226].

Trees respond well to coppicing, sending up lots of suckers from the roots[226].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

A good bee plant[61, 159].

Trees are usually attacked by aphids which cover the ground and the leaves with a sticky honeydew[188].

Quite tolerant of root disturbance, semi-mature trees up to 5 metres tall have been transplanted successfully.

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
- Trees and Shrubs for Shelterbelts: Q-U
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Tiliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of

useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Tilia americana

Blaze (BiggDogg087@aol.com) Tue Mar 2 19:34:46 2004

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Tilia+americana`

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Plants For A Future: Database Search Results

Tilia americana

Common name:	American basswood	Family:	Tiliaceae
Author:	L.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	Frequent consumption of the tea made from the flowers may cause heart damage[222].		
Range:	Central and Eastern N. America - New Brunswick to Florida, west to Texas and Manitoba.		
Habitat:	Rich, often moist, soils of woods and bottomlands, often forming pure stands[82, 227].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Basswood [P,B,DEN1], American Linden [H], Basswood [L,FEIS,H], Basswood Tree [H], Lime-tree [L], Whitewood [L],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian)

Physical Characteristics

A decidious tree growing to 25m by 12m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Flowers; Leaves; Sap; Sweetener; Tea.

Young leaves - raw or cooked[257]. A mild flavour and a tender but mucilaginous texture, they are very nice in salads[K]. The leaves can be cooked as greens[257].

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Disclaimer

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Other Uses

Fibre; Shelterbelt; Wood.

A tough fibre is obtained from the inner bark[46, 227]. The bark is soaked in water then boiled. It is then rubbed on a stick to separate the fibres which can then be used for making thread for sewing, fine yarn for weaving bags, clothing etc and cordage for making nets, shoes, twine, mats etc[189, 226, 227, 257].

A fairly wind resistant tree, it can be grown as part of a shelterbelt planting[200].

Wood - soft, straight grained, light, weak, not durable, easily worked, resistant to splitting, it holds nails badly, holds glue, paint and lacquer well, seasons well but shrinks considerably. It weighs 28lb per cubic foot[227], is odourless and bland-tasting[226]. A commercially important timber in its native range[226, 229]. The white wood is excellent for turning and carving, it is used for making woodenware such as spoons, cheap furniture, pulp etc[46, 82, 171, 227, 229].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but succeeds on slightly acid soils[11, 200]. Grows poorly on any very dry or very wet soils[200]. Dislikes exposed positions[200]. Another entry in the same book says that it is fairly wind tolerant[200]. Succeeds in full sun or semi-shade[188].

A fast-growing and moderately long-lived tree in the wild, it starts producing seed when about 15 years old and continues for at least another 85 years[229]. It is generally unsatisfactory in Britain, preferring a continental climate and growing more slowly and not usually producing fertile seed in areas with cool summers[200].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[200]. They are highly shade-tolerant according to another report[226].

Trees respond well to coppicing, sending up lots of suckers from the roots[226].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

A good bee plant[61, 159].

Trees are usually attacked by aphids which cover the ground and the leaves with a sticky honeydew[188].

Quite tolerant of root disturbance, semi-mature trees up to 5 metres tall have been transplanted successfully.

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Tilia americana*

Subject:

Tilia americana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Tilia americana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Tilia cordata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Small leaved lime	Family:	Tiliaceae
Author:	Mill.	Botanical references:	11, 17, 200
Synonyms:	Tilia ulmifolia (Scop.), Tilia parvifolia (Ehrh.), Tilia microphylla (Vent.)		
Known Hazards:	If the flowers used for making tea are too old, they may produce symptoms of narcotic intoxication[4].		
Range:	Britain.		
Habitat:	Woods on most fertile soils, especially limestone, it is commonly found on wooded limestone cliffs[17].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. europaea[H] T. intermedia[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ihlamur Agaci [E], Lime Tree [H], Litteleaf Linden [H], Littleleaf Linden [H,P,DEN1], Small-Leaved Linden [E], Small-leaf Linden [B], Small-leaved Lime [H,L], Small-leaved Linden [H], Tiyou [E], Winterlinde [D],
Epithets:	From a Dictionary of Botanical Epithets
	cordata = heart shaped;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family

Other Range Info:	From the Ethnobotany Database
	Belgium; Eurasia; Turkey

Physical Characteristics

A decidious tree growing to 30m by 12m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Leaves; Sap; Tea.

Young leaves - raw[2]. They make an excellent salad or sandwich filling, they are mild tasting and somewhat mucilaginous[K]. The leaves can be available from spring until early autumn from the young growths at the base of the tree[K].

A very acceptable chocolate substitute can be made from a paste of the ground-up flowers and immature fruit. Trials on marketing the product failed because the paste is very apt to decompose[2, 115].

A popular herb tea is made from the flowers, it has a sweet, fragrant pleasant flavour[46]. Some caution is advised, see the notes above on toxicity.

Sap - harvested in the spring, it is sweet and can be used as a drink or concentrated into a syrup[4].

Medicinal Uses

Disclaimer

Antispasmodic; Diaphoretic; Expectorant; Hypotensive; Laxative; Sedative; Skin.

Lime flowers are a popular domestic remedy for a number of ailments, especially in the treatment of colds and other ailments where sweating is desirable[9]. A tea made from the fresh or dried flowers is antispasmodic, diaphoretic, expectorant, hypotensive, laxative and sedative[4, 9, 13, 226, 238]. Lime flower tea is also used internally in the treatment of indigestion, hypertension, hardening of the arteries, hysteria, nervous vomiting or palpitation[4, 238]. The flowers are harvested commercially and often sold in health shops etc[226]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

A charcoal made from the wood is used in the treatment of gastric or dyspeptic disturbances and is also made into a powder then applied to burns or sore places[4].

Other Uses

Charcoal; Fibre; Paper; Wood.

A fibre from the inner bark is used to make mats, shoes, baskets, ropes etc[1, 13, 14, 46, 61, 100]. It is also suitable for cloth[115]. It is harvested from trunks that are 15 - 30cm in diameter[115]. The fibre can also be used for making paper[189]. The stems are harvested in spring or summer, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by peeling or scraping. The fibres are cooked for 2 hours with lye and then beaten in a ball mill. The paper is beige in colour[189].

Wood - soft, white, easily carved. It is very suitable for carving domestic items and small non-durable items[4, 13, 46, 61, 115]. A charcoal made from the wood is used for drawing[46, 61, 115].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but it also succeeds on slightly acid soils[200]. Grows poorly on any very dry or very wet soil[200]. Tolerates considerable exposure[125, K]. Succeeds in sun or semi-shade[188].

Plants can be transplanted quite easily, even when large, trees up to 60 years old have been moved successfully[1, 74].

Trees are very amenable to coppicing or pollarding[186]. They produce numerous suckers from the base[98]. Suckers are produced but not freely according to another report[186]. This species produces far less suckers than T. platyphyllos or T. x vulgaris[238].

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Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[186]. Mature trees cast a dense shade[186].

A very valuable bee plant, producing an abundance of nectar[186]. A valuable species for wildlife, there are 31 species of insects associated with this tree[24].

The leaves are very attractive to leaf aphis and these aphis produce an abundance of sweet secretions which drip off the leaves to the ground below and also attract sooty mould fungus[186]. This makes the tree unsuitable for street planting. This species, however, is less likely to become infested with aphis than T. platyphyllos or T. x vulgaris[238].

There are some named varieties selected for their ornamental value[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

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Suppliers

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Tilia cordata* (Small leaved Lime)

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Tilia cordata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Small leaved lime	Family:	Tiliaceae
Author:	Mill.	Botanical references:	11, 17, 200
Synonyms:	Tilia ulmifolia (Scop.), Tilia parvifolia (Ehrh.), Tilia microphylla (Vent.)		
Known Hazards:	If the flowers used for making tea are too old, they may produce symptoms of narcotic intoxication[4].		
Range:	Britain.		
Habitat:	Woods on most fertile soils, especially limestone, it is commonly found on wooded limestone cliffs[17].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. europaea[H] T. intermedia[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ihlamur Agaci [E], Lime Tree [H], Litteleaf Linden [H], Littleleaf Linden [H,P,DEN1], Small-Leaved Linden [E], Small-leaf Linden [B], Small-leaved Lime [H,L], Small-leaved Linden [H], Tiyou [E], Winterlinde [D],
Epithets:	From a Dictionary of Botanical Epithets
	cordata = heart shaped;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Belgium; Eurasia; Turkey

Physical Characteristics

A decidious tree growing to 30m by 12m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Leaves; Sap; Tea.

Young leaves - raw[2]. They make an excellent salad or sandwich filling, they are mild tasting and somewhat mucilaginous[K]. The leaves can be available from spring until early autumn from the young growths at the base of the tree[K].

A very acceptable chocolate substitute can be made from a paste of the ground-up flowers and immature fruit. Trials on marketing the product failed because the paste is very apt to decompose[2, 115].

A popular herb tea is made from the flowers, it has a sweet, fragrant pleasant flavour[46]. Some caution is advised, see the notes above on toxicity.

Sap - harvested in the spring, it is sweet and can be used as a drink or concentrated into a syrup[4].

Medicinal Uses

Disclaimer

Antispasmodic; Diaphoretic; Expectorant; Hypotensive; Laxative; Sedative; Skin.

Lime flowers are a popular domestic remedy for a number of ailments, especially in the treatment of colds and other ailments where sweating is desirable[9]. A tea made from the fresh or dried flowers is antispasmodic, diaphoretic, expectorant, hypotensive, laxative and sedative[4, 9, 13, 226, 238]. Lime flower tea is also used internally in the treatment of indigestion, hypertension, hardening of the arteries, hysteria, nervous vomiting or palpitation[4, 238]. The flowers are harvested commercially and often sold in health shops etc[226]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

A charcoal made from the wood is used in the treatment of gastric or dyspeptic disturbances and is also made into a powder then applied to burns or sore places[4].

Other Uses

Charcoal; Fibre; Paper; Wood.

A fibre from the inner bark is used to make mats, shoes, baskets, ropes etc[1, 13, 14, 46, 61, 100]. It is also suitable for cloth[115]. It is harvested from trunks that are 15 - 30cm in diameter[115]. The fibre can also be used for making paper[189]. The stems are harvested in spring or summer, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by peeling or scraping. The fibres are cooked for 2 hours with lye and then beaten in a ball mill. The paper is beige in colour[189].

Wood - soft, white, easily carved. It is very suitable for carving domestic items and small non-durable items[4, 13, 46, 61, 115]. A charcoal made from the wood is used for drawing[46, 61, 115].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but it also succeeds on slightly acid soils[200]. Grows poorly on any very dry or very wet soil[200]. Tolerates considerable exposure[125, K]. Succeeds in sun or semi-shade[188].

Plants can be transplanted quite easily, even when large, trees up to 60 years old have been moved successfully[1, 74].

Trees are very amenable to coppicing or pollarding[186]. They produce numerous suckers from the base[98]. Suckers are produced but not freely according to another report[186]. This species produces far less suckers than T. platyphyllos or T. x vulgaris[238].

This species grows well in Britain, but it rarely produces viable seed in areas with cool summers[200].

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There are some named varieties selected for their ornamental value[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

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> No entries have been made for this species as yet.

Suppliers

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham

NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Tilia cordata* (Small leaved Lime)

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Physical Characteristics

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Edible Uses

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Disclaimer

Antispasmodic; Diaphoretic; Expectorant; Hypotensive; Laxative; Sedative; Skin.

Lime flowers are a popular domestic remedy for a number of ailments, especially in the treatment of colds and other ailments where sweating is desirable[9]. A tea made from the fresh or dried flowers is antispasmodic, diaphoretic, expectorant, hypotensive, laxative and sedative[4, 9, 13, 226, 238]. Lime flower tea is also used internally in the treatment of indigestion, hypertension, hardening of the arteries, hysteria, nervous vomiting or palpitation[4, 238]. The flowers are harvested commercially and often sold in health shops etc[226]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

A charcoal made from the wood is used in the treatment of gastric or dyspeptic disturbances and is also made into a powder then applied to burns or sore places[4].

Other Uses

Charcoal; Fibre; Paper; Wood.

A fibre from the inner bark is used to make mats, shoes, baskets, ropes etc[1, 13, 14, 46, 61, 100]. It is also suitable for cloth[115]. It is harvested from trunks that are 15 - 30cm in diameter[115]. The fibre can also be used for making paper[189]. The stems are harvested in spring or summer, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by peeling or scraping. The fibres are cooked for 2 hours with lye and then beaten in a ball mill. The paper is beige in colour[189].

Wood - soft, white, easily carved. It is very suitable for carving domestic items and small non-durable items[4, 13, 46, 61, 115]. A charcoal made from the wood is used for drawing[46, 61, 115].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but it also succeeds on slightly acid soils[200]. Grows poorly on any very dry or very wet soil[200]. Tolerates considerable exposure[125, K]. Succeeds in sun or semi-shade[188].

Plants can be transplanted quite easily, even when large, trees up to 60 years old have been moved successfully[1, 74].

Trees are very amenable to coppicing or pollarding[186]. They produce numerous suckers from the base[98]. Suckers are produced but not freely according to another report[186]. This species produces far less suckers than T. platyphyllos or T. x vulgaris[238].

This species grows well in Britain, but it rarely produces viable seed in areas with cool summers[200].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[186]. Mature trees cast a dense shade[186].

A very valuable bee plant, producing an abundance of nectar[186]. A valuable species for wildlife, there are 31 species of insects associated with this tree[24].

The leaves are very attractive to leaf aphis and these aphis produce an abundance of sweet secretions which drip off the leaves to the ground below and also attract sooty mould fungus[186]. This makes the tree unsuitable for street planting. This species, however, is less likely to become infested with aphis than T. platyphyllos or T. x vulgaris[238].

There are some named varieties selected for their ornamental value[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham

NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Tilia cordata* (Small leaved Lime)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Tilia+cordata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Tilia+cordata`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Tilia cordata*

Subject:

Tilia cordata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Tilia cordata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Tilia platyphyllos

Common name:	Large leaved lime	Family:	Tiliaceae
Author:	Scop.	Botanical references:	11, 17, 200
Synonyms:	Tilia officinarum (Crantz. pro parte), Tilia grandifolia (Ehrh.)		
Known Hazards:	If the flowers used for making tea are too old, they may produce symptoms of narcotic intoxication[4].		
Range:	Britain.		
Habitat:	Woods on good calcareous or base rich soils[17].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. europaea[H] T. intermedia[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Large-leaf Linden [B], Large-leaved Lime [L], Largeleaf Linden [P], Lime Tree [H], Natu-Bodaizyu [E], Tilia [E], Tilo [E], Zomerlinde [D],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Nc; Spain

Physical Characteristics

A decidious tree growing to 30m by 20m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Leaves; Sap; Tea.

Young leaves - raw. A delicious addition to salads and sandwiches, the young leaves are mild and tender with a somewhat mucilaginous texture[K].

A very acceptable chocolate substitute can be made from a paste of the ground-up flowers and immature fruit. Trials on marketing the product failed because the paste is very apt to decompose[2, 115].

A popular herb tea is made from the flowers, it has a sweet, fragrant pleasant flavour. Some caution is advised, see notes above on toxicity.

Sap - harvested in the spring, it is sweet and can be used as a drink or concentrated into a syrup[4].

Medicinal Uses

Disclaimer

Antispasmodic; Diaphoretic; Diuretic; Expectorant; Hypotensive; Laxative; Sedative.

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Charcoal; Fibre; Paper; Wood.

A fibre from the inner bark is used to make mats, shoes, baskets, ropes etc[1, 13, 14, 46, 61, 100]. It is also suitable for cloth[115]. It is harvested from trunks that are 15 - 30cm in diameter[115]. The fibre can also be used for making paper[189]. The stems are harvested in spring or summer, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by peeling or scraping. The fibres are cooked for 2 hours with lye and then beaten in a ball mill. The paper is beige in colour[189].

Wood - soft, white, easily carved. It is very suitable for carving domestic items and small non-durable items[4, 13, 46, 61, 115]. A charcoal made from the wood is used for drawing and has medicinal properties[7, 46, 61, 115].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but succeeds on slightly acid soils[11, 200]. Grows poorly on any very dry or very wet soils[200]. Succeeds in sun or semi-shade[188].

Plants can be transplanted quite easily, even when quite large, trees up to 60 years old have been moved successfully[1, 74].

Lime trees are very long-lived[7] and are amenable to coppicing or pollarding. This species does not produce many suckers[98, 200].

Grows well in Britain, it is the only species that reliably produces viable seed in areas with cool summers[200].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[200]. Mature trees cast a dense shade[186].

A very valuable bee plant, producing an abundance of nectar[7, 11, 125]. A valuable tree for wildlife, there are 31 species of insects associated with this tree[24]. A food plant for the caterpillars of many butterfly and moth species[30].

Trees are usually attacked by aphids which cover the ground and the leaves with a sticky honeydew[188].

There are some named varieties selected for their ornamental value[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Tilia grandifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *tilia platyphyllos* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Tiliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5

Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218

An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[125] **?** *The Plantsman. Vol. 5. 1983 - 1984.* Royal Horticultural Society 1983
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Plants For A Future: Database Search Results

Tilia platyphyllos

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Author:	Scop.	Botanical references:	11, 17, 200
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Range:	Britain.		
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Plants For A Future Rating (1-5):	5		

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Systematics:	From a UDSA Plants Database
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Physical Characteristics

A decidious tree growing to 30m by 20m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

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Woodland, Canopy.

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Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Tilia grandifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *tilia platyphyllos* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Tiliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[125] **?** *The Plantsman. Vol. 5. 1983 - 1984.* Royal Horticultural Society 1983
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

Readers Comments

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Plants For A Future: Database Search Results

Tilia platyphyllos

Common name:	Large leaved lime	Family:	Tiliaceae
Author:	Scop.	Botanical references:	11, 17, 200
Synonyms:	Tilia officinarum (Crantz. pro parte), Tilia grandifolia (Ehrh.)		
Known Hazards:	If the flowers used for making tea are too old, they may produce symptoms of narcotic intoxication[4].		
Range:	Britain.		
Habitat:	Woods on good calcareous or base rich soils[17].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. europaea[H] T. intermedia[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Large-leaf Linden [B], Large-leaved Lime [L], Largeleaf Linden [P], Lime Tree [H], Natu-Bodaizyu [E], Tilia [E], Tilo [E], Zomerlinde [D],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Nc; Spain

Physical Characteristics

A decidious tree growing to 30m by 20m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Leaves; Sap; Tea.

Young leaves - raw. A delicious addition to salads and sandwiches, the young leaves are mild and tender with a somewhat mucilaginous texture[K].

A very acceptable chocolate substitute can be made from a paste of the ground-up flowers and immature fruit. Trials on marketing the product failed because the paste is very apt to decompose[2, 115].

A popular herb tea is made from the flowers, it has a sweet, fragrant pleasant flavour. Some caution is advised, see notes above on toxicity.

Sap - harvested in the spring, it is sweet and can be used as a drink or concentrated into a syrup[4].

Medicinal Uses

Disclaimer

Antispasmodic; Diaphoretic; Diuretic; Expectorant; Hypotensive; Laxative; Sedative.

Lime flowers are a popular domestic remedy for a number of ailments, especially in the treatment of colds and other ailments where sweating is desirable[9]. A tea made from the fresh or dried flowers is antispasmodic, diaphoretic, expectorant, hypotensive, laxative and sedative[4, 9, 13, 226, 238]. Lime flower tea is also used internally in the treatment of indigestion, hypertension, hardening of the arteries, hysteria, nervous vomiting or palpitation[4, 238]. The flowers are harvested commercially and often sold in health shops etc[226]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

A charcoal made from the wood is used in the treatment of gastric or dyspeptic disturbances and is also made into a powder then applied to burns or sore places[4]. It is also quite an effective vasodilator[7].

Other Uses

Charcoal; Fibre; Paper; Wood.

A fibre from the inner bark is used to make mats, shoes, baskets, ropes etc[1, 13, 14, 46, 61, 100]. It is also suitable for cloth[115]. It is harvested from trunks that are 15 - 30cm in diameter[115]. The fibre can also be used for making paper[189]. The stems are harvested in spring or summer, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by peeling or scraping. The fibres are cooked for 2 hours with lye and then beaten in a ball mill. The paper is beige in colour[189].

Wood - soft, white, easily carved. It is very suitable for carving domestic items and small non-durable items[4, 13, 46, 61, 115]. A charcoal made from the wood is used for drawing and has medicinal properties[7, 46, 61, 115].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but succeeds on slightly acid soils[11, 200]. Grows poorly on any very dry or very wet soils[200]. Succeeds in sun or semi-shade[188].

Plants can be transplanted quite easily, even when quite large, trees up to 60 years old have been moved successfully[1, 74].

Lime trees are very long-lived[7] and are amenable to coppicing or pollarding. This species does not produce many suckers[98, 200].

Grows well in Britain, it is the only species that reliably produces viable seed in areas with cool summers[200].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[200]. Mature trees cast a dense shade[186].

A very valuable bee plant, producing an abundance of nectar[7, 11, 125]. A valuable tree for wildlife, there are 31 species of insects associated with this tree[24]. A food plant for the caterpillars of many butterfly and moth species[30].

Trees are usually attacked by aphids which cover the ground and the leaves with a sticky honeydew[188].

There are some named varieties selected for their ornamental value[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Tilia platyphyllos*

Subject:

Tilia platyphyllos

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Tilia platyphyllos

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Tilia x europaea

Common name:	Common lime	Family:	Tiliaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Tilia x vulgaris (Hayne.), Tilia officinarum (Crantz. pro parte.), Tilia intermedia (DC.)		
Known Hazards:	If the flowers used for making tea are too old, they may produce symptoms of narcotic intoxication[4].		
Range:	A hybrid, probably T. cordata. x T. platyphyllos.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. cordata[B,DUTCH,E,G,H,HORTIPLEX,L,P] T. europaea[B,H,P] T. grandifolia[G,H] T. parvifolia[G] T. platyphyllos[B,DUTCH,E,G,H,HPIC,HORTIPLEX,L,P] T. ulmifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Lime [H], Common Linden [P], European Linden [P], Hollandse Linde [D], Ihlamur Agaci [E], Large-leaf Linden [B], Large-leaved Lime [L], Largeleaf Linden [P], Lime Tree [H], Linden [H], Litteleaf Linden [H], Littleleaf Linden [H,P,DEN1], Natu-Bodaizyu [E], Small-Leaved Linden [E], Small-leaf Linden [B], Small-leaved Lime [L,H], Small-leaved Linden [H], Tilia [E], Tilo [E], Tiyou [E], Winterlinde [D], Zomerlinde [D],
Epithets:	From a Dictionary of Botanical Epithets
	europaea = European;
Systematics:	From a UDSA Plants Database

	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Belgium; Eurasia; Nc; Spain; Turkey

Physical Characteristics

A decidious tree growing to 35m by 15m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Flowers; Leaves; Manna; Sap; Sweetener; Tea.

Young leaves - raw[6, 177, 183]. Excellent in salads, they are mild and mucilaginous.

A refreshing tea is made from the dried flowers[183]. A honey-like fragrance[183]. Some caution is advised, see notes above on toxicity.

Flowers - used as a vegetable[183].

A very acceptable chocolate substitute can be made from a paste of the ground-up flowers and immature fruit. Trials on marketing the product failed because the paste is very apt to decompose[2, 115].

Sap - used as a drink or concentrated to make a syrup and used as a sweetener[4, 115, 183].

An edible manna is obtained from the tree[183]. No further details, does this report refer to the sap?

Medicinal Uses

Disclaimer

Antispasmodic; Cholagogue; Diaphoretic; Diuretic; Emollient; Expectorant; Hypotensive; Sedative; Skin; Vasodilator.

Lime flowers are a popular domestic remedy for a number of ailments, especially in the treatment of colds and other ailments where sweating is desirable[9]. A tea made from the fresh or dried flowers is antispasmodic, diaphoretic, expectorant, hypotensive, laxative and sedative[4, 9, 13, 226, 238]. Lime flower tea is also used internally in the treatment of indigestion, hypertension, hardening of the arteries, hysteria, nervous vomiting or palpitation[4, 238]. The flowers are harvested commercially and often sold in health shops etc[226]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

A charcoal made from the wood is used in the treatment of gastric or dyspeptic disturbances and is also made into a powder then applied to burns or sore places[4].

Other Uses

Charcoal; Fibre; Paper; Wood.

A fibre from the inner bark is used to make mats, shoes, baskets, ropes etc[1, 13, 14, 46, 61, 100]. It is also suitable for cloth[115]. It is harvested from trunks that are 15 - 30cm in diameter[115]. The fibre can also be used for making paper[189]. The stems are harvested in spring or summer, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by peeling or scraping. The fibres are cooked for 2 hours with lye and then beaten in a ball mill. The paper is beige in colour[189].

Wood - soft, white, easily carved. It is very suitable for carving domestic items and small non-durable items[4, 13, 46, 61, 115]. A charcoal made from the wood is used for drawing[46, 61, 115].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but succeeds on slightly acid soils[11, 200]. Grows poorly on any very dry or very wet soil[200]. Succeeds on poorer soils than T. platyphyllos[11, 14]. Tolerates considerable exposure[125].

A very valuable bee plant[11]. The flowers are toxic to bees[188]. A food plant for the caterpillars of many butterfly and moth species[30]. This tree is frequently infested by aphis[17, 200], which cover the ground and the leaves with a sticky honeydew[188].

Although a hybrid species, it does produce fertile seed in Britain[17].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

Easily transplanted, even when quite large, trees up to 60 years old have been moved successfully[1, 74].

Can be coppiced, the tree produces suckers very freely[98, 200].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Tilia cordata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Tilia intermedia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Tilia platyphyllos* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Tilia x vulgaris* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *tilia platyphyllos* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Tiliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora.

Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[125] **?** *The Plantsman. Vol. 5. 1983 - 1984.* Royal Horticultural Society 1983
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Tilia+x+europaea`
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Plants For A Future: Database Search Results

Tilia x europaea

Common name:	Common lime	Family:	Tiliaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Tilia x vulgaris (Hayne.), Tilia officinarum (Crantz. pro parte.), Tilia intermedia (DC.)		
Known Hazards:	If the flowers used for making tea are too old, they may produce symptoms of narcotic intoxication[4].		
Range:	A hybrid, probably T. cordata. x T. platyphyllos.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. cordata[B,DUTCH,E,G,H,HORTIPLEX,L,P] T. europaea[B,H,P] T. grandifolia[G,H] T. parvifolia[G] T. platyphyllos[B,DUTCH,E,G,H,HPIC,HORTIPLEX,L,P] T. ulmifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Lime [H], Common Linden [P], European Linden [P], Hollandse Linde [D], Ihlamur Agaci [E], Large-leaf Linden [B], Large-leaved Lime [L], Largeleaf Linden [P], Lime Tree [H], Linden [H], Litteleaf Linden [H], Littleleaf Linden [H,P,DEN1], Natu-Bodaizyu [E], Small-Leaved Linden [E], Small-leaf Linden [B], Small-leaved Lime [L,H], Small-leaved Linden [H], Tilia [E], Tilo [E], Tiyou [E], Winterlinde [D], Zomerlinde [D],
Epithets:	From a Dictionary of Botanical Epithets
	europaea = European;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Belgium; Eurasia; Nc; Spain; Turkey

Physical Characteristics

A decidious tree growing to 35m by 15m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Flowers; Leaves; Manna; Sap; Sweetener; Tea.

Young leaves - raw[6, 177, 183]. Excellent in salads, they are mild and mucilaginous.

A refreshing tea is made from the dried flowers[183]. A honey-like fragrance[183]. Some caution is advised, see notes above on toxicity.

Flowers - used as a vegetable[183].

A very acceptable chocolate substitute can be made from a paste of the ground-up flowers and immature fruit. Trials on marketing the product failed because the paste is very apt to decompose[2, 115].

Sap - used as a drink or concentrated to make a syrup and used as a sweetener[4, 115, 183].

An edible manna is obtained from the tree[183]. No further details, does this report refer to the sap?

Medicinal Uses

Disclaimer

Antispasmodic; Cholagogue; Diaphoretic; Diuretic; Emollient; Expectorant; Hypotensive; Sedative; Skin; Vasodilator.

Lime flowers are a popular domestic remedy for a number of ailments, especially in the treatment of colds and other ailments where sweating is desirable[9]. A tea made from the fresh or dried flowers is antispasmodic, diaphoretic, expectorant, hypotensive, laxative and sedative[4, 9, 13, 226, 238]. Lime flower tea is also used internally in the treatment of indigestion, hypertension, hardening of the arteries, hysteria, nervous vomiting or palpitation[4, 238]. The flowers are harvested commercially and often sold in health shops etc[226]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

A charcoal made from the wood is used in the treatment of gastric or dyspeptic disturbances and is also made into a powder then applied to burns or sore places[4].

Other Uses

Charcoal; Fibre; Paper; Wood.

A fibre from the inner bark is used to make mats, shoes, baskets, ropes etc[1, 13, 14, 46, 61, 100]. It is also suitable for cloth[115]. It is harvested from trunks that are 15 - 30cm in diameter[115]. The fibre can also be used for making paper[189]. The stems are harvested in spring or summer, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by peeling or scraping. The fibres are cooked for 2 hours with lye and then beaten in a ball mill. The paper is beige in colour[189].

Wood - soft, white, easily carved. It is very suitable for carving domestic items and small non-durable items[4, 13, 46, 61, 115]. A charcoal made from the wood is used for drawing[46, 61, 115].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but succeeds on slightly acid soils[11, 200]. Grows poorly on any very dry or very wet soil[200]. Succeeds on poorer soils than T. platyphyllos[11, 14]. Tolerates considerable exposure[125].

A very valuable bee plant[11]. The flowers are toxic to bees[188]. A food plant for the caterpillars of many butterfly and moth species[30]. This tree is frequently infested by aphis[17, 200], which cover the ground and the leaves with a sticky honeydew[188].

Although a hybrid species, it does produce fertile seed in Britain[17].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

Easily transplanted, even when quite large, trees up to 60 years old have been moved successfully[1, 74].

Can be coppiced, the tree produces suckers very freely[98, 200].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Tilia cordata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Tilia intermedia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Tilia platyphyllos* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *Tilia x vulgaris* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *tilia platyphyllos* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Tiliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces

in 1992 by a new dictionary (see [200]).

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Readers Comments

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Plants For A Future: Database Search Results

Tilia x europaea

Common name:	Common lime	Family:	Tiliaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Tilia x vulgaris (Hayne.), Tilia officinarum (Crantz. pro parte.), Tilia intermedia (DC.)		
Known Hazards:	If the flowers used for making tea are too old, they may produce symptoms of narcotic intoxication[4].		
Range:	A hybrid, probably T. cordata. x T. platyphyllos.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	Common Lime [H], Common Linden [P], European Linden [P], Hollandse Linde [D], Ihlamur Agaci [E], Large-leaf Linden [B], Large-leaved Lime [L], Largeleaf Linden [P], Lime Tree [H], Linden [H], Litteleaf Linden [H], Littleleaf Linden [H,P,DEN1], Natu-Bodaizyu [E], Small-Leaved Linden [E], Small-leaf Linden [B], Small-leaved Lime [L,H], Small-leaved Linden [H], Tilia [E], Tilo [E], Tiyou [E], Winterlinde [D], Zomerlinde [D],
Epithets:	From a Dictionary of Botanical Epithets
	europaea = European;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Linden family
Other Range Info:	From the Ethnobotany Database
	Belgium; Eurasia; Nc; Spain; Turkey

Physical Characteristics

A decidious tree growing to 35m by 15m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Chocolate; Flowers; Leaves; Manna; Sap; Sweetener; Tea.

Young leaves - raw[6, 177, 183]. Excellent in salads, they are mild and mucilaginous.

A refreshing tea is made from the dried flowers[183]. A honey-like fragrance[183]. Some caution is advised, see notes above on toxicity.

Flowers - used as a vegetable[183].

A very acceptable chocolate substitute can be made from a paste of the ground-up flowers and immature fruit. Trials on marketing the product failed because the paste is very apt to decompose[2, 115].

Sap - used as a drink or concentrated to make a syrup and used as a sweetener[4, 115, 183].

An edible manna is obtained from the tree[183]. No further details, does this report refer to the sap?

Medicinal Uses

Disclaimer

Antispasmodic; Cholagogue; Diaphoretic; Diuretic; Emollient; Expectorant; Hypotensive; Sedative; Skin; Vasodilator.

Lime flowers are a popular domestic remedy for a number of ailments, especially in the treatment of colds and other ailments where sweating is desirable[9]. A tea made from the fresh or dried flowers is antispasmodic, diaphoretic, expectorant, hypotensive, laxative and sedative[4, 9, 13, 226, 238]. Lime flower tea is also used internally in the treatment of indigestion, hypertension, hardening of the arteries, hysteria, nervous vomiting or palpitation[4, 238]. The flowers are harvested commercially and often sold in health shops etc[226]. Lime flowers are said to develop narcotic properties as they age and so they should only be harvested when freshly opened[238].

A charcoal made from the wood is used in the treatment of gastric or dyspeptic disturbances and is also made into a powder then applied to burns or sore places[4].

Other Uses

Charcoal; Fibre; Paper; Wood.

A fibre from the inner bark is used to make mats, shoes, baskets, ropes etc[1, 13, 14, 46, 61, 100]. It is also suitable for cloth[115]. It is harvested from trunks that are 15 - 30cm in diameter[115]. The fibre can also be used for making paper[189]. The stems are harvested in spring or summer, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by peeling or scraping. The fibres are cooked for 2 hours with lye and then beaten in a ball mill. The paper is beige in colour[189].

Wood - soft, white, easily carved. It is very suitable for carving domestic items and small non-durable items[4, 13, 46, 61, 115]. A charcoal made from the wood is used for drawing[46, 61, 115].

Cultivation details

Prefers a good moist loamy alkaline to neutral soil but succeeds on slightly acid soils[11, 200]. Grows poorly on any very dry or very wet soil[200]. Succeeds on poorer soils than T. platyphyllos[11, 14]. Tolerates considerable exposure[125].

A very valuable bee plant[11]. The flowers are toxic to bees[188]. A food plant for the caterpillars of many butterfly and moth species[30]. This tree is frequently infested by aphis[17, 200], which cover the ground and the leaves with a sticky honeydew[188].

Although a hybrid species, it does produce fertile seed in Britain[17].

Lime trees tend to hybridise freely if other members of the genus are growing nearby[238]. If growing plants from seed it is important to ensure the seed came from a wild source or from an isolated clump of the single species[K].

Easily transplanted, even when quite large, trees up to 60 years old have been moved successfully[1, 74].

Can be coppiced, the tree produces suckers very freely[98, 200].

Grows best in a woodland situation, young plants tolerate a reasonable level of side shade[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - much of the seed produced in Britain is not viable, cut a few seedcases open to see if there is a seed inside[80]. If possible, obtain fresh seed that is ripe but has not as yet developed a hard seed coat and sow it immediately in a cold frame. It may germinate in the following spring though it could take 18 months[80]. Stored seed can be very slow to germinate. It has a hard seed coat, embryo dormancy and a hard coat on the pericarp. All these factors mean that the seed may take up to 8 years to germinate[80]. One way of shortening this time is to stratify the seed for 5 months at high temperatures (10°c at night, up to 30°c by day) and then 5 months cold stratification[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in spring just before the leaves unfurl. Takes 1 - 3 years[78].

Suckers, when formed, can be removed with as much root as possible during the dormant season and replanted immediately[200].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Tilia x europaea*

Subject:

Tilia x europaea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Tilia x europaea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Search for

Edible Use: Coffee (225);

Latin Name	Common Name	Description	PFAF Rating
Abelmoschus esculentus	Okra	Coffee	3
Aesculus hippocastanum	Horse chestnut	Coffee	3
Arachis hypogaea	Peanut	Coffee	2
Arctium minus	Lesser burdock	Coffee	3
Asparagus officinalis	Asparagus	Coffee	4
Astragalus boeticus	Swedish coffee	Coffee	2
Avena abyssinica	Abyssinian oat	Coffee	2
Avena barbata	Slender oat	Coffee	2
Avena brevis		Coffee	2
Avena byzantina	Red oat	Coffee	2
Avena fatua	Wild oats	Coffee	2
Avena ludoviciana	Oats	Coffee	2
Avena nuda	Naked oat	Coffee	4
Avena nudibrevis		Coffee	2
Avena orientalis	Hungarian oat	Coffee	3
Avena sativa	Oats	Coffee	3
Avena sterilis	Sterile oats	Coffee	3
Avena strigosa	Bristle oats	Coffee	2
Avena wiestii		Coffee	2
Balsamorhiza deltoidea	Deltoid balsamroot	Coffee	4
Balsamorhiza sagittata	Oregon sunflower	Coffee	4
Brachychiton populneus	Kurrajong	Coffee	2
Bromus tectorum	Cheat grass	Coffee	1

Castanea dentata	American sweet chestnut	Coffee	3
Castanea sativa	Sweet chetsnut	Coffee	5
Caulophyllum thalictroides	Papoose root	Coffee	3
Ceratonia siliqua	Carob	Coffee	1
Cicer arietinum	Chick pea	Coffee	3
Cichorium intybus	Chicory	Coffee	4
Coix lacryma-jobi	Job's tears	Coffee	3
Coprosma acerosa	Sand coprosma	Coffee	2
Coprosma areolata		Coffee	1
Coprosma atropurpurea		Coffee	1
Coprosma billardieri	Native currant	Coffee	1
Coprosma brunnea		Coffee	2
Coprosma foetidissima		Coffee	1
Coprosma grandifolia		Coffee	1
Coprosma hirtella		Coffee	1
Coprosma lucida		Coffee	2
Coprosma moorei		Coffee	1
Coprosma nitida		Coffee	2
Coprosma petriei		Coffee	1
Coprosma propinqua		Coffee	1
Coprosma pumila		Coffee	1
Coprosma repens	Mirror plant	Coffee	1
Coprosma rhamnoides		Coffee	1
Coprosma robusta		Coffee	1
Coprosma rotundifolia		Coffee	1
Coprosma rugosa		Coffee	1
Coprosma serrulata		Coffee	1
Coprosma virescens		Coffee	1
Coreopsis tinctoria	Coreopsis	Coffee	1
Cornus mas	Cornelian cherry	Coffee	4
Crataegus laevigata	Midland hawthorn	Coffee	3
Crataegus monogyna	Hawthorn	Coffee	3

Cyperus esculentus	Tiger nut	Coffee	4
Cytisus scoparius	Broom	Coffee	3
Daucus carota	Wild carrot	Coffee	2
Daucus carota sativus	Carrot	Coffee	4
Diospyros kaki	Persimmon	Coffee	3
Diospyros virginiana	American persimmon	Coffee	5
Echinochloa crus-galli	Barnyard millet	Coffee	3
Elytrigia repens	Couch grass	Coffee	2
Eriobotrya japonica	Loquat	Coffee	3
Fagus crenata	Japanese beech	Coffee	2
Fagus grandifolia	American beech	Coffee	2
Fagus japonica	Japanese beech	Coffee	2
Fagus longipetiolata		Coffee	2
Fagus lucida		Coffee	2
Fagus orientalis	Oriental beech	Coffee	2
Fagus sylvatica	Beech	Coffee	4
Fragaria vesca	Wild strawberry	Coffee	3
Fragaria vesca 'Semperflorens'	Alpine strawberry	Coffee	5
Galium aparine	Goosegrass	Coffee	2
Galium verum	Lady's bedstraw	Coffee	3
Genista tinctoria	Dyer's greenweed	Coffee	2
Gevuina avellana	Chilean hazel	Coffee	3
Gleditsia triacanthos	Honey locust	Coffee	3
Glycine max	Soya bean	Coffee	4
Glycine soja	Wild soya bean	Coffee	3
Gymnocladus dioica	Kentucky coffee tree	Coffee	3
Helianthus annuus	Sunflower	Coffee	5
Helianthus lenticularis	Wild sunflower	Coffee	3
Helianthus tuberosus	Jerusalem artichoke	Coffee	4
Hibiscus sabdariffa	Roselle	Coffee	2
Hordeum distichon	Two-rowed barley	Coffee	4
Hordeum jubatum	Foxtail barley	Coffee	1

Hordeum vulgare	Barley	Coffee	4
Ilex latifolia	Tarajo	Coffee	1
Iris missouriensis	Rocky Mountain iris	Coffee	1
Iris pseudacorus	Yellow flag	Coffee	1
Iris setosa	Beachhead iris	Coffee	1
Juniperus communis	Juniper	Coffee	4
Juniperus communis nana	Juniper	Coffee	3
Juniperus horizontalis	Creeping juniper	Coffee	2
Juniperus scopulorum	Rocky Mountain juniper	Coffee	3
Lathyrus japonicus maritimus	Beach pea	Coffee	2
Leontodon hispidus	Rough hawkbit	Coffee	2
Ligustrum indicum		Coffee	1
Ligustrum japonicum	Japanese privet	Coffee	2

Next List by genus

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Abelmoschus esculentus

Common name:	Okra	Family:	Malvaceae
Author:	(L.) Moench.	Botanical references:	200
Synonyms:	Hibiscus esculentus (L.)		
Known Hazards:	The hairs on the seed pods can be an irritant to some people and gloves should be worn when harvesting. These hairs can be easily removed by washing[200].		
Range:	The original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bamia [E], Burgundy Ornamental Okra [H], Calalou [E], Calalou Gombo [E], Gobo [H], Gombo [H,E], Gumbo [H,E], Huang Shu K'Uei [E], Kachang Bendi [E], Kachang Lender [E], Molondron [E], Ochro [E], Ocra [H], Okra [H,B,P], Quiabeiro [E], Quingombo [E], Sayur Bendi [E],
Epithets:	From a Dictionary of Botanical Epithets
	esculentus = edible; lentus = pliable;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family

Physical Characteristics

Annual growing to 1m. It is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Fruit; Leaves; Oil; Pectin; Root; Seed.

Immature fruit - cooked on their own or added to soups etc[2, 27]. They can be used fresh or dried[183]. Mucilaginous[133], they are commonly used as a thickening for soups, stews and sauces[183]. The fruits are rich in pectin and are also a fair source of iron and calcium[240]. The fresh fruits contain 740 iu vitamin A[240]. The fruit should be harvested whilst young, older fruits soon become fibrous[133]. The fruit can be up to 20cm long[200].

Seed - cooked or ground into a meal and used in making bread or made into 'tofu' or 'tempeh'[183].

The roasted seed is a coffee substitute[2, 27, 133]. Probably the best of the coffee substitutes[74].

The seed contains up to 22% of an edible oil[55, 74, 177, 183, 240].

The leaves, flower buds, flowers and calyces can be eaten cooked as greens[183]. The leaves can be dried, crushed into a powder and stored for later use[183]. They are also used as a flavouring[133].

Root - it is edible but very fibrous[144]. Mucilaginous, without very much flavour[144].

Medicinal Uses

Disclaimer

Antispasmodic; Demulcent; Diaphoretic; Diuretic; Emollient; Stimulant.

The roots are very rich in mucilage, having a strongly demulcent action[4, 21]. They are said by some to be better than marsh mallow (Althaea officinalis)[4]. This mucilage can be used as a plasma replacement[240]. An infusion of the roots is used in the treatment of syphilis[240].

The leaves furnish an emollient poultice[4, 21, 240].

A decoction of the immature capsules is demulcent, diuretic and emollient[240]. It is used in the treatment of catarrhal infections, ardor urinae, dysuria and gonorrhoea[240].

The seeds are antispasmodic, cordial and stimulant[240]. An infusion of the roasted seeds has sudorific properties[240].

Other Uses

Fibre; Paper; Size.

A fibre obtained from the stems is used as a substitute for jute[57, 61, 74, 169]. It is also used in making paper and textiles[171]. The fibres are about 2.4mm long[189]. When used for paper the stems are harvested in late summer or autumn after the edible seedpods have been harvested, the leaves are removed and the stems are steamed until the fibres can be stripped off. The fibres are cooked for 2 hours with lye and then put in a ball mill for 3 hours. The paper is cream coloured[189].

A decoction of the root or of the seeds is used as a size for paper[178].

Cultivation details

Prefers a well-drained humus rich fertile soil in full sun and a pH around 6 to 6.7[200] but it tolerates a wide range of soil types and pH from 5.5 to 8[200]. It prefers a soil with a high potash content[264]. The plant requires a warm sunny position sheltered from winds[200]. It likes plenty of moisture, both in the soil and in the atmosphere[133].

Okra is commonly cultivated in warm temperate and tropical areas for its edible seedpod, there are many named varieties[183, 200]. Most cultivars require about 4 months from sowing before a crop is produced, though some early maturing varieties can produce a crop in 50 days in the tropics[264]. This species is not very hardy in Britain, it sometimes succeeds outdoors in hot summers but is really best grown in a greenhouse since it prefers daytime temperatures of 25°c or more[260]. Plants also dislike low night temperatures[133]. There are some early-maturing varieties that are more tolerant of cooler temperate conditions and these could be tried outdoors[200]. These include 'Clemson's Spineless', 'Emerald Spineless', 'Long Green' and 'Green Velvet'[200].

The flowers are much visited by bees but they may require syringing in order to improve fertilization when plants are grown in a greenhouse.

Plants resent being transplanted[133].

Propagation

Seed - sow early spring in a warm greenhouse. The seed germinates in 27 days at 15°c or 6 days at 35°c[133]. When large enough to handle, prick them out into individual pots and plant them out after the last expected frosts[200].

Cultivars

'Pentagreen'

> The five-angled, slightly spiny pods are medium-green in colour and up to 15cm long, though for best quality they should be harvested when about half that size[183]. An early and high-yielding cultivar, producing sturdy, compact plants from 45 - 75cm tall[183]. They are very productive, even in areas usually considered too cool for okras[183]. They can produce a crop within 55 days from sowing the seed[183].

'Long Green'

> An early-maturing variety that is more tolerant of cooler temperate conditions, it is worthwhile trying it outdoors in Britain[200].

'Green Velvet'

> An early-maturing variety that is more tolerant of cooler temperate conditions, it is worthwhile trying it outdoors in Britain[200].

'Emerald Spineless'

> An early-maturing variety that is more tolerant of cooler temperate conditions, it is worthwhile trying it outdoors in Britain[200].

'Dwarf Green Longpod'

> Plants are up to 90cm tall with pods to 20cm[264]. A fast-maturing plant, it can crop within 50 days from seed[264].

'Clemson's Spineless'

> An early-maturing variety that is more tolerant of cooler temperate conditions, it is worthwhile trying it outdoors in Britain[200].

'Cajun Queen'

> The bright, spineless, tapered pods are about 12cm long with 6 well-defined ridges[183]. They have an intense flavour and a rich colour, so do not fade into the background when cooked in stews etc[183]. An early, productive, very hardy cultivar, it grows up to 1 metre tall and can produce a crop within 50 days from sowing the seed[183].

'Burgundy'

> Growing about 1 metre tall with pods up to 20cm long[264]. It tolerates cooler weather than many other cultivars, though still requires warmer temperatures than are usually experienced in Beitish summers.

'Blondy'

> The spineless, ribbed pods are an attractive creamy-lime in colour[183]. They are best

picked when about 8cm long and are crisp and firm yet tender and not stringy[183]. A short-season cultivar for cooler regions, it can produce a crop within 48 days from sowing and has performed well in trials as far north as Canada[183]. The short, compact plants are up to 90cm tall and are very productive[183].

'Annie Oakley'

The slender, five-angled pods are light green in colour and 18 - 22cm long[183]. They are spineless and remain tender as they grow to a large size[183]. An F1 hybrid, it ripens earlier than open-pollinated cultivars and can therefore succeed in cooler climates, though it is still more suited to protected cultivation in Britain[183, K]. The plants are compact, uniform and heavy yielding, reaching a height of about 1 metre[183]. A harvest can be produced within 45 days from sowing the seed[183].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Species Database: ascii version

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Hibiscus esculentus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Malvaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[169] **Buchanan. R.** *A Weavers Garden.*

Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

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Plants For A Future: Database Search Results

Abelmoschus esculentus

Common name:	Okra	Family:	Malvaceae
Author:	(L.) Moench.	Botanical references:	200
Synonyms:	Hibiscus esculentus (L.)		
Known Hazards:	The hairs on the seed pods can be an irritant to some people and gloves should be worn when harvesting. These hairs can be easily removed by washing[200].		
Range:	The original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bamia [E], Burgundy Ornamental Okra [H], Calalou [E], Calalou Gombo [E], Gobo [H], Gombo [H,E], Gumbo [H,E], Huang Shu K'Uei [E], Kachang Bendi [E], Kachang Lender [E], Molondron [E], Ochro [E], Ocra [H], Okra [H,B,P], Quiabeiro [E], Quingombo [E], Sayur Bendi [E],
Epithets:	From a Dictionary of Botanical Epithets
	esculentus = edible; lentus = pliable;
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family

Physical Characteristics

Annual growing to 1m. It is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Fruit; Leaves; Oil; Pectin; Root; Seed.

Immature fruit - cooked on their own or added to soups etc[2, 27]. They can be used fresh or dried[183]. Mucilaginous[133], they are commonly used as a thickening for soups, stews and sauces[183]. The fruits are rich in pectin and are also a fair source of iron and calcium[240]. The fresh fruits contain 740 iu vitamin A[240]. The fruit should be harvested whilst young, older fruits soon become fibrous[133]. The fruit can be up to 20cm long[200].

Seed - cooked or ground into a meal and used in making bread or made into 'tofu' or 'tempeh'[183].

The roasted seed is a coffee substitute[2, 27, 133]. Probably the best of the coffee substitutes[74].

The seed contains up to 22% of an edible oil[55, 74, 177, 183, 240].

The leaves, flower buds, flowers and calyces can be eaten cooked as greens[183]. The leaves can be dried, crushed into a powder and stored for later use[183]. They are also used as a flavouring[133].

Root - it is edible but very fibrous[144]. Mucilaginous, without very much flavour[144].

Medicinal Uses

Disclaimer

Antispasmodic; Demulcent; Diaphoretic; Diuretic; Emollient; Stimulant.

The roots are very rich in mucilage, having a strongly demulcent action[4, 21]. They are said by some to be better than marsh mallow (Althaea officinalis)[4]. This mucilage can be used as a plasma replacement[240]. An infusion of the roots is used in the treatment of syphilis[240].

The leaves furnish an emollient poultice[4, 21, 240].

A decoction of the immature capsules is demulcent, diuretic and emollient[240]. It is used in the treatment of catarrhal infections, ardor urinae, dysuria and gonorrhoea[240].

The seeds are antispasmodic, cordial and stimulant[240]. An infusion of the roasted seeds has sudorific properties[240].

Other Uses

Fibre; Paper; Size.

A fibre obtained from the stems is used as a substitute for jute[57, 61, 74, 169]. It is also used in making paper and textiles[171]. The fibres are about 2.4mm long[189]. When used for paper the stems are harvested in late summer or autumn after the edible seedpods have been harvested, the leaves are removed and the stems are steamed until the fibres can be stripped off. The fibres are cooked for 2 hours with lye and then put in a ball mill for 3 hours. The paper is cream coloured[189].

A decoction of the root or of the seeds is used as a size for paper[178].

Cultivation details

Prefers a well-drained humus rich fertile soil in full sun and a pH around 6 to 6.7[200] but it tolerates a wide range of soil types and pH from 5.5 to 8[200]. It prefers a soil with a high potash content[264]. The plant requires a warm sunny position sheltered from winds[200]. It likes plenty of moisture, both in the soil and in the atmosphere[133].

Okra is commonly cultivated in warm temperate and tropical areas for its edible seedpod, there are many named varieties[183, 200]. Most cultivars require about 4 months from sowing before a crop is produced, though some early maturing varieties can produce a crop in 50 days in the tropics[264]. This species is not very hardy in Britain, it sometimes succeeds outdoors in hot summers but is really best grown in a greenhouse since it prefers daytime temperatures of 25°c or more[260]. Plants also dislike low night temperatures[133]. There are some early-maturing varieties that are more tolerant of cooler temperate conditions and these could be tried outdoors[200]. These include 'Clemson's Spineless', 'Emerald Spineless', 'Long Green' and 'Green Velvet'[200].

The flowers are much visited by bees but they may require syringing in order to improve fertilization when plants are grown in a greenhouse.

Plants resent being transplanted[133].

Propagation

Seed - sow early spring in a warm greenhouse. The seed germinates in 27 days at 15°c or 6 days at 35°c[133]. When large enough to handle, prick them out into individual pots and plant them out after the last expected frosts[200].

Cultivars

'Pentagreen'

The five-angled, slightly spiny pods are medium-green in colour and up to 15cm long, though for best quality they should be harvested when about half that size[183]. An early and high-yielding cultivar, producing sturdy, compact plants from 45 - 75cm tall[183]. They are very productive, even in areas usually considered too cool for okras[183]. They can produce a crop within 55 days from sowing the seed[183].

'Long Green'

An early-maturing variety that is more tolerant of cooler temperate conditions, it is worthwhile trying it outdoors in Britain[200].

'Green Velvet'

An early-maturing variety that is more tolerant of cooler temperate conditions, it is worthwhile trying it outdoors in Britain[200].

'Emerald Spineless'

An early-maturing variety that is more tolerant of cooler temperate conditions, it is worthwhile trying it outdoors in Britain[200].

'Dwarf Green Longpod'

Plants are up to 90cm tall with pods to 20cm[264]. A fast-maturing plant, it can crop within 50 days from seed[264].

'Clemson's Spineless'

An early-maturing variety that is more tolerant of cooler temperate conditions, it is worthwhile trying it outdoors in Britain[200].

'Cajun Queen'

The bright, spineless, tapered pods are about 12cm long with 6 well-defined ridges[183]. They have an intense flavour and a rich colour, so do not fade into the background when cooked in stews etc[183]. An early, productive, very hardy cultivar, it grows up to 1 metre tall and can produce a crop within 50 days from sowing the seed[183].

'Burgundy'

Growing about 1 metre tall with pods up to 20cm long[264]. It tolerates cooler weather than many other cultivars, though still requires warmer temperatures than are usually experienced in Beitish summers.

'Blondy'

The spineless, ribbed pods are an attractive creamy-lime in colour[183]. They are best picked when about 8cm long and are crisp and firm yet tender and not stringy[183]. A short-season cultivar for cooler regions, it can produce a crop within 48 days from sowing and has performed well in trials as far north as Canada[183]. The short, compact plants are up to 90cm tall and are very productive[183].

'Annie Oakley'

The slender, five-angled pods are light green in colour and 18 - 22cm long[183]. They are spineless and remain tender as they grow to a large size[183]. An F1 hybrid, it ripens earlier than open-pollinated cultivars and can therefore succeed in cooler climates, though it is still more suited to protected cultivation in Britain[183, K]. The plants are compact, uniform and heavy yielding, reaching a height of about 1 metre[183]. A harvest can be produced within 45 days from sowing the seed[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Species Database: ascii version

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Hibiscus esculentus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Malvaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169

An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

Readers Comments

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Abelmoschus esculentus

Common name:	Okra	Family:	Malvaceae
Author:	(L.) Moench.	Botanical references:	200
Synonyms:	Hibiscus esculentus (L.)		
Known Hazards:	The hairs on the seed pods can be an irritant to some people and gloves should be worn when harvesting. These hairs can be easily removed by washing[200].		
Range:	The original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bamia [E], Burgundy Ornamental Okra [H], Calalou [E], Calalou Gombo [E], Gobo [H], Gombo [H,E], Gumbo [H,E], Huang Shu K'Uei [E], Kachang Bendi [E], Kachang Lender [E], Molondron [E], Ochro [E], Ocra [H], Okra [H,B,P], Quiabeiro [E], Quingombo [E], Sayur Bendi [E],
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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Abelmoschus esculentus*

Subject:

Abelmoschus esculentus

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Abelmoschus esculentus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Arachis hypogaea

Common name:	Peanut	Family:	Leguminosae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Of greatest concern is possible contamination of damaged or spoiled seeds with the teratogenic, carcinogenic aflatoxins. Two principal toxins, aflatoxins B, and G, and their less toxic dihydro derivatives, aflatoxins B2 and G2 are formed by the aflatoxin producing moulds (Aspergillus flavus et al). Prevention of mould growth is the mainstay, there being no satisfactory way to remove the toxins from feed and foods (however, peanut oils are free of aflatoxins because of alkaline processing)[269].		
Range:	S. America.		
Habitat:	Not known in a truly wild state.		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Arachides [E], Cacahuete [E], Fisteq Abeed [E], Ful Sudany [E], Ground-nut [L], Kachang China [E], Mani [E], Peanut [E,H,B,P], Pistache [E], Yerfistigi [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Africa; Dominican Republic; Haiti; Iraq; Japan; Malaya; Mexico(Kickapoo); Rhodesia; Spain; Turkey; Us; Venezuela

Physical Characteristics

Annual growing to 0.3m. It is hardy to zone 8 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Spanish'**: Cultivated Beds.
Cultivar **'Early Spanish'**: Cultivated Beds.

Edible Uses

Coffee; Leaves; Oil; Seed; Seedpod.

Seed - raw, cooked or ground into a powder. Peanuts are a staple food in many tropical zones and are widely exported to temperate area of the world. The seeds have a delicious nutty flavour and can be eaten on their own either raw or roasted[K]. The seeds are commonly ground up and used as peanut butter in sandwiches etc[269]. They can also be cooked in a variety of dishes and are also ground into a powder when they can be used with cereals to greatly improve the protein content of breads, cakes etc[K]. The seed is very rich in protein and oil, it is also a good source of minerals and vitamins, especially the B complex[200]. A nutritional analysis is available[218].

A non-drying edible oil is obtained from the seed[200]. This is one of the most commonly used edible oils is the world. It is similar in composition to olive oil and is often used in cooking, making margarines, salad oils etc[200]. The oilseed cake is said to be a good source of arginine and glutamic acid, used in treating mental deficiencies[269].

The roasted seed makes an excellent coffee substitute[7, 269].

Young pods may be consumed as a vegetable[269].

Young leaves and tips are suitable as a cooked green vegetable[269]. Javanese use the tips for lablab, and germinating seeds to make toge[269].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 13 Calories: 500 Protein: 29 Fat: 45 Carbohydrate: 15 Fibre: 2.7 Ash: 2.5
In milligrammes per 100g weight of food:
Calcium: 49 Phosphorus: 409 Iron: 3.8 VitaminA: 15 Thiamine: 0.79 Riboflavin: 0.14
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Source: [218]
Notes: The figures given here are the median figures of those quoted in the report.

Medicinal Uses

Disclaimer

Aperient; Demulcent; Emollient; Pectoral.

The oil from the seed is aperient, demulcent, emollient and pectoral[218]. The seed is used mainly as a nutritive food[268].

The seeds have been used in folk medicine as an anti-inflammatory, aphrodisiac and decoagulant[269]. Peanuts play a small role in various folk pharmacopoeias. In China the nuts are considered demulcent, pectoral, and peptic; the oil aperient and emollient, taken internally in milk for treating gonorrhoea, externally for treating rheumatism[269]. In Zimbabwe the peanut is used in folk remedies for plantar warts. Haemostatic and vasoconstrictor activity are reported. The alcoholic extract is said to affect isolated smooth muscles and frog hearts like acetylcholine. The alcoholic lipoid fraction of the seed is said to prevent haemophiliac tendencies and for the treatment of some blood disorders (mucorrhagia and arthritic haemorrhages) in haemophilia[269].

Other Uses

Biomass; Oil.

The seeds yield a non-drying oil that has a wide range of uses including the manufacture of pharmaceuticals, soaps, cold creams, pomades and lubricants, paints, emulsions for insect control, and fuel for diesel engines[268, 269].

Peanut hulls are used for furfural, fuel, as a filler for fertilizers or for sweeping compounds[269].

Cultivation details

Prefers a light humus-rich well-drained soil in a warm sunny sheltered position, though it will tolerate heavier soils[200, 269]. Plants prefer hot dry conditions when the crop is ripening[200]. Peanuts are quite tolerant of acid soils, and aluminium, requiring a minimum of lime for acceptable yields[269]. Tolerates a pH in the range 4.3 to 8.7[269].

Plants are not frost-hardy and most cultivars require too long a growing season to make them a viable crop in Britain. Some cultivars, however (listed below), have a shorter growing season and are worthy of more research in this country[K].

The peanut is widely cultivated in the tropics and sub-tropics for its edible seed and oil contained in the seed, there are many named varieties[200]. It grows best between latitudes 40° south and 40° north[200]. Yields average about 1 tonne of unshelled nuts per hectare, about 80% of this weight is edible seeds (erect forms) and 60 - 75% (running forms)[200]. Crops can be grown at further distances from the equator but yields are likely to be poor[200]. There are three main groups of cultivars:- 'Virginia' has large seeds, 'Valencia' has four seeds per pod and 'Spanish' has the smallest seeds[200]. There are running and erect forms in each group[200]. The erect forms mature more quickly and are therefore more likely to succeed in colder areas[200]. 'Early Spanish' matures in 105 days and has cropped reliably as far north as Canada[183]. 'Spanish' matures in 110 days and crops in Canada if grown in a light sandy soil with southern exposure[183].

Plants are, in general, self-pollinating, though occasional outcrossing by bees occurs[269].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Seed - pre-soak for 12 hours in warm water and sow the seed in mid spring in a warm greenhouse. Germination should take place within 2 weeks. When large enough to handle, prick the seedlings out into individual pots of fairly rich soil and grow them on fast, planting them out after the last expected frosts and giving them some protection (such as a cloche) until they have settled down and are growing well.

Cultivars

'Spanish'

> The well-filled pods contain 2 - 3 small, sweet, reddish-brown kernels[183]. Of compact, upright growth habit, it is rapid-growing and heavy bearing[183]. It matures a crop in 110 days from sowing and crops in Canada if grown in a light sandy soil with southern exposure[183]. It does therefore have some potential in Britain[K].

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> The plant produces small, sweet kernels of fine quality and flavour[183]. The small, solid, well-filled kernels contain 2 - 3 seeds[183]. An upright, compact, heavy-yielding plant, it is easy to grow and very early maturing, producing a crop in 105 days from seed[183]. It has

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Plants For A Future: Database Search Results

Arachis hypogaea

Common name:	Peanut	Family:	Leguminosae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Of greatest concern is possible contamination of damaged or spoiled seeds with the teratogenic, carcinogenic aflatoxins. Two principal toxins, aflatoxins B, and G, and their less toxic dihydro derivatives, aflatoxins B2 and G2 are formed by the aflatoxin producing moulds (Aspergillus flavus et al). Prevention of mould growth is the mainstay, there being no satisfactory way to remove the toxins from feed and foods (however, peanut oils are free of aflatoxins because of alkaline processing)[269].		
Range:	S. America.		
Habitat:	Not known in a truly wild state.		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Arachides [E], Cacahuete [E], Fisteq Abeed [E], Ful Sudany [E], Ground-nut [L], Kachang China [E], Mani [E], Peanut [E,H,B,P], Pistache [E], Yerfistigi [E],
Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
	Africa; Dominican Republic; Haiti; Iraq; Japan; Malaya; Mexico(Kickapoo); Rhodesia; Spain; Turkey; Us; Venezuela

Physical Characteristics

Annual growing to 0.3m. It is hardy to zone 8 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Spanish'**: Cultivated Beds.
Cultivar **'Early Spanish'**: Cultivated Beds.

Edible Uses

Coffee; Leaves; Oil; Seed; Seedpod.

Seed - raw, cooked or ground into a powder. Peanuts are a staple food in many tropical zones and are widely exported to temperate area of the world. The seeds have a delicious nutty flavour and can be eaten on their own either raw or roasted[K]. The seeds are commonly ground up and used as peanut butter in sandwiches etc[269]. They can also be cooked in a variety of dishes and are also ground into a powder when they can be used with cereals to greatly improve the protein content of breads, cakes etc[K]. The seed is very rich in protein and oil, it is also a good source of minerals and vitamins, especially the B complex[200]. A nutritional analysis is available[218].

A non-drying edible oil is obtained from the seed[200]. This is one of the most commonly used edible oils is the world. It is similar in composition to olive oil and is often used in cooking, making margarines, salad oils etc[200]. The oilseed cake is said to be a good source of arginine and glutamic acid, used in treating mental deficiencies[269].

The roasted seed makes an excellent coffee substitute[7, 269].

Young pods may be consumed as a vegetable[269].

Young leaves and tips are suitable as a cooked green vegetable[269]. Javanese use the tips for lablab, and germinating seeds to make toge[269].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 13 Calories: 500 Protein: 29 Fat: 45 Carbohydrate: 15 Fibre: 2.7 Ash: 2.5
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Calcium: 49 Phosphorus: 409 Iron: 3.8 VitaminA: 15 Thiamine: 0.79 Riboflavin: 0.14 Niacin: 15.5 VitaminC: 1
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Range:	S. America.		
Habitat:	Not known in a truly wild state.		
Plants For A Future Rating (1-5):	2		

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Annual growing to 0.3m. It is hardy to zone 8 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Arachis hypogaea*

Subject:

Arachis hypogaea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Arachis hypogaea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Arctium minus

Photo by Derrick Ditchburn

Common name:	Lesser burdock	Family:	Compositae

Author:	(Hill.) Bernh.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this plant, some caution is advised due to the following report for the closely related A. lappa[K]. Care should be taken if harvesting the seed in any quantity since tiny hairs from the seeds can be inhaled and these are toxic[205].		
Range:	Britain.		
Habitat:	Waste ground, edges of woods, roadsides etc[5, 13].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Lappa minor[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	&quot;Lesser&quot; Burdock [S], Bardana [E], Burdock [E,S], Burdock Blood [E], Burdock, Lesser [S], Common Burdock [L], Gewone Klit [D], Kleine Klette [E], Lamparo [E], Lampazo Menor [E], Lesser Burdock [L,H], Lesser Burrdock [P,B], Small Burdock [E], Wild Gobo [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Canada; Germany; Italy; Spain; Us; Us(Appalachia); Us(Potawatomi)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado, Minnesota, Nevada, Wyoming.

Physical Characteristics

Biennial growing to 1m. It is hardy to zone 5 and is not frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies).

The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Leaves; Root; Seed; Stem.

Root - raw or cooked[62, 85]. The best roots are obtained from young plants[85]. Usually peeled and sliced[183].

The roasted root is a coffee substitute[183].

Young leaves and leaf stems - raw or cooked[85]. Used as a potherb[183]. Mucilaginous. It is best to remove the rind from the stem[85].

Young flowering stem - peeled and eaten raw or cooked like asparagus[177, 183].

Seed sprouts[55]. No further details.

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Antifungal; Aperient; Blood purifier; Carminative; Cholagogue; Diaphoretic; Diuretic; Hypoglycaemic.

Burdock is one of the foremost detoxifying herbs in both Chinese and Western herbal medicine[254]. Arctium lappa is the main species used, though this species has similar properties[254]. The dried root of one year old plants is the official herb, but the leaves and fruits can also be used[4]. It is used to treat conditions caused by an 'overload' of toxins, such as throat and other infections, boils, rashes and other skin problems[254]. The root is thought to be particularly good at helping to eliminate heavy metals from the body[254].

The plant is antibacterial, antifungal and carminative[9, 21, 147, 165, 176]. It has soothing, mucilaginous properties and is said to be one of the most certain cures for many types of skin diseases, burns, bruises etc[4, 244]. It is used in the treatment of herpes, eczema, acne, impetigo, ringworm, boils, bites etc[244]. The plant can be taken internally as an infusion, or used externally as a wash[244]. Use with caution[165].

One-year old roots are alterative, aperient, blood purifier, cholagogue, depurative, diaphoretic, diuretic and stomachic[218, 222].

The seed is alterative, antibacterial, antifungal, antiphlogistic, depurative, diaphoretic, diuretic and hypoglycaemic[176, 218]. It is used in the treatment of colds with sore throat and cough, measles, pharyngitis, acute tonsillitis and abscesses[176]. The crushed seed is poulticed onto bruises[222]. The seed is harvested in the summer and dried for later use[254].

The seed contains arctiin, this excites the central nervous system producing convulsions an increase in respiration and later paralysis. It also lowers the blood pressure by dilating the blood vessels[176].

The leaves are poulticed onto burns, ulcers and sores[222].

Other Uses

Paper.

A fibre is obtained from the inner bark and is used to make paper. It is about 0.9mm long[189]. The stems are harvested in late summer, the leaves are removed and the stems steamed in order to strip off the fibre. The fibres are then cooked for two hours in soda ash before being put in a ball mill for 2 hours[189]. The resulting paper is a light tan/ brown colour[189].

Cultivation details

Succeeds on most soils, preferably moist[200]. Prefers a sunny position. Prefers partial shade according to another report[200].

A polymorphic species[17].

A good butterfly plant[24].

Propagation

Seed - best sown in situ in autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *arctium minus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

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References

[K] **Ken Fern**
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Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Arctium minus

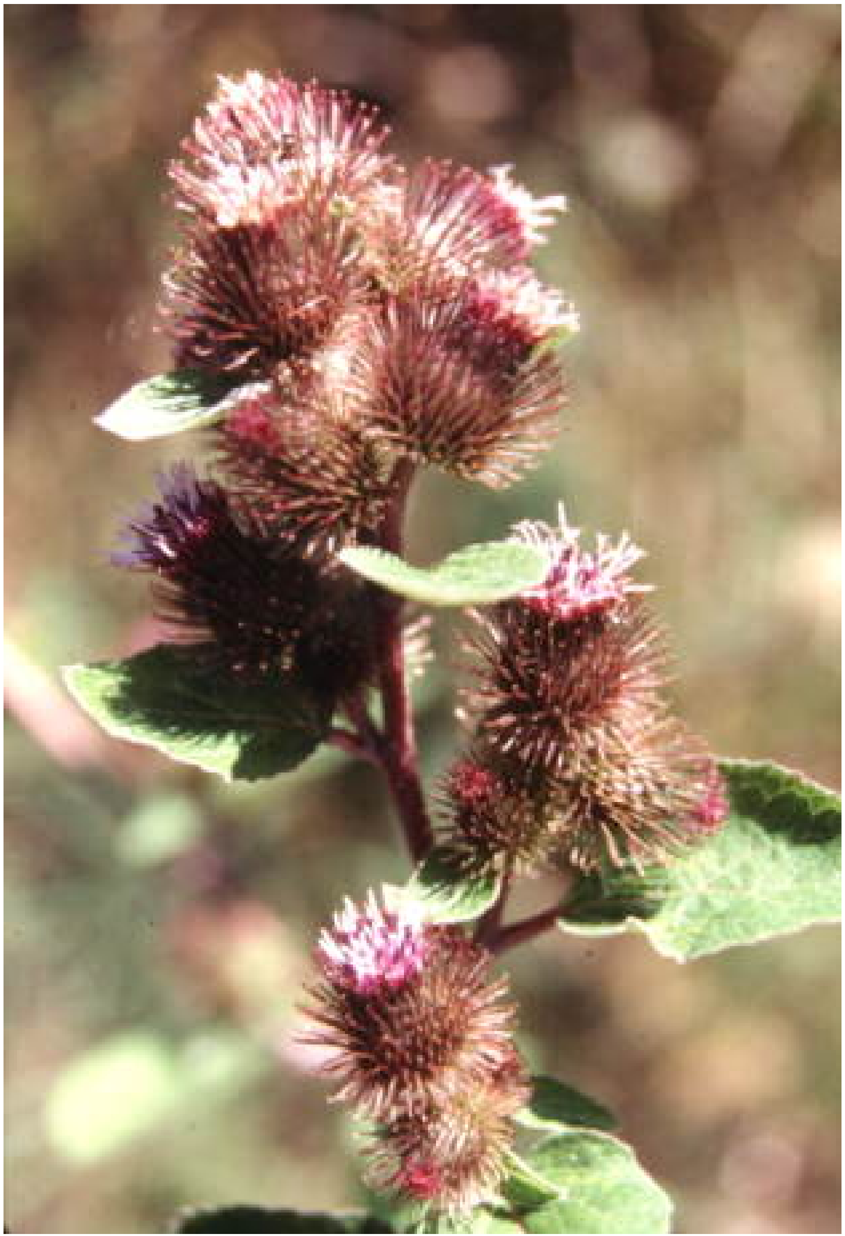

Photo by Derrick Ditchburn

Common name:	Lesser burdock	Family:	Compositae
Author:	(Hill.) Bernh.	Botanical references:	17, 200
Synonyms:			

Known Hazards:	Although no reports of toxicity have been seen for this plant, some caution is advised due to the following report for the closely related A. lappa[K]. Care should be taken if harvesting the seed in any quantity since tiny hairs from the seeds can be inhaled and these are toxic[205].
Range:	Britain.
Habitat:	Waste ground, edges of woods, roadsides etc[5, 13].
Plants For A Future Rating (1-5):	3

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Lappa minor[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Canada; Germany; Italy; Spain; Us; Us(Appalachia); Us(Potawatomi)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado, Minnesota, Nevada, Wyoming.

Physical Characteristics

Biennial growing to 1m. It is hardy to zone 5 and is not frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Leaves; Root; Seed; Stem.

Root - raw or cooked[62, 85]. The best roots are obtained from young plants[85]. Usually peeled and sliced[183].

The roasted root is a coffee substitute[183].

Young leaves and leaf stems - raw or cooked[85]. Used as a potherb[183]. Mucilaginous. It is best to remove the rind from the stem[85].

Young flowering stem - peeled and eaten raw or cooked like asparagus[177, 183].

Seed sprouts[55]. No further details.

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Antifungal; Aperient; Blood purifier; Carminative; Cholagogue; Diaphoretic; Diuretic; Hypoglycaemic.

Burdock is one of the foremost detoxifying herbs in both Chinese and Western herbal medicine[254]. Arctium lappa is the main species used, though this species has similar properties[254]. The dried root of one year old plants is the official herb, but the leaves and fruits can also be used[4]. It is used to treat conditions caused by an 'overload' of toxins, such as throat and other infections, boils, rashes and other skin problems[254]. The root is thought to be particularly good at helping to eliminate heavy metals from the body[254].

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Cultivation details

Succeeds on most soils, preferably moist[200]. Prefers a sunny position. Prefers partial shade according to another report[200].

A polymorphic species[17].

A good butterfly plant[24].

Propagation

Seed - best sown in situ in autumn.

Suppliers

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Plants For A Future: Database Search Results

Arctium minus

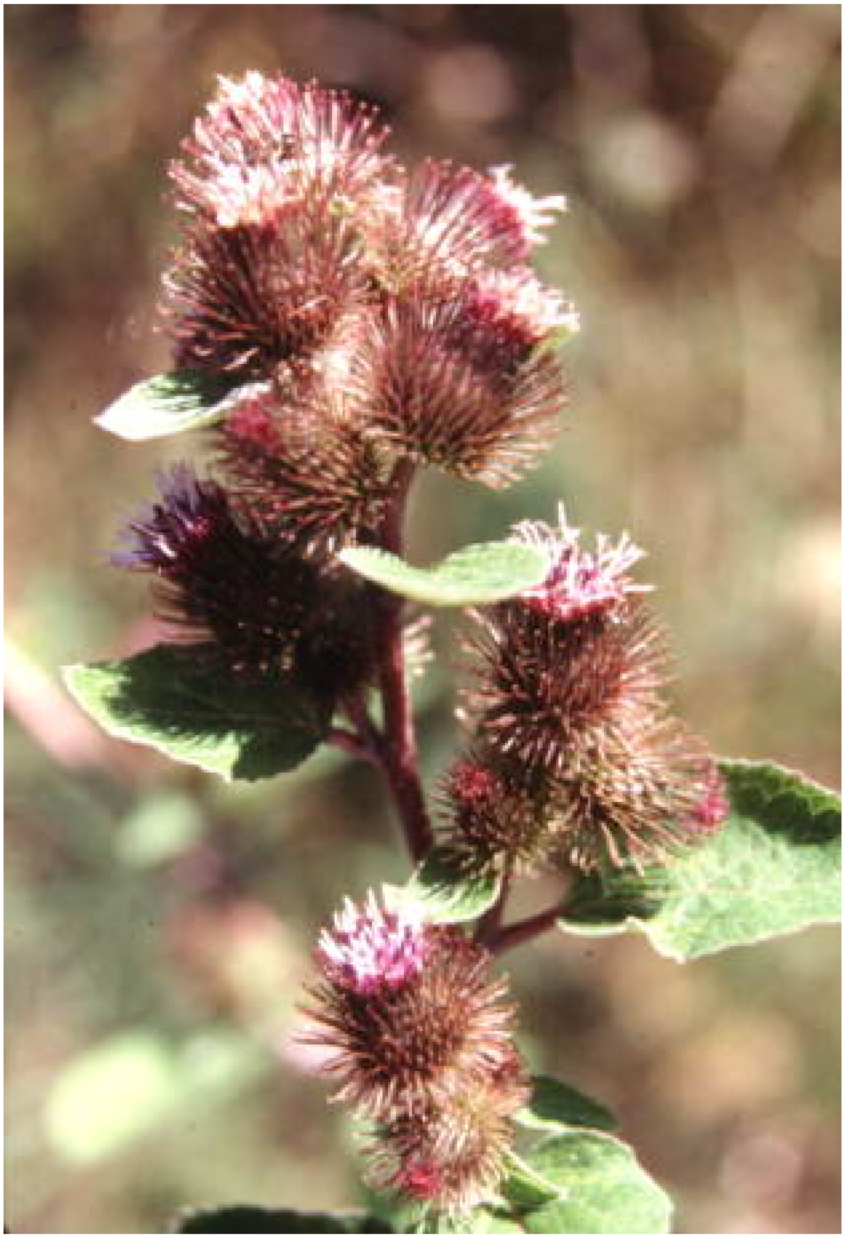

Photo by Derrick Ditchburn

Common name:	Lesser burdock	Family:	Compositae
Author:	(Hill.) Bernh.	Botanical references:	17, 200
Synonyms:			

Known Hazards:	Although no reports of toxicity have been seen for this plant, some caution is advised due to the following report for the closely related A. lappa[K]. Care should be taken if harvesting the seed in any quantity since tiny hairs from the seeds can be inhaled and these are toxic[205].
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Plants For A Future Rating (1-5):	3

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Lappa minor[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below. &quot;Lesser&quot; Burdock [S], Bardana [E], Burdock [E,S], Burdock Blood [E], Burdock, Lesser [S], Common Burdock [L], Gewone Klit [D], Kleine Klette [E], Lamparo [E], Lampazo Menor [E], Lesser Burdock [L,H], Lesser Burrdock [P,B], Small Burdock [E], Wild Gobo [H],
Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Britain; Canada; Germany; Italy; Spain; Us; Us(Appalachia); Us(Potawatomi)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Colorado, Minnesota, Nevada, Wyoming.

Physical Characteristics

Biennial growing to 1m. It is hardy to zone 5 and is not frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Leaves; Root; Seed; Stem.

Root - raw or cooked[62, 85]. The best roots are obtained from young plants[85]. Usually peeled and sliced[183].

The roasted root is a coffee substitute[183].

Young leaves and leaf stems - raw or cooked[85]. Used as a potherb[183]. Mucilaginous. It is best to remove the rind from the stem[85].

Young flowering stem - peeled and eaten raw or cooked like asparagus[177, 183].

Seed sprouts[55]. No further details.

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Antifungal; Aperient; Blood purifier; Carminative; Cholagogue; Diaphoretic; Diuretic; Hypoglycaemic.

Burdock is one of the foremost detoxifying herbs in both Chinese and Western herbal medicine[254]. Arctium lappa is the main species used, though this species has similar properties[254]. The dried root of one year old plants is the official herb, but the leaves and fruits can also be used[4]. It is used to treat conditions caused by an 'overload' of toxins, such as throat and other infections, boils, rashes and other skin problems[254]. The root is thought to be particularly good at helping to eliminate heavy metals from the body[254].

The plant is antibacterial, antifungal and carminative[9, 21, 147, 165, 176]. It has soothing, mucilaginous properties and is said to be one of the most certain cures for many types of skin diseases, burns, bruises etc[4, 244]. It is used in the treatment of herpes, eczema, acne, impetigo, ringworm, boils, bites etc[244]. The plant can be taken internally as an infusion, or used externally as a wash[244]. Use with caution[165].

One-year old roots are alterative, aperient, blood purifier, cholagogue, depurative, diaphoretic, diuretic and stomachic[218, 222].

The seed is alterative, antibacterial, antifungal, antiphlogistic, depurative, diaphoretic, diuretic and hypoglycaemic[176, 218]. It is used in the treatment of colds with sore throat and cough, measles, pharyngitis, acute tonsillitis and abscesses[176]. The crushed seed is poulticed onto bruises[222]. The seed is harvested in the summer and dried for later use[254].

The seed contains arctiin, this excites the central nervous system producing convulsions an increase in respiration and later paralysis. It also lowers the blood pressure by dilating the blood vessels[176].

The leaves are poulticed onto burns, ulcers and sores[222].

Other Uses

Paper.

A fibre is obtained from the inner bark and is used to make paper. It is about 0.9mm long[189]. The stems are harvested in late summer, the leaves are removed and the stems steamed in order to strip off the fibre. The fibres are then cooked for two hours in soda ash before being put in a ball mill for 2 hours[189]. The resulting paper is a light tan/ brown colour[189].

Cultivation details

Succeeds on most soils, preferably moist[200]. Prefers a sunny position. Prefers partial shade according to another report[200].

A polymorphic species[17].

A good butterfly plant[24].

Propagation

Seed - best sown in situ in autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Arctium+minus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Arctium+minus`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Arctium minus*

Subject:

Arctium minus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Arctium minus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:04:10 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asparagus officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Asparagus	Family:	Asparagaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Large quantities of the shoots can irritate the kidneys[20, 62]. The berries are mildly poisonous[163].		
Range:	Britain.		
Habitat:	Fertile and sandy soils by the seashore and along river banks[9, 132].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. longifolius[G] A. officinale[Smap]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asbaragus [E], Asparagus [H,E], Asperge [E,D], Esparrago [E], Esparraguera [E], Garden Asparagus [L,P], Garden-asparagus [B], Halyun [E], Kuskonmaz [E], Matuba-Udo [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Egypt; Europe; France; Haiti; Iraq; Spain; Turkey; Venezuela

Physical Characteristics

Perennial growing to 1.5m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower in August, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid, very alkaline and saline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Connover's Colossal'**: Cultivated Beds.

Edible Uses

Coffee; Stem.

Young shoots - raw or cooked[2, 5, 15, 16, 27, K]. Considered a gourmet food[132], the shoots are harvested in the spring. We find them very acceptable raw in salads, with a hint of onion in their flavour[K]. They are normally boiled or steamed and used as a vegetable[K]. Male plants produce the best shoots[1]. Do not over-harvest the plant because this would weaken it in the following year. The shoots are a good source of protein and dietary fibre[201].

Roasted seeds are a coffee substitute[21, 46, 183].

Composition

Stem (Fresh weight)

> In grammes per 100g weight of food:
> Water: 91.7 Calories: 26 Protein: 2.5 Fat: 0.2 Carbohydrate: 5 Fibre: 0.7 Ash: 0.6
> In milligrammes per 100g weight of food:
> Calcium: 22 Phosphorus: 62 Iron: 1 Sodium: 2 Potassium: 278 VitaminA: 540 Thiamine: 0.18 Riboflavin: 0.2 Niacin: 1.5 VitaminC: 33
> Source: [218]

Medicinal Uses

Disclaimer

Antibiotic; Antispasmodic; Aperient; Cancer; Cardiac; Demulcent; Diaphoretic; Diuretic; Laxative; Sedative; Tonic.

Asparagus has been cultivated for over 2,000 years as a vegetable and medicinal herb[238]. Both the roots and the shoots can be used medicinally, they have a restorative and cleansing effect on the bowels, kidneys and liver[238].

The plant is antispasmodic, aperient, cardiac, demulcent, diaphoretic, diuretic, sedative and tonic[4, 21, 165, 201, 240]. The freshly expressed juice is used[4].

The root is diaphoretic, strongly diuretic and laxative[9, 218, 222]. An infusion is used in the treatment of jaundice and congestive torpor of the liver[240]. The strongly diuretic action of the roots make it useful in the treatment of a variety of urinary problems including cystitis[254]. It is also used in the treatment of cancer[218]. The roots are said to be able to lower blood pressure[7, 222]. The roots are harvested in late spring, after the shoots have been cut as a food crop, and are dried for later use[7].

The seeds possess antibiotic activity[222]. Another report says that the plant contains asparagusic acid which is nematocidal and is used in the treatment of schistosomiasis[238].

Other Uses

Insecticide.

The plant contains asparagusic acid, which has nematocidal properties[238].

Cultivation details

Easily grown in any good garden soil[16]. Prefers a rich well-drained sandy loam and a sunny position[1, 16, 27, 238]. Prefers a pH of 6.5 or higher[200], though it tolerates a pH in the range 4.3 to 8.2.

Asparagus is often cultivated as a luxury vegetable, there are some named varieties[16, 183]. Well-tended plants can be long-lived, an asparagus bed can last for well over 20 years.

Asparagus is a good companion plant for tomatoes, parsley and basil[18, 20, 201]. When grown together, tomatoes help to protect asparagus from the asparagus beetle[201]. Asparagus is said to repel the nematodes that can infect tomatoes[201] (see the report below on the plants other uses).

A good bee plant[108].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - pre-soak for 12 hours in warm water and then sow in spring or as soon as the seed is ripe in early autumn in a greenhouse. It usually germinates in 3 - 6 weeks at 25°c[134]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a sunny position in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer[K].

Division in early spring as the plant comes into growth.

Cultivars

'Connover's Colossal'

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asparagus officinale* (a possible synonym).

- [S] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[163] **RHS Lily Group.** *Lilies and Related Plants.*
Lots of interesting snippets about plants in the family Liliaceae (in the old, broad sense)

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Asparagus+officinalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asparagus+officinalis`

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Plants For A Future: Database Search Results

Asparagus officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Asparagus	Family:	Asparagaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Large quantities of the shoots can irritate the kidneys[20, 62]. The berries are mildly poisonous[163].		
Range:	Britain.		
Habitat:	Fertile and sandy soils by the seashore and along river banks[9, 132].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. longifolius[G] A. officinale[Smap]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asbaragus [E], Asparagus [H,E], Asperge [E,D], Esparrago [E], Esparraguera [E], Garden Asparagus [L,P], Garden-asparagus [B], Halyun [E], Kuskonmaz [E], Matuba-Udo [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Egypt; Europe; France; Haiti; Iraq; Spain; Turkey; Venezuela

Physical Characteristics

Perennial growing to 1.5m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower in August, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid, very alkaline and saline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Connover's Colossal'**: Cultivated Beds.

Edible Uses

Coffee; Stem.

Young shoots - raw or cooked[2, 5, 15, 16, 27, K]. Considered a gourmet food[132], the shoots are harvested in the spring. We find them very acceptable raw in salads, with a hint of onion in their flavour[K]. They are normally boiled or steamed and used as a vegetable[K]. Male plants produce the best shoots[1]. Do not over-harvest the plant because this would weaken it in the following year. The shoots are a good source of protein and dietary fibre[201].

Roasted seeds are a coffee substitute[21, 46, 183].

Composition

Stem (Fresh weight)

> In grammes per 100g weight of food:
> Water: 91.7 Calories: 26 Protein: 2.5 Fat: 0.2 Carbohydrate: 5 Fibre: 0.7 Ash: 0.6
> In milligrammes per 100g weight of food:
> Calcium: 22 Phosphorus: 62 Iron: 1 Sodium: 2 Potassium: 278 VitaminA: 540 Thiamine: 0.18 Riboflavin: 0.2 Niacin: 1.5 VitaminC: 33
> Source: [218]

Medicinal Uses

Disclaimer

Antibiotic; Antispasmodic; Aperient; Cancer; Cardiac; Demulcent; Diaphoretic; Diuretic; Laxative; Sedative; Tonic.

Asparagus has been cultivated for over 2,000 years as a vegetable and medicinal herb[238]. Both the roots and the shoots can be used medicinally, they have a restorative and cleansing effect on the bowels, kidneys and liver[238].

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The seeds possess antibiotic activity[222]. Another report says that the plant contains asparagusic acid which is nematocidal and is used in the treatment of schistosomiasis[238].

Other Uses

Insecticide.

The plant contains asparagusic acid, which has nematocidal properties[238].

Cultivation details

Easily grown in any good garden soil[16]. Prefers a rich well-drained sandy loam and a sunny position[1, 16, 27, 238]. Prefers a pH of 6.5 or higher[200], though it tolerates a pH in the range 4.3 to 8.2.

Asparagus is often cultivated as a luxury vegetable, there are some named varieties[16, 183]. Well-tended plants can be long-lived, an asparagus bed can last for well over 20 years.

Asparagus is a good companion plant for tomatoes, parsley and basil[18, 20, 201]. When grown together, tomatoes help to protect asparagus from the asparagus beetle[201]. Asparagus is said to repel the nematodes that can infect tomatoes[201] (see the report below on the plants other uses).

A good bee plant[108].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - pre-soak for 12 hours in warm water and then sow in spring or as soon as the seed is ripe in early autumn in a greenhouse. It usually germinates in 3 - 6 weeks at 25°c[134]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a sunny position in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer[K].

Division in early spring as the plant comes into growth.

Cultivars

'Connover's Colossal'

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asparagus officinale* (a possible synonym).

- [S] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0

Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[163] **RHS Lily Group.** *Lilies and Related Plants.*
Lots of interesting snippets about plants in the family Liliaceae (in the old, broad sense)

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985

ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Asparagus officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Asparagus	Family:	Asparagaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Large quantities of the shoots can irritate the kidneys[20, 62]. The berries are mildly poisonous[163].		
Range:	Britain.		
Habitat:	Fertile and sandy soils by the seashore and along river banks[9, 132].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. longifolius[G] A. officinale[Smap]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asbaragus [E], Asparagus [H,E], Asperge [E,D], Esparrago [E], Esparraguera [E], Garden Asparagus [L,P], Garden-asparagus [B], Halyun [E], Kuskonmaz [E], Matuba-Udo [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Egypt; Europe; France; Haiti; Iraq; Spain; Turkey; Venezuela

Physical Characteristics

Perennial growing to 1.5m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower in August, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid, very alkaline and saline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Connover's Colossal'**: Cultivated Beds.

Edible Uses

Coffee; Stem.

Young shoots - raw or cooked[2, 5, 15, 16, 27, K]. Considered a gourmet food[132], the shoots are harvested in the spring. We find them very acceptable raw in salads, with a hint of onion in their flavour[K]. They are normally boiled or steamed and used as a vegetable[K]. Male plants produce the best shoots[1]. Do not over-harvest the plant because this would weaken it in the following year. The shoots are a good source of protein and dietary fibre[201].

Roasted seeds are a coffee substitute[21, 46, 183].

Composition

Stem (Fresh weight)

In grammes per 100g weight of food:
Water: 91.7 Calories: 26 Protein: 2.5 Fat: 0.2 Carbohydrate: 5 Fibre: 0.7 Ash: 0.6
In milligrammes per 100g weight of food:
Calcium: 22 Phosphorus: 62 Iron: 1 Sodium: 2 Potassium: 278 VitaminA: 540 Thiamine: 0.18 Riboflavin: 0.2 Niacin: 1.5 VitaminC: 33
Source: [218]

Medicinal Uses

Disclaimer

Antibiotic; Antispasmodic; Aperient; Cancer; Cardiac; Demulcent; Diaphoretic; Diuretic; Laxative; Sedative; Tonic.

Asparagus has been cultivated for over 2,000 years as a vegetable and medicinal herb[238]. Both the roots and the shoots can be used medicinally, they have a restorative and cleansing effect on the bowels, kidneys and liver[238].

The plant is antispasmodic, aperient, cardiac, demulcent, diaphoretic, diuretic, sedative and tonic[4, 21, 165, 201, 240]. The freshly expressed juice is used[4].

The root is diaphoretic, strongly diuretic and laxative[9, 218, 222]. An infusion is used in the treatment of jaundice and congestive torpor of the liver[240]. The strongly diuretic action of the roots make it useful in the treatment of a variety of urinary problems including cystitis[254]. It is also used in the treatment of cancer[218]. The roots are said to be able to lower blood pressure[7, 222]. The roots are harvested in late spring, after the shoots have been cut as a food crop, and are dried for later use[7].

The seeds possess antibiotic activity[222]. Another report says that the plant contains asparagusic acid which is nematocidal and is used in the treatment of schistosomiasis[238].

Other Uses

Insecticide.

The plant contains asparagusic acid, which has nematocidal properties[238].

Cultivation details

Easily grown in any good garden soil[16]. Prefers a rich well-drained sandy loam and a sunny position[1, 16, 27, 238]. Prefers a pH of 6.5 or higher[200], though it tolerates a pH in the range 4.3 to 8.2.

Asparagus is often cultivated as a luxury vegetable, there are some named varieties[16, 183]. Well-tended plants can be long-lived, an asparagus bed can last for well over 20 years.

Asparagus is a good companion plant for tomatoes, parsley and basil[18, 20, 201]. When grown together, tomatoes help to protect asparagus from the asparagus beetle[201]. Asparagus is said to repel the nematodes that can infect tomatoes[201] (see the report below on the plants other uses).

A good bee plant[108].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - pre-soak for 12 hours in warm water and then sow in spring or as soon as the seed is ripe in early autumn in a greenhouse. It usually germinates in 3 - 6 weeks at 25°c[134]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a sunny position in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer[K].

Division in early spring as the plant comes into growth.

Cultivars

'Connover's Colossal'

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asparagus officinalis*

Subject:

Asparagus officinalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asparagus officinalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Astragalus boeticus

Common name:	Swedish coffee	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Many members of this genus contain toxic glycosides[65]. All species with edible seedpods can be distinguished by their fleshy round or oval seedpod that looks somewhat like a greengage.[85] A number of species can also accumulate toxic levels of selenium when grown in soils that are relatively rich in that element[65].		
Range:	S.W. Europe - Spain.		
Habitat:	Sandy places and arable fields[50].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seedpod.

Young seedpods are edible[177].

The roasted seed is used as a coffee substitute[1, 62, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a dry well-drained soil in a sunny position[1].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Cultivated in some parts of N. Europe for its seed which is used as a coffee substitute[61, 183].

Plants are intolerant of root disturbance and are best planted in their final positions whilst still small[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Many members of this genus can be difficult to grow, this may partly be due to a lack of their specific bacterial associations in the soil[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[200]. A period of cold stratification may help stored seed to germinate[200]. Stored seed, and perhaps also fresh seed, should be pre-soaked for 24 hours in hot water before sowing - but make sure that you do not cook the seed[134, 200]. Any seed that does not swell should be carefully pricked with a needle, taking care not to damage the embryo, and re-soaked for a further 24 hours[134, 200]. Germination can be slow and erratic but is usually within 4 - 9 weeks or more at 13°c if the seed is treated or sown fresh[134]. As soon as it is large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Plants For A Future: Database Search Results

Astragalus boeticus

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Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Many members of this genus contain toxic glycosides[65]. All species with edible seedpods can be distinguished by their fleshy round or oval seedpod that looks somewhat like a greengage.[85] A number of species can also accumulate toxic levels of selenium when grown in soils that are relatively rich in that element[65].		
Range:	S.W. Europe - Spain.		
Habitat:	Sandy places and arable fields[50].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seedpod.

Young seedpods are edible[177].

The roasted seed is used as a coffee substitute[1, 62, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a dry well-drained soil in a sunny position[1].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Cultivated in some parts of N. Europe for its seed which is used as a coffee substitute[61, 183].

Plants are intolerant of root disturbance and are best planted in their final positions whilst still small[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Many members of this genus can be difficult to grow, this may partly be due to a lack of their specific bacterial associations in the soil[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[200]. A period of cold stratification may help stored seed to germinate[200]. Stored seed, and perhaps also fresh seed, should be pre-soaked for 24 hours in hot water before sowing - but make sure that you do not cook the seed[134, 200]. Any seed that does not swell should be carefully pricked with a needle, taking care not to damage the embryo, and re-soaked for a further 24 hours[134, 200]. Germination can be slow and erratic but is usually within 4 - 9 weeks or more at 13°c if the seed is treated or sown fresh[134]. As soon as it is large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Astragalus boeticus

Common name:	Swedish coffee	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Many members of this genus contain toxic glycosides[65]. All species with edible seedpods can be distinguished by their fleshy round or oval seedpod that looks somewhat like a greengage.[85] A number of species can also accumulate toxic levels of selenium when grown in soils that are relatively rich in that element[65].		
Range:	S.W. Europe - Spain.		
Habitat:	Sandy places and arable fields[50].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seedpod.

Young seedpods are edible[177].

The roasted seed is used as a coffee substitute[1, 62, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a dry well-drained soil in a sunny position[1].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Cultivated in some parts of N. Europe for its seed which is used as a coffee substitute[61, 183].

Plants are intolerant of root disturbance and are best planted in their final positions whilst still small[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Many members of this genus can be difficult to grow, this may partly be due to a lack of their specific bacterial associations in the soil[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[200]. A period of cold stratification may help stored seed to germinate[200]. Stored seed, and perhaps also fresh seed, should be pre-soaked for 24 hours in hot water before sowing - but make sure that you do not cook the seed[134, 200]. Any seed that does not swell should be carefully pricked with a needle, taking care not to damage the embryo, and re-soaked for a further 24 hours[134, 200]. Germination can be slow and erratic but is usually within 4 - 9 weeks or more at 13°c if the seed is treated or sown fresh[134]. As soon as it is large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Astragalus boeticus*

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Astragalus boeticus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Astragalus boeticus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Avena abyssinica

Common name:	Abyssinian oat	Family:	Gramineae
Author:	Hochst. ex A. Rich.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	N. Africa.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Abyssinian Oat [P],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A triploid species, it is rarely cultivated for its edible seed[57]. Tolerates a pH in the range 5.3 to 7.6. This species is of potential value in breeding programmes for the cultivated oats (A. sativa), in particular it could pass on pest resistance and drought tolerance. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is

often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[171] **Hill. A. F.** *Economic Botany*. The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Avena abyssinica

Common name:	Abyssinian oat	Family:	Gramineae
Author:	Hochst. ex A. Rich.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	N. Africa.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Abyssinian Oat [P],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

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The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A triploid species, it is rarely cultivated for its edible seed[57]. Tolerates a pH in the range 5.3 to 7.6. This species is of potential value in breeding programmes for the cultivated oats (A. sativa), in particular it could pass on pest resistance and drought tolerance. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

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Web References

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Plants For A Future: Database Search Results

Avena abyssinica

Common name:	Abyssinian oat	Family:	Gramineae
Author:	Hochst. ex A. Rich.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	N. Africa.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Abyssinian Oat [P],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

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Medicinal Uses

Disclaimer

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Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A triploid species, it is rarely cultivated for its edible seed[57]. Tolerates a pH in the range 5.3 to 7.6. This species is of potential value in breeding programmes for the cultivated oats (A. sativa), in particular it could pass on pest resistance and drought tolerance. The following notes are based on the general needs of the genus.

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Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

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Add a comment on: *Avena abyssinica*

Subject:

Avena abyssinica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena abyssinica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Avena barbata

Common name:	Slender oat	Family:	Gramineae
Author:	Pott.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe to Asia.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[74, 200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alba[G] A. barbara[H] A. hirstua[P] A. hirsuta[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Barbed Oat [B], Slender Oat [P], Slender Wild-oat [L], Wild Oats [H],
Epithets:	From a Dictionary of Botanical Epithets
	barbata = bearded;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. Rather small[257]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200].

A triploid species, it is rarely cultivated for its edible seed[57].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Avena barbara* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

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References

[57] **Schery. R. W.** *Plants for Man.*
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URL for Site: http://

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Plants For A Future: Database Search Results

Avena barbata

Common name:	Slender oat	Family:	Gramineae
Author:	Pott.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe to Asia.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[74, 200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alba[G] A. barbara[H] A. hirstua[P] A. hirsuta[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Barbed Oat [B], Slender Oat [P], Slender Wild-oat [L], Wild Oats [H],
Epithets:	From a Dictionary of Botanical Epithets
	barbata = bearded;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. Rather small[257]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200].

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Plants For A Future: Database Search Results

Avena barbata

Common name:	Slender oat	Family:	Gramineae
Author:	Pott.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe to Asia.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[74, 200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alba[G] A. barbara[H] A. hirstua[P] A. hirsuta[B]
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Epithets:	From a Dictionary of Botanical Epithets
	barbata = bearded;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. Rather small[257]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200].

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Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Optional web-link:

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URL for Site:	http://
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena barbata

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Avena brevis

Common name:		Family:	Gramineae
Author:	Roth.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Russia to Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	brevis = short;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105, 171]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A diploid species, it is of little commercial importance[57] but is locally cultivated in sandy fields in Europe for its edible seed[50]. It is often used in mountainous regions because the seed ripens quickly[2]. A parent of the cultivated species of oats[171]. Closely related to A. sativa, differing mainly in its small spikelets and plumper lemmas[236]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

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Avena brevis

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Author:	Roth.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Russia to Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	brevis = short;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105, 171]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Avena brevis

Common name:		Family:	Gramineae
Author:	Roth.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Russia to Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	brevis = short;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105, 171]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A diploid species, it is of little commercial importance[57] but is locally cultivated in sandy fields in Europe for its edible seed[50]. It is often used in mountainous regions because the seed ripens quickly[2]. A parent of the cultivated species of oats[171]. Closely related to A. sativa, differing mainly in its small spikelets and plumper lemmas[236]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Avena brevis*

Subject:

Avena brevis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena brevis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

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Plants For A Future: Database Search Results

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Avena byzantina

Common name:	Red oat	Family:	Gramineae
Author:	K. Koch.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200]. Mainly found on dry or saline soils[50].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua[] A. fatua var. sativa[B,P] A. hybrida[B,P] A. orientalis[G] A. sativa[B,C,DUTCH,ENERGY,E,G,H,HPIC,L,Sn7,P] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Avena [E], Common Oat [L,P], Cultivated Oat [L], Cultivated Oats [S], Dousar [E], Haver [D], Oat [B], Oatmeal [E], Oats [H,S,E], Yulaf [E],
Epithets:	From a Dictionary of Botanical Epithets byzantina = of Byzantium (Istanbul);
Systematics:	From a UDSA Plants Database

	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Chile; Iraq; Spain; Turkey; Us

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105, 171, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and

thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A hexaploid species, one report says that it is possibly a sub-species of A. sterilis, and is often cultivated for its edible seed in warmer temperate zones[57], whilst some modern works see it as no more than a synonym of A. sativa. This species succeeds in saline soils[50]. It tolerates a pH in the range 5.3 to 8.2. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Avena sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical

Database.

- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

References for *avena sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Avena byzantina

Common name:	Red oat	Family:	Gramineae
Author:	K. Koch.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200]. Mainly found on dry or saline soils[50].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua[] A. fatua var. sativa[B,P] A. hybrida[B,P] A. orientalis[G] A. sativa[B,C,DUTCH,ENERGY,E,G,H,HPIC,L,Sn7,P] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
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Epithets:	From a Dictionary of Botanical Epithets
	byzantina = of Byzantium (Istanbul);
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Chile; Iraq; Spain; Turkey; Us

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105, 171, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

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Propagation

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Suppliers

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Plants For A Future: Database Search Results

Avena byzantina

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Author:	K. Koch.	Botanical references:	50
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Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200]. Mainly found on dry or saline soils[50].		
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	Order: Cyperales . Renamed to Poaceae -- Grass family
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Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105, 171, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

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Disclaimer

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Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A hexaploid species, one report says that it is possibly a sub-species of A. sterilis, and is often cultivated for its edible seed in warmer temperate zones[57], whilst some modern works see it as no more than a synonym of A. sativa. This species succeeds in saline soils[50]. It tolerates a pH in the range 5.3 to 8.2. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Avena byzantina*

Subject:

Avena byzantina

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena byzantina

Please use the exact Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Avena fatua

Common name:	Wild oats	Family:	Gramineae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Europe to Asia. Naturalized in Britain[17].		
Habitat:	A common weed of arable land and waste ground[1, 57].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. byzantina[B,G,P] A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua var. glabrata[B,G,P] A. fatua var. glabrescens[G] A. fatua var. sativa[B,P] A. fatua var. vilis[B,P] A. hybrida[B,P] A. orientalis[G] A. sativa[B,C,DUTCH,ENERGY,E,G,H,HPIC,L,Sn7,P] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
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Systematics:	From a UDSA Plants Database

	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain; Britain(Wales); Chile; China; Europe; Iraq; Spain; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Annual growing to 1.5m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 46, 61, 85, 95, 161]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Diuretic; Emollient; Refrigerant.

The seeds are diuretic, emollient and refrigerant[240].

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Prefers a poor dry soil[134]. Tolerates a pH in the range 4.5 to 6.5.

A parent of the cultivated oat, A. sativa[57, 171] but the seeds are somewhat smaller and yields lower. This species could be of importance in breeding programmes for the cultivated oats (A. sativa), where it could confer drought tolerance, disease resistance and higher yields.

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

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Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Avena sativa* (a possible synonym).

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- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

References for *avena fatua* (a possible synonym).

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
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[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
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[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Plants For A Future: Database Search Results

Avena fatua

Common name:	Wild oats	Family:	Gramineae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Europe to Asia. Naturalized in Britain[17].		
Habitat:	A common weed of arable land and waste ground[1, 57].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain; Britain(Wales); Chile; China; Europe; Iraq; Spain; Turkey; Us
Noxious, Invasive and Injurious	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

Weeds	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Annual growing to 1.5m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 46, 61, 85, 95, 161]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Diuretic; Emollient; Refrigerant.

The seeds are diuretic, emollient and refrigerant[240].

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Fibre; Mulch; Paper; Thatching.

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Habitat:	A common weed of arable land and waste ground[1, 57].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. byzantina[B,G,P] A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua var. glabrata[B,G,P] A. fatua var. glabrescens[G] A. fatua var. sativa[B,P] A. fatua var. vilis[B,P] A. hybrida[B,P] A. orientalis[G] A. sativa[B,C,DUTCH,ENERGY,E,G,H,HPIC,L,Sn7,P] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Avena [E], Ch'Iao Mai [E], Common Oat [L,P], Cultivated Oat [L], Cultivated Oats [S], Dousar [E], Haver [D], Oat [B], Oatmeal [E], Oats [H,S,E], Oats, Wild [S], Oot [D], Wild Oat [B,P], Wild Oats [H,S], Wild-oat [L], Wildoat [E], Yen Mai [E], Yulaf [E],
Systematics:	From a UDSA Plants Database Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database Britain; Britain(Wales); Chile; China; Europe; Iraq; Spain; Turkey; Us
Noxious, Invasive and Injurious	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

Weeds	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Annual growing to 1.5m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 46, 61, 85, 95, 161]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Diuretic; Emollient; Refrigerant.

The seeds are diuretic, emollient and refrigerant[240].

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and

thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Prefers a poor dry soil[134]. Tolerates a pH in the range 4.5 to 6.5.

A parent of the cultivated oat, A. sativa[57, 171] but the seeds are somewhat smaller and yields lower. This species could be of importance in breeding programmes for the cultivated oats (A. sativa), where it could confer drought tolerance, disease resistance and higher yields.

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Avena fatua*

Subject:

Avena fatua

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena fatua

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:05:16 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Avena ludoviciana

Common name:	Oats	Family:	Gramineae
Author:	Dur.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean, to S.W. Asia. An introduced weed in Britain[17].		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200]. A spreading weed in the Mediterranean where it is becoming a pest[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. persica[P] A. sterilis[B,C,CAL,DUTCH,E,G,H,HORTIPLEX,L,P] A. sterilis ssp. ludoviciana[P] A. sterilis subsp. ludoviciana[G] A. sterilis var. ludoviciana[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aegilops [E], Animated Oat [P,B,L], Sterile Oat [L], Wilde Haver [D],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Europe
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Whole USA, Florida, North Carolina.

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Prefers a poor dry soil[134].

This species is a weed of cultivated land, its seeds are somewhat smaller than the cultivated oats and the yields are rather lower.

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Avena sterilis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Avena sterilis ssp. ludoviciana* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
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Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Avena ludoviciana

Common name:	Oats	Family:	Gramineae
Author:	Dur.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean, to S.W. Asia. An introduced weed in Britain[17].		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200]. A spreading weed in the Mediterranean where it is becoming a pest[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. persica[P] A. sterilis[B,C,CAL,DUTCH,E,G,H,HORTIPLEX,L,P] A. sterilis ssp. ludoviciana[P] A. sterilis subsp. ludoviciana[G] A. sterilis var. ludoviciana[P]
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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Europe
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Whole USA, Florida, North Carolina.

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Prefers a poor dry soil[134].

This species is a weed of cultivated land, its seeds are somewhat smaller than the cultivated oats and the yields are rather lower.

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is

often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

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Web References

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Plants For A Future: Database Search Results

Avena ludoviciana

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Author:	Dur.	Botanical references:	
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Known Hazards:	None known		
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Plants For A Future Rating (1-5):	2		

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Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
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Disclaimer

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Propagation

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Add a comment on: *Avena ludoviciana*

Subject:

Avena ludoviciana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena ludoviciana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

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Avena nuda

Common name:	Naked oat	Family:	Gramineae
Author:	L.	Botanical references:	50, 74
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. nudibrevis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Naked Oat [P],
Epithets:	From a Dictionary of Botanical Epithets
	nuda = bare; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual growing to 0.9m by 0.1m . It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Freedom'**: Cultivated Beds.
Cultivar **'Terra'**: Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 22, 46, 61, 171, 177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc. The hull is incompletely attached to the grain, yielding a naked seed easily upon threshing[183].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Prefers a poor dry soil[134].

The naked oat is occasionally cultivated for its edible seed which is easily separated from the husk by threshing[183]. It is therefore suitable for cultivation on a small scale, though its yields are lower than conventional oat species[183]. There are some named varieties[183].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Cultivars

'Tibor'

This cultivar has long blonde kernels, about 5% of which remain covered with the inedible hulls[183]. Plants grow about 1.1 metres tall, they are resistant to smut and to lodging[183]. They mature in 100 days from seed[183].

'Terra'

A long grain type, it is very productive for a hulless oat and is considered to be the best cultivar for home growing[183]. The plant has relatively short straw and should be sown in spring. It ripens in 90 days from sowing[183].

'Freedom'

A tall cultivar for early spring sowing and late summer harvesting[183]. It has been selected for higher yields. When threshed, the seeds are relatively free of the tough inedible hulls[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[22] **Sholto-Douglas. J.** *Alternative Foods.*
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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

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[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
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Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Avena nuda

Common name:	Naked oat	Family:	Gramineae
Author:	L.	Botanical references:	50, 74
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. nudibrevis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Naked Oat [P],
Epithets:	From a Dictionary of Botanical Epithets
	nuda = bare; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual growing to 0.9m by 0.1m . It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Freedom'**: Cultivated Beds.
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Edible Uses

Coffee; Seed.

Seed - cooked[2, 22, 46, 61, 171, 177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc. The hull is incompletely attached to the grain, yielding a naked seed easily upon threshing[183].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

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> This cultivar has long blonde kernels, about 5% of which remain covered with the inedible hulls[183]. Plants grow about 1.1 metres tall, they are resistant to smut and to lodging[183]. They mature in 100 days from seed[183].

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Suppliers

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Web References

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Avena nuda

Common name:	Naked oat	Family:	Gramineae
Author:	L.	Botanical references:	50, 74
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	nuda = bare; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual growing to 0.9m by 0.1m . It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

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The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Avena nuda*

Subject:

Avena nuda

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena nuda

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:05:34 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Avena nudibrevis

Common name:		Family:	Gramineae
Author:	Vavilov.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. nuda[G,H,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Naked Oat [P],
Epithets:	From a Dictionary of Botanical Epithets
	brevis = short;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc. The hull is incompletely attached to the grain, yielding a naked seed easily upon threshing[183].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A diploid species, it is of little commercial importance[57]. There is some doubt in our minds about the name of this species. A. nuda brevis is mentioned in [50] and one just might be a mis-spelling of the other[K]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for *Avena nuda* (a possible synonym).

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany*. The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Avena nudibrevis

Common name:		Family:	Gramineae
Author:	Vavilov.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. nuda[G,H,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Naked Oat [P],
Epithets:	From a Dictionary of Botanical Epithets
	brevis = short;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc. The hull is incompletely attached to the grain, yielding a naked seed easily upon threshing[183].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A diploid species, it is of little commercial importance[57]. There is some doubt in our minds about the name of this species. A. nuda brevis is mentioned in [50] and one just might be a mis-spelling of the other[K]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is

often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Avena nuda* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Readers Comments

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Plants For A Future: Database Search Results

Avena nudibrevis

Common name:		Family:	Gramineae
Author:	Vavilov.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. nuda[G,H,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Naked Oat [P],
Epithets:	From a Dictionary of Botanical Epithets
	brevis = short;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57, 105]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc. The hull is incompletely attached to the grain, yielding a naked seed easily upon threshing[183].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A diploid species, it is of little commercial importance[57]. There is some doubt in our minds about the name of this species. A. nuda brevis is mentioned in [50] and one just might be a mis-spelling of the other[K]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is

often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

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Add a comment on: *Avena nudibrevis*

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Avena nudibrevis

Group:

Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena nudibrevis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Avena orientalis

Common name:	Hungarian oat	Family:	Gramineae
Author:	Schreb.	Botanical references:	50
Synonyms:	Avena sativa orientalis (Hook.f.)		
Known Hazards:	None known		
Range:	S. Europe?		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. byzantina[B,G,P] A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua[] A. fatua var. sativa[B,P] A. hybrida[B,P] A. sativa[B,C,DUTCH,ENERGY,E,G,H,HPIC,L,Sn7,P] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Avena [E], Common Oat [L,P], Cultivated Oat [L], Cultivated Oats [S], Dousar [E], Haver [D], Oat [B], Oatmeal [E], Oats [E,H,S], Yulaf [E],
Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;

Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Chile; Iraq; Spain; Turkey; Us

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[46, 61, 177, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc. The hull is incompletely attached to the grain, yielding a naked seed easily upon threshing[183].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Diuretic; Emollient; Refrigerant.

The seed is diuretic, emollient and refrigerant[240].

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. Occasionally cultivated for its edible seed, especially in S.E. Europe[46, 61], this species is considered to be no more than a part of A. sativa by many botanists[50, 142]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Avena sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

References for *avena sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169

An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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Plants For A Future: Database Search Results

Avena orientalis

Common name:	Hungarian oat	Family:	Gramineae
Author:	Schreb.	Botanical references:	50
Synonyms:	Avena sativa orientalis (Hook.f.)		
Known Hazards:	None known		
Range:	S. Europe?		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. byzantina[B,G,P] A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua[] A. fatua var. sativa[B,P] A. hybrida[B,P] A. sativa[B,C,DUTCH,ENERGY,E,G,H,HPIC,L,Sn7,P] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[46, 61, 177, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc. The hull is incompletely attached to the grain, yielding a naked seed easily upon threshing[183].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Diuretic; Emollient; Refrigerant.

The seed is diuretic, emollient and refrigerant[240].

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. Occasionally cultivated for its edible seed, especially in S.E. Europe[46, 61], this species is considered to be no more than a part of A. sativa by many botanists[50, 142]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Avena sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

References for *avena sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Avena+orientalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Avena+orientalis`

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Plants For A Future: Database Search Results

Avena orientalis

Common name:	Hungarian oat	Family:	Gramineae
Author:	Schreb.	Botanical references:	50
Synonyms:	Avena sativa orientalis (Hook.f.)		
Known Hazards:	None known		
Range:	S. Europe?		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. byzantina[B,G,P] A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua[] A. fatua var. sativa[B,P] A. hybrida[B,P] A. sativa[B,C,DUTCH,ENERGY,E,G,H,HPIC,L,Sn7,P] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Avena [E], Common Oat [L,P], Cultivated Oat [L], Cultivated Oats [S], Dousar [E], Haver [D], Oat [B], Oatmeal [E], Oats [E,H,S], Yulaf [E],
Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Chile; Iraq; Spain; Turkey; Us

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[46, 61, 177, 183]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc. The hull is incompletely attached to the grain, yielding a naked seed easily upon threshing[183].

The roasted seed is a coffee substitute.

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Disclaimer

Diuretic; Emollient; Refrigerant.

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Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

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We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. Occasionally cultivated for its edible seed, especially in S.E. Europe[46, 61], this species is considered to be no more than a part of A. sativa by many botanists[50, 142]. The following notes are based on the general needs of the genus.

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Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Avena+orientalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Avena+orientalis`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Avena orientalis*

Subject:

Avena orientalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena orientalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:05:53 2004

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Avena sativa

Common name:	Oats	Family:	Gramineae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	N. Europe. A non-persistent relic of cultivation in Britain[17].		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. byzantina[B,G,P] A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua[] A. fatua var. sativa[B,P] A. hybrida[B,P] A. orientalis[G] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Avena [E], Common Oat [P,L], Cultivated Oat [L], Cultivated Oats [S], Dousar [E], Haver [D], Oat [B], Oatmeal [E], Oats [S,E,H], Yulaf [E],
Epithets:	From a Dictionary of Botanical Epithets
	sativa = cultivated;

Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Chile; Iraq; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.9m by 0.1m . It is hardy to zone 2 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - cooked[2, 34, 46, 177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. Used as a cereal, it is probably best known as the breakfast cereal porridge but it can also be used in many other ways. The seed can be sprouted and used in salads[183], the grain can also be ground into a flour and used in making biscuits, sourdough etc[183]. It is fairly low in gluten, and so is not really suitable for making bread[269]. The seed is an especially good food for convalescents and people with stomach problems[13]. Oat flour produced in the dry-milling operation currently is used as an antioxidant in food products[269]. Oat flour inhibits rancidity and increases the length of shelf-stability of fatty foods such as vegetable oils[269]. Whilst cultivated oats average about 17% protein, scientists screening thousands of samples of cultivated and wild species found that the wild species averaged 27% with some forms ranging up to 37%[269].

Oats are also one of the cereals used as a basic ingredient for making whisky[7].

Oats are harvested when grain is in the hard dough stage and straw is slightly green (when the moisture content of the grain is 14% or less). If too ripe, shattering causes seed loss. Crop is usually cut with binder and left in the field until dry and then threshed. In mechanized societies, oats are combined directly from standing grain. For this type of harvesting, crop must be fully ripe, usually when the straw has lost greenness and glumes have become white. Crop may be combined from windrow, or cut with a header harvester when the crop is dead ripe. Seeds are threshed and cleaned by winnowing, and artificially dried to below 14% moisture for storage[269].

The roasted seed is a coffee substitute[177, 183].

An edible oil is obtained from the seed, it is used in the manufacture of breakfast cereals[61].

Medicinal Uses

Disclaimer

Anticholesterolemic; Antispasmodic; Cancer; Cardiac; Diuretic; Emollient; Nervine; Nutritive; Poultice; Stimulant.

Whilst used mainly as a food, oat grain does also have medicinal properties[238]. In particular oats are a nutritious food that gently restores vigour after debilitating illnesses, helps lower cholesterol levels in the blood and also increases stamina[254].

The seed is a mealy nutritive herb that is antispasmodic, cardiac, diuretic, emollient, nervine and stimulant[4, 7, 21, 165]. The seed contains the antitumor compound b-sitosterol and has been used as a folk remedy for tumours[269]. A gruel made from the ground seed is used as a mild nutritious aliment in inflammatory cases, fevers and after parturition[4]. It should be avoided in cases of dyspepsia accompanied with acidity of the stomach[4]. A tincture of the ground seed in alcohol is useful as a nervine and uterine tonic[4]. A decoction strained into a bath will help to soothe itchiness and eczema[254].

A poultice made from the ground seeds is used in the treatment of eczema and dry skin[238].

When consumed regularly, oat germ reduces blood cholesterol levels[238].

Oat straw and the grain are prescribed to treat general debility and a wide range of nervous conditions[254. They are mildly antidepressant, gently raising energy levels and supporting an over-stressed nervous system[254]. They are of particular value in helping a person to cope with the exhaustion that results from multiple sclerosis, chronic neurological pain and insomnia[254]. Oats are thought to stimulate sufficient nervous energy to help relieve insomnia[254].

An alcoholic extraction of oats has been reported to be a deterrent for smoking, though reports that oat extract helped correct the tobacco habit have been disproven[269].

A tincture of the plant has been used as a nerve stimulant and to treat opium addiction.

In an article riddled with errors, the Globe (February 28, 1984) reports that oat straw, usually taken as a tea, is a sexual nerve tonic[269].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Biomass; Cosmetic; Fibre; Mulch; Paper; Repellent; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making, building board and thatching[74, 141, 171]. It has also been used as a stuffing material for mattresses and these are said to be of great benefit for sufferers from rheumatism[7, 254]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Oat hulls are basic in production of furfural, a chemical intermediate in the production of many industrial products such as nylon, lubricating oils, butadiene, phenolic resin glues, and rubber tread compositions[269]. Oats hulls supply about 22% of the required furfural raw materials. Rice hulls, corn cobs, bagasse, and beech woods make up much of the remainder[269].

Oats hulls are also used in the manufacture of construction boards, cellulose pulp and as a filter in breweries[269].

A handful of the grains, thrown into the bath water, will help to keep the skin soft because of their emollient action[7].

An extract of oat straw prevents feeding by the striped cucumber beetle[269].

Cultivation details

Oats are an easily grown crop that succeeds in any moderately fertile soil in full sun[200]. They prefer a poor dry soil[134] and tolerate cool moist conditions[13]. Plants are reported to tolerate an annual precipitation of 20 to 180cm, an average annual temperature range of 5 to 26°C, and a pH of 4.5 to 8.6[269]. They thrive on a wide range of soils of ample, but not excessive, fertility[269]. Well-drained neutral soils in regions where annual rainfall is 77cm or more are best[269]. Loam soils are best, especially silt and clay loams[269]. The plants are also reported to tolerate aluminium, disease, frost, fungus, herbicides, hydrogen fluoride, mycobacterium, nematode, rust, SO2, smut, and virus[269].

Oats have a long history of cultivation as a food crop and are believed to be derived chiefly from two species, wild oat (A. fatua L.) and wild red oat (A. sterilis L.)[269]. They are widely cultivated for their seed, used as a source of protein, as well as for hay, as winter cover, and are used as a pasture crop in the growing or 'milk' stage[269].

Oats are long-day plants, grown in cool climates in the Old and New World temperate zones, succeeding under variable conditions[269]. Oats usually are not very winter hardy, although winter hardy cvs have been developed[269]. A very hardy plant according to another report, the cultivated oat succeeds as far north as latitude 70°n[142] and is widely cultivated in temperate zones for its edible seed, there are many named varieties[183].

Although lower yielding than wheat (Triticum spp.), it is able to withstand a wider range of climatic conditions and is therefore more cultivated in cooler and wetter areas[13]. Hot dry weather just before heading causes heads to blast and yields of seed to decrease[269].

Self-pollination is normal, but cross-pollination by wind also occurs[269]. If you wish to save the seed for sowing, each variety should be isolated about 180 metres away from other varieties[269].

Oats grow well with vetch but they inhibit the growth of apricot trees[18, 201].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Cultivars

"

> There are many named varieties of this cultivated cereal, with new forms being developed each year. At present there is not time to enter these in the database.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

References for *avena sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Plants For A Future: Database Search Results

Avena sativa

Common name:	Oats	Family:	Gramineae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	N. Europe. A non-persistent relic of cultivation in Britain[17].		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. byzantina[B,G,P] A. byzantina var. anopla[G] A. diffusa var. segetalis[G] A. diffusa var. volgensis[G] A. fatua[] A. fatua var. sativa[B,P] A. hybrida[B,P] A. orientalis[G] A. sativa var. aristata[G] A. sativa var. brunnea[G] A. sativa var. cinerea[G] A. sativa var. diffusa[G] A. sativa var. eligulata[G] A. sativa var. flava[G] A. sativa var. grisea[G] A. sativa var. inermis[G] A. sativa var. ligulata[G] A. sativa var. montana[G] A. sativa var. mutica[G] A. sativa var. nigra[G] A. sativa var. obtusata[G] A. sativa var. orientalis[B,G,P] A. sativa var. pugnax[G] A. sativa var. segetalis[G] A. sativa var. tristis[G] A. volgensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Avena [E], Common Oat [P,L], Cultivated Oat [L], Cultivated Oats [S], Dousar [E], Haver [D], Oat [B], Oatmeal [E], Oats [S,E,H], Yulaf [E],
Epithets:	From a Dictionary of Botanical Epithets
	sativa = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Chile; Iraq; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.9m by 0.1m . It is hardy to zone 2 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - cooked[2, 34, 46, 177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. Used as a cereal, it is probably best known as the breakfast cereal porridge but it can also be used in many other ways. The seed can be sprouted and used in salads[183], the grain can also be ground into a flour and used in making biscuits, sourdough etc[183]. It is fairly low in gluten, and so is not really suitable for making bread[269]. The seed is an especially good food for convalescents and people with stomach problems[13]. Oat flour produced in the dry-milling operation currently is used as an antioxidant in food products[269]. Oat flour inhibits rancidity and increases the length of shelf-stability of fatty foods such as vegetable oils[269]. Whilst cultivated oats average about 17% protein, scientists screening thousands of samples of cultivated and wild species found that the wild species averaged 27% with some forms ranging up to 37%[269].

Oats are also one of the cereals used as a basic ingredient for making whisky[7].

Oats are harvested when grain is in the hard dough stage and straw is slightly green (when the moisture content of the grain is 14% or less). If too ripe, shattering causes seed loss. Crop is usually cut with binder and left in the field until dry and then threshed. In mechanized societies, oats are combined directly from standing grain. For this type of harvesting, crop must be fully ripe, usually when the straw has lost greenness and glumes have become white. Crop may be combined from windrow, or cut with a header harvester when the crop is dead ripe. Seeds are threshed and cleaned by winnowing, and artificially dried to below 14% moisture for storage[269].

The roasted seed is a coffee substitute[177, 183].

An edible oil is obtained from the seed, it is used in the manufacture of breakfast cereals[61].

Medicinal Uses

Disclaimer

Anticholesterolemic; Antispasmodic; Cancer; Cardiac; Diuretic; Emollient; Nervine; Nutritive; Poultice; Stimulant.

Whilst used mainly as a food, oat grain does also have medicinal properties[238]. In particular oats are a nutritious food that gently restores vigour after debilitating illnesses, helps lower cholesterol levels in the blood and also increases stamina[254].

The seed is a mealy nutritive herb that is antispasmodic, cardiac, diuretic, emollient, nervine and stimulant[4, 7, 21, 165]. The seed contains the antitumor compound b-sitosterol and has been used as a folk remedy for tumours[269]. A gruel made from the ground seed is used as a mild nutritious aliment in inflammatory cases, fevers and after parturition[4]. It should be avoided in cases of dyspepsia accompanied with acidity of the stomach[4]. A tincture of the ground seed in alcohol is useful as a nervine and uterine tonic[4]. A decoction strained into a bath will help to soothe itchiness and eczema[254].

A poultice made from the ground seeds is used in the treatment of eczema and dry skin[238].

When consumed regularly, oat germ reduces blood cholesterol levels[238].

Oat straw and the grain are prescribed to treat general debility and a wide range of nervous conditions[254. They are mildly antidepressant, gently raising energy levels and supporting an over-stressed nervous system[254]. They are of particular value in helping a person to cope with the exhaustion that results from multiple sclerosis, chronic neurological pain and insomnia[254]. Oats are thought to stimulate sufficient nervous energy to help relieve insomnia[254].

An alcoholic extraction of oats has been reported to be a deterrent for smoking, though reports that oat extract helped correct the tobacco habit have been disproven[269].

A tincture of the plant has been used as a nerve stimulant and to treat opium addiction.

In an article riddled with errors, the Globe (February 28, 1984) reports that oat straw, usually taken as a tea, is a sexual nerve tonic[269].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Biomass; Cosmetic; Fibre; Mulch; Paper; Repellent; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making, building board and thatching[74, 141, 171]. It has also been used as a stuffing material for mattresses and these are said to be of great benefit for sufferers from rheumatism[7, 254]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Oat hulls are basic in production of furfural, a chemical intermediate in the production of many industrial products such as nylon, lubricating oils, butadiene, phenolic resin glues, and rubber tread compositions[269]. Oats hulls supply about 22% of the required furfural raw materials. Rice hulls, corn cobs, bagasse, and beech woods make up much of the remainder[269].

Oats hulls are also used in the manufacture of construction boards, cellulose pulp and as a filter in breweries[269].

A handful of the grains, thrown into the bath water, will help to keep the skin soft because of their emollient action[7].

An extract of oat straw prevents feeding by the striped cucumber beetle[269].

Cultivation details

Oats are an easily grown crop that succeeds in any moderately fertile soil in full sun[200]. They prefer a poor dry soil[134] and tolerate cool moist conditions[13]. Plants are reported to tolerate an annual precipitation of 20 to 180cm, an average annual temperature range of 5 to 26°C, and a pH of 4.5 to 8.6[269]. They thrive on a wide range of soils of ample, but not excessive, fertility[269]. Well-drained neutral soils in regions where annual rainfall is 77cm or more are best[269]. Loam soils are best, especially silt and clay loams[269]. The plants are also reported to tolerate aluminium, disease, frost, fungus, herbicides, hydrogen fluoride, mycobacterium, nematode, rust, SO2, smut, and virus[269].

Oats have a long history of cultivation as a food crop and are believed to be derived chiefly from two species, wild oat (A. fatua L.) and wild red oat (A. sterilis L.)[269]. They are widely cultivated for their seed, used as a source of protein, as well as for hay, as winter cover, and are used as a pasture crop in the growing or 'milk' stage[269].

Oats are long-day plants, grown in cool climates in the Old and New World temperate zones, succeeding under variable conditions[269]. Oats usually are not very winter hardy, although winter hardy cvs have been developed[269]. A very hardy plant according to another report, the cultivated oat succeeds as far north as latitude 70°n[142] and is widely cultivated in temperate zones for its edible seed, there are many named varieties[183].

Although lower yielding than wheat (Triticum spp.), it is able to withstand a wider range of climatic conditions and is therefore more cultivated in cooler and wetter areas[13]. Hot dry weather just before heading causes heads to blast and yields of seed to decrease[269].

Self-pollination is normal, but cross-pollination by wind also occurs[269]. If you wish to save the seed for sowing, each variety should be isolated about 180 metres away from other varieties[269].

Oats grow well with vetch but they inhibit the growth of apricot trees[18, 201].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Cultivars

"

> There are many named varieties of this cultivated cereal, with new forms being developed each year. At present there is not time to enter these in the database.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

References for *avena sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses

without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
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Physical Characteristics

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

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Biomass; Cosmetic; Fibre; Mulch; Paper; Repellent; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making, building board and thatching[74, 141, 171]. It has also been used as a stuffing material for mattresses and these are said to be of great benefit for sufferers from rheumatism[7, 254]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Oat hulls are basic in production of furfural, a chemical intermediate in the production of many industrial products such as nylon, lubricating oils, butadiene, phenolic resin glues, and rubber tread compositions[269]. Oats hulls supply about 22% of the required furfural raw materials. Rice hulls, corn cobs, bagasse, and beech woods make up much of the remainder[269].

Oats hulls are also used in the manufacture of construction boards, cellulose pulp and as a filter in breweries[269].

A handful of the grains, thrown into the bath water, will help to keep the skin soft because of their emollient action[7].

An extract of oat straw prevents feeding by the striped cucumber beetle[269].

Cultivation details

Oats are an easily grown crop that succeeds in any moderately fertile soil in full sun[200]. They prefer a poor dry soil[134] and tolerate cool moist conditions[13]. Plants are reported to tolerate an annual precipitation of 20 to 180cm, an average annual temperature range of 5 to 26°C, and a pH of 4.5 to 8.6[269]. They thrive on a wide range of soils of ample, but not excessive, fertility[269]. Well-drained neutral soils in regions where annual rainfall is 77cm or more are best[269]. Loam soils are best, especially silt and clay loams[269]. The plants are also reported to tolerate aluminium, disease, frost, fungus, herbicides, hydrogen fluoride, mycobacterium, nematode, rust, SO2, smut, and virus[269].

Oats have a long history of cultivation as a food crop and are believed to be derived chiefly from two species, wild oat (A. fatua L.) and wild red oat (A. sterilis L.)[269]. They are widely cultivated for their seed, used as a source of protein, as well as for hay, as winter cover, and are used as a pasture crop in the growing or 'milk' stage[269].

Oats are long-day plants, grown in cool climates in the Old and New World temperate zones, succeeding under variable conditions[269]. Oats usually are not very winter hardy, although winter hardy cvs have been developed[269]. A very hardy plant according to another report, the cultivated oat succeeds as far north as latitude 70°n[142] and is widely cultivated in temperate zones for its edible seed, there are many named varieties[183].

Although lower yielding than wheat (Triticum spp.), it is able to withstand a wider range of climatic conditions and is therefore more cultivated in cooler and wetter areas[13]. Hot dry weather just before heading causes heads to blast and yields of seed to decrease[269].

Self-pollination is normal, but cross-pollination by wind also occurs[269]. If you wish to save the seed for sowing, each variety should be isolated about 180 metres away from other varieties[269].

Oats grow well with vetch but they inhibit the growth of apricot trees[18, 201].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Cultivars

"

> There are many named varieties of this cultivated cereal, with new forms being developed each year. At present there is not time to enter these in the database.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Avena sativa*

Subject:

Avena sativa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena sativa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Avena sterilis

Common name:	Sterile oats	Family:	Gramineae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[50, 200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. ludoviciana[G] A. sterilis subsp. ludoviciana[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Aegilops [E], Animated Oat [B,L,P], Sterile Oat [L], Wilde Haver [D],
Epithets:	From a Dictionary of Botanical Epithets sterilis = sterile;
Systematics:	From a UDSA Plants Database Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database Europe

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Whole USA, Florida, North Carolina.

Physical Characteristics

Annual growing to 1m. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Tolerates a pH in the range 4.5 to 8.

Occasionally cultivated for its edible seed, the yields are lower than those of A. sativa[57]. It is probably a parent of the cultivated species of oats[142]. This species could be of value in any breeding programme for the cultivated oats (A. sativa) where it could confer disease resistance and higher yields.

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

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Plants For A Future: Database Search Results

Avena sterilis

Common name:	Sterile oats	Family:	Gramineae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[50, 200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. ludoviciana[G] A. sterilis subsp. ludoviciana[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aegilops [E], Animated Oat [B,L,P], Sterile Oat [L], Wilde Haver [D],
Epithets:	From a Dictionary of Botanical Epithets
	sterilis = sterile;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Europe
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Whole USA, Florida, North Carolina.

Physical Characteristics

Annual growing to 1m. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Tolerates a pH in the range 4.5 to 8.

Occasionally cultivated for its edible seed, the yields are lower than those of A. sativa[57]. It is probably a parent of the cultivated species of oats[142]. This species could be of value in any breeding programme for the cultivated oats (A. sativa) where it could confer disease resistance and higher yields.

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Plants For A Future: Database Search Results

Avena sterilis

Common name:	Sterile oats	Family:	Gramineae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[50, 200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. ludoviciana[G] A. sterilis subsp. ludoviciana[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aegilops [E], Animated Oat [B,L,P], Sterile Oat [L], Wilde Haver [D],
Epithets:	From a Dictionary of Botanical Epithets
	sterilis = sterile;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Europe
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Whole USA, Florida, North Carolina.

Physical Characteristics

Annual growing to 1m. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Tolerates a pH in the range 4.5 to 8.

Occasionally cultivated for its edible seed, the yields are lower than those of A. sativa[57]. It is probably a parent of the cultivated species of oats[142]. This species could be of value in any breeding programme for the cultivated oats (A. sativa) where it could confer disease resistance and higher yields.

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

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Add a comment on: *Avena sterilis*

Subject:

Avena sterilis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena sterilis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Avena strigosa

Common name:	Bristle oats	Family:	Gramineae
Author:	Schreber.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	N. Europe. A casual in Britain[17].		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bristle Oat [L], Evene [D], Lopsided Oat [P,B],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual growing to 0.9m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[1, 50, 61, 177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

Succeeds in any moderately fertile soil in full sun[200]. Prefers a poor dry soil[134].

Occasionally cultivated for its edible seed, especially in wetter and cooler climates such as Wales, Scotland and Ireland[50, 61], it is lower yielding than A. sativa and considered to be no more than a weed in many areas[61]. The smallness of its grain renders it unfit for cultivation in any but poor mountainous soils[2]. It could, however, be of value in any breeding programme for the cultivated oats.

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Plants For A Future: Database Search Results

Avena strigosa

Common name:	Bristle oats	Family:	Gramineae
Author:	Schreber.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	N. Europe. A casual in Britain[17].		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bristle Oat [L], Evene [D], Lopsided Oat [P,B],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual growing to 0.9m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[1, 50, 61, 177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

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Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

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Plants For A Future: Database Search Results

Avena strigosa

Common name:	Bristle oats	Family:	Gramineae
Author:	Schreber.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	N. Europe. A casual in Britain[17].		
Habitat:	Dry wasteland, cultivated ground and meadows, especially on heavier soils[200].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bristle Oat [L], Evene [D], Lopsided Oat [P,B],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual growing to 0.9m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[1, 50, 61, 177]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

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Propagation

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Avena strigosa*

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Avena strigosa

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena strigosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Avena wiestii

Common name:		Family:	Gramineae
Author:	Steud.	Botanical references:	74
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry stony places and mounds[74].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. barbata subsp. weistii[G] A. barbata var. wiestii[G]
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A diploid species, it is of little commercial importance[57]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

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Web References

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Plants For A Future: Database Search Results

Avena wiestii

Common name:		Family:	Gramineae
Author:	Steud.	Botanical references:	74
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry stony places and mounds[74].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. barbata subsp. weistii[G] A. barbata var. wiestii[G]
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

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Medicinal Uses

Disclaimer

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Other Uses

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The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

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Plants For A Future: Database Search Results

Avena wiestii

Common name:		Family:	Gramineae
Author:	Steud.	Botanical references:	74
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry stony places and mounds[74].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. barbata subsp. weistii[G] A. barbata var. wiestii[G]
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Annual. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[57]. The seed ripens in the latter half of summer and, when harvested and dried, can store for several years. It has a floury texture and a mild, somewhat creamy flavour. It can be used as a staple food crop in either savoury or sweet dishes. The seed can be cooked whole, though it is more commonly ground into a flour and used as a cereal in all the ways that oats are used, especially as a porridge but also to make biscuits, sourdough bread etc. The seed can also be sprouted and eaten raw or cooked in salads, stews etc.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre; Mulch; Paper; Thatching.

The straw has a wide range of uses such as for bio-mass, fibre, mulch, paper-making and thatching[171]. Some caution is advised in its use as a mulch since oat straw can infest strawberries with stem and bulb eelworm.

Cultivation details

We have very little information on this species, but it should be possible to grow it as a spring-sown annual in Britain, and might also succeed as an autumn-sown crop. A diploid species, it is of little commercial importance[57]. The following notes are based on the general needs of the genus.

Succeeds in any moderately fertile soil in full sun[200].

Oats are in general easily grown plants but, especially when grown on a small scale, the seed is often completely eaten out by birds. Some sort of netting seems to be the best answer on a garden scale.

Propagation

Seed - sow in situ in early spring or in the autumn. Only just cover the seed. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Avena+wiestii`
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Plants For A Future - Readers Comments

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Add a comment on: *Avena wiestii*

Subject:

Avena wiestii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Avena wiestii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Balsamorhiza deltoidea

Common name:	Deltoid balsamroot	Family:	Compositae
Author:	Nutt.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Open places but not on thin soils[60].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Balsamorrhiza deltoidea[HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Deltoid Balsamroot [P], Puget Balsamroot [B],
Epithets:	From a Dictionary of Botanical Epithets
	deltoidea = like Greek letter ,;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 5. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Root; Seed.

Root - raw or cooked[22, 46, 61, 105, 106]. A sweet taste when cooked[161].

Young shoots - raw[46, 105, 161].

Seed - raw or cooked. It can be ground into a powder and made into a bread[46, 105, 161]. The ground seeds can be formed into cakes and eaten raw[257].

The roasted root is a coffee substitute[177].

Medicinal Uses

Disclaimer

Miscellany.

A decoction of the split roots has been used in the treatment of coughs and colds[257].

Other Uses

None known

Cultivation details

Requires a deep fertile well-drained loam in full sun[134, 200]. Plants strongly resent winter wet[134, 200].

Hardy to at least -25°c[200].

Plants are intolerant of root disturbance and should be planted into their permanent positions whilst still small[134].

Propagation

Seed - sow early spring in a greenhouse and only just cover the seed. Germination usually takes place within 2 - 6 days at 18°c. Either sow the seed in individual pots or pot up the seedlings as soon as they are large enough to handle and plant them out into their permanent positions in the summer[134].

Division in spring. Very difficult since the plant strongly resents root disturbance[134]. It is probably best to take quite small divisions, or basal cuttings, without disturbing the main clump. Pot these up into individual pots and keep them in light shade in the greenhouse until they are growing away well. Plant them out in the summer if they have grown sufficiently, otherwise over-winter them in the greenhouse and plant out in late spring.

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Web References

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- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Balsamorrhiza deltoidea* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[22] **Sholto-Douglas. J.** *Alternative Foods.*
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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Balsamorhiza deltoidea

Common name:	Deltoid balsamroot	Family:	Compositae
Author:	Nutt.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Open places but not on thin soils[60].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	deltoidea = like Greek letter ,;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 5. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Root; Seed.

Root - raw or cooked[22, 46, 61, 105, 106]. A sweet taste when cooked[161].

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The roasted root is a coffee substitute[177].

Medicinal Uses

Disclaimer

Miscellany.

A decoction of the split roots has been used in the treatment of coughs and colds[257].

Other Uses

None known

Cultivation details

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Hardy to at least -25°c[200].

Plants are intolerant of root disturbance and should be planted into their permanent positions whilst still small[134].

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Plants For A Future Rating (1-5):	4		

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Other Uses

None known

Cultivation details

Requires a deep fertile well-drained loam in full sun[134, 200]. Plants strongly resent winter wet[134, 200].

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Add a comment on: *Balsamorhiza deltoidea*

Subject:

Balsamorhiza deltoidea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site: ☐

URL for Site: http://

Details: ☐

Details of Location and growing conditions:

☐

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Balsamorhiza deltoidea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

☐

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Date: Sun May 16 02:06:40 2004

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Balsamorhiza sagittata

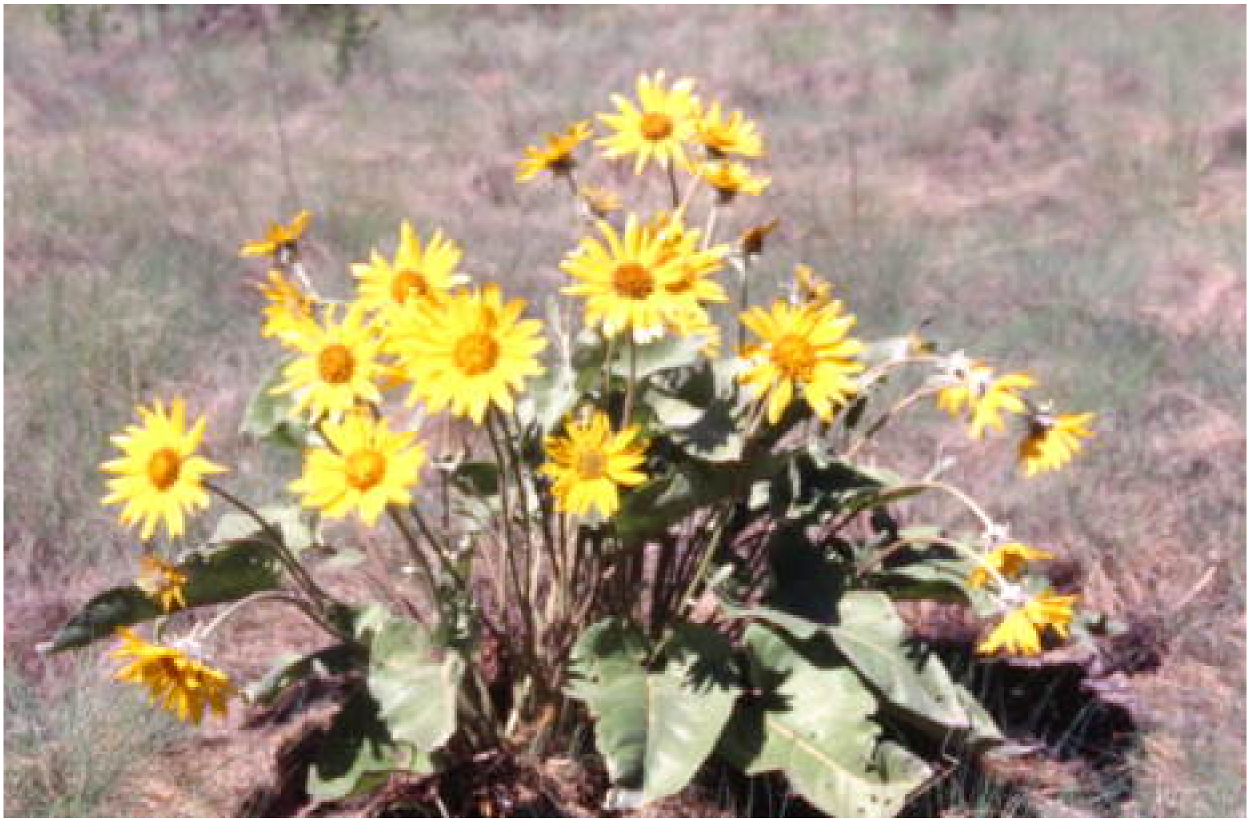

Photo by Derrick Ditchburn

Common name:	Oregon sunflower	Family:	Compositae
Author:	(Pursh.)Nutt.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - South Dakota to British Columbia, south to California and Colorado.		
Habitat:	Open hillsides and flat land up to moderate elevations, especially on deep soils[60].		

Plants For A Future Rating (1-5):	4

Other Possible Synonyms:	From various places across the web, may not be correct. See below. B. bonseri[P] Buphthalmum sagittatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Arrow-leaf Balsamroot [B], Arrowleaf Balsamroot [P,FEIS], Arrowleafed Balsam Root [H], Balsam Root [H,S],
Epithets:	From a Dictionary of Botanical Epithets sagittata = arrowhead shaped;
Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Us(Flathead)

Physical Characteristics

Perennial growing to 0.3m. It is hardy to zone 5. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Root; Seed; Stem.

Root - raw or cooked[46, 61, 106, 161, 257]. The root has a thick crown that is edible raw[213]. Roots have a sweet taste when cooked[2, 183]. A long slow baking is best, the Flathead Indians would bake them in a fire pit for at least 3 days[183]. The roots are resinous and woody with a taste like balsam[212].

Young shoots - raw or cooked[161, 257]. Added to salads or used as a potherb[183].

The large leaves and petioles are boiled and eaten[207]. When eaten in large quantities they act like sleeping pills to cause sleepiness[257].

The young flowering stem can be peeled and eaten raw like celery[183, 257].

Seed - raw or cooked[2, 94, 101, 161]. A highly prized source of food[257]. It can be roasted, ground into a powder and used with cereals when making bread[183, 257]. The raw seed can also be ground into a powder then formed into cakes and eaten without cooking[257]. The seed is rich in oil[213].

Oil. The seed was a prized source of oil for many native North Americans[257].

The roasted root is a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Antirheumatic; Diaphoretic; Diuretic; Febrifuge; Odontalgic; Poultice; Skin; Stomachic; Vulnerary.

Oregon sunflower was quite widely employed as a medicinal herb by various native North American Indian tribes who used it to treat a variety of complaints, but especially stomach problems[257]. It is little used in modern herbalism.

The root is antirheumatic, diuretic, cathartic, diaphoretic, febrifuge and vulnerary[94, 257]. An infusion of the leaves, roots and stems has been used as a treatment for stomach pains, colds, whooping cough, TB, fevers and headaches[257]. A decoction of the root has been taken at the beginning of labour to insure easy delivery[257]. The juice from the chewed root is allowed to trickle down the throat to treat sore mouths and throats whilst the root has also been chewed to treat toothaches[257]. The smoke from the root has been inhaled as a remedy for body aches such as rheumatism[257]. The root is chewed or pounded and used as a paste on wounds, blisters, bites, swellings and sores[207, 257].

A poultice made from the coarse, large leaves has been used to treat severe burns[257]. An infusion of the leaves has been used as a wash for poison ivy rash and running sores[257].

The seeds have been eaten as a treatment for dysentery[257].

Other Uses

Hair; Insulation.

The large hairy leaves are used as an insulation in shoes to keep the feet warm[99].

An infusion of the root has been rubbed into the scalp to promote hair growth[257].

Cultivation details

Requires a deep fertile well-drained loam in full sun[134, 200]. Plants strongly resent winter wet[134, 200].

Hardy to at least -25°c[200].

Plants are intolerant of root disturbance and should be planted into their permanent positions whilst still small[134]. They withstand heavy grazing in the wild[212].

Propagation

Seed - sow early spring in a greenhouse and only just cover the seed. Germination usually takes place within 2 - 6 days at 18°c. Either sow the seed in individual pots or pot up the seedlings as soon as they are large enough to handle and plant them out into their permanent positions in the summer[134].

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For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [S] Illustration from the Southwest School of Botanical Medicine
- [S] Taxon data. from the CalFlora database.

- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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- [S] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

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References

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Plants For A Future: Database Search Results

Balsamorhiza sagittata

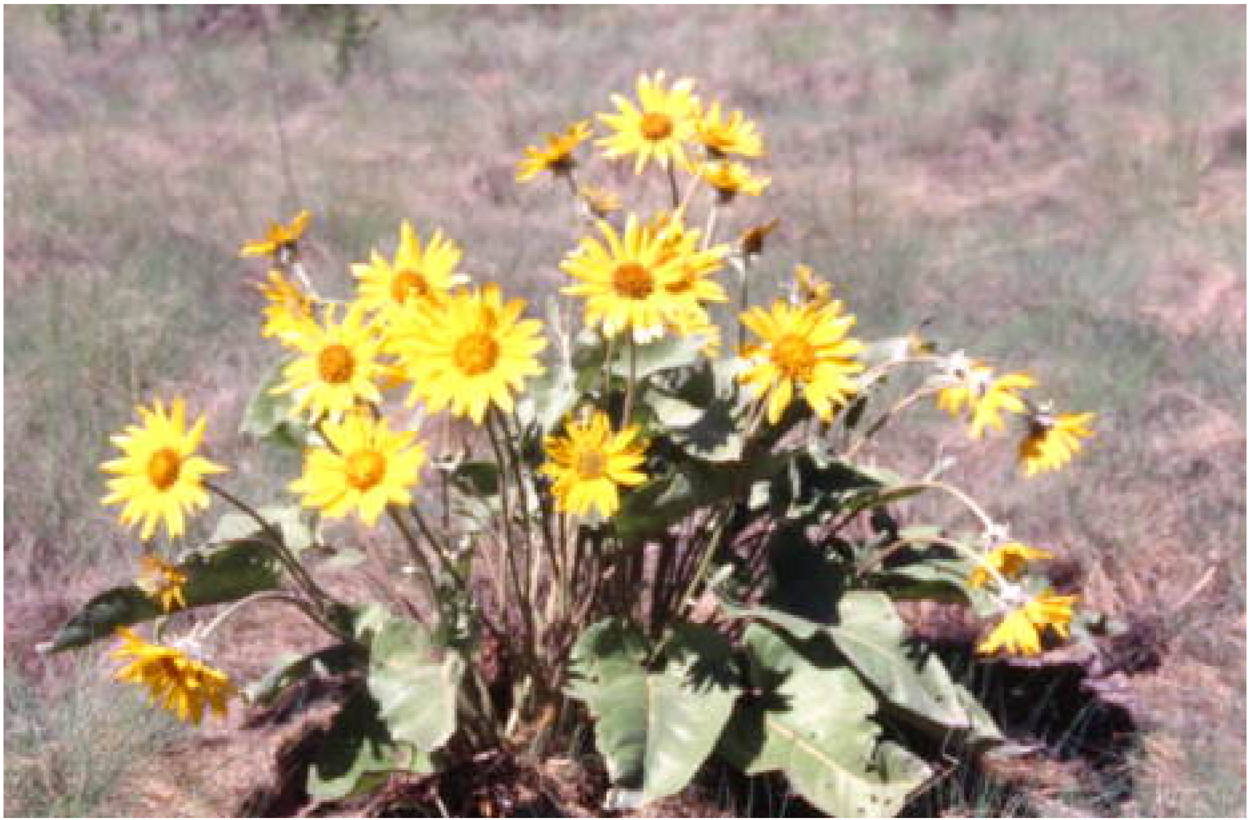

Photo by Derrick Ditchburn

Common name:	Oregon sunflower	Family:	Compositae
Author:	(Pursh.)Nutt.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - South Dakota to British Columbia, south to California and Colorado.		
Habitat:	Open hillsides and flat land up to moderate elevations, especially on deep soils[60].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. bonseri[P] Buphthalmum sagittatum[G]

Other Common Names:	From various places around the Web, may not be correct. See below. Arrow-leaf Balsamroot [B], Arrowleaf Balsamroot [P,FEIS], Arrowleafed Balsam Root [H], Balsam Root [H,S],
Epithets:	From a Dictionary of Botanical Epithets sagittata = arrowhead shaped;
Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Us(Flathead)

Physical Characteristics

Perennial growing to 0.3m. It is hardy to zone 5. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Root; Seed; Stem.

Root - raw or cooked[46, 61, 106, 161, 257]. The root has a thick crown that is edible raw[213]. Roots have a sweet taste when cooked[2, 183]. A long slow baking is best, the Flathead Indians would bake them in a fire pit for at least 3 days[183]. The roots are resinous and woody with a taste like balsam[212].

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Hair; Insulation.

The large hairy leaves are used as an insulation in shoes to keep the feet warm[99].

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Cultivation details

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Hardy to at least -25°c[200].

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Seed - sow early spring in a greenhouse and only just cover the seed. Germination usually takes place within 2 - 6 days at 18°c. Either sow the seed in individual pots or pot up the seedlings as soon as they are large enough to handle and plant them out into their permanent positions in the summer[134].

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Plants For A Future: Database Search Results

Balsamorhiza sagittata

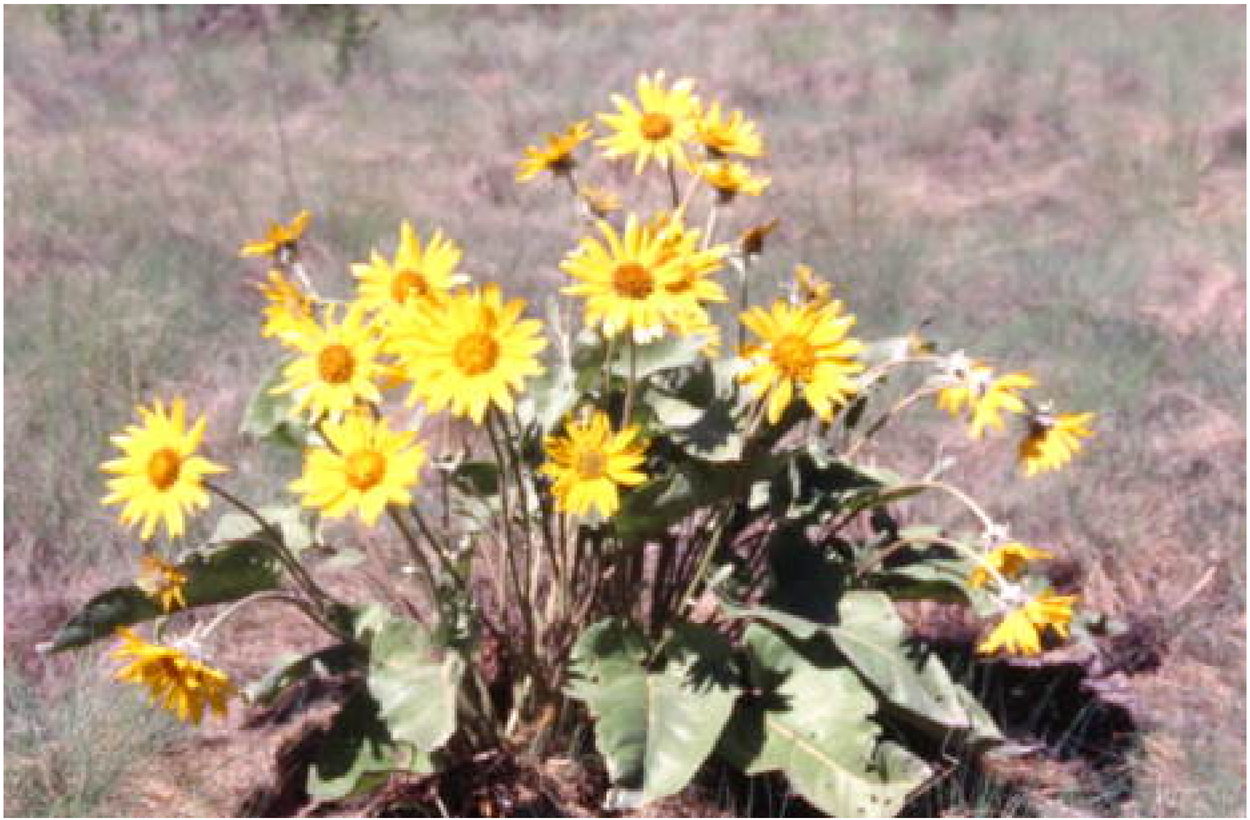

Photo by Derrick Ditchburn

Common name:	Oregon sunflower	Family:	Compositae
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Plants For A Future Rating (1-5):	4		

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Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Perennial growing to 0.3m. It is hardy to zone 5. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Balsamorhiza sagittata

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Brachychiton populneus

Common name:	Kurrajong	Family:	Sterculiaceae
Author:	(Schott. & Endl.) R. Br.	Botanical references:	154, 200
Synonyms:	Brachychiton diversifolium		
Known Hazards:	None known		
Range:	Australia - New South Wales, Northern Territory, Queensland, Victoria		
Habitat:	Coastal and sub-coastal areas on a variety of soils but favouring limestone[144, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. diversifolius[G] B. populneum[B,P] Poecilodermis populnea[G] Sterculia diversifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Brachychiton [P], White-flower Kurrajong [B],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Cacao family

Physical Characteristics

An evergreen tree growing to 18m by 18m . It is hardy to zone 10. It is in leaf all year, in flower from May to July. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Root; Seed.

Seed - raw or roasted[144, 154, 183]. A popular Aboriginal food, they are also acceptable to western palates, especially when roasted[193]. Very nutritious, containing about 18% protein, 25% fat plus high levels of zinc and magnesium[193].

The roasted seed is used as a coffee substitute[144, 183].

Root - yam-like[144, 154]. A popular food item with the Australian Aborigines[183]. The root of very young trees is used[193].

Composition

Seed (Fresh weight)

> In grammes per 100g weight of food:
> Protein: 18 Fat: 25

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre.

A fibre is obtained from the inner bark - it is used for making cordage, nets and dilly bags[156, 167, 193].

Cultivation details

Prefers a well-drained moderately fertile soil in a sunny position[200]. Succeeds in most soils, tolerating dry soils in Australian gardens[157, 167]. Plants dislike wet soils, especially in the winter[K].

Requires a minimum temperature of 7 - 10°c[188, 200]. Plants are hardy to at least -7°c in Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. This plant is very doubtfully hardy outdoors in Britain, though plants in an unheated greenhouse survived a prolonged cold period in 1996 - 97 when temperatures sometimes went down to -8°c[K].

Propagation

Seed - we have no details for this species but suggest sowing the seed in spring in a greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of mature wood of the current season's growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Brachychiton diversifolius* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Brachychiton populneum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Sterculiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8
A very readable book.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
A well illustrated and very readable book, but it does not contain much information for the plant project.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Brachychiton populneus

Common name:	Kurrajong	Family:	Sterculiaceae
Author:	(Schott. & Endl.) R. Br.	Botanical references:	154, 200
Synonyms:	Brachychiton diversifolium		
Known Hazards:	None known		
Range:	Australia - New South Wales, Northern Territory, Queensland, Victoria		
Habitat:	Coastal and sub-coastal areas on a variety of soils but favouring limestone[144, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. diversifolius[G] B. populneum[B,P] Poecilodermis populnea[G] Sterculia diversifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Brachychiton [P], White-flower Kurrajong [B],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Cacao family

Physical Characteristics

An evergreen tree growing to 18m by 18m . It is hardy to zone 10. It is in leaf all year, in flower from May to July. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Root; Seed.

Seed - raw or roasted[144, 154, 183]. A popular Aboriginal food, they are also acceptable to western palates, especially when roasted[193]. Very nutritious, containing about 18% protein, 25% fat plus high levels of zinc and magnesium[193].

The roasted seed is used as a coffee substitute[144, 183].

Root - yam-like[144, 154]. A popular food item with the Australian Aborigines[183]. The root of very young trees is used[193].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 18 Fat: 25

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre.

A fibre is obtained from the inner bark - it is used for making cordage, nets and dilly bags[156, 167, 193].

Cultivation details

Prefers a well-drained moderately fertile soil in a sunny position[200]. Succeeds in most soils, tolerating dry soils in Australian gardens[157, 167]. Plants dislike wet soils, especially in the winter[K].

Requires a minimum temperature of 7 - 10°c[188, 200]. Plants are hardy to at least -7°c in

Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. This plant is very doubtfully hardy outdoors in Britain, though plants in an unheated greenhouse survived a prolonged cold period in 1996 - 97 when temperatures sometimes went down to -8°c[K].

Propagation

Seed - we have no details for this species but suggest sowing the seed in spring in a greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of mature wood of the current season's growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Brachychiton populneum* (a possible synonym).

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Plants For A Future: Database Search Results

Brachychiton populneus

Common name:	Kurrajong	Family:	Sterculiaceae
Author:	(Schott. & Endl.) R. Br.	Botanical references:	154, 200
Synonyms:	Brachychiton diversifolium		
Known Hazards:	None known		
Range:	Australia - New South Wales, Northern Territory, Queensland, Victoria		
Habitat:	Coastal and sub-coastal areas on a variety of soils but favouring limestone[144, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. diversifolius[G] B. populneum[B,P] Poecilodermis populnea[G] Sterculia diversifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Brachychiton [P], White-flower Kurrajong [B],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Cacao family

Physical Characteristics

An evergreen tree growing to 18m by 18m . It is hardy to zone 10. It is in leaf all year, in flower from May to July. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Root; Seed.

Seed - raw or roasted[144, 154, 183]. A popular Aboriginal food, they are also acceptable to western palates, especially when roasted[193]. Very nutritious, containing about 18% protein, 25% fat plus high levels of zinc and magnesium[193].

The roasted seed is used as a coffee substitute[144, 183].

Root - yam-like[144, 154]. A popular food item with the Australian Aborigines[183]. The root of very young trees is used[193].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 18 Fat: 25

Medicinal Uses

Disclaimer

None known

Other Uses

Fibre.

A fibre is obtained from the inner bark - it is used for making cordage, nets and dilly bags[156, 167, 193].

Cultivation details

Prefers a well-drained moderately fertile soil in a sunny position[200]. Succeeds in most soils, tolerating dry soils in Australian gardens[157, 167]. Plants dislike wet soils, especially in the winter[K].

Requires a minimum temperature of 7 - 10°c[188, 200]. Plants are hardy to at least -7°c in

Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. This plant is very doubtfully hardy outdoors in Britain, though plants in an unheated greenhouse survived a prolonged cold period in 1996 - 97 when temperatures sometimes went down to -8°c[K].

Propagation

Seed - we have no details for this species but suggest sowing the seed in spring in a greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of mature wood of the current season's growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Brachychiton+populneus`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brachychiton populneus*

Subject:

Brachychiton populneus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brachychiton populneus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:07:01 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Bromus tectorum

Common name:	Cheat grass	Family:	Gramineae
Author:	L.	Botanical references:	200, 236
Synonyms:	Anisantha tectorum ((L.)Nevski.)		
Known Hazards:	None known		
Range:	S. Europe - Mediterranean. Naturalized in N. America.		
Habitat:	Roadsides and waste places, also in thatched roofs in Eastern N. America[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. tectorum var. glabratus[B] B. tectorum var. hirsutus[B] B. tectorum var. nudus[B] B. tectorum var. tectorum[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cheat Grass [B], Cheatgrass [P,FEIS], Downy Brome [L], Downy Chess [L], Drooping Brome [L], Zwenkdravik [D],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Annual growing to 1m. It is hardy to zone 8. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[257]. A famine food, the small seed can be cooked into a gruel in times of food shortage[257].

A coffee is made from the roasted seed[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Bedding.

The leaves have been used as a bedding[257].

Cultivation details

Succeeds in ordinary well-drained garden soil in a sunny position[138, 200].

Propagation

Seed - sow spring or autumn in situ and only just cover. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Bromus tectorum var. tectorum* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[236] **Hitchcock. A. S.** *Manual of the Grasses of the United States* Dover Publications. New York. 1971 ISBN 0-486-22717-0
A nice and comprehensive flora, though a bit dated. Good line drawings of each plant, plus a brief idea of the habitat and a few notes on plant uses. Not for the casual reader.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

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Plants For A Future: Database Search Results

Bromus tectorum

Common name:	Cheat grass	Family:	Gramineae
Author:	L.	Botanical references:	200, 236
Synonyms:	Anisantha tectorum ((L.)Nevski.)		
Known Hazards:	None known		
Range:	S. Europe - Mediterranean. Naturalized in N. America.		
Habitat:	Roadsides and waste places, also in thatched roofs in Eastern N. America[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. tectorum var. glabratus[B] B. tectorum var. hirsutus[B] B. tectorum var. nudus[B] B. tectorum var. tectorum[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cheat Grass [B], Cheatgrass [P,FEIS], Downy Brome [L], Downy Chess [L], Drooping Brome [L], Zwenkdravik [D],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Annual growing to 1m. It is hardy to zone 8. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[257]. A famine food, the small seed can be cooked into a gruel in times of food shortage[257].

A coffee is made from the roasted seed[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Bedding.

The leaves have been used as a bedding[257].

Cultivation details

Succeeds in ordinary well-drained garden soil in a sunny position[138, 200].

Propagation

Seed - sow spring or autumn in situ and only just cover. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Bromus tectorum var. tectorum* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[236] **Hitchcock. A. S.** *Manual of the Grasses of the United States* Dover Publications. New York. 1971 ISBN 0-486-22717-0

A nice and comprehensive flora, though a bit dated. Good line drawings of each plant, plus a brief idea of the habitat and a few notes on plant uses. Not for the casual reader.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Bromus tectorum

Common name:	Cheat grass	Family:	Gramineae
Author:	L.	Botanical references:	200, 236
Synonyms:	Anisantha tectorum ((L.)Nevski.)		
Known Hazards:	None known		
Range:	S. Europe - Mediterranean. Naturalized in N. America.		
Habitat:	Roadsides and waste places, also in thatched roofs in Eastern N. America[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. tectorum var. glabratus[B] B. tectorum var. hirsutus[B] B. tectorum var. nudus[B] B. tectorum var. tectorum[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cheat Grass [B], Cheatgrass [P,FEIS], Downy Brome [L], Downy Chess [L], Drooping Brome [L], Zwenkdravik [D],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Annual growing to 1m. It is hardy to zone 8. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[257]. A famine food, the small seed can be cooked into a gruel in times of food shortage[257].

A coffee is made from the roasted seed[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Bedding.

The leaves have been used as a bedding[257].

Cultivation details

Succeeds in ordinary well-drained garden soil in a sunny position[138, 200].

Propagation

Seed - sow spring or autumn in situ and only just cover. Germination should take place within 2 weeks.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List]() or email [webmaster@pfaf.org]() (note we don't have the time to answer individual plant related queries).

Add a comment on: *Bromus tectorum*

Subject:

Bromus tectorum

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Bromus tectorum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 02:07:10 2004

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Castanea sativa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Sweet chetsnut	Family:	Fagaceae
Author:	Mill.	Botanical references:	11, 100, 200
Synonyms:	Fagus castanea (L.), Castanea vulgaris (Lam.), Castanea vesca (Gaertn.)		
Known Hazards:	None known		
Range:	S. Europe. Long naturalized in Britain[17].		
Habitat:	Woods in mountains[100].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Fagus procera[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Castano [E], Chestnut [E], European Chestnut [P], Hsin Li [E], Kestane Agaci [E], Li [E], Mao Li [E], Pan Li [E], Shan Li [E], Spanish Chestnut [H], Sweet Chestnut [H], Tamme Kastanje [D],
Epithets:	From a Dictionary of Botanical Epithets
	castanea = chestnut colored; casta = spotless; sativa = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Other Range Info:	From the Ethnobotany Database
	China; Europe; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower in July, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Canby Black'**: Woodland, Canopy.
Cultivar **'Marron de Lyon'**: Woodland, Canopy.
Cultivar **'Paragon'**: Woodland, Canopy.

Edible Uses

Coffee; Seed; Sweetener.

Seed - raw or cooked[2, 4, 5, 9, 12, 34]. A somewhat astringent taste raw, it improves considerably when cooked and is delicious baked with a floury texture and a flavour rather like sweet potatoes[K]. The seed is rich in carbohydrates, it can be dried, then ground and used as a flour in breads, puddings, as a thickener in soups etc[7, 63, 132, 183].

The roasted seed can be used as a coffee substitute[183].

A sugar can be extracted from the seed[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Astringent; Bach; Expectorant.

Although more commonly thought of as a food crop, sweet chestnut leaves and bark are a good source of tannins and these have an astringent action useful in the treatment of bleeding, diarrhoea etc.

The leaves and bark are anti-inflammatory, astringent, expectorant and tonic[4, 7, 165]. They are harvested in June or July and can be used fresh or dried[4]. An infusion has been used in the treatment of fevers and ague, but are mainly employed for their efficacy in treating convulsive coughs such as whooping cough and in other irritable conditions of the respiratory system[4, 7]. The leaves can also be used in the treatment of rheumatism, to ease lower back pains and to relieve stiff muscles and joints[254]. A decoction is a useful gargle for treating sore throats[254].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Extreme mental anguish', Hopelessness' and 'Despair'[209].

Other Uses

Basketry; Fuel; Hair; Starch; Tannin; Wood.

Tannin is obtained from the bark[46, 223]. The wood, leaves and seed husks also contain tannin[223]. The husks contain 10 - 13% tannin[223]. On a 10% moisture basis, the bark contains 6.8% tannin and the wood 13.4%[223].

The meal of the seed has been used as a source of starch and also for whitening linen cloth[4].

A hair shampoo is made from the leaves and the skins of the fruits[7]. It imparts a golden gleam to the hair[7].

Wood - hard, strong, light. The young growing wood is very durable, though older wood becomes brittle and liable to crack[4]. It is used for carpentry, turnery, props, basketry, fence posts etc[4, 6, 7, 23, 46, 100]. A very good fuel[6].

Cultivation details

Prefers a good well-drained slightly acid loam in a sunny position but it also succeeds in dry soils[1, 11, 200, 238]. Once established, it is very drought tolerant[1, 11, 200, 238]. Plants are very tolerant of highly acid, infertile dry sands[200]. Averse to calcareous soils but succeeds on harder limestones[11, 200]. Tolerates maritime exposure though it is slower growing in such a position[75].

The dormant plant is very cold-hardy in Britain, though the young growth in spring, even on mature plants, is frost-tender[K].

The sweet chestnut is often cultivated for its edible seed in warm temperate zones, there are several named varieties[46, 183]. Both 'Marron de Lyon' and 'Paragon' produce fruits with a single large kernel (rather than 2 - 4 smaller kernels) and so are preferred for commercial production[238]. Sweet chestnuts require a warm dry summer in order to ripen their fruit properly in Britain[63] and even then these seeds are generally inferior in size and quality to seeds grown in continental climates[4].

Most species in this genus are not very well adapted for the cooler maritime climate of Britain, preferring hotter summers, but this species grows well here[11, 200].

An excellent soil-enriching understorey in pine forests[200].

Flowers are produced on wood of the current year's growth[229] and they are very attractive to bees[7].. Plants are fairly self-sterile[200]. They hybridize freely with other members of this genus[200].

At one time this tree was widely grown in coppiced woodlands for its wood, but the practise of coppicing has fallen into virtual disuse[11]. Trees regrow very quickly after being cut down, producing utilizable timber every 10 years.

This species is not often seen in Cornwall though it grows very well there[59].

Trees take 30 years from seed to come into bearing[98].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - where possible sow the seed as soon as it is ripe in a cold frame or in a seed bed outdoors[78]. The seed must be protected from mice and squirrels. The seed has a short viability and must not be allowed to become dry. It can be stored in a cool place, such as the salad compartment of a fridge, for a few months if it is kept moist, but check regularly for signs of germination. The seed should germinate in late winter or early spring. If sown in an outdoor seedbed, the plants can be left in situ for 1 - 2 years before planting them out in their permanent positions. If grown in pots, the plants can be put out into their permanent positions in the summer or autumn, making sure to give them some protection from the cold in their first winter[K].

Cultivars

'Paragon'

> This cultivar produces fruits with a single large kernel (rather than 2 - 4 smaller kernels) and

so is preferred for commercial production[238].

'Marron de Lyon'

A large round light-coloured nut of excellent flavour[183]. Trees bear at an early age[183]. They produce fruits with a single large kernel (rather than 2 - 4 smaller kernels) and so are preferred for commercial production[238].

'Glaberrima'

The tree would appear to be somewhat smaller than the species, a 50 year old specimen was about 10 metres tall and 6 metres wide[K]. A tree seen at Kew in October 1998 had produced a very good crop of seed that was much larger than the wild species, comparable in size to the cultivar 'Marron de Lyon'[K].

'Canby Black'

The large and very flavourful nuts peel easily[183]. A large spreading tree, in Oregon it regularly produces 180 - 200 kilos of nuts each year[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Castanea sativa* (Chestnut)
Varities: Maraval **Item: *Castanea sativa* (Sweet Chestnut)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Staple seed crops from perennials.
- Why Perennials
- Woodland Garden Plants

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Trees and Shrubs for Shelterbelts: B-C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Castanea vesca* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Fagus castanea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *castanea sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[23] **Wright. D.** *Complete Book of Baskets and Basketry.* David and Charles 1977 ISBN 0-7153-7449-4
Not that complete but very readable and well illustrated.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses

without any details of how to utilize the plants. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946

A fairly detailed treatise on the major sources of vegetable tannins.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Castanea sativa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Sweet chetsnut	Family:	Fagaceae
Author:	Mill.	Botanical references:	11, 100, 200
Synonyms:	Fagus castanea (L.), Castanea vulgaris (Lam.), Castanea vesca (Gaertn.)		
Known Hazards:	None known		
Range:	S. Europe. Long naturalized in Britain[17].		
Habitat:	Woods in mountains[100].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Fagus procera[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Castano [E], Chestnut [E], European Chestnut [P], Hsin Li [E], Kestane Agaci [E], Li [E], Mao Li [E], Pan Li [E], Shan Li [E], Spanish Chestnut [H], Sweet Chestnut [H], Tamme Kastanje [D],
Epithets:	From a Dictionary of Botanical Epithets
	castanea = chestnut colored; casta = spotless; sativa = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	China; Europe; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower in July, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Canby Black'**: Woodland, Canopy.
Cultivar **'Marron de Lyon'**: Woodland, Canopy.
Cultivar **'Paragon'**: Woodland, Canopy.

Edible Uses

Coffee; Seed; Sweetener.

Seed - raw or cooked[2, 4, 5, 9, 12, 34]. A somewhat astringent taste raw, it improves considerably when cooked and is delicious baked with a floury texture and a flavour rather like sweet potatoes[K]. The seed is rich in carbohydrates, it can be dried, then ground and used as a flour in breads, puddings, as a thickener in soups etc[7, 63, 132, 183].

The roasted seed can be used as a coffee substitute[183].

A sugar can be extracted from the seed[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Astringent; Bach; Expectorant.

Although more commonly thought of as a food crop, sweet chestnut leaves and bark are a good source of tannins and these have an astringent action useful in the treatment of bleeding, diarrhoea etc.

The leaves and bark are anti-inflammatory, astringent, expectorant and tonic[4, 7, 165]. They are harvested in June or July and can be used fresh or dried[4]. An infusion has been used in the treatment of fevers and ague, but are mainly employed for their efficacy in treating convulsive coughs such as whooping cough and in other irritable conditions of the respiratory system[4, 7]. The leaves can also be used in the treatment of rheumatism, to ease lower back pains and to relieve stiff muscles and joints[254]. A decoction is a useful gargle for treating sore throats[254].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Extreme mental anguish', Hopelessness' and 'Despair'[209].

Other Uses

Basketry; Fuel; Hair; Starch; Tannin; Wood.

Tannin is obtained from the bark[46, 223]. The wood, leaves and seed husks also contain tannin[223]. The husks contain 10 - 13% tannin[223]. On a 10% moisture basis, the bark contains 6.8% tannin and the wood 13.4%[223].

The meal of the seed has been used as a source of starch and also for whitening linen cloth[4].

A hair shampoo is made from the leaves and the skins of the fruits[7]. It imparts a golden gleam to the hair[7].

Wood - hard, strong, light. The young growing wood is very durable, though older wood becomes brittle and liable to crack[4]. It is used for carpentry, turnery, props, basketry, fence posts etc[4, 6, 7, 23, 46, 100]. A very good fuel[6].

Cultivation details

Prefers a good well-drained slightly acid loam in a sunny position but it also succeeds in dry soils[1, 11, 200, 238]. Once established, it is very drought tolerant[1, 11, 200, 238]. Plants are very tolerant of highly acid, infertile dry sands[200]. Averse to calcareous soils but succeeds on harder limestones[11, 200]. Tolerates maritime exposure though it is slower growing in such a position[75].

The dormant plant is very cold-hardy in Britain, though the young growth in spring, even on mature plants, is frost-tender[K].

The sweet chestnut is often cultivated for its edible seed in warm temperate zones, there are several named varieties[46, 183]. Both 'Marron de Lyon' and 'Paragon' produce fruits with a single large kernel (rather than 2 - 4 smaller kernels) and so are preferred for commercial production[238]. Sweet chestnuts require a warm dry summer in order to ripen their fruit properly in Britain[63] and even then these seeds are generally inferior in size and quality to seeds grown in continental climates[4].

Most species in this genus are not very well adapted for the cooler maritime climate of Britain, preferring hotter summers, but this species grows well here[11, 200].

An excellent soil-enriching understorey in pine forests[200].

Flowers are produced on wood of the current year's growth[229] and they are very attractive to bees[7].. Plants are fairly self-sterile[200]. They hybridize freely with other members of this genus[200].

At one time this tree was widely grown in coppiced woodlands for its wood, but the practise of coppicing has fallen into virtual disuse[11]. Trees regrow very quickly after being cut down, producing utilizable timber every 10 years.

This species is not often seen in Cornwall though it grows very well there[59].

Trees take 30 years from seed to come into bearing[98].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - where possible sow the seed as soon as it is ripe in a cold frame or in a seed bed outdoors[78]. The seed must be protected from mice and squirrels. The seed has a short viability and must not be allowed to become dry. It can be stored in a cool place, such as the salad compartment of a fridge, for a few months if it is kept moist, but check regularly for signs of germination. The seed should germinate in late winter or early spring. If sown in an outdoor seedbed, the plants can be left in situ for 1 - 2 years before planting them out in their permanent positions. If grown in pots, the plants can be put out into their permanent positions in the summer or autumn, making sure to give them some protection from the cold in their first winter[K].

Cultivars

'Paragon'

> This cultivar produces fruits with a single large kernel (rather than 2 - 4 smaller kernels) and so is preferred for commercial production[238].

'Marron de Lyon'

> A large round light-coloured nut of excellent flavour[183]. Trees bear at an early age[183]. They produce fruits with a single large kernel (rather than 2 - 4 smaller kernels) and so are preferred for commercial production[238].

'Glaberrima'

> The tree would appear to be somewhat smaller than the species, a 50 year old specimen was

about 10 metres tall and 6 metres wide[K]. A tree seen at Kew in October 1998 had produced a very good crop of seed that was much larger than the wild species, comparable in size to the cultivar 'Marron de Lyon'[K].

'Canby Black'

The large and very flavourful nuts peel easily[183]. A large spreading tree, in Oregon it regularly produces 180 - 200 kilos of nuts each year[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

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philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
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How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Castanea sativa* (Chestnut)
Varities: Maraval **Item: *Castanea sativa* (Sweet Chestnut)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Staple seed crops from perennials.
- Why Perennials
- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Trees and Shrubs for Shelterbelts: B-C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Castanea vesca* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Fagus castanea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *castanea sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[23] **Wright. D.** *Complete Book of Baskets and Basketry.* David and Charles 1977 ISBN 0-7153-7449-4
Not that complete but very readable and well illustrated.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in

exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants for a Future
A resource centre for edible and other useful plants

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Staple seed crops from perennials.

'Yes, alright, you do grow lots of different tasting fruits, flowers and leaves, but what about real foods? Something that will fill me up. You don't seem to grow any staple foods here.'

We get quite a few visitors to the plant project at Plants For A Future and the above comment has cropped up from time to time. Whilst it is possible to get good crops of leaves from perennial plants within a year or two of moving onto a new site, and there are several fruits that can yield within a few years, obtaining staple foods such as nuts, legumes and cereals from perennials can take considerably longer. There is also very little information about the potential of many of these plants to produce worthwhile crops in Britain. When you take into account that it can be 30 - 40 years before some nut trees to come into bearing from seed you begin to see the problems of looking for staple crops from trees.

Never the less, there are quite a number of species that can be grown with the confidence that in time they will provide good and reliable crops. Before looking at these, however, I would like to mention a few annual plants that can be used to fill the gap between planting the trees and obtaining a crop from them. Quinoa, Chenopodium quinoa is a plant that is becoming much better known. Related to our native weed fat hen, it produces good yields of very nutritious seeds that are a good source of a high quality protein and can be used in all the ways that rice is used. There are several legumes that yield good crops. The most reliable must be broad beans, Vicia faba, but french beans, Phaseolus vulgaris, can also produce good crops of seed in warm summers. One exciting potential crop for Britain is a lupin from S. America - Lupinus mutabilis is nutritionally very similar to soya beans but easier to grow and higher yielding in this country. Most forms have bitter tasting seeds, this bitterness can be removed by soaking the seed for 12 - 24 hours and changing the water 2 or 3 times. There are some varieties being developed that have sweet tasting seeds. Runner beans, Phaseolus coccineus, are perennials, the roots are hardy to about -5 c and if mulched will survive the winter in many parts of Britain. Yields, however, are lower in succeeding years than in the first year. There are also the various cultivated cereals such as wheat, oats, barley and rye.

Nut trees.

There are quite a number of potentially high-cropping nut trees that can be grown in Britain but I am going to concentrate on those for which we can be most confident of obtaining good yields.

For this reason I must discount almonds, Prunus dulcis, (they flower much too early and rarely yield well).

Walnuts, Juglans regia, can give good yields but this crop is also unpredictable. Mind you, walnut trees have so many other uses that I would strongly advise anyone with enough land to seriously consider planting out a small plantation. Some of its other uses include:- the sap is tapped in spring and used to make a sugar; a wide range of dyes can be obtained from various parts of the plant; an edible oil from the seed can also be used in soapmaking, paints, etc though it quickly goes rancid; the nuts can be used as a wood polish - simply crack open the shell and rub the kernel into the wood to release the oils then wipe off with a clean cloth; the dried fruit rind is used to paint doors, window frames etc (it probably protects the wood due to its tannin content); the crushed leaves are an insect repellent; a substance called 'juglone' is secreted from the roots of this tree, it has an inhibitory effect on the growth of many other plants; the fresh or dried bark of the tree and the fruit rind are dried and used as a tooth cleaner; the wood is a very valuable timber and is used for furniture making, veneer etc. With all these other uses, what does it matter if you don't get nuts every year!

There are many named forms of Cob-nuts and Filberts, Corylus avellana and C. maxima (derived in part from our native hazel) and these are a good staple to grow. Even these can be unpredictable because of the earliness of their flowering. They are relatively quick to come into bearing however, and usually give good yields.

One very good and reliable cropper, especially in the western part of Britain, is Araucaria araucana, the Monkey puzzle tree. This tree comes from S. America and the seed is a staple crop of the native Indians. Research carried out in the 1800's suggested that this tree is potentially heavier-yielding in Britain than our native hazel. The seed is about the size of an almond, it is rich in fat and has a nice mild nutty flavour. It is produced in a cone about the size of a person's head, each cone contains up to 200 seeds. Some reports say that the cone falls to the ground with the seeds inside it, others say that the seed is shed from the cone whilst still on the tree. A very wind-resistant tree, tolerating maritime exposure, it casts little shade and so can be used as the top storey of a forest garden. There are some drawbacks with this plant - it takes up to 40 years from seed before it comes into bearing and you need to grow at least one male tree for every 5 - 6 females in order to get seed but unfortunately it is impossible to distinguish males from females until they flower. However, there is a means of taking cuttings by using small adventitious growths that are sometimes found growing out of the trunk and so it is possible to obtain plants of known sex. It is also possible that these cuttings will fruit more quickly than seedlings. More research is needed into this subject.

Cephalotaxus harringtonii and C. fortunei are small conifers that look rather like our native yew (Taxus baccata). We have been checking these trees since 1987 and they have cropped well almost every year. The seed is a little smaller than an almond and is contained in a thick fleshy 'fruit' (botanically called an aril, but why should I bore you with that piece of information). This seed is eaten in Asia but is bitter unless fully ripe and even then is probably best cooked. The fruit, when fully ripe, is sweet and quite pleasant to eat, unripe it tastes like turpentine! The plants are very shade-tolerant (we have seen them carrying a heavy crop when growing in the quite dense shade of other conifers). They require a shady position if they are to do well when grown in the sunnier and warmer parts of Britain, though they succeed in a sunny position in the sheltered valleys of

Scotland. They are quite slow-growing and we do not know how long it takes before they will fruit from seed. You need to grow at least one male plant for every 5 - 6 females.

Another coniferous nut tree attracting our attention is Torreya nucifera. This plant is a staple crop in parts of China, the pleasantly-flavoured seed is slightly larger than an almond and we have seen the tree carrying good crops on several occasions in the past few years. The fruit looks very similar to Cephalotaxus species, but it is not edible. The tree grows well in light shade, we do not know how old it has to be before it starts to yield.

Castanea sativa, the sweet chestnut, grows and fruits very well in Britain, though unfortunately our climate is not warm enough to produce the best quality large seeds. Even if the seed is somewhat smaller than the ones you can buy in the shops, the flavour is the same and overall yields in Britain are usually good. It is a very large tree, however, and is not the sort of thing you would want in your average back garden. C. pumila, the Chinquapin, might be an answer here, only growing about 3.5 metres tall and wide. Although the books say that it does not fruit in Britain, we have seen good crops on a plant about 15 miles west of London on several occasions in the last few years. The seed is rather small, but it is well flavoured. The chinquapin is a very good plant to grow in the light shade of pine trees, succeeding in sandy acid soils. Whereas most nut seeds are rich in fats, this genus produces seeds rich in carbohydrates and they can be used as an alternative to cereals in the diet.

Quercus ilex, the holm oak, grows well in most parts of Britain. A large spreading evergreen tree, it can also be trimmed and used as a hedge though it is unlikely to produce many of its edible seeds when grown this way. Very resistant to maritime exposure, it is often used to provide shelter in the windy gardens of Cornwall. The seed is similar to, but smaller than, our native oak and can be used in the same ways as sweet chestnuts (to which it is nutritionally similar). Trees usually fruit abundantly, the quality of the seed varies from tree to tree, the best are free of any bitterness and can be eaten raw or cooked. The sub-species Q. ilex ballota used to be cultivated as a food crop in Spain and Portugal. It is said to fruit less well in this country but I have seen good crops on a number of occasions.

Cereals.

There are many more nut trees with potential for this country, but when it comes to perennial cereals and pulses the situation is more restricted. Most perennial cereals tend to have one or more of the following drawbacks:- low yields, small seeds, difficult to extract. There is some research being carried out in N. America, but this is looking mainly at crops for arid areas and is not so relevant for Britain. Because crops are normally obtained in their first or second years growth, there is a large potential for selective breeding in order to produce more productive perennial cereals but, at present, we have only come across one species that has produced well. This is Secale montana a perennial rye that is believed to be the parent of the cultivated cereal rye, though the seed is somewhat smaller. Our original plants have been cropping since 1990 despite considerable neglect from us, yields are fair though much less than from the annual rye. We are selecting for plants with higher yields and larger seeds and would hope to be able to supply superior cultivars in future years.

Beckmannia eruciformis grows wild in swamps and shallow water, though it will tolerate drier soils, it also succeeds in saline soils. Plants can grow up to 1.5 metres tall but are much smaller in drier soils. The seed is very small but is easy to harvest and produced in abundance. It probably has the potential for improvement and has been used in the past for making bread.

Glyceria fluitans. Floating manna grass grows best in shallow slow-flowing or stagnant water, though it also succeeds in wet soils. It is about 50cm tall. Its rather small seed can be eaten raw or cooked and has a sweetish taste. The plant has occasionally been cultivated for its seed, this is considered a delicacy in some parts of Europe and was an article of commerce until well into the 20th century. A flour from the seed is said to make a bread little inferior to wheat bread, the flour can also be used as a thickener in soups etc when it imparts a sweet delicate flavour.

Wheat, Triticum aestivum, has a potential to perennate and there is at least one cultivar, called appropriately enough 'Perennial', that has been selected for this trait. It is said to yield well, though only a proportion of the plants live for a second or third year, however, and very few live longer than this. We have not as yet grown this cultivar. At present we feel that the oak and chestnuts mentioned above are the best substitutes for cereals, though they cannot be used in all the same ways as cereals.

Legumes.

The situation with peas and beans is somewhat more promising. There are a number of Caragana species, in particular C. arborescens, the Siberian pea shrub, that can yield good crops of edible seeds. The seed is about the size of a lentil and is somewhat tedious to harvest, but that can be tolerated since it is about the only thing you will have to do to the plant. This seed is very nutritious, containing about 12% fat and 36% protein. Although there have been suggestions that the seed contains toxic substances this has been discounted in more recent studies. C. boisii and C. fruticosa are closely related to this species and can probably be used in a similar way. C. brevispina has somewhat larger seeds, though these are more bitter than C. arborescens. Caraganas come from climates with much colder winters than Britain, but also with hotter summers, they therefore grow and fruit better in the east of the country. They do not really like very humid climates. Give them as sunny a position as possible and a well-drained soil. They are fairly fast growing, tolerate drought and poor soils, C. arborescens also succeeds in very alkaline soils.

Desmanthus illinoensis is a N. American perennial that is being evaluated by the Land Institute of Salina, Kansas, as an edible legume for growing with perennial grains in a non-tillage permaculture system. We have not yet grown the plant but reports say that it can self-sow to the point of nuisance and that its seed is rather bland. Both these points are positive, since it means that it crops well and that it can be easily flavoured with herbs etc for use as the protein part of a meal. Give the plant a sunny position in a well-drained soil.

Medicago sativa, Alfalfa grows very well in Britain so long as the appropriate rhizobium bacteria is present in the soil. This bacteria lives on the roots in a symbiotic relationship with the alfalfa and converts atmospheric nitrogen into a form that alfalfa can utilize, thus improving the growth of the plant. Alfalfa seeds are small and fiddly, but are often used for sprouting, making a very nutritious food. The seed can also be ground into a flour and be mixed with wheat to make a protein-rich bread. The young shoots can also be eaten raw or cooked. A drying oil from the seed is used in making paints etc. The plant is very deep rooted and makes an excellent long-term green manure.

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Plants For A Future: Database Search Results

Castanea sativa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Sweet chetsnut	Family:	Fagaceae
Author:	Mill.	Botanical references:	11, 100, 200
Synonyms:	Fagus castanea (L.), Castanea vulgaris (Lam.), Castanea vesca (Gaertn.)		
Known Hazards:	None known		
Range:	S. Europe. Long naturalized in Britain[17].		
Habitat:	Woods in mountains[100].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Fagus procera[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Castano [E], Chestnut [E], European Chestnut [P], Hsin Li [E], Kestane Agaci [E], Li [E], Mao Li [E], Pan Li [E], Shan Li [E], Spanish Chestnut [H], Sweet Chestnut [H], Tamme Kastanje [D],
Epithets:	From a Dictionary of Botanical Epithets castanea = chestnut colored; casta = spotless; sativa = cultivated;
Systematics:	From a UDSA Plants Database Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database China; Europe; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower in July, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Canby Black'**: Woodland, Canopy.
Cultivar **'Marron de Lyon'**: Woodland, Canopy.
Cultivar **'Paragon'**: Woodland, Canopy.

Edible Uses

Coffee; Seed; Sweetener.

Seed - raw or cooked[2, 4, 5, 9, 12, 34]. A somewhat astringent taste raw, it improves considerably when cooked and is delicious baked with a floury texture and a flavour rather like sweet potatoes[K]. The seed is rich in carbohydrates, it can be dried, then ground and used as a flour in breads, puddings, as a thickener in soups etc[7, 63, 132, 183].

The roasted seed can be used as a coffee substitute[183].

A sugar can be extracted from the seed[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Astringent; Bach; Expectorant.

Although more commonly thought of as a food crop, sweet chestnut leaves and bark are a good source of tannins and these have an astringent action useful in the treatment of bleeding, diarrhoea etc.

The leaves and bark are anti-inflammatory, astringent, expectorant and tonic[4, 7, 165]. They are harvested in June or July and can be used fresh or dried[4]. An infusion has been used in the treatment of fevers and ague, but are mainly employed for their efficacy in treating convulsive coughs such as whooping cough and in other irritable conditions of the respiratory system[4, 7]. The leaves can also be used in the treatment of rheumatism, to ease lower back pains and to relieve stiff muscles and joints[254]. A decoction is a useful gargle for treating sore throats[254].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Extreme mental anguish', Hopelessness' and 'Despair'[209].

Other Uses

Basketry; Fuel; Hair; Starch; Tannin; Wood.

Tannin is obtained from the bark[46, 223]. The wood, leaves and seed husks also contain tannin[223]. The husks contain 10 - 13% tannin[223]. On a 10% moisture basis, the bark contains 6.8% tannin and the wood 13.4%[223].

The meal of the seed has been used as a source of starch and also for whitening linen cloth[4].

A hair shampoo is made from the leaves and the skins of the fruits[7]. It imparts a golden gleam to the hair[7].

Wood - hard, strong, light. The young growing wood is very durable, though older wood becomes brittle and liable to crack[4]. It is used for carpentry, turnery, props, basketry, fence posts etc[4, 6, 7, 23, 46, 100]. A very good fuel[6].

Cultivation details

Prefers a good well-drained slightly acid loam in a sunny position but it also succeeds in dry soils[1, 11, 200, 238]. Once established, it is very drought tolerant[1, 11, 200, 238]. Plants are very tolerant of highly acid, infertile dry sands[200]. Averse to calcareous soils but succeeds on harder limestones[11, 200]. Tolerates maritime exposure though it is slower growing in such a position[75].

The dormant plant is very cold-hardy in Britain, though the young growth in spring, even on mature plants, is frost-tender[K].

The sweet chestnut is often cultivated for its edible seed in warm temperate zones, there are several named varieties[46, 183]. Both 'Marron de Lyon' and 'Paragon' produce fruits with a single large kernel (rather than 2 - 4 smaller kernels) and so are preferred for commercial production[238]. Sweet chestnuts require a warm dry summer in order to ripen their fruit properly in Britain[63] and even then these seeds are generally inferior in size and quality to seeds grown in continental climates[4].

Most species in this genus are not very well adapted for the cooler maritime climate of Britain, preferring hotter summers, but this species grows well here[11, 200].

An excellent soil-enriching understorey in pine forests[200].

Flowers are produced on wood of the current year's growth[229] and they are very attractive to bees[7].. Plants are fairly self-sterile[200]. They hybridize freely with other members of this genus[200].

At one time this tree was widely grown in coppiced woodlands for its wood, but the practise of coppicing has fallen into virtual disuse[11]. Trees regrow very quickly after being cut down, producing utilizable timber every 10 years.

This species is not often seen in Cornwall though it grows very well there[59].

Trees take 30 years from seed to come into bearing[98].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - where possible sow the seed as soon as it is ripe in a cold frame or in a seed bed outdoors[78]. The seed must be protected from mice and squirrels. The seed has a short viability and must not be allowed to become dry. It can be stored in a cool place, such as the salad compartment of a fridge, for a few months if it is kept moist, but check regularly for signs of germination. The seed should germinate in late winter or early spring. If sown in an outdoor seedbed, the plants can be left in situ for 1 - 2 years before planting them out in their permanent positions. If grown in pots, the plants can be put out into their permanent positions in the summer or autumn, making sure to give them some protection from the cold in their first winter[K].

Cultivars

'Paragon'

This cultivar produces fruits with a single large kernel (rather than 2 - 4 smaller kernels) and so is preferred for commercial production[238].

'Marron de Lyon'

A large round light-coloured nut of excellent flavour[183]. Trees bear at an early age[183]. They produce fruits with a single large kernel (rather than 2 - 4 smaller kernels) and so are preferred for commercial production[238].

'Glaberrima'

The tree would appear to be somewhat smaller than the species, a 50 year old specimen was about 10 metres tall and 6 metres wide[K]. A tree seen at Kew in October 1998 had produced a very good crop of seed that was much larger than the wild species, comparable in size to the cultivar 'Marron de Lyon'[K].

'Canby Black'

The large and very flavourful nuts peel easily[183]. A large spreading tree, in Oregon it regularly produces 180 - 200 kilos of nuts each year[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

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10 Ivy Grove
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Caulophyllum thalictroides

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Papoose root	Family:	Berberidaceae
Author:	(L.) Michx.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	This plant should not be used during pregnancy prior to the commencement of labour[165].		
Range:	Eastern N. America - New Brunswick to South Carolina, Arkansas, North Dakota and Manitoba.		
Habitat:	Rich moist soils in swamps, by streams[4, 21] and in woods[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. thalictrioides[Sc]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aslankulagi [E], Blue Cohosh [E,H,B,S,P], Blue Ginseng [H], Blueberry Root [H], Pappoose Root [H], Squawroot [H], Yellow Ginseng [H],
Epithets:	From a Dictionary of Botanical Epithets
	thalictroides = Thalictrum like;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Appalachia)

Physical Characteristics

Perennial growing to 0.5m by 1m . It is hardy to zone 7. It is in flower in April, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[4, 102, 105, 177]. The seeds are about the size of large peas, but are not produced in abundance[232].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Birthing aid; Diaphoretic; Diuretic; Emmenagogue; Oxytoxic; Sedative.

Papoose root is a traditional herb of many North American Indian tribes and was used extensively by them to facilitate child birth[207]. Modern herbalists still consider it to be a woman's herb and it is commonly used to treat various gynaecological conditions[254]. An acrid, bitter, warming herb, it stimulates the uterus, reduces inflammation, expels intestinal worms and has diuretic effects[238].

The root is anthelmintic, antispasmodic, diaphoretic, diuretic, emmenagogue, oxytocic and sedative[4, 21, 46, 165, 207]. An infusion of the root in warm water is taken for about 2 weeks before the expected birth date in order to ease the birth[207, 213]. This infusion can also be used as an emmenagogue and a uterine stimulant[213]. Papoose root should therefore be used with some caution by women who are in an earlier stage of pregnancy since it can induce a miscarriage or early delivery[222]. The plant is also taken internally in the treatment of pelvic inflammatory disease, rheumatism and gout[238]. It should not be prescribed for people with hypertension and heart diseases[238]. The powdered root can have an irritant action on the mucous membranes, therefore any use of this plant is best under the supervision of a qualified practitioner[238, 268].

The roots are normally harvested in the autumn, because they are at their richest at this time[213], and are dried for later use.

The root is harvested in early spring as new growth is beginning and is used to make a homeopathic remedy[232]. It is used especially in childbirth and in some forms of rheumatism[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Easily grown in a damp light humus-rich woodland soil preferring a position in deep shade[1, 200]. One report says that it is best in a peat garden.

Plants are hardy to at least -20°c[187].

The plant only produces one large leaf each year[233]. The seeds rupture the ovary before they are fully ripe and continue to expand naked, they are bright blue when fully ripe[130].

Propagation

Seed - best sown as soon as it is ripe in a shady part of a cold frame[200]. If stored seed is used, it should be sown as soon as it is received. Germination can be erratic. Prick out the seedlings as soon as they are large enough to handle and grow them on in a shady part of a greenhouse or cold frame for at least their first winter. Plant them out into their permanent positions during autumn or early winter.

Division in spring or just after flowering[200]. Plants are slow to increase[187].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Caulophyllum thalictrioides* (a possible synonym).

- [S]
- [S] PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants, including Distylium racemosum and some perennial members of the family Berberidaceae.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN

3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Habitat:	Rich moist soils in swamps, by streams[4, 21] and in woods[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. thalictrioides[Sc]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aslankulagi [E], Blue Cohosh [E,H,B,S,P], Blue Ginseng [H], Blueberry Root [H], Pappoose Root [H], Squawroot [H], Yellow Ginseng [H],
Epithets:	From a Dictionary of Botanical Epithets
	thalictroides = Thalictrum like;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Appalachia)

Physical Characteristics

Perennial growing to 0.5m by 1m . It is hardy to zone 7. It is in flower in April, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[4, 102, 105, 177]. The seeds are about the size of large peas, but are not produced in abundance[232].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Birthing aid; Diaphoretic; Diuretic; Emmenagogue; Oxytoxic; Sedative.

Papoose root is a traditional herb of many North American Indian tribes and was used extensively by them to facilitate child birth[207]. Modern herbalists still consider it to be a woman's herb and it is commonly used to treat various gynaecological conditions[254]. An acrid, bitter, warming herb, it stimulates the uterus, reduces inflammation, expels intestinal worms and has diuretic effects[238].

The root is anthelmintic, antispasmodic, diaphoretic, diuretic, emmenagogue, oxytocic and sedative[4, 21, 46, 165, 207]. An infusion of the root in warm water is taken for about 2 weeks before the expected birth date in order to ease the birth[207, 213]. This infusion can also be used as an emmenagogue and a uterine stimulant[213]. Papoose root should therefore be used with some caution by women who are in an earlier stage of pregnancy since it can induce a miscarriage or early delivery[222]. The plant is also taken internally in the treatment of pelvic inflammatory disease, rheumatism and gout[238]. It should not be prescribed for people with hypertension and heart diseases[238]. The powdered root can have an irritant action on the mucous membranes, therefore any use of this plant is best under the supervision of a qualified practitioner[238, 268].

The roots are normally harvested in the autumn, because they are at their richest at this time[213], and are dried for later use.

The root is harvested in early spring as new growth is beginning and is used to make a homeopathic remedy[232]. It is used especially in childbirth and in some forms of rheumatism[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Easily grown in a damp light humus-rich woodland soil preferring a position in deep shade[1, 200]. One report says that it is best in a peat garden.

Plants are hardy to at least -20°c[187].

The plant only produces one large leaf each year[233]. The seeds rupture the ovary before they are fully ripe and continue to expand naked, they are bright blue when fully ripe[130].

Propagation

Seed - best sown as soon as it is ripe in a shady part of a cold frame[200]. If stored seed is used, it should be sown as soon as it is received. Germination can be erratic. Prick out the seedlings as soon as they are large enough to handle and grow them on in a shady part of a greenhouse or cold frame for at least their first winter. Plant them out into their permanent positions during autumn or early winter.

Division in spring or just after flowering[200]. Plants are slow to increase[187].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Caulophyllum thalictrioides* (a possible synonym).

- [S]
- [S] PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[130] **?** *The Plantsman. Vol. 4. 1982 - 1983.* Royal Horticultural Society 1982
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants, including Distylium racemosum and some perennial members of the family Berberidaceae.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Caulophyllum thalictroides

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Papoose root	Family:	Berberidaceae
Author:	(L.) Michx.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	This plant should not be used during pregnancy prior to the commencement of labour[165].		
Range:	Eastern N. America - New Brunswick to South Carolina, Arkansas, North Dakota and Manitoba.		
Habitat:	Rich moist soils in swamps, by streams[4, 21] and in woods[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. thalictrioides[Sc]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aslankulagi [E], Blue Cohosh [E,H,B,S,P], Blue Ginseng [H], Blueberry Root [H], Pappoose Root [H], Squawroot [H], Yellow Ginseng [H],
Epithets:	From a Dictionary of Botanical Epithets
	thalictroides = Thalictrum like;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Appalachia)

Physical Characteristics

Perennial growing to 0.5m by 1m . It is hardy to zone 7. It is in flower in April, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[4, 102, 105, 177]. The seeds are about the size of large peas, but are not produced in abundance[232].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Birthing aid; Diaphoretic; Diuretic; Emmenagogue; Oxytoxic; Sedative.

Papoose root is a traditional herb of many North American Indian tribes and was used extensively by them to facilitate child birth[207]. Modern herbalists still consider it to be a woman's herb and it is commonly used to treat various gynaecological conditions[254]. An acrid, bitter, warming herb, it stimulates the uterus, reduces inflammation, expels intestinal worms and has diuretic effects[238].

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Other Uses

None known

Cultivation details

Easily grown in a damp light humus-rich woodland soil preferring a position in deep shade[1, 200]. One report says that it is best in a peat garden.

Plants are hardy to at least -20°c[187].

The plant only produces one large leaf each year[233]. The seeds rupture the ovary before they are fully ripe and continue to expand naked, they are bright blue when fully ripe[130].

Propagation

Seed - best sown as soon as it is ripe in a shady part of a cold frame[200]. If stored seed is used, it should be sown as soon as it is received. Germination can be erratic. Prick out the seedlings as soon as they are large enough to handle and grow them on in a shady part of a greenhouse or cold frame for at least their first winter. Plant them out into their permanent positions during autumn or early winter.

Division in spring or just after flowering[200]. Plants are slow to increase[187].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Caulophyllum thalictroides*

Subject:

Caulophyllum thalictroides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Caulophyllum thalictroides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 02:07:35 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Cicer arietinum

Common name:	Chick pea	Family:	Leguminosae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The foliage and seedpods contain oxalic acid and can irritate the skin[33, 74, 200]. There is also one report that the foliage is poisonous[171] - this might relate to the oxalic acid. Oxalic acid can lock up certain nutrients in the diet, especially calcium, and therefore heavy use of foods that contain this substance can lead to nutritional deficiencies. Cooking will greatly reduce the oxalic acid content. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since the oxalic acid can aggravate their condition[238].		
Range:	Asia? Original habitat is obscure.		
Habitat:	Unknown in the wild.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bush Garbanzo Bean [H], Cece [E], Chick Pea [P], Chick-pea [B], Garbanzo [E], Garvane [E], Hummus [E], Keker [D], Nok [E], Nokhud [E], Pois Chiche [E],
Epithets:	From a Dictionary of Botanical Epithets
	arietinum = ram like (ram's head);
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Other Range Info:	From the Ethnobotany Database
	Belgium; France; Iraq; Italy; Kurdistan; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.6m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Kabuli Black'**: Cultivated Beds.
Cultivar **'Whitev'**: Cultivated Beds.

Edible Uses

Coffee; Drink; Leaves; Seed; Seedpod.

Seed - raw or cooked. The fresh or dried seed is cooked in soups, stews etc[2, 37, 100, 142, 171, 183]. It has a somewhat sweet flavour and a floury texture somewhat reminiscent of sweet chestnuts[K]. The mature seed can also be sprouted and eaten raw[K]. Parched seeds can be eaten as a snack[183]. The seed can also be ground into a meal and used with cereal flours for making bread, cakes etc[46, 105, 183]. The seed is a good source of carbohydrates and protein.

The roasted seed is a coffee substitute[27, 46, 61, 105, 183]. The roasted root can also be used[183].

Both the young seedpods and the young shoots are said to be edible[57, 61, 142, 171, 177, 183] but some caution is advised. See the notes above on toxicity.

A refreshing drink can be made from the acid dew that collects on the hairy seedpods overnight[183].

Medicinal Uses

Disclaimer

Astringent.

An acid exudation from the seedpods is astringent[240]. It has been used in the treatment of dyspepsia, constipation and snakebite[240].

Other Uses

None known

Cultivation details

Requires a hot sunny position[33, 37, 200], tolerating drought once established[27, 57]. Prefers a light well-drained fertile soil[33, 200]. Tolerates a pH in the range 5.5 to 8.6.

Plants are hardy to about -25°c when covered by snow[74]. This suggests that plants can be autumn sown - some trials are called for, especially of some of the hardier cultivars[K].

The chickpea is widely cultivated in warm temperate and tropical areas for its edible seed[46, 50]. There are many named varieties, some of which should be suitable for cultivation in Britain[141]. Plants only succeed outdoors in Britain in hot summers[33, 37]. Plants are about as hardy as broad beans[141] but they often do not succeed in mild moist maritime climates because the seedpods are hairy and this holds moisture. The moisture then encourages fungal growth and the seed usually rots before it is fully mature[K]. Plants require 4 - 6 months with moderately warm dry conditions if they are to crop well[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Seed - sow April/May in situ under cloches. Chick peas can germinate at lower temperatures than broad beans[141]. Could an early spring or even autumn sowing outdoors be successful?

Cultivars

'Whitev'

A late cultivar with large white seeds[183]. The skin peels of the seed easily atfer a short period of cooking[183]. Recommended for growing in high rainfall areas[183].

'Kabuli Black'

A very hardy and vigorous cultivar, maturing in 95 days from seed[183]. The medium-sized seed is solid black and 2 seeds are produced per pod[183]. Somewhat tolerant of cold soils and drought resistant[183].

'Green Seeded'

A small-seeded form, better suited to the home gardener than commercial cultivation. This is the best cultivar for sprouting[183]. Especially useful in short-season dry areas, it does not do well in coastal fog-belt areas[183].

'Brown Seeded'

A small-seeded form, better suited to the home gardener than commercial cultivation. Especially useful in short-season dry areas, it does not do well in coastal fog-belt areas[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

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[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
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[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Plants For A Future: Database Search Results

Cicer arietinum

Common name:	Chick pea	Family:	Leguminosae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The foliage and seedpods contain oxalic acid and can irritate the skin[33, 74, 200]. There is also one report that the foliage is poisonous[171] - this might relate to the oxalic acid. Oxalic acid can lock up certain nutrients in the diet, especially calcium, and therefore heavy use of foods that contain this substance can lead to nutritional deficiencies. Cooking will greatly reduce the oxalic acid content. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since the oxalic acid can aggravate their condition[238].		
Range:	Asia? Original habitat is obscure.		
Habitat:	Unknown in the wild.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bush Garbanzo Bean [H], Cece [E], Chick Pea [P], Chick-pea [B], Garbanzo [E], Garvane [E], Hummus [E], Keker [D], Nok [E], Nokhud [E], Pois Chiche [E],
Epithets:	From a Dictionary of Botanical Epithets
	arietinum = ram like (ram's head);
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Belgium; France; Iraq; Italy; Kurdistan; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.6m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Kabuli Black'**: Cultivated Beds.
Cultivar **'Whitev'**: Cultivated Beds.

Edible Uses

Coffee; Drink; Leaves; Seed; Seedpod.

Seed - raw or cooked. The fresh or dried seed is cooked in soups, stews etc[2, 37, 100, 142, 171, 183]. It has a somewhat sweet flavour and a floury texture somewhat reminiscent of sweet chestnuts[K]. The mature seed can also be sprouted and eaten raw[K]. Parched seeds can be eaten as a snack[183]. The seed can also be ground into a meal and used with cereal flours for making bread, cakes etc[46, 105, 183]. The seed is a good source of carbohydrates and protein.

The roasted seed is a coffee substitute[27, 46, 61, 105, 183]. The roasted root can also be used[183].

Both the young seedpods and the young shoots are said to be edible[57, 61, 142, 171, 177, 183] but some caution is advised. See the notes above on toxicity.

A refreshing drink can be made from the acid dew that collects on the hairy seedpods overnight[183].

Medicinal Uses

Disclaimer

Astringent.

An acid exudation from the seedpods is astringent[240]. It has been used in the treatment of dyspepsia, constipation and snakebite[240].

Other Uses

None known

Cultivation details

Requires a hot sunny position[33, 37, 200], tolerating drought once established[27, 57]. Prefers a light well-drained fertile soil[33, 200]. Tolerates a pH in the range 5.5 to 8.6.

Plants are hardy to about -25°c when covered by snow[74]. This suggests that plants can be autumn sown - some trials are called for, especially of some of the hardier cultivars[K].

The chickpea is widely cultivated in warm temperate and tropical areas for its edible seed[46, 50]. There are many named varieties, some of which should be suitable for cultivation in Britain[141]. Plants only succeed outdoors in Britain in hot summers[33, 37]. Plants are about as hardy as broad beans[141] but they often do not succeed in mild moist maritime climates because the seedpods are hairy and this holds moisture. The moisture then encourages fungal growth and the seed usually rots before it is fully mature[K]. Plants require 4 - 6 months with moderately warm dry conditions if they are to crop well[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Seed - sow April/May in situ under cloches. Chick peas can germinate at lower temperatures than broad beans[141]. Could an early spring or even autumn sowing outdoors be successful?

Cultivars

'Whitev'

A late cultivar with large white seeds[183]. The skin peels of the seed easily atfer a short period of cooking[183]. Recommended for growing in high rainfall areas[183].

'Kabuli Black'

A very hardy and vigorous cultivar, maturing in 95 days from seed[183]. The medium-sized seed is solid black and 2 seeds are produced per pod[183]. Somewhat tolerant of cold soils and drought resistant[183].

'Green Seeded'

A small-seeded form, better suited to the home gardener than commercial cultivation. This is the best cultivar for sprouting[183]. Especially useful in short-season dry areas, it does not do well in coastal fog-belt areas[183].

'Brown Seeded'

A small-seeded form, better suited to the home gardener than commercial cultivation. Especially useful in short-season dry areas, it does not do well in coastal fog-belt areas[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Plants For A Future: Database Search Results

Cicer arietinum

Common name:	Chick pea	Family:	Leguminosae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The foliage and seedpods contain oxalic acid and can irritate the skin[33, 74, 200]. There is also one report that the foliage is poisonous[171] - this might relate to the oxalic acid. Oxalic acid can lock up certain nutrients in the diet, especially calcium, and therefore heavy use of foods that contain this substance can lead to nutritional deficiencies. Cooking will greatly reduce the oxalic acid content. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since the oxalic acid can aggravate their condition[238].		
Range:	Asia? Original habitat is obscure.		
Habitat:	Unknown in the wild.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bush Garbanzo Bean [H], Cece [E], Chick Pea [P], Chick-pea [B], Garbanzo [E], Garvane [E], Hummus [E], Keker [D], Nok [E], Nokhud [E], Pois Chiche [E],
Epithets:	From a Dictionary of Botanical Epithets
	arietinum = ram like (ram's head);
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Belgium; France; Iraq; Italy; Kurdistan; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.6m. It is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

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Cultivar **'Kabuli Black'**: Cultivated Beds.
Cultivar **'Whitev'**: Cultivated Beds.

Edible Uses

Coffee; Drink; Leaves; Seed; Seedpod.

Seed - raw or cooked. The fresh or dried seed is cooked in soups, stews etc[2, 37, 100, 142, 171, 183]. It has a somewhat sweet flavour and a floury texture somewhat reminiscent of sweet chestnuts[K]. The mature seed can also be sprouted and eaten raw[K]. Parched seeds can be eaten as a snack[183]. The seed can also be ground into a meal and used with cereal flours for making bread, cakes etc[46, 105, 183]. The seed is a good source of carbohydrates and protein.

The roasted seed is a coffee substitute[27, 46, 61, 105, 183]. The roasted root can also be used[183].

Both the young seedpods and the young shoots are said to be edible[57, 61, 142, 171, 177, 183] but some caution is advised. See the notes above on toxicity.

A refreshing drink can be made from the acid dew that collects on the hairy seedpods overnight[183].

Medicinal Uses

Disclaimer

Astringent.

An acid exudation from the seedpods is astringent[240]. It has been used in the treatment of dyspepsia, constipation and snakebite[240].

Other Uses

None known

Cultivation details

Requires a hot sunny position[33, 37, 200], tolerating drought once established[27, 57]. Prefers a light well-drained fertile soil[33, 200]. Tolerates a pH in the range 5.5 to 8.6.

Plants are hardy to about -25°c when covered by snow[74]. This suggests that plants can be autumn sown - some trials are called for, especially of some of the hardier cultivars[K].

The chickpea is widely cultivated in warm temperate and tropical areas for its edible seed[46, 50]. There are many named varieties, some of which should be suitable for cultivation in Britain[141]. Plants only succeed outdoors in Britain in hot summers[33, 37]. Plants are about as hardy as broad beans[141] but they often do not succeed in mild moist maritime climates because the seedpods are hairy and this holds moisture. The moisture then encourages fungal growth and the seed usually rots before it is fully mature[K]. Plants require 4 - 6 months with moderately warm dry conditions if they are to crop well[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Seed - sow April/May in situ under cloches. Chick peas can germinate at lower temperatures than broad beans[141]. Could an early spring or even autumn sowing outdoors be successful?

Cultivars

'Whitev'

> A late cultivar with large white seeds[183]. The skin peels of the seed easily atfer a short period of cooking[183]. Recommended for growing in high rainfall areas[183].

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> A small-seeded form, better suited to the home gardener than commercial cultivation. This

is the best cultivar for sprouting[183]. Especially useful in short-season dry areas, it does not do well in coastal fog-belt areas[183].

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A small-seeded form, better suited to the home gardener than commercial cultivation. Especially useful in short-season dry areas, it does not do well in coastal fog-belt areas[183].

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cicer arietinum*

Subject:

Cicer arietinum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cicer arietinum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Cichorium intybus

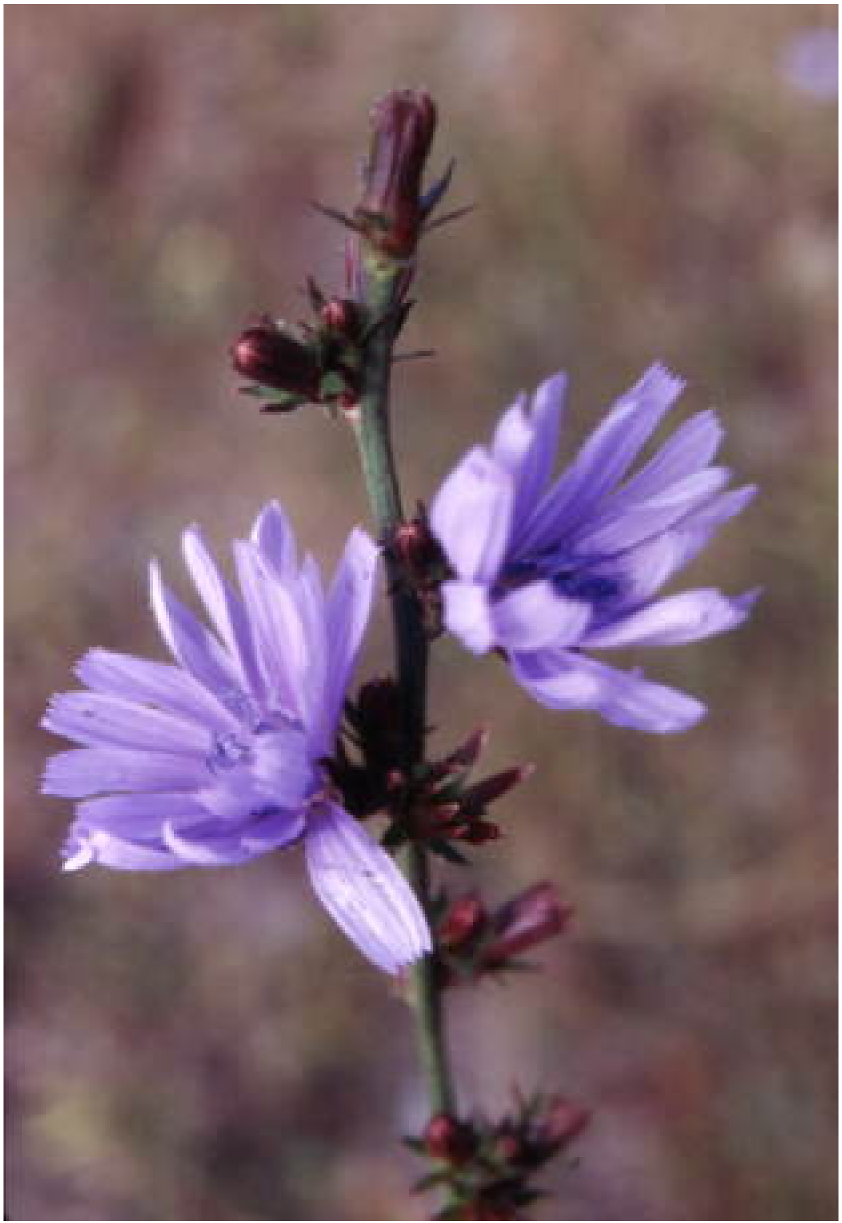

Photo by Derrick Ditchburn

Common name:	Chicory	Family:	Compositae

Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Excessive and continued use may impair function of the retina[268].		
Range:	Britain.		
Habitat:	Grassy meadows and arable land, especially on chalk[5, 13].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. intybus var. foliosum[G] C. intybus var. sativum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Achicoria [E], Achicoria Amarga [E], Almeirao [E], Barbe De Capucin [E], Blaue Wegwarte [E], Blue Sailors [L], Chicory [E,P,B,S,MS,H,L], Cichorei [E], Cicoria Radicchio [E], Cikoria [E], Cikorie [E], Common Chicory [L], Endive [E], Hendibeh [H], Hindiba [E], Kasni [E], Kiku-Niga-Na [E], Succory [H], Wild Chicory [H], Wild Succory [E,H], Wilde Cichorei [D], Zikorifa [E],
Epithets:	From a Dictionary of Botanical Epithets
	intybus = endive;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Denmark; France; France; Germany; India; Iran; Iraq; Italy; Netherlands; Poland; Portugal; Spain; Sweden; Us; Ussr; Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Perennial growing to 1.5m by 0.5m . It is hardy to zone 3 and is not frost tender. It is in flower from July to October, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Lawn, Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Flowers; Leaves; Root.

Leaves - raw or cooked[2, 4, 5, 9, 27, 33, 171]. The leaves are rather bitter, especially when the plants are flowering[4]. The leaves are often blanched by excluding light, either by removing all the leaves and then earthing up the new growth, or by covering the plant with a bucket or something similar. Whilst this greatly reduces any bitterness, there is also a corresponding loss of vitamins and minerals[K]. The blanched leaves are often used in winter salads (they are known as chicons) and are also cooked[132, 200]. The unblanched leaves are much less bitter in winter and make an excellent addition to salads at this time of year[K]. A nutritional analysis of the leaves is available[218].

Flowers - raw[52]. An attractive addition to the salad bowl[183], but rather bitter[K].

Root - cooked like parsnip[5, 7, 9, 13, 21, 27, 46]. The boiled young roots form a very palatable vegetable[4]. The root is said to be an ideal food for diabetics because of its inulin content[9]. Inulin is a starch that cannot be digested by humans, it tends to pass straight through the digestive system and is therefore unlikely to be of use to a diabetic[K]. However, the inulin can be used to make a sweetener that is suitable for diabetics to use[K]. Chicory-root is free of harmful ingredients, and is essentially a concentrated combination of three sugars (pentose, levulose and dextrose) along with taraxarcine (the bitter principle of dandelion)[269]. It is especially important as source of levulose[269]. Roots are used in seasoning soups, sauces and gravies, and to impart a rich deep colour[269].

The roasted root is used as a caffeine-free coffee adulterant or substitute[2, 4, 5, 7, 13, 21, 27, 46]. Young roots have a slightly bitter caramel flavour when roasted, roots over 2 years old are much more bitter[238].

Composition

Root (Fresh weight)

In grammes per 100g weight of food:

Water: 77 Fat: 0.6 Ash: 0.8

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 290 Protein: 24.6 Fat: 2.9 Carbohydrate: 59.4 Fibre: 13 Ash: 13
In milligrammes per 100g weight of food:
Calcium: 1145 Iron: 24.6 VitaminA: 23 Thiamine: 1.01 Riboflavin: 1.74 Niacin: 5.8 VitaminC: 159

Medicinal Uses

Disclaimer

Appetizer; Bach; Cardiac; Cholagogue; Depurative; Digestive; Diuretic; Hypoglycaemic; Laxative; Tonic; Warts.

Chicory has a long history of herbal use and is especially of great value for its tonic affect upon the liver and digestive tract[254]. It is little used in modern herbalism, though it is often used as part of the diet.

The root and the leaves are appetizer, cholagogue, depurative, digestive, diuretic, hypoglycaemic, laxative and tonic[4, 7, 9, 13, 21, 46, 222]. The roots are more active medicinally[222]. A decoction of the root has proved to be of benefit in the treatment of jaundice, liver enlargement, gout and rheumatism[4]. A decoction of the freshly harvested plant is used for treating gravel[4]. The root can be used fresh or dried, it is best harvested in the autumn[9]. The leaves are harvested as the plant comes into flower and can also be dried for later use[9].

The root extracts have experimentally produced a slower and weaker heart rate (pulse)[222]. The plant merits research for use in heart irregularities[222].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Possessiveness', 'Self-love' and 'Self-pity'[209].

The latex in the stems is applied to warts in order to destroy them[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Biomass; Compost.

The roots have the potential to be used for the production of biomass for industrial use[132]. They are rich in the starch 'inulin' which can easily be converted to alcohol[269].

A blue dye has been obtained from the leaves[4].

The flowers are an alternative ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

Cultivation details

Prefers a sunny position in any moderately fertile well-drained moisture retentive soil[1, 14, 52]. Prefers a pH 5.5 to 7[200]. Tolerates a pH in the range 4.5 to 8.3. Chicory grows on any type of soil but, when cultivated, grows best on mellow, deeply tilled, fertile soil or sandy loam[269].. A cool weather crop, it tolerates only moderate summer temperatures and requires well-distributed rainfall, with good drainage, or some irrigation in drier areas[269]. Chicory roots deeply in relatively short time; soil too wet for beans and small grains is not suitable[269]. To insure proper root-growth, apply lime or marl to acid soil to neutralize acidity[269]. Chicory is reported to tolerate a pH in the range of 4.5 to 8.3, an annual rainfall of 30 to 400 cm and an annual mean biotemperature of 6° to 27°C[269].

Chicory is an excellent winter salad. It is often cultivated, especially in Europe, for its edible leaves and for its roots which are used to make a coffee substitute. There are many named varieties[46, 132, 183] and, by careful selection of cultivars and sowing times, fresh leaves can be obtained all year round. There are three main types of chicory grown for their leaves, there are many cultivars of each form:-

A bitter-tasting loose-leafed form is grown as a green winter vegetable, especially in southern Italy.

A narrow-leafed, witloof or Belgian form has a compact elongate head (chicon) which is blanched for use in salads or cooked dishes.

A broad-leaved (usually red) form produces cabbage-like hearts, these are generally less bitter than the other forms and are eaten raw or cooked. These forms are often used as a winter salad crop[K].

Although a perennial, chicory is usually cultivated as an annual crop, especially when being grown as a winter salad. The winter salad cultivars are usually sown in early summer to make sure that they do not flower in their first year of growth. By late autumn they have formed an overwintering rosette of leaves rather like a cabbage. These leaves can be harvested as required during the winter and the plants will then usually make some new growth (as long as the winter is not too cold) that can be harvested in late winter or early spring. The plants run to flower in the following summer and fail to make an overwintering rosette of leaves for that winter[K].

Chicory can be grown successfully in a meadow or even in a lawn so long as the grass is not cut too short nor too often[K]. It often self-sows freely when well-sited, especially if it is growing in a dry alkaline soil[238].

A good bee plant[24, 108].

A very ornamental plant[1]. The flowers open in the early morning (about 6 - 7 o'clock in Britain) and close around midday[4].

Propagation

Seed - sow the wild form or cultivars being grown for their roots in May or June in situ. Cultivars being grown for their edible leaves can be sown in April for a summer crop or in June/July for a winter crop. Sow them in situ or in pots and then plant them out as soon as they are large enough.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Edible Lawn
- Winter Salads

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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References for *cichorium intybus* (a possible synonym).

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

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Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Cichorium intybus

Richard Clark Fri Dec 29 15:26:19 2000

I have a perennial chickory that is amazingly drought tolerant in SW Western Australia. I am surprized in the Propagation section, root division is not mentioned.

Cichorium intybus

David Nicholls Tue Apr 24 11:39:56 2001

I was surprised to read in Potter's new cyclopaedia of botanical drugs and preperations by R.C. Wren that roasted Chicory root contains harman, which is also in passion flower (Passiflora incarnata) but that it doesn't seem to be used in the same way.

I've since tried some and am almost certain it has basicly the same effect of calming the nerves and increasing physical strength or activity and stamina with no more intxication than a coffee (but quite different of course).

(The idea that Passionflower increases physical activity is mine as far as I know based on personal experience but there does seem to be confusion in the literature as to whether harmin could be expected to be a stimulant or a sedative(Tyler's Honest Herbal). I think it may be both, a cerebral sedative and physical stimulant (I think coffee which is usually called a stimulant is a physial sedative, just look at a cafe or office, perhaps sedating one allows blood for the other or something??

The idea that chickory can be used like passionflower is also "mine" as far as I know so I'd be extremely intersted to hear from any one who has tried it with this in mind, but advise opportunists against trying to make money out of the idea. It could just be the placebo effect, but it has me fooled if so.

I think stronger chemicals related to harman are MAO inhibitors so it is possible mixing it with large amounts of things incompatable with MAo inhibitors could possilby be unsafe (I Know little about the complete list of such things, I think aged cheese is one)and the standard disclaimer Icant recommend this as safe or effective.

it grows wild as a weed here in New Zealand but is not concidered a noxious weed.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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WEB search engine by Rich Morris - Home Page- Contact Info
Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cichorium+intybus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cichorium+intybus`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cichorium intybus

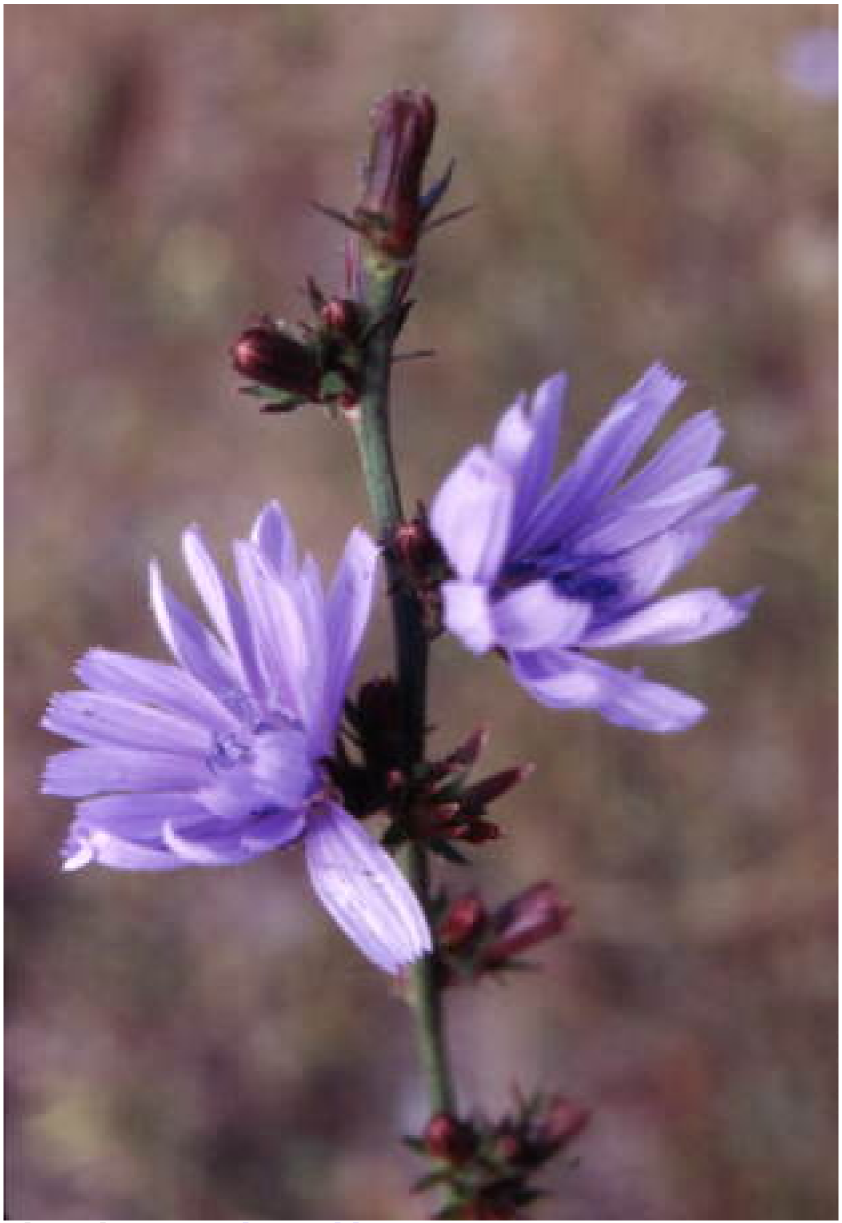

Photo by Derrick Ditchburn

Common name:	Chicory	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Excessive and continued use may impair function of the retina[268].		
Range:	Britain.		

Habitat:	Grassy meadows and arable land, especially on chalk[5, 13].
Plants For A Future Rating (1-5):	4

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. intybus var. foliosum[G] C. intybus var. sativum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Achicoria [E], Achicoria Amarga [E], Almeirao [E], Barbe De Capucin [E], Blaue Wegwarte [E], Blue Sailors [L], Chicory [E,P,B,S,MS,H,L], Cichorei [E], Cicoria Radicchio [E], Cikoria [E], Cikorie [E], Common Chicory [L], Endive [E], Hendibeh [H], Hindiba [E], Kasni [E], Kiku-Niga-Na [E], Succory [H], Wild Chicory [H], Wild Succory [E,H], Wilde Cichorei [D], Zikorifa [E],
Epithets:	From a Dictionary of Botanical Epithets
	intybus = endive;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Denmark; France; France; Germany; India; Iran; Iraq; Italy; Netherlands; Poland; Portugal; Spain; Sweden; Us; Ussr; Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Perennial growing to 1.5m by 0.5m . It is hardy to zone 3 and is not frost tender. It is in flower from July to October, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Lawn, Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Flowers; Leaves; Root.

Leaves - raw or cooked[2, 4, 5, 9, 27, 33, 171]. The leaves are rather bitter, especially when the plants are flowering[4]. The leaves are often blanched by excluding light, either by removing all the leaves and then earthing up the new growth, or by covering the plant with a bucket or something similar. Whilst this greatly reduces any bitterness, there is also a corresponding loss of vitamins and minerals[K]. The blanched leaves are often used in winter salads (they are known as chicons) and are also cooked[132, 200]. The unblanched leaves are much less bitter in winter and make an excellent addition to salads at this time of year[K]. A nutritional analysis of the leaves is available[218].

Flowers - raw[52]. An attractive addition to the salad bowl[183], but rather bitter[K].

Root - cooked like parsnip[5, 7, 9, 13, 21, 27, 46]. The boiled young roots form a very palatable vegetable[4]. The root is said to be an ideal food for diabetics because of its inulin content[9]. Inulin is a starch that cannot be digested by humans, it tends to pass straight through the digestive system and is therefore unlikely to be of use to a diabetic[K]. However, the inulin can be used to make a sweetener that is suitable for diabetics to use[K]. Chicory-root is free of harmful ingredients, and is essentially a concentrated combination of three sugars (pentose, levulose and dextrose) along with taraxarcine (the bitter principle of dandelion)[269]. It is especially important as source of levulose[269]. Roots are used in seasoning soups, sauces and gravies, and to impart a rich deep colour[269].

The roasted root is used as a caffeine-free coffee adulterant or substitute[2, 4, 5, 7, 13, 21, 27, 46]. Young roots have a slightly bitter caramel flavour when roasted, roots over 2 years old are much more bitter[238].

Composition

Root (Fresh weight)

In grammes per 100g weight of food:
Water: 77 Fat: 0.6 Ash: 0.8

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 290 Protein: 24.6 Fat: 2.9 Carbohydrate: 59.4 Fibre: 13 Ash: 13
In milligrammes per 100g weight of food:
Calcium: 1145 Iron: 24.6 VitaminA: 23 Thiamine: 1.01 Riboflavin: 1.74 Niacin: 5.8

VitaminC: 159

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[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

Cichorium intybus

Richard Clark Fri Dec 29 15:26:19 2000

I have a perennial chickory that is amazingly drought tolerant in SW Western Australia. I am surprized in the Propagation section, root division is not mentioned.

Cichorium intybus

David Nicholls Tue Apr 24 11:39:56 2001

I was surprised to read in Potter's new cyclopaedia of botanical drugs and preperations by R.C. Wren that roasted Chicory root contains harman, which is also in passion flower (Passiflora incarnata) but that it doesn't seem to be used in the same way.

I've since tried some and am almost certain it has basicly the same effect of calming the nerves and increasing physical strength or activity and stamina with no more intxication than a coffee (but quite different of course).

(The idea that Passionflower increases physical activity is mine as far as I know based on personal experience but there does seem to be confusion in the literature as to whether harmin could be expected to be a stimulant or a sedative(Tyler's Honest Herbal). I think it may be both, a cerebral sedative and physical stimulant (I think coffee which is usually called a stimulant is a physial sedative, just look at a cafe or office, perhaps sedating one allows blood for the other or something??

The idea that chickory can be used like passionflower is also "mine" as far as I know so I'd be extremely intersted to hear from any one who has tried it with this in mind, but advise opportunists against trying to make money out of the idea. It could just be the placebo effect, but it has me fooled if so.

I think stronger chemicals related to harman are MAO inhibitors so it is possible mixing it with large amounts of things incompatable with MAo inhibitors could possilby be unsafe (I Know little about the complete list of such things, I think aged cheese is one)and the standard disclaimer Icant recommend this as safe or effective.

it grows wild as a weed here in New Zealand but is not concidered a noxious weed.

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Plants for a Future

A resource centre for edible and other useful plants

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Español

The Edible Lawn

Most gardens contain a lawn - it's an area where we can walk, play and relax, our own little area of relative privacy. Now we could decide to be very practical and dig the lawn up to plant vegetables, but apart from losing our leisure area, sometimes we also feel constrained by convention and want our gardens to retain their accepted appearances. There is, however, a compromise. Assuming that we do not want a so-called 'perfect' lawn which consists almost entirely of grass and, apart from being quite boring to look at, offers very little diversity of habitat for a potentially wide range of birds, mammals and insects etc, we could introduce various plants that can provide food both for us and the wildlife, and a visually more attractive area with flowers for most of the year. There are problems involved with this - we would have to allow the lawn to grow a bit longer, but all the plants listed below will tolerate fairly regular cutting and most would not object to being walked on quite often. Basically, if we raise the height of the grass cutter blades by about half an inch there should be no problems. The regular cutting of the lawn will ensure a constant supply of succulent young leaves. It would also be nice if the lawn could be left uncut for a few weeks in summer to allow the taller plants to flower. Unless stated, all these plants are perennials and all are native to Britain.

Achillea millefolium - *Yarrow*: This is a common 'weed' in lawns and succeeds even when the grass is cut very short. The young leaves make a tasty addition to salads. It is a good companion plant for grass, and its mowings will greatly enrich the compost heap. If left uncut for a month at any time during the summer, it will produce some lovely flowers. The leaves are very rich in minerals and have medicinal properties. The plant is said to repel beetles, ants and flies.

Ajuga reptans - *Bugle*: For this to succeed, the grass would have to be allowed to grow a bit longer than usual. It does well in damp, slightly shaded areas and the young shoots can be eaten in salads. If left uncut it flowers from May to July, the flowers being very attractive to bees.

Alchemilla vulgaris - *Lady's Mantle:* Requires a slightly longer grass than usual. If allowed, it flowers between April and June. The young leaves are eaten raw or cooked and the root is said to be edible but astringent. The leaves make a herbal tea.

Allium oleraceum - *Field Garlic and Allium vineale* - *Crow Garlic:* Both grow well in grass. The leaves can be used as a garlic substitute. If allowed, they will flower in July.

Anthemis nobilis - Chamomile: Grows very well in a lawn and flowers even if cut regularly. The flowers make a very refreshing herbal tea which is very good for the stomach, especially recommended for children. The mown leaves will greatly enrich the compost heap. The flowers can also be used as a hair shampoo for those with fair hair. It flowers from July to October.

Bellis perennis - Daisy: A common 'weed' in the lawn, able to tolerate constant cutting and still flower. It can produce flowers even in the middle of winter. The young leaves are eaten raw or cooked.

Cichorium intybus - Chicory: A marvellous plant with a deep taproot that brings up minerals from deep in the sub-soil. It will tolerate quite regular cutting but not if the grass is cut very short. The leaves are an extremely valuable source of nutrients and can be eaten in salads. The root is also edible, or it can be dried, roasted and ground to make a coffee substitute. If allowed, it flowers between July and October, but, as it is likely to grow up to five feet, you may decide to keep it cut short.

Leontodon hispidus - Rough Hawkbit: Looking somewhat like a dandelion, this plant is often found growing wild in the lawn and garden. It prefers a chalky soil. The leaves can be eaten raw or cooked. It flowers between May and September.

Melilotus officinalis - Melilot: This plant, a biennial, must be allowed to flower if you wish to keep it on the lawn. It can be cut regularly until early summer but would then have to be left uncut until it had set seed. It could grow up to four feet tall so you may decide not to put it in the lawn. Nevertheless, its flowers are very attractive to bees, its leaves can be eaten in salads, and its flowers and seeds cooked with other vegetables. You could mow it regularly to prevent flowering of course, and sow fresh seeds every year.

Plantago lanceolata, Plantago major, Plantago media - Plantains: Very common 'weeds' in lawns. The lawn can be cut as often as you like and as short as you like without causing them any inconvenience at all, and they'll send up a flowering stem that is almost immune to the cutting abilities of many lawn- mowers! Use the young leaves only, either in salads or cooked.

Prunella vulgaris - Self-Heal: Able to tolerate regular cutting, though preferably not too short, and still flower. The flowers are very attractive to bees. It prefers a moist soil and doesn't really like a chalky soil. Young leaves can be eaten cooked or raw. Medicinally it is used to treat cuts and bruises.

Sanguisorba minor - Salad Burnet: This plant is occasionally cultivated in the herb garden but grows very well in the lawn especially if the grass is allowed to get a little bit longer than usual. The young leaves are eaten in salads, many people saying that they taste somewhat like cucumbers. It prefers a chalky soil and will flower between May and August.

Taraxacum officinale - Dandelion: A superb plant for growing in the lawn, able to tolerate regular cutting and constant trampling. The quality of the leaves will be better if the grass is allowed to grow a little longer than usual, but this is not essential. It will manage to flower even if cut regularly, and a lawn of dandelions in flower is a beautiful sight in the spring, though it will produce the odd flower at other times of the year. The leaves are extremely nutritious and are best eaten raw though they can also be cooked. The roots, like chicory roots, are a coffee substitute should you ever find that you've got too many plants in the lawn. The old and mown leaves are an excellent addition to the compost heap.

Trifolium repens - White Clover: Another common 'weed' of the lawn. It flowers and flourishes even when cut regularly and short. It is an important food source for many caterpillars, the flowers are attractive to bees and butterflies, and we can eat the leaves - raw or cooked - and the flowers and pods. It is an excellent companion plant in the lawn since it can supply nitrogen to other plants with the help of bacteria in the root nodules.

Tussilago farfara - Coltsfoot: This plant sends up flowering stems in March or April before its leaves appear and are a sure sign that spring is with us once more. These flower buds can be eaten raw or cooked. The leaves appear during April and May and these also are edible. They are also used medicinally to treat coughs and colds. The plant prefers a heavy, moist soil and a sunny position.

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Readers Comments:

The Edible Lawn

me () Sat Feb 10 03:35:12 2001

Reading the edible lawn article was very informative and interesting, even though I am only 13 years old.

Add a Follow up to this comment

The Edible Lawn

Unknown Fri Jan 11 18:03:19 2002

Very nicely done article highlighting how useful some plants are we generally just dismiss as being weeds. Sometimes it turns out that those weedy plants make better nutritional eating than what we can buy in our supermarkets today! I have been trying to educate myself about these so-called weeds. Your site contributes nicely. It would be nice if you could add some links to pictures of those weeds, just for better identification.

Add a Follow up to this comment

The Edible Lawn

Michelle in Tampa, FL (EponaSpiritHorse@yahoo.com) Sun Mar 31 19:41:51 2002

Hello from across the pond! What a wonderful concept, looking to our lawns for superior nutrition! I would also love to see an article for the plants in the US, although I think we have a lot in common. Dandelion is my favorite "weed" and I grow as much of it as I can!

Add a Follow up to this comment

The Edible Lawn

DJ () Sun Apr 7 20:52:23 2002

I gave up trying to get a perfect lawn years ago. Nice to know the weed patch I laugingly call a lawn is actually useful, now I have an excuse not to sort it out.

Add a Follow up to this comment

The Edible Lawn

Dave in San Jose, CA () Wed May 1 01:07:57 2002

This site is really great. I always knew the shtuff in my lawn that my parents always want me to get rid of is worth something after all. Two comments, thought; a US edible lawn would be nice, and pictures of the plants would be even better. Thanks for your efforts.

Add a Follow up to this comment

The Edible Lawn

Ben (benahedges@cs.com) Mon Feb 24 04:07:27 2003

I'm surprised not to see Rumex acetosella, Sheep's Sorrel, in your edible lawn.

It seems quite content in my lawn here in Richmond, Virginia, US.

Details of Growing Condition: USDA zone 7, acidic soil, well drained..

Add a Follow up to this comment

The Edible Lawn

Nancy Lichtenstein (nlicht9139@aol.com) Mon Jun 2 01:18:53 2003

Is the entire dandelion plant edible? I'm still a bit nervous to eat it from my lawn. Is there any reason NOT to eat it?

Details of Growing Condition: .

This comment has also been added to: .

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Regresar a la Plantas para un Futuro página principal: Español English

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English

El prado comestible

La mayoría de los jardines contienen un prado - esto es, un área donde podemos caminar, jugar y relajarnos, nuestra propia pequeña área de relativa privacidad. En algún momento podemos decidir ser muy prácticos y arrancar el pasto para plantar vegetales, pero aparte de sentir que perdemos nuestra área de relajamiento, nos sentimos también limitados por lo convencional y queremos que nuestro jardín conserve su apariencia aceptable. Hay, sin embargo, un compromiso. Suponiendo que no deseamos el llamado "prado perfecto" que consiste casi completamente de pasto y, aparte de tener un aspecto muy aburrido, ofrece muy poca diversidad de hábitat para la amplia variedad de pájaros, mamíferos, insectos, etc. que potencialmente puedan visitarlo. Podemos introducir diversas plantas que pueden proveer comida para nosotros y la vida silvestre, y crear un área más atractiva a la vista con flores la mayor parte del año. Hay problemas involucrados con esto - puede ser que tengamos que dejar que el pasto crezca un poco más alto, pero todas las plantas que se describen más adelante tolerarán libremente cortes regulares y la mayoría no objetará que caminen sobre ellas a menudo. Básicamente, si elevamos la altura de las navajas del cortador de pasto por algo así como 12 milímetros no habrá problema. El corte regular del prado asegurará una fuente constante tiernas hojas suculentas. Sería también agradable si se deja sin cortar el pasto durante unas pocas semanas del verano para permitir que las plantas más altas florezcan. A menos que se establezca otra cosa, todas estas plantas son perennes y nativas de Inglaterra.

Achillea millefolium - *Milenrama*: Esta es una 'hierba' común en los prados y progresa aún cuando el pasto se corte muy bajo. Las hojas jóvenes son una sabrosa adición para las ensaladas. Es una buena planta de compañía para el pasto, y sus recortes enriquecerán grandemente la pila de composta. Si en algún momento durante el verano la deja un mes sin cortar, producirá algunas bonitas flores. Las hojas son muy ricas en minerales y tienen propiedades medicinales. Se dice que la planta repele escarabajos, hormigas y moscas.

Ajuga reptans - *Consuelda media*: Para que progrese, debe permitirse al pasto crecer un poquito más de lo habitual, crece bien en las áreas húmedas, ligeramente sombreadas y sus retoños pueden comerse con las ensaladas. Si no se corta florea de mayo a julio, sus flores son muy atractivas para las abejas.

Alchemilla vulgaris - *Alquímila; pie de León:* Requiere un pasto ligeramente más largo de lo normal. Si se le permite, florece entre abril y junio. Las hojas jóvenes se comen crudas o cocidas y se dice que su raíz es comestible pero es astringente. Con las hojas se hace un té herbal.

Allium oleraceum - Ajo del campo y Allium vineale - Ajo del cuervo: Ambos crecen bien en el pasto. Las hojas pueden usarse como sustituto del ajo. Si se les permite, florecerán en julio.

Anthemis nobilis - Manzanilla: Crece muy bien en el prado y florece aún si se le corta regularmente. Con las flores se hace un té herbal muy refrescante que es muy bueno para el estomago, se recomienda especialmente para los niños. Las hojas podadas enriquecerán mucho la pila de composta. Las flores se pueden usar como shampoo para el pelo por aquellos escasos de pelo. Florea de julio a octubre

Bellis perennis - Margarita: Una 'hierba' común en el prado, capaz de tolerar constantes cortes y aún así florear. Puede producir flores aún en medio del invierno. Las hojas jóvenes se comen crudas o cocidas.

Cichorium intybus - Achicoria: Una maravillosa planta con un profundo tallo de raíz que recoge minerales desde lo profundo del subsuelo. Tolera una poda de frecuencia regular pero no si el pasto se corta muy bajo. Las hojas son una fuente extremadamente valiosa de nutrientes y pueden comerse en ensaladas. La raíz también se come, o puede secarse, tostarse y molerse para hacer un sustituto del café. Si se le permite, florea entre julio y octubre, pero, como le gusta crecer arriba de 1.5 metros, usted decide si mejor lo mantiene corto.

Leontodon hispidus - Falso Diente de León: Parecido en su aspecto al diente de león, esta planta se encuentra frecuentemente creciendo silvestre en el prado y el jardín. Prefiere un suelo calizo. Las hojas pueden comerse crudas o cocidas. Florece entre mayo y septiembre.

Melilotus officinalis - Trébol dulce, meliloto: A esta planta bianual, debe permitírsele que floree si desea conservarla en el prado. Puede cortarse regularmente hasta principios del verano y dejarse sin cortar hasta que haya desarrollado sus semillas. Puede crecer hasta 1.2 metros de altura así que usted sabrá si la conserva en su prado. Sin embargo, sus flores son muy atractivas para las abejas, sus hojas pueden comerse en ensaladas y sus flores y semillas pueden cocerse con otros vegetales. Usted puede podarla regularmente por supuesto, para evitar su floración y sembrar semillas nuevas cada año.

Plantago lanceolata, Plantago major, Plantago media - Llantén: 'Hierba' muy común en los prados. Puede cortar el pasto tantas veces y tan corto como quiera sin causarle ningún inconveniente a la planta, ¡Y aún así formará un tallo floral casi inmune al trabajo y habilidades de los cortadores de césped! Use únicamente las hojas jóvenes ya sea cocinadas o en ensalada.

Prunella vulgaris - Sanícula: Es capaz de tolerar el corte regular, aunque de preferencia no muy corto, y aún así florear. Las flores son muy atractivas para las abejas. Prefiere suelo húmedo y realmente no les gusta el suelo calizo. Las hojas jóvenes pueden comerse crudas o cocidas. Se usa medicinalmente para tratar cortaduras y magulladuras.

Sanguisorba minor - Pimpinela: Esta planta se cultiva ocasionalmente en el jardín de hierbas de olor pero crece muy bien en el prado especialmente si se permite que crezca un poquito más alto de lo usual. Las hojas tiernas se comen en ensaladas, mucha gente opina que recuerdan el sabor del pepino. Prefiere suelo calizo y florea entre mayo y agosto.

Taraxacum officinale - Diente de León; Amargón: Una planta superior para cultivar en el prado, capaz de tolerar el corte regular y el pisoteo. La calidad de las hojas es mejor si se deja que el pasto crezca un poco más de lo usual, pero esto no es esencial. Floreará aunque se corte regularmente, y un prado de Diente de León en flor es una vista hermosa en primavera, aunque producirá flores dispares en otras épocas del año. Las hojas son extremadamente nutritivas y son mejor si ser comen crudas aunque pueden cocinarse. Las raíces, como las de achicoria, son un sustituto del café que siempre encontrará si tiene suficientes plantas en el prado. Las hojas viejas o recortes de la poda son un excelente adición a su pila de composta

Trifolium repens - Trébol blanco: Otra 'hierba' común en los pastos. Florea y prospera aún cuando se corte regularmente y corto. Es una importante fuente de alimento para muchas orugas, las hojas son atractivas para las abejas y las mariposas, y podemos comerlas - crudas o cocidas - y las flores y retoños. Es una excelente planta de compañía para las demás pues con la ayuda de bacterias en sus nódulos radicales puede proporcionar nitrógeno al suelo.

Tussilago farfara -Tusílago: Esta planta produce tallos florales en marzo y abril antes de que sus hojas aparezcan y es un signo seguro de que la primavera está una vez más con nosotros. Estos botones florales pueden comerse crudos o cocidos. Las hojas aparecen durante abril y mayo y también son comestibles. También se usan medicinalmente contra la tos y el resfrío. La planta prefiere suelo húmedo, pesado y una posición asoleada.

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

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Please use the exact Latin Names of the plants as specified in this database, one per line.

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ediblawn.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future: Database Search Results

Cichorium intybus

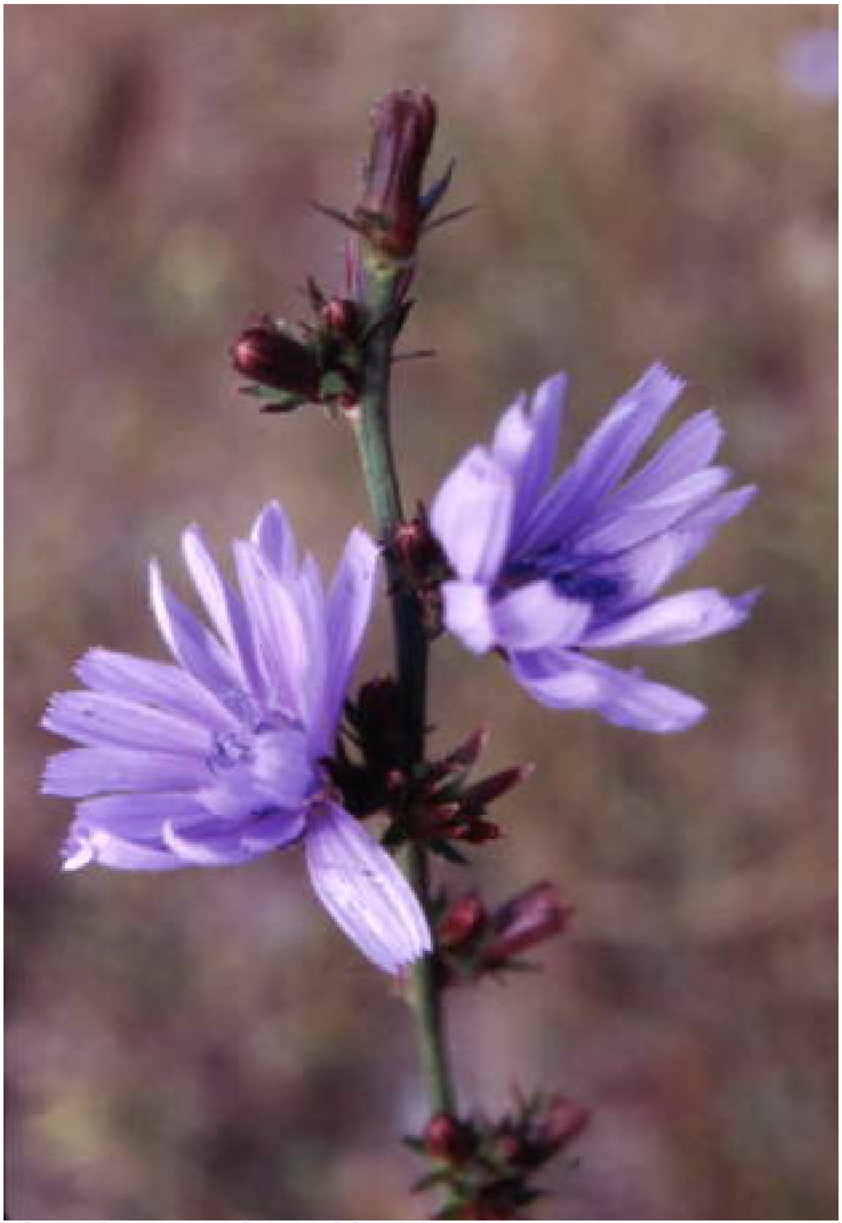

Photo by Derrick Ditchburn

Common name:	Chicory	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Excessive and continued use may impair function of the retina[268].		
Range:	Britain.		

Habitat:	Grassy meadows and arable land, especially on chalk[5, 13].
Plants For A Future Rating (1-5):	4

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. intybus var. foliosum[G] C. intybus var. sativum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Achicoria [E], Achicoria Amarga [E], Almeirao [E], Barbe De Capucin [E], Blaue Wegwarte [E], Blue Sailors [L], Chicory [E,P,B,S,MS,H,L], Cichorei [E], Cicoria Radicchio [E], Cikoria [E], Cikorie [E], Common Chicory [L], Endive [E], Hendibeh [H], Hindiba [E], Kasni [E], Kiku-Niga-Na [E], Succory [H], Wild Chicory [H], Wild Succory [E,H], Wilde Cichorei [D], Zikorifa [E],
Epithets:	From a Dictionary of Botanical Epithets
	intybus = endive;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Denmark; France; France; Germany; India; Iran; Iraq; Italy; Netherlands; Poland; Portugal; Spain; Sweden; Us; Ussr; Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Perennial growing to 1.5m by 0.5m . It is hardy to zone 3 and is not frost tender. It is in flower from July to October, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Lawn, Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Flowers; Leaves; Root.

Leaves - raw or cooked[2, 4, 5, 9, 27, 33, 171]. The leaves are rather bitter, especially when the plants are flowering[4]. The leaves are often blanched by excluding light, either by removing all the leaves and then earthing up the new growth, or by covering the plant with a bucket or something similar. Whilst this greatly reduces any bitterness, there is also a corresponding loss of vitamins and minerals[K]. The blanched leaves are often used in winter salads (they are known as chicons) and are also cooked[132, 200]. The unblanched leaves are much less bitter in winter and make an excellent addition to salads at this time of year[K]. A nutritional analysis of the leaves is available[218].

Flowers - raw[52]. An attractive addition to the salad bowl[183], but rather bitter[K].

Root - cooked like parsnip[5, 7, 9, 13, 21, 27, 46]. The boiled young roots form a very palatable vegetable[4]. The root is said to be an ideal food for diabetics because of its inulin content[9]. Inulin is a starch that cannot be digested by humans, it tends to pass straight through the digestive system and is therefore unlikely to be of use to a diabetic[K]. However, the inulin can be used to make a sweetener that is suitable for diabetics to use[K]. Chicory-root is free of harmful ingredients, and is essentially a concentrated combination of three sugars (pentose, levulose and dextrose) along with taraxarcine (the bitter principle of dandelion)[269]. It is especially important as source of levulose[269]. Roots are used in seasoning soups, sauces and gravies, and to impart a rich deep colour[269].

The roasted root is used as a caffeine-free coffee adulterant or substitute[2, 4, 5, 7, 13, 21, 27, 46]. Young roots have a slightly bitter caramel flavour when roasted, roots over 2 years old are much more bitter[238].

Composition

Root (Fresh weight)

In grammes per 100g weight of food:
Water: 77 Fat: 0.6 Ash: 0.8

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 290 Protein: 24.6 Fat: 2.9 Carbohydrate: 59.4 Fibre: 13 Ash: 13
In milligrammes per 100g weight of food:
Calcium: 1145 Iron: 24.6 VitaminA: 23 Thiamine: 1.01 Riboflavin: 1.74 Niacin: 5.8

VitaminC: 159

Medicinal Uses

Disclaimer

Appetizer; Bach; Cardiac; Cholagogue; Depurative; Digestive; Diuretic; Hypoglycaemic; Laxative; Tonic; Warts.

Chicory has a long history of herbal use and is especially of great value for its tonic affect upon the liver and digestive tract[254]. It is little used in modern herbalism, though it is often used as part of the diet.

The root and the leaves are appetizer, cholagogue, depurative, digestive, diuretic, hypoglycaemic, laxative and tonic[4, 7, 9, 13, 21, 46, 222]. The roots are more active medicinally[222]. A decoction of the root has proved to be of benefit in the treatment of jaundice, liver enlargement, gout and rheumatism[4]. A decoction of the freshly harvested plant is used for treating gravel[4]. The root can be used fresh or dried, it is best harvested in the autumn[9]. The leaves are harvested as the plant comes into flower and can also be dried for later use[9].

The root extracts have experimentally produced a slower and weaker heart rate (pulse)[222]. The plant merits research for use in heart irregularities[222].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Possessiveness', 'Self-love' and 'Self-pity'[209].

The latex in the stems is applied to warts in order to destroy them[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Biomass; Compost.

The roots have the potential to be used for the production of biomass for industrial use[132]. They are rich in the starch 'inulin' which can easily be converted to alcohol[269].

A blue dye has been obtained from the leaves[4].

The flowers are an alternative ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

Cultivation details

Prefers a sunny position in any moderately fertile well-drained moisture retentive soil[1, 14, 52]. Prefers a pH 5.5 to 7[200]. Tolerates a pH in the range 4.5 to 8.3. Chicory grows on any type of soil but, when cultivated, grows best on mellow, deeply tilled, fertile soil or sandy loam[269].. A cool weather crop, it tolerates only moderate summer temperatures and requires well-distributed rainfall, with good drainage, or some irrigation in drier areas[269]. Chicory roots deeply in relatively short time; soil too wet for beans and small grains is not suitable[269]. To insure proper root-growth, apply lime or marl to acid soil to neutralize acidity[269]. Chicory is reported to tolerate a pH in the range of 4.5 to 8.3, an annual rainfall of 30 to 400 cm and an annual mean biotemperature of 6° to 27°C[269].

Chicory is an excellent winter salad. It is often cultivated, especially in Europe, for its edible leaves and for its roots which are used to make a coffee substitute. There are many named varieties[46, 132, 183] and, by careful selection of cultivars and sowing times, fresh leaves can be obtained all year round. There are three main types of chicory grown for their leaves, there are many cultivars of each form:-

A bitter-tasting loose-leafed form is grown as a green winter vegetable, especially in southern Italy.

A narrow-leafed, witloof or Belgian form has a compact elongate head (chicon) which is blanched for use in salads or cooked dishes.

A broad-leaved (usually red) form produces cabbage-like hearts, these are generally less bitter than the other forms and are eaten raw or cooked. These forms are often used as a winter salad crop[K].

Although a perennial, chicory is usually cultivated as an annual crop, especially when being grown as a winter salad. The winter salad cultivars are usually sown in early summer to make sure that they do not flower in their first year of growth. By late autumn they have formed an overwintering rosette of leaves rather like a cabbage. These leaves can be harvested as required during the winter and the plants will then usually make some new growth (as long as the winter is not too cold) that can be harvested in late winter or early spring. The plants run to flower in the following summer and fail to make an overwintering rosette of leaves for that winter[K].

Chicory can be grown successfully in a meadow or even in a lawn so long as the grass is not cut too short nor too often[K]. It often self-sows freely when well-sited, especially if it is growing in a dry alkaline soil[238].

A good bee plant[24, 108].

A very ornamental plant[1]. The flowers open in the early morning (about 6 - 7 o'clock in Britain) and close around midday[4].

Propagation

Seed - sow the wild form or cultivars being grown for their roots in May or June in situ. Cultivars being grown for their edible leaves can be sown in April for a summer crop or in June/July for a winter crop. Sow them in situ or in pots and then plant them out as soon as they are large enough.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cichorium+intybus`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cichorium intybus*

Subject:

Cichorium intybus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cichorium intybus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:08:05 2004

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Coix lacryma-jobi

Common name:	Job's tears	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - E. India.		
Habitat:	Wet places in grassland in the foothills of the Himalayas[146, 158].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. agrestis[H] C. chinensis[H] C. lachryma[H] C. lachryma-jobi[E,H] C. lachrymajobi[H] C. lacrymajobi[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chi Shih [E], Chieh Li [E], Djali Batoe [E], Gavedhu [E], Graines Chapelet [E], Gurlu [E], Hato-Mugi [E], Hatomugi [E], Hui Hui Mi [E], I Chu Tzu [E], I I Jen [E], I I Jen Chiu [E], Jelai [E], Job'S Tear [E], Job's Tears [H,P], Job's-tears [B], Kan Mi [E], Lagrimas De San Pedro [E], Larmes De Job [E], T'U I Mi [E], Tranengras [E], Yi Yi Ren [E], Yokuinin [E], Zyuzu-Dama [E],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China; Egypt; Germany; Haiti; Hawaii; India; India(Santal); Japan; Java; Panama(Choco); Panama(Cuna); Perak; Philippines; Sanscrit; Taiwan; Us; Venezuela

Physical Characteristics

Perennial growing to 1m by 0.15m . It is hardy to zone 9. It is in leaf from May to October, in flower from July to October, and the seeds ripen from September to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed; Tea.

Seed - cooked. A pleasant mild flavour, it can be used in soups and broths[269].. It can be ground into a flour and used to make bread or used in any of the ways that rice is used[1, 2, 57, 100, 183]. The pounded flour is sometimes mixed with water like barley for barley water[269]. The pounded kernel is also made into a sweet dish by frying and coating with sugar[269]. It is also husked and eaten out of hand like a peanut[269]. The seed contains about 52% starch, 18% protein, 7% fat[114, 174]. It is higher in protein and fat than rice but low in minerals[114]. This is a potentially very useful grain, it has a higher protein to carbohydrate ratio than any other cereal[57], though the hard seedcoat makes extraction of the flour rather difficult.

A tea can be made from the parched seeds[46, 61, 105, 183], whilst beers and wines are made from the fermented grain[269].

A coffee is made from the roasted seed[183]. (This report refers to the ssp. ma-yuen)

Composition

Seed (Fresh weight)

> In grammes per 100g weight of food:
> Water: 11.2 Calories: 380 Protein: 15.4 Fat: 6.2 Carbohydrate: 65.3 Fibre: 0.8 Ash: 1.9
> In milligrammes per 100g weight of food:
> Calcium: 25 Phosphorus: 435 Iron: 5 VitaminA: 0 Thiamine: 0.28 Riboflavin: 0.19 Niacin: 4.3 VitaminC: 0
> Source: [218]

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Antiinflammatory; Antipyretic; Antirheumatic; Antispasmodic; Cancer; Diuretic; Hypoglycaemic; Pectoral; Refrigerant; Sedative; Tonic; Warts.

The fruits are anodyne, anti-inflammatory, antipyretic, antiseptic, antispasmodic, hypoglycaemic, hypotensive, sedative and vermifuge[218, 238]. The fruits are used in folk remedies for abdominal tumours, oesophageal, gastrointestinal, and lung cancers, various tumours, as well as excrescences, warts, and whitlows. This folk reputation is all the more interesting when reading that coixenolide has antitumor activity[269].

The seed, with the husk removed, is antirheumatic, diuretic, pectoral, refrigerant and tonic[176, 218, 240]. A tea from the boiled seeds is drunk as part of a treatment to cure warts[116, 174]. It is also used in the treatment of lung abscess, lobar pneumonia, appendicitis, rheumatoid arthritis, beriberi, diarrhoea, oedema and difficult urination[147, 176].

The plant has been used in the treatment of cancer[218].

The roots have been used in the treatment of menstrual disorders[240].

The fruit is harvested when ripe in the autumn and the husks are removed before using fresh, roasted or fermented[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Beads; Weaving.

The seeds are used as beads[1, 61, 100, 171].

The stems are used to make matting[158].

Cultivation details

Succeeds in ordinary garden soil[162]. Best grown in an open sunny border[1, 162]. Prefers a little shelter from the wind. Job's Tears is reported to tolerate an annual precipitation in the range of 61 to 429cm, an average annual temperature of 9.6 to 27.8°C and a pH in the range of 4.5 to 8.4[269].

Weed to some, necklace to others, staff-of-life to others, job's tear is a very useful and productive grass increasingly viewed as a potential energy source[269]. Before corn (Zea mays) became popular in Southern Asia, Job's tears was rather widely cultivated as a cereal in India[158, 269]. It is a potentially very useful grain having a higher protein to carbohydrate ratio than any other cereal[57]. The seed has a very tough shell however making it rather difficult to extract the grain. The ssp. ma-yuen. (Roman.)Stapf. is grown for its edible seed and medicinal virtues in China, the seedcoat is said to be soft and easily removed[57, 183]. This form is widely used in macrobiotic diets and cuisine[183]. The ssp. stenocarpa is used for beads[57].

Whilst usually grown as an annual, the plant is perennial in essentially frost-free areas[269]. Plants have survived temperatures down to about -35°c[160]. (This report needs verifying, it seems rather dubious[K].) Plants have often overwintered when growing in a polyhouse with us, they have then gone on to produce another crop of seed in their second year[K]. We have not as yet (1995) tried growing them on for a third year in a polyhouse[K].

Propagation

Seed - pre-soak for 2 hours in warm water and sow February/March in a greenhouse[164]. The seed usually germinates in 3 - 4 weeks at 25°c. When they are large enough to handle, prick the seedlings out into individual pots. Grow them on in cool conditions and plant out in late spring after the last expected frosts[1, 164]. Seed can also be sown in situ in May[1] though it would be unlikely to ripen its seed in an average British summer. In a suitable climate, it takes about 4 - 5 months from seed to produce new seed[269].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Coix lachryma-jobi* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Coix lacrymajobi* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202

Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[162] **Grounds. R.** *Ornamental Grasses.* Christopher Helm 1989 ISBN 0-7470-1219-9
Cultivation details of many of the grasses and bamboos. Well illustrated.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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---

Readers Comments

Coix lacryma-jobi

Thu Apr 20 14:21:27 2000

This is a comment about your page. In 3 hours of searching the web, yours was the first to give the Chinese name(s) of this plant. For this I am extremely grateful. I I Jen and Yi Yi Ren are alternative readings of the same Chinese name and "Yokuinin" is the Japanese mispronunciation of that name. Please use this information if it is of any use to you.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Coix lacryma-jobi

Common name:	Job's tears	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - E. India.		
Habitat:	Wet places in grassland in the foothills of the Himalayas[146, 158].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. agrestis[H] C. chinensis[H] C. lachryma[H] C. lachryma-jobi[E,H] C. lachrymajobi[H] C. lacrymajobi[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chi Shih [E], Chieh Li [E], Djali Batoe [E], Gavedhu [E], Graines Chapelet [E], Gurlu [E], Hato-Mugi [E], Hatomugi [E], Hui Hui Mi [E], I Chu Tzu [E], I I Jen [E], I I Jen Chiu [E], Jelai [E], Job'S Tear [E], Job's Tears [H,P], Job's-tears [B], Kan Mi [E], Lagrimas De San Pedro [E], Larmes De Job [E], T'U I Mi [E], Tranengras [E], Yi Yi Ren [E], Yokuinin [E], Zyuzu-Dama [E],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China; Egypt; Germany; Haiti; Hawaii; India; India(Santal); Japan; Java; Panama(Choco); Panama(Cuna); Perak; Philippines; Sanscrit; Taiwan; Us; Venezuela

Physical Characteristics

Perennial growing to 1m by 0.15m . It is hardy to zone 9. It is in leaf from May to October, in flower from July to October, and the seeds ripen from September to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed; Tea.

Seed - cooked. A pleasant mild flavour, it can be used in soups and broths[269].. It can be ground into a flour and used to make bread or used in any of the ways that rice is used[1, 2, 57, 100, 183]. The pounded flour is sometimes mixed with water like barley for barley water[269]. The pounded kernel is also made into a sweet dish by frying and coating with sugar[269]. It is also husked and eaten out of hand like a peanut[269]. The seed contains about 52% starch, 18% protein, 7% fat[114, 174]. It is higher in protein and fat than rice but low in minerals[114]. This is a potentially very useful grain, it has a higher protein to carbohydrate ratio than any other cereal[57], though the hard seedcoat makes extraction of the flour rather difficult.

A tea can be made from the parched seeds[46, 61, 105, 183], whilst beers and wines are made from the fermented grain[269].

A coffee is made from the roasted seed[183]. (This report refers to the ssp. ma-yuen)

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 11.2 Calories: 380 Protein: 15.4 Fat: 6.2 Carbohydrate: 65.3 Fibre: 0.8 Ash: 1.9
In milligrammes per 100g weight of food:
Calcium: 25 Phosphorus: 435 Iron: 5 VitaminA: 0 Thiamine: 0.28 Riboflavin: 0.19 Niacin: 4.3 VitaminC: 0
Source: [218]

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Antiinflammatory; Antipyretic; Antirheumatic; Antispasmodic; Cancer; Diuretic; Hypoglycaemic; Pectoral; Refrigerant; Sedative; Tonic; Warts.

The fruits are anodyne, anti-inflammatory, antipyretic, antiseptic, antispasmodic, hypoglycaemic, hypotensive, sedative and vermifuge[218, 238]. The fruits are used in folk remedies for abdominal tumours, oesophageal, gastrointestinal, and lung cancers, various tumours, as well as excrescences, warts, and whitlows. This folk reputation is all the more interesting when reading that coixenolide has antitumor activity[269].

The seed, with the husk removed, is antirheumatic, diuretic, pectoral, refrigerant and tonic[176, 218, 240]. A tea from the boiled seeds is drunk as part of a treatment to cure warts[116, 174]. It is also used in the treatment of lung abscess, lobar pneumonia, appendicitis, rheumatoid arthritis, beriberi, diarrhoea, oedema and difficult urination[147, 176].

The plant has been used in the treatment of cancer[218].

The roots have been used in the treatment of menstrual disorders[240].

The fruit is harvested when ripe in the autumn and the husks are removed before using fresh, roasted or fermented[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Beads; Weaving.

The seeds are used as beads[1, 61, 100, 171].

The stems are used to make matting[158].

Cultivation details

Succeeds in ordinary garden soil[162]. Best grown in an open sunny border[1, 162]. Prefers a little shelter from the wind. Job's Tears is reported to tolerate an annual precipitation in the range of 61 to 429cm, an average annual temperature of 9.6 to 27.8°C and a pH in the range of 4.5 to 8.4[269].

Weed to some, necklace to others, staff-of-life to others, job's tear is a very useful and productive grass increasingly viewed as a potential energy source[269]. Before corn (Zea mays) became popular in Southern Asia, Job's tears was rather widely cultivated as a cereal in India[158, 269]. It is a potentially very useful grain having a higher protein to carbohydrate ratio than any other cereal[57]. The seed has a very tough shell however making it rather difficult to extract the grain. The ssp. ma-yuen. (Roman.)Stapf. is grown for its edible seed and medicinal virtues in China, the seedcoat is said to be soft and easily removed[57, 183]. This form is widely used in macrobiotic diets and cuisine[183]. The ssp. stenocarpa is used for beads[57].

Whilst usually grown as an annual, the plant is perennial in essentially frost-free areas[269]. Plants have survived temperatures down to about -35°c[160]. (This report needs verifying, it seems rather dubious[K].) Plants have often overwintered when growing in a polyhouse with us, they have then gone on to produce another crop of seed in their second year[K]. We have not as yet (1995) tried growing them on for a third year in a polyhouse[K].

Propagation

Seed - pre-soak for 2 hours in warm water and sow February/March in a greenhouse[164]. The seed usually germinates in 3 - 4 weeks at 25°c. When they are large enough to handle, prick the seedlings out into individual pots. Grow them on in cool conditions and plant out in late spring after the last expected frosts[1, 164]. Seed can also be sown in situ in May[1] though it would be unlikely to ripen its seed in an average British summer. In a suitable climate, it takes about 4 - 5 months from seed to produce new seed[269].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb

Garden.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Coix lachryma-jobi* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Coix lacrymajobi* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of

useful plants from around the world with very brief details of the uses. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[162] **Grounds. R.** *Ornamental Grasses.* Christopher Helm 1989 ISBN 0-7470-1219-9
Cultivation details of many of the grasses and bamboos. Well illustrated.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese

Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
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Coix lacryma-jobi

Thu Apr 20 14:21:27 2000

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Plants For A Future: Database Search Results

Coix lacryma-jobi

Common name:	Job's tears	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - E. India.		
Habitat:	Wet places in grassland in the foothills of the Himalayas[146, 158].		
Plants For A Future Rating (1-5):	3		

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	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Perennial growing to 1m by 0.15m . It is hardy to zone 9. It is in leaf from May to October, in flower from July to October, and the seeds ripen from September to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed; Tea.

Seed - cooked. A pleasant mild flavour, it can be used in soups and broths[269].. It can be ground into a flour and used to make bread or used in any of the ways that rice is used[1, 2, 57, 100, 183]. The pounded flour is sometimes mixed with water like barley for barley water[269]. The pounded kernel is also made into a sweet dish by frying and coating with sugar[269]. It is also husked and eaten out of hand like a peanut[269]. The seed contains about 52% starch, 18% protein, 7% fat[114, 174]. It is higher in protein and fat than rice but low in minerals[114]. This is a potentially very useful grain, it has a higher protein to carbohydrate ratio than any other cereal[57], though the hard seedcoat makes extraction of the flour rather difficult.

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Seed (Fresh weight)

In grammes per 100g weight of food:
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The fruits are anodyne, anti-inflammatory, antipyretic, antiseptic, antispasmodic, hypoglycaemic, hypotensive, sedative and vermifuge[218, 238]. The fruits are used in folk remedies for abdominal tumours, oesophageal, gastrointestinal, and lung cancers, various tumours, as well as excrescences, warts, and whitlows. This folk reputation is all the more interesting when reading that coixenolide has antitumor activity[269].

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Other Uses

Beads; Weaving.

The seeds are used as beads[1, 61, 100, 171].

The stems are used to make matting[158].

Cultivation details

Succeeds in ordinary garden soil[162]. Best grown in an open sunny border[1, 162]. Prefers a little shelter from the wind. Job's Tears is reported to tolerate an annual precipitation in the range of 61 to 429cm, an average annual temperature of 9.6 to 27.8°C and a pH in the range of 4.5 to 8.4[269].

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Cultivars

"

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coix lacryma-jobi*

Subject:

Coix lacryma-jobi

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coix lacryma-jobi

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:08:16 2004

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Plants For A Future: Database Search Results

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Coprosma acerosa

Common name:	Sand coprosma	Family:	Rubiaceae
Author:	Cunn.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Coastal sand dunes[44] and elevations up to 1200 metres[11], on North, South and Chatham Islands[225].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	acer = sharp, pungent; acerosa = needle shaped (dict: full of chaff?);
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.5m by 0.6m . It is hardy to zone 8. It is in leaf all year, in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Fruit.

Fruit - raw[177]. Sweet and juicy[173], but with little flavour[225]. The fruit is usually pale blue and up to 8mm long x 6mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. An easily grown plant, it succeeds in most soils, so long as they are well-drained[225]. Judging by its habitat this plant should be tolerant of maritime exposure[K].

Somewhat intolerant of frost[200], this species is hardy at Kew but it prefers milder winters[11]. It does not succeed in the colder areas of the country[11]. Fruits are freely produced in Ireland[11]. Does well on a sunny ledge in the rock garden[11, 182].

A widely spreading mat-forming prostrate plant, though it will eventually build up to a height of 60cm[225].

Hybridizes freely with other members of this genus[200, 225], especially C. petriei[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Coprosma acerosa

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Range:	New Zealand.		
Habitat:	Coastal sand dunes[44] and elevations up to 1200 metres[11], on North, South and Chatham Islands[225].		
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	acer = sharp, pungent; acerosa = needle shaped (dict: full of chaff?);
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Fruit.

Fruit - raw[177]. Sweet and juicy[173], but with little flavour[225]. The fruit is usually pale blue and up to 8mm long x 6mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. An easily grown plant, it succeeds in most soils, so long as they are well-drained[225]. Judging by its habitat this plant should be tolerant of maritime exposure[K].

Somewhat intolerant of frost[200], this species is hardy at Kew but it prefers milder winters[11]. It does not succeed in the colder areas of the country[11]. Fruits are freely produced in Ireland[11]. Does well on a sunny ledge in the rock garden[11, 182].

A widely spreading mat-forming prostrate plant, though it will eventually build up to a height of 60cm[225].

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Propagation

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Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

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Readers Comments

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Plants For A Future: Database Search Results

Coprosma acerosa

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Author:	Cunn.	Botanical references:	11, 44, 200
Synonyms:			
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Range:	New Zealand.		
Habitat:	Coastal sand dunes[44] and elevations up to 1200 metres[11], on North, South and Chatham Islands[225].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.5m by 0.6m . It is hardy to zone 8. It is in leaf all year, in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Shady Edge.

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Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

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Suppliers

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Coprosma acerosa

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma acerosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Coprosma areolata

Common name:		Family:	Rubiaceae
Author:	Cheesem.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane forest, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	areolata = with small open places;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year, in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw[173]. Sweet, but with little flavour[225]. The dark purple fruit is up to 5mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors when grown in a woodland garden in the milder areas of Britain[200, 225].

Hybridizes freely with other members of this genus[200, 225].

Plants grown in Britain to date (1994) have not flowered[225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

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Author:	Cheesem.	Botanical references:	44, 200
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Habitat:	Lowland to lower montane forest, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

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Disclaimer

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Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even

when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
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[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN

1352-4186
A quarterly magazine, it has articles on Coprosma species,

Readers Comments

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Plants For A Future: Database Search Results

Coprosma areolata

Common name:		Family:	Rubiaceae
Author:	Cheesem.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane forest, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	areolata = with small open places;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year, in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw[173]. Sweet, but with little flavour[225]. The dark purple fruit is up to 5mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors when grown in a woodland garden in the milder areas of Britain[200, 225].

Hybridizes freely with other members of this genus[200, 225].

Plants grown in Britain to date (1994) have not flowered[225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even

when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coprosma areolata*

Subject:

Coprosma areolata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma areolata

Please use the exact Latin Names of the plants as specified in this database, one per line.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Coprosma atropurpurea

Common name:		Family:	Rubiaceae
Author:	(Ckn. & Allan.) L. B. Moore.	Botanical references:	11, 44, 200
Synonyms:	Coprosma petriei atropurpurea (Cockayne. & Allan.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to higher montane regions in tussock grass, stream margins, rocky places and dry river beds on North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	atropurpurea = dark purple; purpurea = purple;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m by 0.4m . It is hardy to zone 7. It is in leaf all year, in flower from July to August. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw[173]. Sweet, but with little flavour[225, K]. The wine-red fruit is about 8 - 12mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Another report says that it is quite hardy in Britain[225].

Closely related to C. pumila, and often confused with that species[225]. It hybridizes freely with other members of this genus[200, 225].

This species is often confused with C. petriei[11, 44], though it is quite distinct and does not hybridise with that species[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Division of suckers[225].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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A quarterly magazine, it has articles on Coprosma species,

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:

Email Address:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to higher montane regions in tussock grass, stream margins, rocky places and dry river beds on North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	atropurpurea = dark purple; purpurea = purple;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m by 0.4m . It is hardy to zone 7. It is in leaf all year, in flower from July to August. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

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The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

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Medicinal Uses

Disclaimer

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Cuttings of mature wood of the current year's growth, autumn in a frame.

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Suppliers

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Add a comment on: *Coprosma atropurpurea*

Subject:

Coprosma atropurpurea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma atropurpurea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Email Address:

Date: Sun May 16 02:08:44 2004

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Coprosma billardieri

Common name:	Native currant	Family:	Rubiaceae
Author:	Hook. f.	Botanical references:	200
Synonyms:	Coprosma quadrifida ((Labill.)Robinson.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria.		
Habitat:	Shady mountain gullies in moister forests to the montane zone[157].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Marquisia billardieri[G]
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 3m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet and juicy[144, 157, 173], but with little flavour[225]. The red fruit is about 7mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[200]. Plants are hardy to at least -7°c in Australian gardens[157] though this does not translate directly to British gardens due to our cooler summers and longer, colder and wetter winters.

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
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A quarterly magazine, it has articles on Coprosma species,

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future Rating (1-5):	1		

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Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

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Habitats and Possible Locations

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Fruit - raw or cooked. Sweet and juicy[144, 157, 173], but with little flavour[225]. The red fruit is about 7mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

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Propagation

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Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coprosma billardieri*

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Coprosma billardieri

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma billardieri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Coprosma brunnea

Common name:		Family:	Rubiaceae
Author:	(Kirk.) Cheesem.	Botanical references:	11, 44, 200
Synonyms:	Coprosma acerosa brunnea (Kirk.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to higher montane river beds, open grassland and rubbley places on North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m. It is hardy to zone 8. It is in leaf all year, in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Fruit.

Fruit - raw[128]. Sweet, but with little flavour[225]. The fruit is white or blue and up to 8mm long x 6mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the wood, it does not require a mordant[153].

An excellent medium-height ground cover[200].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225]. Very tolerant of maritime exposure[200].

Somewhat intolerant of frost[200], this species is hardy at Kew but it prefers milder winters[11]. It does not succeed in the colder areas of the country[11]. Fruits are freely produced in Ireland[11]. Does well on a sunny ledge in the rock garden[11, 182].

Hybridizes freely with other members of this genus[200, 225], especially C. petriei[225]. There are several named forms, selected for their ornamental value[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Web References

References for *Coprosma acerosa brunnea* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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[K] **Ken Fern**
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

[128] **Laing. and Blackwell.** *Plants of New Zealand.* Whitcombe and Tombs Ltd 1907
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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
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References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

[128] **Laing. and Blackwell.** *Plants of New Zealand.* Whitcombe and Tombs Ltd 1907
An old flora of New Zealand in a readable style. Some details of plant uses.

[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

Readers Comments

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Plants For A Future: Database Search Results

Coprosma brunnea

Common name:		Family:	Rubiaceae
Author:	(Kirk.) Cheesem.	Botanical references:	11, 44, 200
Synonyms:	Coprosma acerosa brunnea (Kirk.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to higher montane river beds, open grassland and rubbley places on North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m. It is hardy to zone 8. It is in leaf all year, in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Fruit.

Fruit - raw[128]. Sweet, but with little flavour[225]. The fruit is white or blue and up to 8mm long x 6mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the wood, it does not require a mordant[153].

An excellent medium-height ground cover[200].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225]. Very tolerant of maritime exposure[200].

Somewhat intolerant of frost[200], this species is hardy at Kew but it prefers milder winters[11]. It does not succeed in the colder areas of the country[11]. Fruits are freely produced in Ireland[11]. Does well on a sunny ledge in the rock garden[11, 182].

Hybridizes freely with other members of this genus[200, 225], especially C. petriei[225]. There are several named forms, selected for their ornamental value[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Coprosma brunnea*

Subject:

Coprosma brunnea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma brunnea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Coprosma foetidissima

Common name:		Family:	Rubiaceae
Author:	Forst. & Forst. f.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	From the coast to sub-alpine forests, shrubland and occasionally in grassland, North, South, Stewart and Aukland Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	foetidissima = most foetid;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweet, but with little flavour[225]. The orange fruit is about 8mm long[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. The plants are reasonably hardy in Essex[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

The crushed leaves have a repellent smell that is said to have the odour of dung[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Scent

Leaves: Crushed

> The crushed leaves have a repellent smell that is said to have the odour of dung.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
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[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Coprosma foetidissima

Common name:		Family:	Rubiaceae
Author:	Forst. & Forst. f.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	From the coast to sub-alpine forests, shrubland and occasionally in grassland, North, South, Stewart and Aukland Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	foetidissima = most foetid;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweet, but with little flavour[225]. The orange fruit is about 8mm long[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. The plants are reasonably hardy in Essex[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

The crushed leaves have a repellent smell that is said to have the odour of dung[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into

individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Scent

Leaves: Crushed

The crushed leaves have a repellent smell that is said to have the odour of dung.

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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A quarterly magazine, it has articles on Coprosma species,

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Plants For A Future: Database Search Results

Coprosma foetidissima

Common name:		Family:	Rubiaceae
Author:	Forst. & Forst. f.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	From the coast to sub-alpine forests, shrubland and occasionally in grassland, North, South, Stewart and Aukland Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	foetidissima = most foetid;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweet, but with little flavour[225]. The orange fruit is about 8mm long[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. The plants are reasonably hardy in Essex[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

The crushed leaves have a repellent smell that is said to have the odour of dung[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into

individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Scent

Leaves: Crushed

> The crushed leaves have a repellent smell that is said to have the odour of dung.

Suppliers

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Add a comment on: *Coprosma foetidissima*

Subject:

Coprosma foetidissima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma foetidissima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Date: Sun May 16 02:09:11 2004

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Coprosma grandifolia

Common name:		Family:	Rubiaceae
Author:	Hook. f.	Botanical references:	44
Synonyms:	Coprosma australis ((A.Rich.)Robinson.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane marginal forests, Three Kings, North and South Islands south to latitude 42° 30'[44, 173].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	grandifolia = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	New Zealand

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweet and juicy[173], but with little flavour[225]. The reddish-orange fruit is about 8mm long[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

Poultice; Skin; Stomachic.

Poultice, skin, stomachic. Treats cuts, sores, fevers, bruises and urinary complaints[61]. Sap from the inner bark has been used as a treatment for scabies[225].

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200].

A very ornamental plant[1], it hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy trimming or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for *Coprosma australis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961

The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
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A quarterly magazine, it has articles on Coprosma species,

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

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Enter your details here:

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Plants For A Future: Database Search Results

Coprosma grandifolia

Common name:		Family:	Rubiaceae
Author:	Hook. f.	Botanical references:	44
Synonyms:	Coprosma australis ((A.Rich.)Robinson.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane marginal forests, Three Kings, North and South Islands south to latitude 42° 30'[44, 173].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	grandifolia = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	New Zealand

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweet and juicy[173], but with little flavour[225]. The reddish-orange fruit is about 8mm long[200, 225].

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Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200].

A very ornamental plant[1], it hybridizes freely with other members of this genus[200, 225].

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Habitat:	Lowland to lower montane marginal forests, Three Kings, North and South Islands south to latitude 42° 30'[44, 173].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	grandifolia = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	New Zealand

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweet and juicy[173], but with little flavour[225]. The reddish-orange fruit is about 8mm long[200, 225].

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Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200].

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Propagation

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Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coprosma grandifolia*

Subject:

Coprosma grandifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma grandifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Coprosma hirtella

Common name:		Family:	Rubiaceae
Author:	Labill.	Botanical references:	154, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, South Australia, Tasmania, Victoria.		
Habitat:	Banks of streams, higher gullies and mountain sides to the sub-alpine zone[154].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	hirtella = a little hairy;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[154, 157]. Sweetish but not pleasant[144]. The dark red fruit is about 6mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Plants are hardy to at least -7°c in Australian gardens[157] though this cannot be translated directly to British gardens because of our cooler summers and longer, colder and wetter winters[K].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

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Web References

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A flora of eastern Australia, it is rather short on information that is useful to the plant project.

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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

Readers Comments

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Plants For A Future: Database Search Results

Coprosma hirtella

Common name:		Family:	Rubiaceae
Author:	Labill.	Botanical references:	154, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, South Australia, Tasmania, Victoria.		
Habitat:	Banks of streams, higher gullies and mountain sides to the sub-alpine zone[154].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	hirtella = a little hairy;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[154, 157]. Sweetish but not pleasant[144]. The dark red fruit is about 6mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Plants are hardy to at least -7°c in Australian gardens[157] though this cannot be translated directly to British gardens because of our cooler summers and longer, colder and wetter winters[K].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even

when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Coprosma hirtella*

Subject:

Coprosma hirtella

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma hirtella

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:09:30 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Coprosma lucida

Common name:		Family:	Rubiaceae
Author:	Forst. & Forst. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Forest and shrubby areas, especially marginal, to the montane zone. Found throughout New Zealand[44, 173].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	lucida = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweet and juicy[173], but with little flavour[225]. Dry weight is 3.3% protein, 8.1% sugar and 24.6% lipids[173]. The orange fruit is about 12mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[173].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Plants have proved to be nearly hardy in an Essex garden[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Sometimes found as an epiphyte in the wild[44].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

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A quarterly magazine, it has articles on Coprosma species,

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address: ▭

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Coprosma lucida

Common name:		Family:	Rubiaceae
Author:	Forst. & Forst. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Forest and shrubby areas, especially marginal, to the montane zone. Found throughout New Zealand[44, 173].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	lucida = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

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The roasted seed is an excellent coffee substitute[173].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Plants have proved to be nearly hardy in an Essex garden[225].

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Plants are tolerant of heavy clipping or pruning[225].

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Plants For A Future: Database Search Results

Coprosma lucida

Common name:		Family:	Rubiaceae
Author:	Forst. & Forst. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Forest and shrubby areas, especially marginal, to the montane zone. Found throughout New Zealand[44, 173].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	lucida = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweet and juicy[173], but with little flavour[225]. Dry weight is 3.3% protein, 8.1% sugar and 24.6% lipids[173]. The orange fruit is about 12mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[173].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Plants have proved to be nearly hardy in an Essex garden[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Sometimes found as an epiphyte in the wild[44].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even

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Suppliers

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Add a comment on: *Coprosma lucida*

Subject:

Coprosma lucida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma lucida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Date: Sun May 16 02:09:39 2004

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Add Comment Reset

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Coprosma moorei

Common name:		Family:	Rubiaceae
Author:	Rodway.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Tasmania, Victoria.		
Habitat:	Wet peaty places in alpine, sub-alpine and montane zones, to 1,200 metres[225].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m. It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Succulent[200]. Sweet, but with little flavour[225]. The bright blue fruit is about 7mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225]. This species is proving to be very difficult to grow in Britain[225].

Somewhat intolerant of frost, plants are only likely to succeed outdoors in the milder areas of Britain[200].

Hybridizes freely with other members of this genus[200, 225].

Unlike most members of this genus, this species is hermaphrodite[200, 225].

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into

individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

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A quarterly magazine, it has articles on Coprosma species,

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Coprosma moorei

Common name:		Family:	Rubiaceae
Author:	Rodway.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Tasmania, Victoria.		
Habitat:	Wet peaty places in alpine, sub-alpine and montane zones, to 1,200 metres[225].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m. It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Succulent[200]. Sweet, but with little flavour[225]. The bright blue fruit is about 7mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225]. This species is proving to be very difficult to grow in Britain[225].

Somewhat intolerant of frost, plants are only likely to succeed outdoors in the milder areas of Britain[200].

Hybridizes freely with other members of this genus[200, 225].

Unlike most members of this genus, this species is hermaphrodite[200, 225].

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

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Range:	Australia - Tasmania, Victoria.		
Habitat:	Wet peaty places in alpine, sub-alpine and montane zones, to 1,200 metres[225].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m. It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

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Medicinal Uses

Disclaimer

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Coprosma moorei

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma moorei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Coprosma nitida

Common name:		Family:	Rubiaceae
Author:	Hook. f.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Tasmania, Victoria.		
Habitat:	Mountains above 750 metres, becoming very dense and low-growing at high altitudes[11].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw. Sweetish but not pleasant according to one report[144]. Nice according to another[177]. The orange-red fruit is about 6mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

This species is somewhat intolerant of frost, but some provenances should succeed outdoors at least in the milder areas of Britain. A specimen seen at Hilliers Arboretum in April 1999 was 1.5 metres tall. It had been planted in quite heavy dappled shade right next to the trunk of a fairly upright deciduous tree, though with a fairly open aspect to the south. It looked very healthy, though a bit drawn up, with no signs of any cold damage[K].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

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Suppliers

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Coprosma nitida

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Author:	Hook. f.	Botanical references:	11, 200
Synonyms:			
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Range:	Australia - Tasmania, Victoria.		
Habitat:	Mountains above 750 metres, becoming very dense and low-growing at high altitudes[11].		
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Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

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Medicinal Uses

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Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Coprosma+nitida`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coprosma nitida*

Subject:

Coprosma nitida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma nitida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:09:57 2004

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Add Comment Reset

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Coprosma petriei

Common name:		Family:	Rubiaceae
Author:	Cheesem.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to higher montane grassland, stream margins, rocky places and dry river beds on North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m by 0.5m . It is hardy to zone 7. It is in leaf all year, and the seeds ripen in August. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall, Ground Cover.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but without much flavour[225]. The fruits vary in colour from white to blue or sea-green[225]. The fruit is seldom borne in Britain[208]. The fruit is about 12mm wide[200].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the wood, it does not require a mordant[153].

A dense carpeting plant, it can be planted about 25cm apart to form a ground cover[208]. The cultivar 'Violet Drops' is much more vigorous than the type, forming compact mats up to 2 metres across and making a very good ground cover[225].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225]. This plant has survived very dry conditions with us and appears to be very drought tolerant[K].

One of the hardiest members of this genus, it succeeds outdoors in the rock garden in many parts of the country[1].

Hybridizes freely with other members of this genus[200, 225], though it does not seem to cross with C. pumila, C. atropurpurea or any red-fruited species[225]. There are several named forms selected for their ornamental value[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

'Violet Drops'

> This cultivar is much more vigorous than the type, forming compact mats up to 2 metres across and making a very good ground cover[225].

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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An interesting and readable book on the useful plants of New Zealand.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the

details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Coprosma petriei

Common name:		Family:	Rubiaceae
Author:	Cheesem.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to higher montane grassland, stream margins, rocky places and dry river beds on North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m by 0.5m . It is hardy to zone 7. It is in leaf all year, and the seeds ripen in August. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall, Ground Cover.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but without much flavour[225]. The fruits vary in colour from white to blue or sea-green[225]. The fruit is seldom borne in Britain[208]. The fruit is about 12mm wide[200].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the wood, it does not require a mordant[153].

A dense carpeting plant, it can be planted about 25cm apart to form a ground cover[208]. The cultivar 'Violet Drops' is much more vigorous than the type, forming compact mats up to 2 metres across and making a very good ground cover[225].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225]. This plant has survived very dry conditions with us and appears to be very drought tolerant[K].

One of the hardiest members of this genus, it succeeds outdoors in the rock garden in many parts of the country[1].

Hybridizes freely with other members of this genus[200, 225], though it does not seem to cross with C. pumila, C. atropurpurea or any red-fruited species[225]. There are several named forms selected for their ornamental value[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

'Violet Drops'

> This cultivar is much more vigorous than the type, forming compact mats up to 2 metres across and making a very good ground cover[225].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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A quarterly magazine, it has articles on Coprosma species,

Readers Comments

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Plants For A Future: Database Search Results

Coprosma petriei

Common name:		Family:	Rubiaceae
Author:	Cheesem.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to higher montane grassland, stream margins, rocky places and dry river beds on North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.1m by 0.5m . It is hardy to zone 7. It is in leaf all year, and the seeds ripen in August. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall, Ground Cover.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but without much flavour[225]. The fruits vary in colour from white to blue or sea-green[225]. The fruit is seldom borne in Britain[208]. The fruit is about 12mm wide[200].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the wood, it does not require a mordant[153].

A dense carpeting plant, it can be planted about 25cm apart to form a ground cover[208]. The cultivar 'Violet Drops' is much more vigorous than the type, forming compact mats up to 2 metres across and making a very good ground cover[225].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225]. This plant has survived very dry conditions with us and appears to be very drought tolerant[K].

One of the hardiest members of this genus, it succeeds outdoors in the rock garden in many parts of the country[1].

Hybridizes freely with other members of this genus[200, 225], though it does not seem to cross with C. pumila, C. atropurpurea or any red-fruited species[225]. There are several named forms selected for their ornamental value[225].

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Propagation

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Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

'Violet Drops'

> This cultivar is much more vigorous than the type, forming compact mats up to 2 metres across and making a very good ground cover[225].

Suppliers

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Coprosma+petriei`

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Add a comment on: *Coprosma petriei*

Subject:

Coprosma petriei

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma petriei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add Comment Reset

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Coprosma propinqua

Common name:		Family:	Rubiaceae
Author:	Cunn.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Damp places[11]. Gravelly places throughout New Zealand[225].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	propinqua = related to;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 7. It is in leaf all year, in flower from February to March, and the seeds ripen from August to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[173]. Sweet, but with little flavour[225]. The pale to deep violet-blue fruit is about 8mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Hedge.

Tolerant of pruning, it makes a good dense hedging plant[225].

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. An easily grown plant, it succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[11, 200]. Another report says that it is fully hardy in Britain[225]. It flowers freely in Britain, fruiting heavily if pollinated[225].

A polymorphic species, it hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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A classic with a wealth of information on the plants, but poor on pictures.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

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An interesting and readable book on the useful plants of New Zealand.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302

A very well written and illustrated book based on the authors own experiments with living on a native diet.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

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Readers Comments

Coprosma propinqua

david n Sun Feb 25 08:06:04 2001

Coprosma propinqua var. latiuscula

I think it is possible the purple berries of this coastal Var of propinqua made me a little sick, laxative and weakening, there are several other possibilities. It tastes like C.repens(nothing special) but perhaps alittle better as weaker in flavour. Collecting them is also fairly time consuming.This plant is stock resistant once established, perhaps hedge potential in non extreme coastal(survives the most exteme exposure but will be prostrate. It is spongey, matress like and probably could be slept on if one was desperate to find a use for it.

Coprosma propinqua

david Sat Oct 20 11:07:15 2001

The root bark of Coprosma propinqua contains Asperuloside,scopoletin,glucose and rhamnose (A New Zealand Phytochemical Register-Part 1 S Brooker B cain R Cambie,Tranactios of the Royal Society of New Zealand vol1 may 31 1963) The text does not say if other parts have been tested.

The best web site I know of for activities of plant chemicals is Dr Dukes Phytochemical and ethnobotanical database, I've not asked their permission to quote activities of above chemicals so won't do so. Some of the lists are huge and incomprehensible (to me) anyway.

diclaimer:It is quite likely injesting the bark could kill someone for all I know

The previous comment I made about C propinqua var. latiuscala being possibly poisnous appears to be false, poisoning by infected water was almost certainy the cause and I've tried them again with no noticable ill effect.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Coprosma propinqua

Common name:		Family:	Rubiaceae
Author:	Cunn.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Damp places[11]. Gravelly places throughout New Zealand[225].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	propinqua = related to;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 7. It is in leaf all year, in flower from February to March, and the seeds ripen from August to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[173]. Sweet, but with little flavour[225]. The pale to deep violet-blue fruit is about 8mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Hedge.

Tolerant of pruning, it makes a good dense hedging plant[225].

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. An easily grown plant, it succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[11, 200]. Another report says that it is fully hardy in Britain[225]. It flowers freely in Britain, fruiting heavily if pollinated[225].

A polymorphic species, it hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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An interesting and readable book on the useful plants of New Zealand.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
A very well written and illustrated book based on the authors own experiments with living on a

native diet.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Coprosma propinqua

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Author:	Cunn.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Damp places[11]. Gravelly places throughout New Zealand[225].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	propinqua = related to;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 7. It is in leaf all year, in flower from February to March, and the seeds ripen from August to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[173]. Sweet, but with little flavour[225]. The pale to deep violet-blue fruit is about 8mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

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Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coprosma propinqua*

Subject:

Coprosma propinqua

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma propinqua

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 02:10:16 2004

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Coprosma pumila

Common name:		Family:	Rubiaceae
Author:	Hook. f.	Botanical references:	44, 200
Synonyms:	Coprosma repens (non A.Rich.), Coprosma perpusilla (Colenso.)		
Known Hazards:	None known		
Range:	Australia, New Zealand.		
Habitat:	Higher montane to sub-alpine grassland, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Creeping Mirrorplant [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	pumila = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.08m. It is hardy to zone 7. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The orange-red fleshy fruit is about 7mm in diameter, though forms with fruits up to 13mm have been seen[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Prefers a permanent moist and peaty soil, but it is not an easy plant to grow in Britain[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Another report says that it is fully hardy in Britain[225].

Closely related to C. atropurpurea and often confused with that species[225]. It is a very variable plant, hybridizing freely with other members of this genus[200, 225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

There is some confusion over the correct name of this species, it could be a part of C. petriei[200].

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Coprosma repens* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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References

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A quarterly magazine, it has articles on Coprosma species,

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Readers Comments

Coprosma repens - why is it called mirror plant?

Rich Thu Dec 23 01:05:45 1999

Anyone got an idea where this name came from?

Cross references: *Plants:* *Coprosma repens* .

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Readers Comments

Coprosma repens - why is it called mirror plant?

Rich Thu Dec 23 01:05:45 1999

Anyone got an idea where this name came from?

Cross references: *Plants:* *Coprosma repens* .

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Could not find Coprosma repens
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`www.pfaf.org`

Plants For A Future: Database Search Results

Coprosma pumila

Common name:		Family:	Rubiaceae
Author:	Hook. f.	Botanical references:	44, 200
Synonyms:	Coprosma repens (non A.Rich.), Coprosma perpusilla (Colenso.)		
Known Hazards:	None known		
Range:	Australia, New Zealand.		
Habitat:	Higher montane to sub-alpine grassland, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Creeping Mirrorplant [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	pumila = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.08m. It is hardy to zone 7. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The orange-red fleshy fruit is about 7mm in diameter, though forms with fruits up to 13mm have been seen[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Prefers a permanent moist and peaty soil, but it is not an easy plant to grow in Britain[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Another report says that it is fully hardy in Britain[225].

Closely related to C. atropurpurea and often confused with that species[225]. It is a very variable plant, hybridizing freely with other members of this genus[200, 225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

There is some confusion over the correct name of this species, it could be a part of C. petriei[200].

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Coprosma pumila*

Subject:

Coprosma pumila

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma pumila

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Coprosma repens

Common name:	Mirror plant	Family:	Rubiaceae
Author:	A. Rich.	Botanical references:	44, 200
Synonyms:	Coprosma baueri (Auct. non Endl.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Coastal cliffs on North and South Islands, south to latitude 41°50' south[44].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Creeping Mirrorplant [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	repens = creeping;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m by 2m . It is hardy to zone 9. It is in leaf all year, in flower from May to June. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[173]. Sweet, but not much flavour[225]. The orange fruit is about 10mm in diameter[200].

The roasted seed is a coffee substitute[153, 173]. It is said to make an excellent coffee, though the seeds are rather small[225].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200, 225]. The purple-leafed forms are somewhat hardier and have succeeded outdoors in a sheltered spot in an Essex garden[225].

There are several named forms, selected for their ornamental value[182, 225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

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Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Coprosma baueri* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Physical Characteristics

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Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

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Cultivars

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Subject:

Coprosma repens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Plant names you would like this comment to be added to:

Coprosma repens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

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Coprosma rhamnoides

Common name:		Family:	Rubiaceae
Author:	Cunn.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane forest and shrubland, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The dark red fruit is about 4mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Another report says that plants are reasonably hardy in Britain[225].

A polymorphic species[44], it hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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also very detailed.

[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

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Plants For A Future: Database Search Results

Coprosma rhamnoides

Common name:		Family:	Rubiaceae
Author:	Cunn.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane forest and shrubland, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The dark red fruit is about 4mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Another report says that plants are reasonably hardy in Britain[225].

A polymorphic species[44], it hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

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Web References

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Plants For A Future: Database Search Results

Coprosma rhamnoides

Common name:		Family:	Rubiaceae
Author:	Cunn.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane forest and shrubland, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The dark red fruit is about 4mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Another report says that plants are reasonably hardy in Britain[225].

A polymorphic species[44], it hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Coprosma rhamnoides

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Coprosma rhamnoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Coprosma robusta

Common name:		Family:	Rubiaceae
Author:	Raoul.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland forest and shrubland, especially on alluvial soils, on North, South and Chatham Islands, south to latitude 45°south[44, 225].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	robusta = robust;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[173]. The fruit is freely borne, it is sweet but has little flavour[225]. The orange fruit is about 9mm long x 5mm wide[200, 225].

The roasted seed is a coffee substitute[153, 173]. It is said to make an excellent coffee, though the seeds are rather small[225].

Medicinal Uses

Disclaimer

Kidney; Vulnerary.

A concoction of boiled leaves and twigs has been used to treat wounds that are not healing[225].

The decoction of the leaves has been drunk in the treatment of kidney troubles[225].

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[1, 200]. Plants are fairly hardy in Essex according to another report, which says that they are worthy shrubs for a woodland garden[225].

There are some named forms, selected for their ornamental value[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though occasionally the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[44, 225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for the family Rubiaceae.

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Plants For A Future: Database Search Results

Coprosma robusta

Common name:		Family:	Rubiaceae
Author:	Raoul.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland forest and shrubland, especially on alluvial soils, on North, South and Chatham Islands, south to latitude 45°south[44, 225].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

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Cultivation details

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There are some named forms, selected for their ornamental value[225].

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Plants are normally dioecious, though occasionally the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[44, 225]. Male and female plants must usually be grown if seed is required.

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Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Web References

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Readers Comments

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Plants For A Future: Database Search Results

Coprosma robusta

Common name:		Family:	Rubiaceae
Author:	Raoul.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland forest and shrubland, especially on alluvial soils, on North, South and Chatham Islands, south to latitude 45°south[44, 225].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	robusta = robust;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[173]. The fruit is freely borne, it is sweet but has little flavour[225]. The orange fruit is about 9mm long x 5mm wide[200, 225].

The roasted seed is a coffee substitute[153, 173]. It is said to make an excellent coffee, though the seeds are rather small[225].

Medicinal Uses

Disclaimer

Kidney; Vulnerary.

A concoction of boiled leaves and twigs has been used to treat wounds that are not healing[225].

The decoction of the leaves has been drunk in the treatment of kidney troubles[225].

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[1, 200]. Plants are fairly hardy in Essex according to another report, which says that they are worthy shrubs for a woodland garden[225].

There are some named forms, selected for their ornamental value[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though occasionally the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[44, 225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coprosma robusta*

Subject:

Coprosma robusta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma robusta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:10:54 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Coprosma rotundifolia

Common name:		Family:	Rubiaceae
Author:	Cunn.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Woodlands throughout both main islands, especially on alluvial soils[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	rotundifolia = round leaved;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2.4m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The red fruit is about 5mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[200], where it usually grows well in a woodland garden[1, 225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Coprosma rotundifolia

Common name:		Family:	Rubiaceae
Author:	Cunn.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Woodlands throughout both main islands, especially on alluvial soils[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	rotundifolia = round leaved;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2.4m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The red fruit is about 5mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[200], where it usually grows well in a woodland garden[1, 225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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References

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[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

Readers Comments

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Plants For A Future: Database Search Results

Coprosma rotundifolia

Common name:		Family:	Rubiaceae
Author:	Cunn.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Woodlands throughout both main islands, especially on alluvial soils[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	rotundifolia = round leaved;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2.4m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The red fruit is about 5mm in diameter[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[200], where it usually grows well in a woodland garden[1, 225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

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Add a comment on: *Coprosma rotundifolia*

Subject:

Coprosma rotundifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma rotundifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:11:03 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Coprosma rugosa

Common name:		Family:	Rubiaceae
Author:	Cheesem.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to montane and lower sub-alpine grassland, shrubland and forest margins in North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 3m. It is hardy to zone 7. It is in leaf all year, in flower from January to February, and the seeds ripen from August to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Freely produced in Britain, it is sweet but with little flavour[225]. The fruit is white or blue and about 8mm long x 6mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Hedge.

Tolerant of heavy trimming, the plant makes a good hedge[225].

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[200]. Another report says that it is quite hardy in Britain[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

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A quarterly magazine, it has articles on Coprosma species,

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If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Coprosma rugosa

Common name:		Family:	Rubiaceae
Author:	Cheesem.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to montane and lower sub-alpine grassland, shrubland and forest margins in North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 3m. It is hardy to zone 7. It is in leaf all year, in flower from January to February, and the seeds ripen from August to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Freely produced in Britain, it is sweet but with little flavour[225]. The fruit is white or blue and about 8mm long x 6mm wide[200, 225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Hedge.

Tolerant of heavy trimming, the plant makes a good hedge[225].

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[200]. Another report says that it is quite hardy in Britain[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even

when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

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Medicinal Uses

Disclaimer

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Suppliers

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Add a comment on: *Coprosma rugosa*

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Coprosma rugosa

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Plant Information

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Optional web-link:

Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma rugosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Coprosma serrulata

Common name:		Family:	Rubiaceae
Author:	Hook. f. ex Buch.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Montane to lower sub-alpine forest, shrubland and grassland, from latitude 41° south and southwards on South Island[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	serrulata = with small teeth;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 0.6m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but little flavour[225]. The orange-red fruits are about 8mm in diameter[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils, so long as they are well-drained[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the milder areas of Britain[200]. Plants are proving to be hardy in an Essex garden[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

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Habitat:	Montane to lower sub-alpine forest, shrubland and grassland, from latitude 41° south and southwards on South Island[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	serrulata = with small teeth;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but little flavour[225]. The orange-red fruits are about 8mm in diameter[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

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Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coprosma serrulata*

Subject:

Coprosma serrulata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma serrulata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:11:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Coprosma virescens

Common name:		Family:	Rubiaceae
Author:	Petrie.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane forest and shrubland, North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The white fruit is about 5mm in diameter[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[200]. Another report says that it is proving to be hardy in an Essex garden[225].

Hybridizes freely with other members of this genus[200, 225].

Plants are tolerant of heavy clipping or pruning[225].

Plants are normally dioecious, though in some species the plants produce a few flowers of the opposite sex before the main flowering and a few hermaphrodite flowers are sometimes produced[225]. Male and female plants must usually be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a greenhouse or cold frame[K]. Sow stored seed in spring in a cold frame[200]. Germination can be slow, often taking more than 12 months even when fresh seed is used[K]. When the seedlings are large enough to handle, prick them out into individual pots. Grow on the plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give the plants some protection from the cold for their first winter outdoors[K].

Cuttings of mature wood of the current year's growth, autumn in a frame.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN

1352-4186
A quarterly magazine, it has articles on Coprosma species,

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Coprosma virescens

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Author:	Petrie.	Botanical references:	44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to lower montane forest and shrubland, North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked. Sweet, but with little flavour[225]. The white fruit is about 5mm in diameter[225].

The roasted seed is an excellent coffee substitute[153].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A yellow dye is obtained from the wood, it does not require a mordant[153].

Cultivation details

Requires a moist, very well-drained neutral to slightly acid soil in full sun or light shade[200]. Succeeds in most soils[225].

Somewhat intolerant of frost, this species is only likely to succeed outdoors in the mildest areas of Britain[200]. Another report says that it is proving to be hardy in an Essex garden[225].

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Plants are tolerant of heavy clipping or pruning[225].

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Propagation

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Suppliers

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[225] **Knees. S.** *The New Plantsman. Volume 2, 1995.* Royal Horticultural Society 1995 ISBN 1352-4186
A quarterly magazine, it has articles on Coprosma species,

Readers Comments

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Author:	Petrie.	Botanical references:	44, 200
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Habitat:	Lowland to lower montane forest and shrubland, North and South Islands[44].		
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	Order: Rubiales . Madder family

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Disclaimer

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Add a comment on: *Coprosma virescens*

Subject:

Coprosma virescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coprosma virescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

Your Email Address:

Date: Sun May 16 02:11:30 2004

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Plants For A Future: Database Search Results

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Coreopsis tinctoria

Common name:	Coreopsis	Family:	Compositae
Author:	Nutt.	Botanical references:	60, 200
Synonyms:	Coreopsis cardaminifolia ((DC.)Nutt.)		
Known Hazards:	None known		
Range:	Central and Eastern N. America - Minnesota to Texas.		
Habitat:	Moist low ground[60]. Roadsides and waste places[244].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cardaminefolia[B,P] C. stenophylla[B,P] C. tinctoria var. imminuta[B,P] C. tinctoria var. tinctoria[B,P] Calliopsis bicolor[H] Calliopsis cardaminifolia[G] Calliopsis tinctoria[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calliopsis [H], Dyer's Calliopsis [H], Dyer's Coreopsis [H], Golden Tickseed [P,B], Plains Coreopsis [L], Tall Plain's Coreopsis [H],
Epithets:	From a Dictionary of Botanical Epithets
	tinctoria = used in dyeing;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual growing to 0.75m by 0.2m . . It is in leaf from April to November, in flower from June to September, and the seeds ripen from June to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee.

A tea can be made from the dried plant[257]. It was used as a coffee substitute[257].

Medicinal Uses

Disclaimer

Astringent; Emetic.

A tea made from the roots is emetic and is also used in the treatment of diarrhoea[222, 257].

An infusion of the whole plant without the root has been used by women desiring a female baby[257].

Other Uses

Dye.

A yellow (red with an acid mordant) dye is obtained from the flowers and is used to dye cloth[169, 244, 257]. It is not very good when used on plant fibres[169]. The flowers can be dried for later use[169].

Cultivation details

Succeeds in ordinary garden soil[1]. Prefers a fertile well-drained moisture retentive medium soil[111, 200]. Does well in sandy soils[188]. Requires a sunny position[111, 200]. Established plants are drought resistant[1].

A good bee plant[200].

Propagation

Seed - sow March in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer[111].

If you have sufficient seed then it can also be sown in situ outdoors.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Coreopsis tinctoria var. tinctoria* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] PhotoFrom Henriette's plant pictures

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Physical Characteristics

Annual growing to 0.75m by 0.2m . . It is in leaf from April to November, in flower from June to September, and the seeds ripen from June to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee.

A tea can be made from the dried plant[257]. It was used as a coffee substitute[257].

Medicinal Uses

Disclaimer

Astringent; Emetic.

A tea made from the roots is emetic and is also used in the treatment of diarrhoea[222, 257].

An infusion of the whole plant without the root has been used by women desiring a female baby[257].

Other Uses

Dye.

A yellow (red with an acid mordant) dye is obtained from the flowers and is used to dye cloth[169, 244, 257]. It is not very good when used on plant fibres[169]. The flowers can be dried for later use[169].

Cultivation details

Succeeds in ordinary garden soil[1]. Prefers a fertile well-drained moisture retentive medium soil[111, 200]. Does well in sandy soils[188]. Requires a sunny position[111, 200]. Established plants are drought resistant[1].

A good bee plant[200].

Propagation

Seed - sow March in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer[111].

If you have sufficient seed then it can also be sown in situ outdoors.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Coreopsis tinctoria var. tinctoria* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *coreopsis tinctoria* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Coreopsis+tinctoria`
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Plants For A Future: Database Search Results

Coreopsis tinctoria

Common name:	Coreopsis	Family:	Compositae
Author:	Nutt.	Botanical references:	60, 200
Synonyms:	Coreopsis cardaminifolia ((DC.)Nutt.)		
Known Hazards:	None known		
Range:	Central and Eastern N. America - Minnesota to Texas.		
Habitat:	Moist low ground[60]. Roadsides and waste places[244].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cardaminefolia[B,P] C. stenophylla[B,P] C. tinctoria var. imminuta[B,P] C. tinctoria var. tinctoria[B,P] Calliopsis bicolor[H] Calliopsis cardaminifolia[G] Calliopsis tinctoria[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calliopsis [H], Dyer's Calliopsis [H], Dyer's Coreopsis [H], Golden Tickseed [P,B], Plains Coreopsis [L], Tall Plain's Coreopsis [H],
Epithets:	From a Dictionary of Botanical Epithets
	tinctoria = used in dyeing;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual growing to 0.75m by 0.2m . . It is in leaf from April to November, in flower from June to September, and the seeds ripen from June to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee.

A tea can be made from the dried plant[257]. It was used as a coffee substitute[257].

Medicinal Uses

Disclaimer

Astringent; Emetic.

A tea made from the roots is emetic and is also used in the treatment of diarrhoea[222, 257].

An infusion of the whole plant without the root has been used by women desiring a female baby[257].

Other Uses

Dye.

A yellow (red with an acid mordant) dye is obtained from the flowers and is used to dye cloth[169, 244, 257]. It is not very good when used on plant fibres[169]. The flowers can be dried for later use[169].

Cultivation details

Succeeds in ordinary garden soil[1]. Prefers a fertile well-drained moisture retentive medium soil[111, 200]. Does well in sandy soils[188]. Requires a sunny position[111, 200]. Established plants are drought resistant[1].

A good bee plant[200].

Propagation

Seed - sow March in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer[111].

If you have sufficient seed then it can also be sown in situ outdoors.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Coreopsis+tinctoria`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Coreopsis+tinctoria`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coreopsis tinctoria*

Subject:

Coreopsis tinctoria

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coreopsis tinctoria

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:11:40 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus mas

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Cornelian cherry	Family:	Cornaceae
Author:	L.	Botanical references:	11, 200
Synonyms:	Cornus mascula (L.)		
Known Hazards:	None known		
Range:	Europe. Naturalized in Britain[17].		
Habitat:	Woodlands, especially in calcareous soils[7, 13].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cornelian Cherry [MS,H], Cornelian Cherry Dogwood [DEN1], Dogwood [H], Gele Kornoelje [D],
Epithets:	From a Dictionary of Botanical Epithets
	mas = male, robust;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 5m by 5m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay

soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Nana'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Variegata'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Macrocarpa'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Jolico'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Oil.

Fruit - raw, dried or used in preserves[2, 3, 7, 9, 13, 183]. Juicy, with a nice acid flavour[11]. The fully ripe fruit has a somewhat plum-like flavour and texture and is very nice eating, but the unripe fruit is rather astringent[K]. It is rather low in pectin and so needs to be used with other fruit when making jam[9]. At one time the fruit was kept in brine and used like olives[183]. The fruit is a reasonable size, up to 15mm long, with a single large seed[K].

A small amount of edible oil can be extracted from the seeds[7].

Seeds are roasted, ground into a powder and used as a coffee substitute[183].

Medicinal Uses

Disclaimer

Astringent; Febrifuge; Nutritive.

The bark and the fruit are astringent, febrifuge and nutritive[7]. The astringent fruit is a good treatment for bowel complaints and fevers, whilst it is also used in the treatment of cholera[4, 254].

The flowers are used in the treatment of diarrhoea[4].

Other Uses

Dye; Hedge; Oil; Tannin; Wood.

An oil is obtained from the seed[7].

A dye is obtained from the bark[3, 7]. No more details are given. Another report says that a red dye is obtained from the plant, but does not say which part of the plant[4].

The leaves are a good source of tannin[7].

Wood - very hard, it is highly valued by turners[7]. The wood is heavier than water and does not float[7]. It is used for tools, machine parts, etc[7, 11, 13, 61].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Prefers a moist soil[108] and a sunny position[15] but also succeeds in light shade[188]. Plants are fairly wind resistant[K]. Plants grow and crop well in pots.

A very hardy plant, tolerating temperatures down to about -25°c[184].

At one time the cornelian cherry was frequently cultivated for its edible fruit, though it has fallen into virtual disuse as a fruit crop in most areas[3]. It is still being cultivated in parts of C. Europe and there are some named varieties[183]. 'Macrocarpa' has larger fruits than the type[182]. 'Nana' is a dwarf form, derived from a yellow-fruited clone[182]. 'Variegata' has been seen on a number of occasions with very large crops of fruit, even in years when the type species has not fruited well[K]. 'Jolico' has well-flavoured fruits 3 times larger than the species. There are also a number of cultivars with yellow, white and purplish fruit.

Seedlings can take up to 20 years to come into fruit. Plants produced from cuttings come into fruit when much younger, though they do not live as long as the seedlings.

A very ornamental plant[1] it flowers quite early in the year and is a valuable early food for bees[13, 108].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame[188].

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

'Variegata'

Smaller-growing than the species, probably reaching no more than 2 metres tall and wide. It has considerable leaf variegation, is less tough than the species and does best in a sunny sheltered position. This cultivar seems to fruit well each year, producing full-sized well-flavoured fruits with less astringency than the species[K].

'Nana'

A dwarf form, it is derived from a yellow-fruited clone[182].

'Macrocarpa'

This cultivar has larger fruits than the type[182].

'Jolico'

The fruits are well-flavoured and up to 3 times larger than the species. A self-sterile clone, it requires pollination by another cultivar if fruit is to be formed.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Cornus mas* (Cornelian Cherry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Edible Shrubs
- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus mascula* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6

Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Cornus mas

Robby Bonkowski Thu Jan 2 23:37:56 2003

Cornus mas is traditionally used together with Eleganus multiflora in traditional Korean and Chinese herbal medicine.

Cornus mas

Hristo Hristov (bg_seeds@yahoo.com) Tue Jul 8 18:31:22 2003

Link: Cornus mas Description, seeds (for swap) and some photos of the Bulgarian cultivars of Cornus mas

---

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+mas`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+mas`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cornus mas

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Cornelian cherry	Family:	Cornaceae
Author:	L.	Botanical references:	11, 200
Synonyms:	Cornus mascula (L.)		
Known Hazards:	None known		
Range:	Europe. Naturalized in Britain[17].		
Habitat:	Woodlands, especially in calcareous soils[7, 13].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cornelian Cherry [MS,H], Cornelian Cherry Dogwood [DEN1], Dogwood [H], Gele Kornoelje [D],
Epithets:	From a Dictionary of Botanical Epithets
	mas = male, robust;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 5m by 5m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Nana'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Variegata'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Macrocarpa'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Jolico'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Oil.

Fruit - raw, dried or used in preserves[2, 3, 7, 9, 13, 183]. Juicy, with a nice acid flavour[11]. The fully ripe fruit has a somewhat plum-like flavour and texture and is very nice eating, but the unripe fruit is rather astringent[K]. It is rather low in pectin and so needs to be used with other fruit when making jam[9]. At one time the fruit was kept in brine and used like olives[183]. The fruit is a reasonable size, up to 15mm long, with a single large seed[K].

A small amount of edible oil can be extracted from the seeds[7].

Seeds are roasted, ground into a powder and used as a coffee substitute[183].

Medicinal Uses

Disclaimer

Astringent; Febrifuge; Nutritive.

The bark and the fruit are astringent, febrifuge and nutritive[7]. The astringent fruit is a good treatment for bowel complaints and fevers, whilst it is also used in the treatment of cholera[4, 254].

The flowers are used in the treatment of diarrhoea[4].

Other Uses

Dye; Hedge; Oil; Tannin; Wood.

An oil is obtained from the seed[7].

A dye is obtained from the bark[3, 7]. No more details are given. Another report says that a red dye is obtained from the plant, but does not say which part of the plant[4].

The leaves are a good source of tannin[7].

Wood - very hard, it is highly valued by turners[7]. The wood is heavier than water and does not float[7]. It is used for tools, machine parts, etc[7, 11, 13, 61].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Prefers a moist soil[108] and a sunny position[15] but also succeeds in light shade[188]. Plants are fairly wind resistant[K]. Plants grow and crop well in pots.

A very hardy plant, tolerating temperatures down to about -25°c[184].

At one time the cornelian cherry was frequently cultivated for its edible fruit, though it has fallen into virtual disuse as a fruit crop in most areas[3]. It is still being cultivated in parts of C. Europe and there are some named varieties[183]. 'Macrocarpa' has larger fruits than the type[182]. 'Nana' is a dwarf form, derived from a yellow-fruited clone[182]. 'Variegata' has been seen on a number of occasions with very large crops of fruit, even in years when the type species has not fruited well[K]. 'Jolico' has well-flavoured fruits 3 times larger than the species. There are also a number of cultivars with yellow, white and purplish fruit.

Seedlings can take up to 20 years to come into fruit. Plants produced from cuttings come into fruit when much younger, though they do not live as long as the seedlings.

A very ornamental plant[1] it flowers quite early in the year and is a valuable early food for bees[13, 108].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame[188].

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

'Variegata'

Smaller-growing than the species, probably reaching no more than 2 metres tall and wide. It has considerable leaf variegation, is less tough than the species and does best in a sunny sheltered position. This cultivar seems to fruit well each year, producing full-sized well-flavoured fruits with less astringency than the species[K].

'Nana'

A dwarf form, it is derived from a yellow-fruited clone[182].

'Macrocarpa'

This cultivar has larger fruits than the type[182].

'Jolico'

The fruits are well-flavoured and up to 3 times larger than the species. A self-sterile clone, it requires pollination by another cultivar if fruit is to be formed.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Cornus mas* (Cornelian Cherry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Edible Shrubs
- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus mascula* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6

Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Cornus mas

Robby Bonkowski Thu Jan 2 23:37:56 2003

Cornus mas is traditionally used together with Eleganus multiflora in traditional Korean and Chinese herbal medicine.

Cornus mas

Hristo Hristov (bg_seeds@yahoo.com) Tue Jul 8 18:31:22 2003

Link: Cornus mas Description, seeds (for swap) and some photos of the Bulgarian cultivars of Cornus mas

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Search for Latin Name: Cornus

New Search: Cornus Search

Latin Name	Common Name	Family	Synonyms	Rating
Aristotelia chilensis	Macqui	Elaeocarpaceae	A. macqui. Cornus chilensis; Cornus chilensis	3
Cornus alternifolia	Green osier	Cornaceae	Swida alternifolia.; Swida alternifolia	1
Cornus amomum	Silky dogwood	Cornaceae	C. coerulea. Swida amomum.; Swida amomum; Cornus coerulea; C. amomum ssp. amomum; C. caerulea	1
Cornus asperifolia drummondii	Roughleaf dogwood	Cornaceae	C. drummondii. C.A.Mey.; Cornus drummondii; C. priceae; Swida priceae	1
Cornus australis		Cornaceae	C. sanguinea australis. (C.A.Mey.)Koehne.; Cornus sanguinea australis; C. sanguinea subsp. australis; Thelycrania australis	3
Cornus canadensis	Creeping dogwood	Cornaceae	Chamaepericlymenum canadense.; Chamaepericlymenum canadense; C. canadensis var. dutillyi; Cornella canadensis	4

Cornus capitata	Bentham's cornel	Cornaceae	Benthamida capitata. B. fragifera. Dendrobenthamia capitata.; Dendrobenthamia capitata; Benthamidia capitata; Benthamia fragifera	4
Cornus chinensis		Cornaceae	Corylus chinensis; Corylus colurna var. chinensis; Corylus papyracea	3
Cornus controversa	Giant dogwood	Cornaceae	C. brachypodia.; Cornus brachypoda; Bothrocaryum controversum	2
Cornus coreana		Cornaceae		1
Cornus florida	Flowering dogwood	Cornaceae	Benthamidia florida. Cynoxylon floridum.; Cynoxylon floridum; Benthamidia florida	2
Cornus hongkongensis		Cornaceae		1
Cornus iberica		Cornaceae	Thelycrania iberica. (G.Woron.)Pojark.; Thelycrania iberica	3
Cornus kousa	Japanese dogwood	Cornaceae		5
Cornus kousa chinensis	Japanese dogwood	Cornaceae	Dendrobenthamia japonica. (Thunb.)Hutch.; Dendrobenthamia japonica; C. kousa var. chinensis	5
Cornus macrophylla	Large-leaf dogwood	Cornaceae	C. brachypoda. Swida macrophylla.; Swida macrophylla; Cornus brachypoda	2
Cornus mas	Cornelian cherry	Cornaceae	C. mascula.; Cornus mascula	4
Cornus monbeigii		Cornaceae		2
Cornus nuttallii	Mountain dogwood	Cornaceae	C. nuttalii	2

Cornus occidentalis	Western dogwood	Cornaceae	C. pubescens. Nutt. non Willd.; Cornus pubescens; C. alba var. californica; C. alba var. occidentalis; C. sericea ssp. occidentalis; C. sericea subsp. occidentalis; C. sericea var. occidentalis; C. stolonifera var. californica; C. stolonifera var. occidentalis; C. x californica	1
Cornus officinalis	Shan Zhu Yu	Cornaceae		4
Cornus paucinervis		Cornaceae		2
Cornus poliophylla		Cornaceae		2
Cornus rugosa	Round-leaved dogwood	Cornaceae	C. circinata. L'Hér. Swida rugosa.; Swida rugosa; Cornus circinata	1
Cornus sanguinea	Dogwood	Cornaceae	Swida sanguinea. Thelycrania sanguinea.; Thelycrania sanguinea; Swida sanguinea; C. sanguinea var. viridissima; C. stolonifera	3
Cornus sericea	Red osier dogwood	Cornaceae	C. alba non L. C. stolonifera. Michx. Swida stolonifera. Thelycrania stolonifera.; Thelycrania stolonifera; Swida stolonifera; Cornus stolonifera; Cornus alba; C. alba ssp. stolonifera; C. alba stolonifera; C. alba subsp. stolonifera; C. alba var. baileyi; C. alba var. coloradensis; C. alba var. interior; C. alba var. sibirica; C. baileyi; C. instolonea; C. interior; C. sanguinea; C. sanguinea var. viridissima; C. sericea ssp. sericea; C. sericea ssp. stolonifera; C.	3

			sericea subsp. sericea; C. sericea var. interior; C. sericea var. sericea; C. sibirica; C. stolonifera var. baileyi; C. stolonifera var. coloradensis; C. stolonifera var. interior; C. tartarica; Swida instolonea; Swida sanguinea; Swida sericea	
Cornus sessilis		Cornaceae		3
Cornus suecica	Dwarf cornel	Cornaceae	Chamaepericlymenum suecicum.; Chamaepericlymenum suecicum; Cornella suecica; Swida suecica	3
Cornus x unalaschkensis	Bunchberry	Cornaceae		3
Sorbus domestica	Service tree	Rosaceae	Cornus domestica. Pyrus sorbus.	5
Viburnum japonicum		Caprifoliaceae	Cornus japonica	2

New Search

Latin Name	Cornus
Common Name	
Family	
Rating	1 — 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Aristotelia chilensis

Common name:	Macqui	Family:	Elaeocarpaceae
Author:	(Mol.) Stuntz.	Botanical references:	11, 139, 200
Synonyms:	Cornus chilensis (Molina.), Aristotelia macqui (L'Hér.)		
Known Hazards:	None known		
Range:	S. America - Chile, Argentina.		
Habitat:	A weedy shrub of cleared forests and waste ground, growing in damp humus rich soils on lower mountain hillsides by rivers between latitudes 31 and 40° south[139].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Maqui [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Elaeocarpus family
Other Range Info:	From the Ethnobotany Database
	Chile

Physical Characteristics

An evergreen shrub growing to 3m by 5m . It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen from August to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees and insects. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for

usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or dried for winter use[11, 22, 46, 61, 97]. A pleasant taste somewhat like bilberries[2]. The fruit is rather small, about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Astringent; Febrifuge; Poultice.

A wine made from the fruit is said to have medicinal properties[11].

The plant (the exact part is not specified) is astringent, febrifuge and poultice. It is used in the treatment of throat infections and intestinal tumours[139].

Other Uses

None known

Cultivation details

Prefers a slightly acid, moderately fertile well-drained soil in full sun with shelter from cold drying winds[200]. Plants are fairly tolerant of maritime exposure[K].

This species is only hardy in the milder and moister areas of Britain[182] and even there can be cut back in severe winters[K]. If the plants are cut back by winter frosts, they normally put up a crowd of vigorous shoots in the spring and these will need thinning[219]. The fruits are freely produced in S.W. England[11]. There is a very good plant at Rosehill near Falmouth[59].

The flowers are very attractive to bees[59].

Dioecious. Male and female plants must be grown if seed is required[182].

Propagation

Seed - sow spring in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Once the plants are at least 20cm tall, plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection from the cold for at least their first winter outdoors.

Cuttings of half-ripe wood, July/August in a frame[11].

Cuttings of mature wood of the current season's growth in early winter[1]. Take cuttings 15 - 30cm long and plant them in pots or the open soil in a greenhouse. They normally root very easily and can be potted up in early summer then planted out late the following spring[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeocarpaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[97] **Towle. M. A.** *The Ethno-Botany of Pre-Columbian Peru.*
A very interesting book covering quite a lot of information on plant uses in S. America although many of the plants are not suitable for temperate areas..

[139] **?** *Flora of Chile. (in Spanish)*
Some information about the useful plants of Chile.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0

A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

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Readers Comments

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Plants For A Future: Database Search Results

Aristotelia chilensis

Common name:	Macqui	Family:	Elaeocarpaceae
Author:	(Mol.) Stuntz.	Botanical references:	11, 139, 200
Synonyms:	Cornus chilensis (Molina.), Aristotelia macqui (L'Hér.)		
Known Hazards:	None known		
Range:	S. America - Chile, Argentina.		
Habitat:	A weedy shrub of cleared forests and waste ground, growing in damp humus rich soils on lower mountain hillsides by rivers between latitudes 31 and 40° south[139].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Maqui [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Elaeocarpus family
Other Range Info:	From the Ethnobotany Database
	Chile

Physical Characteristics

An evergreen shrub growing to 3m by 5m . It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen from August to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees and insects. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or dried for winter use[11, 22, 46, 61, 97]. A pleasant taste somewhat like bilberries[2]. The fruit is rather small, about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Astringent; Febrifuge; Poultice.

A wine made from the fruit is said to have medicinal properties[11].

The plant (the exact part is not specified) is astringent, febrifuge and poultice. It is used in the treatment of throat infections and intestinal tumours[139].

Other Uses

None known

Cultivation details

Prefers a slightly acid, moderately fertile well-drained soil in full sun with shelter from cold drying winds[200]. Plants are fairly tolerant of maritime exposure[K].

This species is only hardy in the milder and moister areas of Britain[182] and even there can be cut back in severe winters[K]. If the plants are cut back by winter frosts, they normally put up a crowd of vigorous shoots in the spring and these will need thinning[219]. The fruits are freely produced in S.W. England[11]. There is a very good plant at Rosehill near Falmouth[59].

The flowers are very attractive to bees[59].

Dioecious. Male and female plants must be grown if seed is required[182].

Propagation

Seed - sow spring in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Once the plants are at least 20cm tall, plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection from the cold for at least their first winter outdoors.

Cuttings of half-ripe wood, July/August in a frame[11].

Cuttings of mature wood of the current season's growth in early winter[1]. Take cuttings 15 - 30cm long and plant them in pots or the open soil in a greenhouse. They normally root very easily and can be potted up in early summer then planted out late the following spring[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeocarpaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[97] **Towle. M. A.** *The Ethno-Botany of Pre-Columbian Peru.*
A very interesting book covering quite a lot of information on plant uses in S. America although many of the plants are not suitable for temperate areas..

[139] **?** *Flora of Chile. (in Spanish)*
Some information about the useful plants of Chile.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0

A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

Readers Comments

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Plants For A Future: Database Search Results

Aristotelia chilensis

Common name:	Macqui	Family:	Elaeocarpaceae
Author:	(Mol.) Stuntz.	Botanical references:	11, 139, 200
Synonyms:	Cornus chilensis (Molina.), Aristotelia macqui (L'Hér.)		
Known Hazards:	None known		
Range:	S. America - Chile, Argentina.		
Habitat:	A weedy shrub of cleared forests and waste ground, growing in damp humus rich soils on lower mountain hillsides by rivers between latitudes 31 and 40° south[139].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Maqui [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Elaeocarpus family
Other Range Info:	From the Ethnobotany Database
	Chile

Physical Characteristics

An evergreen shrub growing to 3m by 5m . It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen from August to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees and insects. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or dried for winter use[11, 22, 46, 61, 97]. A pleasant taste somewhat like bilberries[2]. The fruit is rather small, about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Astringent; Febrifuge; Poultice.

A wine made from the fruit is said to have medicinal properties[11].

The plant (the exact part is not specified) is astringent, febrifuge and poultice. It is used in the treatment of throat infections and intestinal tumours[139].

Other Uses

None known

Cultivation details

Prefers a slightly acid, moderately fertile well-drained soil in full sun with shelter from cold drying winds[200]. Plants are fairly tolerant of maritime exposure[K].

This species is only hardy in the milder and moister areas of Britain[182] and even there can be cut back in severe winters[K]. If the plants are cut back by winter frosts, they normally put up a crowd of vigorous shoots in the spring and these will need thinning[219]. The fruits are freely produced in S.W. England[11]. There is a very good plant at Rosehill near Falmouth[59].

The flowers are very attractive to bees[59].

Dioecious. Male and female plants must be grown if seed is required[182].

Propagation

Seed - sow spring in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Once the plants are at least 20cm tall, plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection from the cold for at least their first winter outdoors.

Cuttings of half-ripe wood, July/August in a frame[11].

Cuttings of mature wood of the current season's growth in early winter[1]. Take cuttings 15 - 30cm long and plant them in pots or the open soil in a greenhouse. They normally root very easily and can be potted up in early summer then planted out late the following spring[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Aristotelia chilensis*

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Aristotelia chilensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aristotelia chilensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Cornus alternifolia

Common name:	Green osier	Family:	Cornaceae
Author:	L. f.	Botanical references:	11, 43, 200
Synonyms:	Swida alternifolia ((L.f.)Small.)		
Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Florida, west to Manitoba and Arkansas.		
Habitat:	Dry woods and rocky slopes[43]. Rich woodlands and forest margins in moist well-drained soils[82].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Alternate-leaf Dogwood [FEIS,DEN1,B], Alternateleaf Dogwood [P], Dogwood [E],
Epithets:	From a Dictionary of Botanical Epithets
	alternifolia = alternating leaves; ternifolia = leaves in 3;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Us(Menomini)

Physical Characteristics

A decidious shrub growing to 6m by 6m at a fast rate. It is hardy to zone 3. It is in flower in June, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Antiaphonic; Astringent; Diaphoretic; Febrifuge; Ophthalmic; Poultice; Stimulant; VD.

Green osier was employed medicinally by a number of native North American Indian tribes who valued it particularly for its astringent bark which was used both internally and externally to treat diarrhoea, skin problems etc[257]. It is little used in modern herbalism.

The dried bark is used as an astringent, diaphoretic and stimulant[213, 257]. The inner bark was boiled and the solution used as an enema[213] and this solution was also used as a tea to reduce fevers, treat influenza, diarrhoea, headaches, voice loss etc[213, 257]. It was used as a wash for the eyes[257].

A compound infusion of the bark and roots has been used to treat childhood diseases such as measles and worms[257]. It has also been used as a wash on areas of the body affected by venereal disease[257].

A poultice of the powdered bark has been used to treat swellings, blisters etc[257].

Other Uses

Dye; Wood.

A light to dark-brown dye is obtained from the roots with the addition of vinegar[226].

Wood - heavy, hard, close grained. It is too small to be of commercial value, but is used locally for turnery[82, 229].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils and in dry soils. Succeeds in full sun or light shade[[188].

Plants are hardy to about -25°c[184].

A fast-growing but short-lived species in the wild[229], it is closely related to C. controversa[200]. This species is unusual in having alternate leaves whilst almost all other members of this genus have opposite leaves[182]. Plants have a thin bark and this makes them susceptible to forest fires[229]. There is at least one named form selected for its ornamental value[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain: C.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Cornus alternifolia

Common name:	Green osier	Family:	Cornaceae
Author:	L. f.	Botanical references:	11, 43, 200
Synonyms:	Swida alternifolia ((L.f.)Small.)		
Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Florida, west to Manitoba and Arkansas.		
Habitat:	Dry woods and rocky slopes[43]. Rich woodlands and forest margins in moist well-drained soils[82].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Alternate-leaf Dogwood [FEIS,DEN1,B], Alternateleaf Dogwood [P], Dogwood [E],
Epithets:	From a Dictionary of Botanical Epithets
	alternifolia = alternating leaves; ternifolia = leaves in 3;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Us(Menomini)

Physical Characteristics

A decidious shrub growing to 6m by 6m at a fast rate. It is hardy to zone 3. It is in flower in June, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Antiaphonic; Astringent; Diaphoretic; Febrifuge; Ophthalmic; Poultice; Stimulant; VD.

Green osier was employed medicinally by a number of native North American Indian tribes who valued it particularly for its astringent bark which was used both internally and externally to treat diarrhoea, skin problems etc[257]. It is little used in modern herbalism.

The dried bark is used as an astringent, diaphoretic and stimulant[213, 257]. The inner bark was boiled and the solution used as an enema[213] and this solution was also used as a tea to reduce fevers, treat influenza, diarrhoea, headaches, voice loss etc[213, 257]. It was used as a wash for the eyes[257].

A compound infusion of the bark and roots has been used to treat childhood diseases such as measles and worms[257]. It has also been used as a wash on areas of the body affected by venereal disease[257].

A poultice of the powdered bark has been used to treat swellings, blisters etc[257].

Other Uses

Dye; Wood.

A light to dark-brown dye is obtained from the roots with the addition of vinegar[226].

Wood - heavy, hard, close grained. It is too small to be of commercial value, but is used locally for turnery[82, 229].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils and in dry soils. Succeeds in full sun or light shade[[188].

Plants are hardy to about -25°c[184].

A fast-growing but short-lived species in the wild[229], it is closely related to C. controversa[200]. This species is unusual in having alternate leaves whilst almost all other members of this genus have opposite leaves[182]. Plants have a thin bark and this makes them susceptible to forest fires[229]. There is at least one named form selected for its ornamental value[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for

casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+alternifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+alternifolia`

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Plants For A Future: Database Search Results

Cornus alternifolia

Common name:	Green osier	Family:	Cornaceae
Author:	L. f.	Botanical references:	11, 43, 200
Synonyms:	Swida alternifolia ((L.f.)Small.)		
Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Florida, west to Manitoba and Arkansas.		
Habitat:	Dry woods and rocky slopes[43]. Rich woodlands and forest margins in moist well-drained soils[82].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Alternate-leaf Dogwood [FEIS,DEN1,B], Alternateleaf Dogwood [P], Dogwood [E],
Epithets:	From a Dictionary of Botanical Epithets
	alternifolia = alternating leaves; ternifolia = leaves in 3;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Us(Menomini)

Physical Characteristics

A decidious shrub growing to 6m by 6m at a fast rate. It is hardy to zone 3. It is in flower in June, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Antiaphonic; Astringent; Diaphoretic; Febrifuge; Ophthalmic; Poultice; Stimulant; VD.

Green osier was employed medicinally by a number of native North American Indian tribes who valued it particularly for its astringent bark which was used both internally and externally to treat diarrhoea, skin problems etc[257]. It is little used in modern herbalism.

The dried bark is used as an astringent, diaphoretic and stimulant[213, 257]. The inner bark was boiled and the solution used as an enema[213] and this solution was also used as a tea to reduce fevers, treat influenza, diarrhoea, headaches, voice loss etc[213, 257]. It was used as a wash for the eyes[257].

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Wood - heavy, hard, close grained. It is too small to be of commercial value, but is used locally for turnery[82, 229].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils and in dry soils. Succeeds in full sun or light shade[[188].

Plants are hardy to about -25°c[184].

A fast-growing but short-lived species in the wild[229], it is closely related to C. controversa[200]. This species is unusual in having alternate leaves whilst almost all other members of this genus have opposite leaves[182]. Plants have a thin bark and this makes them susceptible to forest fires[229]. There is at least one named form selected for its ornamental value[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Layering of new growth in June/July. Takes 9 months[78].

Cultivars

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+alternifolia`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus alternifolia*

Subject:

Cornus alternifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus alternifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:12:09 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus amomum

Common name:	Silky dogwood	Family:	Cornaceae
Author:	Mill.	Botanical references:	11, 43, 200
Synonyms:	Swida amomum ((Mill.)Small.), Cornus coerulea (Lam.)		
Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Ontario, south to Florida and Texas.		
Habitat:	Swamps and damp thickets[43]. Low woods and along the sides of streams[235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. amomum ssp. amomum[P] C. caerulea[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dogwood [H], Kinnikinnik [L], Red American Osier [H], Silky Cornel [H,L], Silky Dogwood [B,P,DEN1], Swamp Dogwood [H],
Epithets:	From a Dictionary of Botanical Epithets
	amomum = a balsam spice plant;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 161, 177]. Said to be very good to eat[2]. The fruit is 8mm in diameter[235].

Medicinal Uses

Disclaimer

Antiperiodic; Astringent; Diuretic; Poultice; Stimulant; Stomachic; VD.

The dried root-bark is antiperiodic, astringent, stimulant (mild), tonic[4]. The flowers are said to have similar properties[4]. A tea or tincture of the astringent root bark has been used as a quinine substitute and also in the treatment of chronic diarrhoea[4]. It has also been employed in the treatment of painful urination, chest congestion etc[257]. The bark was also used as a poultice on external ulcers and as a wash for gonorrhoea sores[4, 257]. The glycoside 'cornin' found in the bark has astringent properties[4].

The fruits are used as a bitter digestive tonic. A tincture of them has been used to restore tone to the stomach in cases of alcoholism[4].

Other Uses

Teeth.

The powdered bark is used as a toothpowder[61].

Cultivation details

An easily grown plant that thrives in Britain, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus amomum ssp. amomum* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Cornus caerulea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address: ☐

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+amomum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+amomum`

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Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Ontario, south to Florida and Texas.		
Habitat:	Swamps and damp thickets[43]. Low woods and along the sides of streams[235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. amomum ssp. amomum[P] C. caerulea[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dogwood [H], Kinnikinnik [L], Red American Osier [H], Silky Cornel [H,L], Silky Dogwood [B,P,DEN1], Swamp Dogwood [H],
Epithets:	From a Dictionary of Botanical Epithets
	amomum = a balsam spice plant;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 161, 177]. Said to be very good to eat[2]. The fruit is 8mm in diameter[235].

Medicinal Uses

Disclaimer

Antiperiodic; Astringent; Diuretic; Poultice; Stimulant; Stomachic; VD.

The dried root-bark is antiperiodic, astringent, stimulant (mild), tonic[4]. The flowers are said to have similar properties[4]. A tea or tincture of the astringent root bark has been used as a quinine substitute and also in the treatment of chronic diarrhoea[4]. It has also been employed in the treatment of painful urination, chest congestion etc[257]. The bark was also used as a poultice on external ulcers and as a wash for gonorrhoea sores[4, 257]. The glycoside 'cornin' found in the bark has astringent properties[4].

The fruits are used as a bitter digestive tonic. A tincture of them has been used to restore tone to the stomach in cases of alcoholism[4].

Other Uses

Teeth.

The powdered bark is used as a toothpowder[61].

Cultivation details

An easily grown plant that thrives in Britain, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus amomum ssp. amomum* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Cornus caerulea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+amomum`

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Plants For A Future: Database Search Results

Cornus amomum

Common name:	Silky dogwood	Family:	Cornaceae
Author:	Mill.	Botanical references:	11, 43, 200
Synonyms:	Swida amomum ((Mill.)Small.), Cornus coerulea (Lam.)		
Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Ontario, south to Florida and Texas.		
Habitat:	Swamps and damp thickets[43]. Low woods and along the sides of streams[235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. amomum ssp. amomum[P] C. caerulea[H]
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Epithets:	From a Dictionary of Botanical Epithets
	amomum = a balsam spice plant;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. It is in flower in July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 161, 177]. Said to be very good to eat[2]. The fruit is 8mm in diameter[235].

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Disclaimer

Antiperiodic; Astringent; Diuretic; Poultice; Stimulant; Stomachic; VD.

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The fruits are used as a bitter digestive tonic. A tincture of them has been used to restore tone to the stomach in cases of alcoholism[4].

Other Uses

Teeth.

The powdered bark is used as a toothpowder[61].

Cultivation details

An easily grown plant that thrives in Britain, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+amomum`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus amomum*

Subject:

Cornus amomum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus amomum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:12:19 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Cornus asperifolia drummondii

Common name:	Roughleaf dogwood	Family:	Cornaceae
Author:	(C. A. Mey.) Coult. & W. H. Evans.	Botanical references:	82, 200
Synonyms:	Cornus drummondii (C.A.Mey.)		
Known Hazards:	None known		
Range:	Central N. America - Ontario to Nebraska and Texas, north to Ohio		
Habitat:	Forming thickets along roadsides, fence rows, pastures and margins of woods in rocky or clay soils. Sometimes also found in the moist soil of streambanks[229].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. priceae[B,P] Swida priceae[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rough-leaf Dogwood [B], Roughleaf Dogwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	asper = rough;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m at a fast rate. It is hardy to zone 6. It is in flower from July to August, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Shelterbelt; Soil stabilization; Wood.

Sometimes used in shelterbelt plantings on the plains of N. America[227]. Its spreading underground stems are effective in controlling soil erosion[229].

Wood - heavy, hard, strong, durable, close grained. Used for small wooden articles[82, 149, 227].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is recorded in [200] as only being hardy in zone 9, which means that it is unlikely to succeed outdoors in any but the very mildest areas of the country. Considering the plant's native range, this is almost certainly a mistake[K]. Another report says that the plant withstands extreme cold and very dry spells in its native habitat[229].

This is a fast-growing and relatively long-lived plant in the wild[229].

Flowers are produced in spring on the ends of new growth[229].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus drummondii* (a possible synonym).

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand

Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Author:	(C. A. Mey.) Coult. & W. H. Evans.	Botanical references:	82, 200
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Known Hazards:	None known		
Range:	Central N. America - Ontario to Nebraska and Texas, north to Ohio		
Habitat:	Forming thickets along roadsides, fence rows, pastures and margins of woods in rocky or clay soils. Sometimes also found in the moist soil of streambanks[229].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Shelterbelt; Soil stabilization; Wood.

Sometimes used in shelterbelt plantings on the plains of N. America[227]. Its spreading underground stems are effective in controlling soil erosion[229].

Wood - heavy, hard, strong, durable, close grained. Used for small wooden articles[82, 149, 227].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is recorded in [200] as only being hardy in zone 9, which means that it is unlikely to succeed outdoors in any but the very mildest areas of the country. Considering the plant's native range, this is almost certainly a mistake[K]. Another report says that the plant withstands extreme cold and very dry spells in its native habitat[229].

This is a fast-growing and relatively long-lived plant in the wild[229].

Flowers are produced in spring on the ends of new growth[229].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination

inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus drummondii* (a possible synonym).

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in

1992 by a new dictionary (see [200]).

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+asperifolia+drummondii`
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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+asperifolia+drummondii`

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Plants For A Future: Database Search Results

Cornus asperifolia drummondii

Common name:	Roughleaf dogwood	Family:	Cornaceae
Author:	(C. A. Mey.) Coult. & W. H. Evans.	Botanical references:	82, 200
Synonyms:	Cornus drummondii (C.A.Mey.)		
Known Hazards:	None known		
Range:	Central N. America - Ontario to Nebraska and Texas, north to Ohio		
Habitat:	Forming thickets along roadsides, fence rows, pastures and margins of woods in rocky or clay soils. Sometimes also found in the moist soil of streambanks[229].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. priceae[B,P] Swida priceae[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rough-leaf Dogwood [B], Roughleaf Dogwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	asper = rough;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m at a fast rate. It is hardy to zone 6. It is in flower from July to August, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Shelterbelt; Soil stabilization; Wood.

Sometimes used in shelterbelt plantings on the plains of N. America[227]. Its spreading underground stems are effective in controlling soil erosion[229].

Wood - heavy, hard, strong, durable, close grained. Used for small wooden articles[82, 149, 227].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is recorded in [200] as only being hardy in zone 9, which means that it is unlikely to succeed outdoors in any but the very mildest areas of the country. Considering the plant's native range, this is almost certainly a mistake[K]. Another report says that the plant withstands extreme cold and very dry spells in its native habitat[229].

This is a fast-growing and relatively long-lived plant in the wild[229].

Flowers are produced in spring on the ends of new growth[229].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination

inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus asperifolia drummondii*

Subject:

Cornus asperifolia drummondii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus asperifolia drummondii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:12:29 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus australis

Common name:		Family:	Cornaceae
Author:	C. A. Mey.	Botanical references:	11, 93, 200
Synonyms:	Cornus sanguinea australis ((C.A.Mey.)Koehne.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, the following report refers to the closely related C. sanguinea. Contrary to some reports, the fruit is not poisonous, but the leaves can cause skin irritations to sensitive people[65].		
Range:	S.E. Europe to W. Asia.		
Habitat:	Limestone slopes in woodland in Turkey[93].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sanguinea subsp. australis[G] Thelycrania australis[G]
Epithets:	From a Dictionary of Botanical Epithets
	australis = southern;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Oil.

This species has the same uses as the closely related C. sanguinea[74]. These uses are listed below.

Fruit - raw or cooked[105]. A bitter flavour, it can also have an emetic effect on the body[1, 7, 11]. It is not worthwhile[115]. The fruit is about 5mm in diameter[200].

An oil is obtained from the seed[2], it is edible when refined[75].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Charcoal; Dye; Fuel; Hedge; Oil; Wood.

This species has the same uses as the closely related C. sanguinea[74]. These uses are listed below:-

The seed contains 45% of a non-drying oil[74], it is used in soap making and lighting[7, 13, 100, 115, 177].

A non-drying oil is also obtained from the pericarp, it is used for lighting[74]. The pericarp contains 19 - 35% oil[74].

A greenish-blue dye is obtained from the fruit[13, 74].

The young stems are very flexible and are used in basketry[7, 13, 74, 100].

Wood - tough, hard. Used for small items such as tool handles, turnery etc[11, 61, 115]. A good quality charcoal is obtained from the wood[115], the wood also makes an excellent fuel[115].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is closely related to C. sanguinea[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus sanguinea subsp. australis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968

An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[93] **Davis. P. H.** *Flora of Turkey.* Edinburgh University Press 1965
Not for the casual reader, this is an immense work in many volumes. Some details of plant uses and habitats.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+australis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+australis`

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Plants For A Future: Database Search Results

Cornus australis

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Author:	C. A. Mey.	Botanical references:	11, 93, 200
Synonyms:	Cornus sanguinea australis ((C.A.Mey.)Koehne.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, the following report refers to the closely related C. sanguinea. Contrary to some reports, the fruit is not poisonous, but the leaves can cause skin irritations to sensitive people[65].		
Range:	S.E. Europe to W. Asia.		
Habitat:	Limestone slopes in woodland in Turkey[93].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sanguinea subsp. australis[G] Thelycrania australis[G]
Epithets:	From a Dictionary of Botanical Epithets
	australis = southern;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Oil.

This species has the same uses as the closely related C. sanguinea[74]. These uses are listed below.

Fruit - raw or cooked[105]. A bitter flavour, it can also have an emetic effect on the body[1, 7, 11]. It is not worthwhile[115]. The fruit is about 5mm in diameter[200].

An oil is obtained from the seed[2], it is edible when refined[75].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Charcoal; Dye; Fuel; Hedge; Oil; Wood.

This species has the same uses as the closely related C. sanguinea[74]. These uses are listed below:-

The seed contains 45% of a non-drying oil[74], it is used in soap making and lighting[7, 13, 100, 115, 177].

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The young stems are very flexible and are used in basketry[7, 13, 74, 100].

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An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is closely related to C. sanguinea[11].

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Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus sanguinea subsp. australis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[93] **Davis. P. H.** *Flora of Turkey.* Edinburgh University Press 1965
Not for the casual reader, this is an immense work in many volumes. Some details of plant uses and habitats.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+australis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+australis`

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Plants For A Future: Database Search Results

Cornus australis

Common name:		Family:	Cornaceae
Author:	C. A. Mey.	Botanical references:	11, 93, 200
Synonyms:	Cornus sanguinea australis ((C.A.Mey.)Koehne.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, the following report refers to the closely related C. sanguinea. Contrary to some reports, the fruit is not poisonous, but the leaves can cause skin irritations to sensitive people[65].		
Range:	S.E. Europe to W. Asia.		
Habitat:	Limestone slopes in woodland in Turkey[93].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sanguinea subsp. australis[G] Thelycrania australis[G]
Epithets:	From a Dictionary of Botanical Epithets
	australis = southern;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Oil.

This species has the same uses as the closely related C. sanguinea[74]. These uses are listed below.

Fruit - raw or cooked[105]. A bitter flavour, it can also have an emetic effect on the body[1, 7, 11]. It is not worthwhile[115]. The fruit is about 5mm in diameter[200].

An oil is obtained from the seed[2], it is edible when refined[75].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Charcoal; Dye; Fuel; Hedge; Oil; Wood.

This species has the same uses as the closely related C. sanguinea[74]. These uses are listed below:-

The seed contains 45% of a non-drying oil[74], it is used in soap making and lighting[7, 13, 100, 115, 177].

A non-drying oil is also obtained from the pericarp, it is used for lighting[74]. The pericarp contains 19 - 35% oil[74].

A greenish-blue dye is obtained from the fruit[13, 74].

The young stems are very flexible and are used in basketry[7, 13, 74, 100].

Wood - tough, hard. Used for small items such as tool handles, turnery etc[11, 61, 115]. A good quality charcoal is obtained from the wood[115], the wood also makes an excellent fuel[115].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is closely related to C. sanguinea[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+australis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+australis`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus australis*

Subject:

Cornus australis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus australis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:12:39 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Creeping dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	43, 200
Synonyms:	Chamaepericlymenum canadense (J.Hill.)		
Known Hazards:	None known		
Range:	N. America - Newfoundland to Alaska, south to Virginia and California.		
Habitat:	Coniferous woods, thickets and damp clearings in peaty soils[43].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. canadensis var. dutillyi[B,P] Cornella canadensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bunchberry [S,H,L,FEIS,DEN1], Bunchberry Dogwood [P], Canadian Bunchberry [B], Dwarf Cornel [H], Dwarf Cornell [L], Dwarf Dogwood [H], Pigeonberry [H],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

Perennial growing to 0.25m by 1m at a fast rate. It is hardy to zone 2 and is not frost tender. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Fruit; Pectin.

Fruit - raw or cooked[1, 101]. Pleasant but without much flavour[2, 55, 62]. The fruits are rather dry a bit gummy and rather mealy but they have a pleasant slightly sweet flavour, though they are not the type of fruit I would like to eat raw in quantity[K]. They can be added to breakfast cereals or used for making jams, pies, puddings etc[183]. An excellent ingredient for steamed plum puddings[183]. High in pectin[172], so it can be used with pectin-low fruits when making jam[K]. Pectin is said to protect the body against radiation[201]. The fruit is about 6mm in diameter[200] and is borne in small clusters on top of the plants[K].

Medicinal Uses

Disclaimer

Analgesic; Cathartic; Febrifuge; Kidney; Ophthalmic.

The leaves and stems are analgesic, cathartic and febrifuge[257]. A tea has been used in the treatment of aches and pains, kidney and lung ailments, coughs, fevers etc[222]. A strong decoction has been used as an eye wash[222, 257].

The fruits are rich in pectin which is a capillary tonic, antioedemic, anti-inflammatory, antispasmodic and hypotensive[218]. Pectin also inhibits carcinogenesis and protects against radiation[218].

A tea made from the roots has been used to treat infant colic[222]. The mashed roots have been strained through a clean cloth and the liquid used as an eyewash for sore eyes and to remove foreign objects from the eyes[257].

Other Uses

Ground cover; Pectin.

The fruit is rich in pectin[172].

A good dense ground cover plant, growing well in light woodland[28, 208]. It takes a little while to settle down and needs weeding for the first few years[197] but becomes rampant when established and can then spread 60 - 90cm per year[208].

Cultivation details

Succeeds in any soil of good or moderate fertility[1]. Easily grown in a peaty soil in shade or partial shade[187]. Grows well in heavy clay soils. Grows best in sandy soils[208]. Prefers a damp soil[1]. Not suitable for alkaline soils[28, 188].

A very ornamental plant[1], it grows well with heathers[187].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Division in spring. This plant can be a bit temperamental when it is being divided. We have found it best to tease out small divisions from the sides of the clump, to avoid the need to disturb the main clump by digging it up. Try to ensure that each division has already produced some roots. Pot them up in light shade in a greenhouse and make sure that they are not allowed to become dry. Once they are rooting and growing away well, which might take 12 months, they can be planted out into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Edible Pond and Bog Garden
- Edible Shrubs
- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Image from the Southwest School of Botanical Medicine
- [S] Illustration from the Southwest School of Botanical Medicine
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *cornus canadensis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[28] **Knight. F. P.** *Plants for Shade.* Royal Horticultural Society. 1980 ISBN 0-900629-78-9
A small but informative booklet listing plants that can be grown in shady positions with a few cultivation details.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera: Cornus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+canadensis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+canadensis`

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Plants For A Future: Database Search Results

Cornus canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Creeping dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	43, 200
Synonyms:	Chamaepericlymenum canadense (J.Hill.)		
Known Hazards:	None known		
Range:	N. America - Newfoundland to Alaska, south to Virginia and California.		
Habitat:	Coniferous woods, thickets and damp clearings in peaty soils[43].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. canadensis var. dutillyi[B,P] Cornella canadensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bunchberry [S,H,L,FEIS,DEN1], Bunchberry Dogwood [P], Canadian Bunchberry [B], Dwarf Cornel [H], Dwarf Cornell [L], Dwarf Dogwood [H], Pigeonberry [H],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

Perennial growing to 0.25m by 1m at a fast rate. It is hardy to zone 2 and is not frost tender. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no

shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Fruit; Pectin.

Fruit - raw or cooked[1, 101]. Pleasant but without much flavour[2, 55, 62]. The fruits are rather dry a bit gummy and rather mealy but they have a pleasant slightly sweet flavour, though they are not the type of fruit I would like to eat raw in quantity[K]. They can be added to breakfast cereals or used for making jams, pies, puddings etc[183]. An excellent ingredient for steamed plum puddings[183]. High in pectin[172], so it can be used with pectin-low fruits when making jam[K]. Pectin is said to protect the body against radiation[201]. The fruit is about 6mm in diameter[200] and is borne in small clusters on top of the plants[K].

Medicinal Uses

Disclaimer

Analgesic; Cathartic; Febrifuge; Kidney; Ophthalmic.

The leaves and stems are analgesic, cathartic and febrifuge[257]. A tea has been used in the treatment of aches and pains, kidney and lung ailments, coughs, fevers etc[222]. A strong decoction has been used as an eye wash[222, 257].

The fruits are rich in pectin which is a capillary tonic, antioedemic, anti-inflammatory, antispasmodic and hypotensive[218]. Pectin also inhibits carcinogenesis and protects against radiation[218].

A tea made from the roots has been used to treat infant colic[222]. The mashed roots have been strained through a clean cloth and the liquid used as an eyewash for sore eyes and to remove foreign objects from the eyes[257].

Other Uses

Ground cover; Pectin.

The fruit is rich in pectin[172].

A good dense ground cover plant, growing well in light woodland[28, 208]. It takes a little while to settle down and needs weeding for the first few years[197] but becomes rampant when established and can then spread 60 - 90cm per year[208].

Cultivation details

Succeeds in any soil of good or moderate fertility[1]. Easily grown in a peaty soil in shade or partial shade[187]. Grows well in heavy clay soils. Grows best in sandy soils[208]. Prefers a damp soil[1]. Not suitable for alkaline soils[28, 188].

A very ornamental plant[1], it grows well with heathers[187].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Division in spring. This plant can be a bit temperamental when it is being divided. We have found it best to tease out small divisions from the sides of the clump, to avoid the need to disturb the main clump by digging it up. Try to ensure that each division has already produced some roots. Pot them up in light shade in a greenhouse and make sure that they are not allowed to become dry. Once they are rooting and growing away well, which might take 12 months, they can be planted out into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Edible Pond and Bog Garden
- Edible Shrubs
- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C

- Checklist of plants suitable for ground cover

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Image from the Southwest School of Botanical Medicine
- [S] Illustration from the Southwest School of Botanical Medicine
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *cornus canadensis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[28] **Knight. F. P.** *Plants for Shade.* Royal Horticultural Society. 1980 ISBN 0-900629-78-9
A small but informative booklet listing plants that can be grown in shady positions with a few cultivation details.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7

Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+canadensis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+canadensis`

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Plants For A Future: Database Search Results

Cornus canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Creeping dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	43, 200
Synonyms:	Chamaepericlymenum canadense (J.Hill.)		
Known Hazards:	None known		
Range:	N. America - Newfoundland to Alaska, south to Virginia and California.		
Habitat:	Coniferous woods, thickets and damp clearings in peaty soils[43].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. canadensis var. dutillyi[B,P] Cornella canadensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bunchberry [S,H,L,FEIS,DEN1], Bunchberry Dogwood [P], Canadian Bunchberry [B], Dwarf Cornel [H], Dwarf Cornell [L], Dwarf Dogwood [H], Pigeonberry [H],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

Perennial growing to 0.25m by 1m at a fast rate. It is hardy to zone 2 and is not frost tender. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no

shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Fruit; Pectin.

Fruit - raw or cooked[1, 101]. Pleasant but without much flavour[2, 55, 62]. The fruits are rather dry a bit gummy and rather mealy but they have a pleasant slightly sweet flavour, though they are not the type of fruit I would like to eat raw in quantity[K]. They can be added to breakfast cereals or used for making jams, pies, puddings etc[183]. An excellent ingredient for steamed plum puddings[183]. High in pectin[172], so it can be used with pectin-low fruits when making jam[K]. Pectin is said to protect the body against radiation[201]. The fruit is about 6mm in diameter[200] and is borne in small clusters on top of the plants[K].

Medicinal Uses

Disclaimer

Analgesic; Cathartic; Febrifuge; Kidney; Ophthalmic.

The leaves and stems are analgesic, cathartic and febrifuge[257]. A tea has been used in the treatment of aches and pains, kidney and lung ailments, coughs, fevers etc[222]. A strong decoction has been used as an eye wash[222, 257].

The fruits are rich in pectin which is a capillary tonic, antioedemic, anti-inflammatory, antispasmodic and hypotensive[218]. Pectin also inhibits carcinogenesis and protects against radiation[218].

A tea made from the roots has been used to treat infant colic[222]. The mashed roots have been strained through a clean cloth and the liquid used as an eyewash for sore eyes and to remove foreign objects from the eyes[257].

Other Uses

Ground cover; Pectin.

The fruit is rich in pectin[172].

A good dense ground cover plant, growing well in light woodland[28, 208]. It takes a little while to settle down and needs weeding for the first few years[197] but becomes rampant when established and can then spread 60 - 90cm per year[208].

Cultivation details

Succeeds in any soil of good or moderate fertility[1]. Easily grown in a peaty soil in shade or partial shade[187]. Grows well in heavy clay soils. Grows best in sandy soils[208]. Prefers a damp soil[1]. Not suitable for alkaline soils[28, 188].

A very ornamental plant[1], it grows well with heathers[187].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Division in spring. This plant can be a bit temperamental when it is being divided. We have found it best to tease out small divisions from the sides of the clump, to avoid the need to disturb the main clump by digging it up. Try to ensure that each division has already produced some roots. Pot them up in light shade in a greenhouse and make sure that they are not allowed to become dry. Once they are rooting and growing away well, which might take 12 months, they can be planted out into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus canadensis*

Subject:

Cornus canadensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus canadensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:12:50 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus capitata

Common name:	Bentham's cornel	Family:	Cornaceae
Author:	Wallich.	Botanical references:	11, 51, 200
Synonyms:	Dendrobenthamia capitata (Hutch.), Benthamidia capitata ((Wall.)Hara.), Benthamia fragifera (Lindl.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Forests and shrubberies to 3400 metres in the Himalayas[51].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	capitata = with a head;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

An evergreen tree growing to 12m by 12m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower from June to July, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked. A bitter-sweet flavour[2, 105, 183], tasting like an over-ripe banana[166]. The fruit can also be used in preserves[51, 146]. The fruit is about 25mm in diameter[200], it is fleshy with a number of seeds and a tough slightly bitter skin[K]. Our experience is that some trees can produce quite pleasant tasting fruits, but many others produce fruit with a distinct and unpleasant bitterness[K]. The fruit ripens in late autumn to early winter and will fail to ripe properly if the weather is very cold[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Wood.

Wood - very hard, close grained but warps when being seasoned. Used mainly for fuel[158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188]. Prefers semi-shade[219].

This species is hardy to between -5 and -10°c[184], it grows very well in S.W. England, self-sowing and fruiting prolifically in Cornish woodland gardens[11, 49, 59, , 104, 182] and doing well by the coast where it tolerates sea winds[182]. Plants are not hardy in the London area, being killed even when on a south-facing wall[11]. Another report says that it succeeds as far north as Edinburgh.

Squirrels are very fond of this fruit[166].

This species has been known to hybridize with C. kousa, the cultivar 'Norman Hadden' could be such a hybrid[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Trees and Shrubs for Shelterbelts: B-C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[104] **RHS.** *The Garden. Volume 111.* Royal Horticultural Society 1986
Snippets of information from the magazine of the RHS, including an article in Crambe maritima and another on several species thought to be tender that are succeeding in a S. Devon garden.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera: Cornus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+capitata`

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Plants For A Future: Database Search Results

Cornus capitata

Common name:	Bentham's cornel	Family:	Cornaceae
Author:	Wallich.	Botanical references:	11, 51, 200
Synonyms:	Dendrobenthamia capitata (Hutch.), Benthamidia capitata ((Wall.)Hara.), Benthamia fragifera (Lindl.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Forests and shrubberies to 3400 metres in the Himalayas[51].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	capitata = with a head;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

An evergreen tree growing to 12m by 12m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower from June to July, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked. A bitter-sweet flavour[2, 105, 183], tasting like an over-ripe banana[166]. The fruit can also be used in preserves[51, 146]. The fruit is about 25mm in diameter[200], it is fleshy with a number of seeds and a tough slightly bitter skin[K]. Our experience is that some trees can produce quite pleasant tasting fruits, but many others produce fruit with a distinct and unpleasant bitterness[K]. The fruit ripens in late autumn to early winter and will fail to ripe properly if the weather is very cold[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Wood.

Wood - very hard, close grained but warps when being seasoned. Used mainly for fuel[158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188]. Prefers semi-shade[219].

This species is hardy to between -5 and -10°c[184], it grows very well in S.W. England, self-sowing and fruiting prolifically in Cornish woodland gardens[11, 49, 59, , 104, 182] and doing well by the coast where it tolerates sea winds[182]. Plants are not hardy in the London area, being killed even when on a south-facing wall[11]. Another report says that it succeeds as far north as Edinburgh.

Squirrels are very fond of this fruit[166].

This species has been known to hybridize with C. kousa, the cultivar 'Norman Hadden' could be such a hybrid[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Trees and Shrubs for Shelterbelts: B-C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[104] **RHS.** *The Garden. Volume 111.* Royal Horticultural Society 1986
Snippets of information from the magazine of the RHS, including an article in Crambe maritima and another on several species thought to be tender that are succeeding in a S. Devon garden.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Plants For A Future: Database Search Results

Cornus capitata

Common name:	Bentham's cornel	Family:	Cornaceae
Author:	Wallich.	Botanical references:	11, 51, 200
Synonyms:	Dendrobenthamia capitata (Hutch.), Benthamidia capitata ((Wall.)Hara.), Benthamia fragifera (Lindl.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Forests and shrubberies to 3400 metres in the Himalayas[51].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	capitata = with a head;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

An evergreen tree growing to 12m by 12m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower from June to July, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked. A bitter-sweet flavour[2, 105, 183], tasting like an over-ripe banana[166]. The fruit can also be used in preserves[51, 146]. The fruit is about 25mm in diameter[200], it is fleshy with a number of seeds and a tough slightly bitter skin[K]. Our experience is that some trees can produce quite pleasant tasting fruits, but many others produce fruit with a distinct and unpleasant bitterness[K]. The fruit ripens in late autumn to early winter and will fail to ripe properly if the weather is very cold[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Wood.

Wood - very hard, close grained but warps when being seasoned. Used mainly for fuel[158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188]. Prefers semi-shade[219].

This species is hardy to between -5 and -10°c[184], it grows very well in S.W. England, self-sowing and fruiting prolifically in Cornish woodland gardens[11, 49, 59, , 104, 182] and doing well by the coast where it tolerates sea winds[182]. Plants are not hardy in the London area, being killed even when on a south-facing wall[11]. Another report says that it succeeds as far north as Edinburgh.

Squirrels are very fond of this fruit[166].

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Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Cornus capitata*

Subject:

Cornus capitata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus capitata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Cornus chinensis

Common name:		Family:	Cornaceae
Author:	Wangerin.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Corylus chinensis[G,HORTIPLEX,P] Corylus colurna var. chinensis[G,P] Corylus papyracea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Hazelnut [P],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 10m. It is hardy to zone 8. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

The following notes refer to the closely related species C. officinalis, they probably also apply to this species[K]:-

Fruit - raw or cooked[105, 177]. The fully ripe fruit is quite pleasant but slightly astringent[K]. It is about 1.5cm long[200]. The fruit contains about 8.6% sugars, 2.9% malic acid, 0.74% ash[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188]. Prefers semi-shade[219].

Plants are not very cold-tolerant, they succeed outdoors only in the milder areas of the country where winter temperatures do not fall below about -5°c[11, 200]. A specimen growing in a fairly open sunny position at Kew Gardens in April 1999 was about 10 years old and 2 metres tall. It had no sign of flowers, though it is obviously more cold hardy than believed since it has already tolerated temperatures rather lower than -5°c[K].

This species is very closely related to C. mas and C. officinalis, differing mainly in having black instead of red fruit[11, 200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Corylus chinensis* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Corylus colurna var. chinensis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

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Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain: C.

Cornus chinensis

Aamir Farooq (aamir_peerage@hotmail.com) Wed May 12 07:50:55 2004

Dear Sir, We are manufacturing of the Ceramics tabelaware. SO plz send us quotation of china clay Best Regards, Aamir Farooq Manager Finace

Link: www.peerage.com.pk Inquiry of China clay

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cornus chinensis

Common name:		Family:	Cornaceae
Author:	Wangerin.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Corylus chinensis[G,HORTIPLEX,P] Corylus colurna var. chinensis[G,P] Corylus papyracea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Hazelnut [P],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 10m. It is hardy to zone 8. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

The following notes refer to the closely related species C. officinalis, they probably also apply to this species[K]:-

Fruit - raw or cooked[105, 177]. The fully ripe fruit is quite pleasant but slightly astringent[K]. It is about 1.5cm long[200]. The fruit contains about 8.6% sugars, 2.9% malic acid, 0.74% ash[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188]. Prefers semi-shade[219].

Plants are not very cold-tolerant, they succeed outdoors only in the milder areas of the country where winter temperatures do not fall below about -5°c[11, 200]. A specimen growing in a fairly open sunny position at Kew Gardens in April 1999 was about 10 years old and 2 metres tall. It had no sign of flowers, though it is obviously more cold hardy than believed since it has already tolerated temperatures rather lower than -5°c[K].

This species is very closely related to C. mas and C. officinalis, differing mainly in having black instead of red fruit[11, 200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Corylus chinensis* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Corylus colurna var. chinensis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

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Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

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Cross references: *Genera: Cornus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C.*

Cornus chinensis

Aamir Farooq (aamir_peerage@hotmail.com) Wed May 12 07:50:55 2004

Dear Sir, We are manufacturing of the Ceramics tabelaware. SO plz send us quotation of china clay Best Regards, Aamir Farooq Manager Finace

Link: www.peerage.com.pk Inquiry of China clay

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Plants For A Future: Database Search Results

Cornus chinensis

Common name:		Family:	Cornaceae
Author:	Wangerin.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Corylus chinensis[G,HORTIPLEX,P] Corylus colurna var. chinensis[G,P] Corylus papyracea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Hazelnut [P],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 10m. It is hardy to zone 8. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

The following notes refer to the closely related species C. officinalis, they probably also apply to this species[K]:-

Fruit - raw or cooked[105, 177]. The fully ripe fruit is quite pleasant but slightly astringent[K]. It is about 1.5cm long[200]. The fruit contains about 8.6% sugars, 2.9% malic acid, 0.74% ash[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Plants are not very cold-tolerant, they succeed outdoors only in the milder areas of the country where winter temperatures do not fall below about -5°c[11, 200]. A specimen growing in a fairly open sunny position at Kew Gardens in April 1999 was about 10 years old and 2 metres tall. It had no sign of flowers, though it is obviously more cold hardy than believed since it has already tolerated temperatures rather lower than -5°c[K].

This species is very closely related to C. mas and C. officinalis, differing mainly in having black instead of red fruit[11, 200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus chinensis*

Subject:

Cornus chinensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus chinensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Cornus controversa

Common name:	Giant dogwood	Family:	Cornaceae
Author:	Hemsl.	Botanical references:	11, 109, 200
Synonyms:	Cornus brachypoda (Hort. non C.A.Mey.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Woodland, hedges and thickets, 600 - 2000 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Bothrocaryum controversum[G]
Epithets:	From a Dictionary of Botanical Epithets
	controversa = controversial;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 15m by 15m . It is hardy to zone 5. It is in flower from June to July, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It

can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit[105, 177]. No more details are given. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

A very ornamental plant[1, 11], it is hardy to about -20°c[184].

This species is unusual in having alternate leaves whilst almost all other members of this genus have opposite leaves[182].

Closely related to C. alternifolia[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus brachypoda* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7

Excellent range of photographs, some cultivation details but very little information on plant uses.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

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You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain: C.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus controversa

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Author:	Hemsl.	Botanical references:	11, 109, 200
Synonyms:	Cornus brachypoda (Hort. non C.A.Mey.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Woodland, hedges and thickets, 600 - 2000 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Bothrocaryum controversum[G]
Epithets:	From a Dictionary of Botanical Epithets
	controversa = controversial;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 15m by 15m . It is hardy to zone 5. It is in flower from June to July, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit[105, 177]. No more details are given. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

A very ornamental plant[1, 11], it is hardy to about -20°c[184].

This species is unusual in having alternate leaves whilst almost all other members of this genus have opposite leaves[182].

Closely related to C. alternifolia[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus brachypoda* (a possible synonym).

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera: Cornus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Plants For A Future: Database Search Results

Cornus controversa

Common name:	Giant dogwood	Family:	Cornaceae
Author:	Hemsl.	Botanical references:	11, 109, 200
Synonyms:	Cornus brachypoda (Hort. non C.A.Mey.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Woodland, hedges and thickets, 600 - 2000 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Bothrocaryum controversum[G]
Epithets:	From a Dictionary of Botanical Epithets
	controversa = controversial;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 15m by 15m . It is hardy to zone 5. It is in flower from June to July, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit[105, 177]. No more details are given. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

A very ornamental plant[1, 11], it is hardy to about -20°c[184].

This species is unusual in having alternate leaves whilst almost all other members of this genus have opposite leaves[182].

Closely related to C. alternifolia[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus controversa*

Subject:

Cornus controversa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus controversa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:13:19 2004

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Cornus coreana

Common name:		Family:	Cornaceae
Author:	Wangerin.	Botanical references:	151, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 20m. It is hardy to zone 6. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - very hard, heavy. Used for mallets etc[151].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is closely related to C. walteri[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Layering of new growth in June/July. Takes 9 months[78].

Suppliers

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Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera: Cornus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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Author:	Wangerin.	Botanical references:	151, 200
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Known Hazards:	None known		
Range:	E. Asia - Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 20m. It is hardy to zone 6. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

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Wood.

Wood - very hard, heavy. Used for mallets etc[151].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus coreana*

Subject:

Cornus coreana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus coreana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:13:29 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus florida

Common name:	Flowering dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Cynoxylon floridum ((L.)Raf.), Benthamidia florida (Spach.)		
Known Hazards:	There is a report that the fruit is poisonous for humans[229].		
Range:	Eastern N. America - Maine to Florida, east to Kansas and Texas.		
Habitat:	Rich well-drained soils in acidic woods to 1500 metres[43, 82]. An understorey tree in dry deciduous woods[82, 222].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	America-Yama-Bosi [E], American Boxwood [H], American Dogwood [H], Bitter Redberry [H], Box Tree [H], Cornel [H], Dog-Tree [H], Dogwood [E], Dogwood, Flowering [S], Flowering Dogwood [DEN1,FEIS,H,B,P,S,L], New England Boxwood [H], Virginian Dogwood [H],
Epithets:	From a Dictionary of Botanical Epithets
	florida = flowering;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)

Physical Characteristics

A decidious shrub growing to 6m by 8m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower in May, and the seeds ripen in November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Drink.

Fruit - cooked. The fruit is not poisonous, but is almost inedible raw[226]. When the seed is removed and the flesh is mashed, it can be mixed with other fruits and made into jams, jellies etc[226]. The fruit, when infused in 'Eau de Vie' makes a bitter but acceptable drink[4]. One report says that the fruit is poisonous for humans[229]. The fruit is borne in clusters, each fruit being up to 15mm in diameter with a thin mealy bitter flesh[229].

Medicinal Uses

Disclaimer

Anthelmintic; Antiperiodic; Astringent; Bitter; Diaphoretic; Poultice; Stimulant; Tonic.

Flowering dogwood was employed medicinally by a number of native North American Indian tribes who valued it especially for its astringent and antiperiodic properties[257]. It is little used in modern herbalism.

The dried root-bark is antiperiodic, astringent, diaphoretic, mildly stimulant and tonic[4, 46, 61, 95, 257]. The flowers are said to have similar properties[4]. A tea or tincture of the astringent root bark has been used as a quinine substitute to treat malaria[95, 222, 257] and also in the treatment of chronic diarrhoea[222]. The bark has also been used as a poultice on external ulcers, wounds etc[222, 257]. The glycoside 'cornin' found in the bark has astringent properties[213].

The inner bark was boiled and the tea drunk to reduce fevers and to restore a lost voice[213, 257].

A compound infusion of the bark and the root has been used in the treatment of various childhood diseases such as measles and worms[257]. It was often used in the form of a bath[257].

The fruits are used as a bitter digestive tonic[222]. A tincture of them has been used to restore tone to the stomach in cases of alcoholism[4].

Other Uses

Brush; Dye; Ink; Repellent; Teeth; Wood.

A red dye is obtained from the fibrous root[4, 95].

The peeled twigs are used as toothbrushes, they are good for whitening the teeth[4, 95, 102]. The juice from the twigs preserves and hardens the gums[4]. The twigs can also be chewed to make natural paintbrushes[102].

A black ink can be made from the bark mixed with gum arabic and iron sulphate[4].

The bark is very bitter, could it be used to make an insect or bird repellent[K]?

Wood - hard, heavy, strong, close grained, durable, takes a good polish. It weighs 51lb per cubic foot and is used for making wheel hubs, tool handles, bearings, turnery etc[4, 46, 61, 82, 102, 171, 227].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Dislikes shallow clay soils and chalky soils[98, 182]. Requires a neutral to acid soil according to another report[202]. Prefers a rich loamy well-drained soil[98]. Succeeds in full sun or light shade[[188]. Plants can be trained to grow against a wall when they prefer a position in light shade[202].

Plants are very hardy, tolerating temperatures down to about -25°c. but they are subject to damage by late frosts and are rarely successful away from the warmer counties of Britain[11, 200]. They require a long hot humid summer if they are to grow well, doing best in the east or south-east of Britain[182, 200] in areas that are not subject to late or early frosts. They do not generally do very well in the south-west, where the flower bracts are often damaged by frosts[200].

Medium to fast growing when young, but slowing with age[202]. Trees are short-lived[229].

A very ornamental plant, there are many named varieties[200, 202]. It is the state flower of Virginia[212].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame[188].

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's

Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
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References for *Benthamidia florida* (a possible synonym).

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References for *cornus florida* (a possible synonym).

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References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Cornus florida

Austin Sat Apr 08 11:01:47 2000

Your entry states that Cornus Florida height is 6' and width 8'. This absolutely incorrect. It's a tree for Pete's sake. It gets at least 30' tall in Florida.

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+florida`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+florida`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cornus florida

Common name:	Flowering dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Cynoxylon floridum ((L.)Raf.), Benthamidia florida (Spach.)		
Known Hazards:	There is a report that the fruit is poisonous for humans[229].		
Range:	Eastern N. America - Maine to Florida, east to Kansas and Texas.		
Habitat:	Rich well-drained soils in acidic woods to 1500 metres[43, 82]. An understorey tree in dry deciduous woods[82, 222].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
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	florida = flowering;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)

Physical Characteristics

A decidious shrub growing to 6m by 8m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower in May, and the seeds ripen in November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade

(light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Drink.

Fruit - cooked. The fruit is not poisonous, but is almost inedible raw[226]. When the seed is removed and the flesh is mashed, it can be mixed with other fruits and made into jams, jellies etc[226]. The fruit, when infused in 'Eau de Vie' makes a bitter but acceptable drink[4]. One report says that the fruit is poisonous for humans[229]. The fruit is borne in clusters, each fruit being up to 15mm in diameter with a thin mealy bitter flesh[229].

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Anthelmintic; Antiperiodic; Astringent; Bitter; Diaphoretic; Poultice; Stimulant; Tonic.

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Brush; Dye; Ink; Repellent; Teeth; Wood.

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The peeled twigs are used as toothbrushes, they are good for whitening the teeth[4, 95, 102]. The juice from the twigs preserves and hardens the gums[4]. The twigs can also be chewed to make natural paintbrushes[102].

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Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Dislikes shallow clay soils and chalky soils[98, 182]. Requires a neutral to acid soil according to another report[202]. Prefers a rich loamy well-drained soil[98]. Succeeds in full sun or light shade[[188]. Plants can be trained to grow against a wall when they prefer a position in light shade[202].

Plants are very hardy, tolerating temperatures down to about -25°c. but they are subject to damage by late frosts and are rarely successful away from the warmer counties of Britain[11, 200]. They require a long hot humid summer if they are to grow well, doing best in the east or south-east of Britain[182, 200] in areas that are not subject to late or early frosts. They do not generally do very well in the south-west, where the flower bracts are often damaged by frosts[200].

Medium to fast growing when young, but slowing with age[202]. Trees are short-lived[229].

A very ornamental plant, there are many named varieties[200, 202]. It is the state flower of Virginia[212].

Plants in this genus are notably resistant to honey fungus[200].

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Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Cornus florida

Austin Sat Apr 08 11:01:47 2000

Your entry states that Cornus Florida height is 6' and width 8'. This absolutely incorrect. It's a tree for Pete's sake. It gets at least 30' tall in Florida.

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Plants For A Future: Database Search Results

Cornus florida

Common name:	Flowering dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Cynoxylon floridum ((L.)Raf.), Benthamidia florida (Spach.)		
Known Hazards:	There is a report that the fruit is poisonous for humans[229].		
Range:	Eastern N. America - Maine to Florida, east to Kansas and Texas.		
Habitat:	Rich well-drained soils in acidic woods to 1500 metres[43, 82]. An understorey tree in dry deciduous woods[82, 222].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	America-Yama-Bosi [E], American Boxwood [H], American Dogwood [H], Bitter Redberry [H], Box Tree [H], Cornel [H], Dog-Tree [H], Dogwood [E], Dogwood, Flowering [S], Flowering Dogwood [DEN1,FEIS,H,B,P,S,L], New England Boxwood [H], Virginian Dogwood [H],
Epithets:	From a Dictionary of Botanical Epithets
	florida = flowering;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)

Physical Characteristics

A decidious shrub growing to 6m by 8m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower in May, and the seeds ripen in November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in semi-shade

(light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Drink.

Fruit - cooked. The fruit is not poisonous, but is almost inedible raw[226]. When the seed is removed and the flesh is mashed, it can be mixed with other fruits and made into jams, jellies etc[226]. The fruit, when infused in 'Eau de Vie' makes a bitter but acceptable drink[4]. One report says that the fruit is poisonous for humans[229]. The fruit is borne in clusters, each fruit being up to 15mm in diameter with a thin mealy bitter flesh[229].

Medicinal Uses

Disclaimer

Anthelmintic; Antiperiodic; Astringent; Bitter; Diaphoretic; Poultice; Stimulant; Tonic.

Flowering dogwood was employed medicinally by a number of native North American Indian tribes who valued it especially for its astringent and antiperiodic properties[257]. It is little used in modern herbalism.

The dried root-bark is antiperiodic, astringent, diaphoretic, mildly stimulant and tonic[4, 46, 61, 95, 257]. The flowers are said to have similar properties[4]. A tea or tincture of the astringent root bark has been used as a quinine substitute to treat malaria[95, 222, 257] and also in the treatment of chronic diarrhoea[222]. The bark has also been used as a poultice on external ulcers, wounds etc[222, 257]. The glycoside 'cornin' found in the bark has astringent properties[213].

The inner bark was boiled and the tea drunk to reduce fevers and to restore a lost voice[213, 257].

A compound infusion of the bark and the root has been used in the treatment of various childhood diseases such as measles and worms[257]. It was often used in the form of a bath[257].

The fruits are used as a bitter digestive tonic[222]. A tincture of them has been used to restore tone to the stomach in cases of alcoholism[4].

Other Uses

Brush; Dye; Ink; Repellent; Teeth; Wood.

A red dye is obtained from the fibrous root[4, 95].

The peeled twigs are used as toothbrushes, they are good for whitening the teeth[4, 95, 102]. The juice from the twigs preserves and hardens the gums[4]. The twigs can also be chewed to make natural paintbrushes[102].

A black ink can be made from the bark mixed with gum arabic and iron sulphate[4].

The bark is very bitter, could it be used to make an insect or bird repellent[K]?

Wood - hard, heavy, strong, close grained, durable, takes a good polish. It weighs 51lb per cubic foot and is used for making wheel hubs, tool handles, bearings, turnery etc[4, 46, 61, 82, 102, 171, 227].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Dislikes shallow clay soils and chalky soils[98, 182]. Requires a neutral to acid soil according to another report[202]. Prefers a rich loamy well-drained soil[98]. Succeeds in full sun or light shade[[188]. Plants can be trained to grow against a wall when they prefer a position in light shade[202].

Plants are very hardy, tolerating temperatures down to about -25°c. but they are subject to damage by late frosts and are rarely successful away from the warmer counties of Britain[11, 200]. They require a long hot humid summer if they are to grow well, doing best in the east or south-east of Britain[182, 200] in areas that are not subject to late or early frosts. They do not generally do very well in the south-west, where the flower bracts are often damaged by frosts[200].

Medium to fast growing when young, but slowing with age[202]. Trees are short-lived[229].

A very ornamental plant, there are many named varieties[200, 202]. It is the state flower of Virginia[212].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame[188].

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus florida*

Subject:

Cornus florida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus florida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:13:40 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Cornus hongkongensis

Common name:		Family:	Cornaceae
Author:	Hemsl.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub. . We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit[177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. The following notes are based on the general needs of the genus.

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

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Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

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Excellent range of photographs, some cultivation details but very little information on plant uses.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus hongkongensis

Common name:		Family:	Cornaceae
Author:	Hemsl.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub. . We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit[177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. The following notes are based on the general needs of the genus.

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	Order: Cornales . Dogwood family

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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit[177]. No more details are given.

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Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. The following notes are based on the general needs of the genus.

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Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Add a comment on: *Cornus hongkongensis*

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Cornus hongkongensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus hongkongensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Cornus iberica

Common name:		Family:	Cornaceae
Author:	G. Woron.	Botanical references:	74
Synonyms:	Thelycrania iberica ((G.Woron.)Pojark.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, the following report refers to the closely related C. sanguinea. Contrary to some reports, the fruit is not poisonous, but the leaves can cause skin irritations to sensitive people[65].		
Range:	W. Asia - Caucasus		
Habitat:	Woody shrubby thickets in the central mountain zone[74].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	iberica = of Spain;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Oil.

This species has the same uses as the closely related C. sanguinea[74]. These uses are listed below.

Fruit - raw or cooked[105]. A bitter flavour, it can also have an emetic effect on the body[1, 7, 11]. It is not worthwhile[115]. The fruit is about 8mm in diameter[200].

An oil is obtained from the seed[2], it is edible when refined[75].

Medicinal Uses

Disclaimer

None known

Other Uses

Basketry; Charcoal; Dye; Oil; Wood.

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The seed contains 45% of a non-drying oil[74], it is used in soap making and lighting[7, 13, 100, 115, 177].

A non-drying oil is also obtained from the pericarp, it is used for lighting[74]. The pericarp contains 19 - 35% oil[74].

A greenish-blue dye is obtained from the fruit[13, 74].

The young stems are very flexible and are used in basketry[7, 13, 74, 100].

Wood - tough, hard. Used for small items such as tool handles, turnery etc[11, 61, 115]. A good quality charcoal is obtained from the wood[115], the wood also makes an excellent fuel[115].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain:

C.

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Disclaimer

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+iberica`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus iberica*

Subject:

Cornus iberica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus iberica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 02:13:59 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus kousa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Japanese dogwood	Family:	Cornaceae
Author:	Buerger. ex Hance.	Botanical references:	11, 109, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods and scrub in the mountains of Sichuan[109].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Dogwood [H], Kousa Dogwood [H,P,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 10m by 6m at a slow rate. It is hardy to zone 5. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Leaves.

Fruit - raw or cooked[61, 177]. Sweet and juicy[11, 183], it is very nice in small quantities[K]. Very seedy[105]. The skin is rather tough and unpleasant, but the pulp is delicious with a custard-like texture, it is one of our favourite late summer fruits[K]. The fruit is about 2cm in diameter[200].

Young leaves - cooked[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - very hard and heavy. Used for mallets etc[151].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility, from acid to slightly alkaline but dislikes shallow chalky soils[184, 188]. Grows well in heavy clay soils. Prefers a rich well-drained loamy soil and a position that is at least partially sunny[11].

A very ornamental plant[1], it is hardy to about -20°c[184]. A number of named forms have been developed for their ornamental value[182].

Plants are slow-growing when young, they speed up somewhat after a few years but then soon slow down again[202]. The sub-species of C. kousa chinensis grows more freely, flowering and fruiting better in Britain though it barely differs in appearance from the species[11].

This species has been known to hybridize with C. capitata[182]. The cultivar 'Norman Hadden' could be such a hybrid[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame[188].

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Woodland Garden Plants
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References

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus kousa

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Japanese dogwood	Family:	Cornaceae
Author:	Buerger. ex Hance.	Botanical references:	11, 109, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods and scrub in the mountains of Sichuan[109].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Dogwood [H], Kousa Dogwood [H,P,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 10m by 6m at a slow rate. It is hardy to zone 5. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Leaves.

Fruit - raw or cooked[61, 177]. Sweet and juicy[11, 183], it is very nice in small quantities[K]. Very seedy[105]. The skin is rather tough and unpleasant, but the pulp is delicious with a custard-like texture, it is one of our favourite late summer fruits[K]. The fruit is about 2cm in diameter[200].

Young leaves - cooked[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - very hard and heavy. Used for mallets etc[151].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility, from acid to slightly alkaline but dislikes shallow chalky soils[184, 188]. Grows well in heavy clay soils. Prefers a rich well-drained loamy soil and a position that is at least partially sunny[11].

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Cultivars

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> No entries have been made for this species as yet.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus kousa*

Subject:

Cornus kousa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus kousa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:14:09 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus kousa chinensis

Common name:	Japanese dogwood	Family:	Cornaceae
Author:	Osborn.	Botanical references:	11, 109, 200
Synonyms:	Dendrobenthamia japonica ((Thunb.)Hutch.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Thickets, 1200 - 2200 metres[109].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. kousa var. chinensis[G]
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 10m by 6m . It is hardy to zone 5. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Leaves.

Fruit - raw or cooked[61, 177]. Sweet and juicy[11, 183], it is very nice in small quantities[K]. Very seedy[105]. The skin is rather tough and unpleasant, but the pulp is delicious with a custard-like texture[K]. This fruit gained very high marks from a group of 7 people in a fruit-tasting visit to various gardens[K]. The fruit is about 2cm in diameter[200].

Young leaves - cooked[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - very hard and heavy. Used for mallets etc[151].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Does not like chalky soils according to other reports[184, 188]. Grows well in heavy clay soils. Prefers a rich well-drained loamy soil and a position that is at least partially sunny[11].

A very ornamental plant[1], it is hardy to about -20°c[184]. A number of named forms have been developed for their ornamental value[182].

Plants are slow-growing when young, they speed up somewhat after a few years but then soon slow down again[202]. This sub-species of C. kousa grows more freely, flowering and fruiting better in Britain though it barely differs in appearance from the species[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame[188].

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

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How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
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Item: *Cornus kousa chinensis* (Japanese dogwood)

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus kousa chinensis

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Author:	Osborn.	Botanical references:	11, 109, 200
Synonyms:	Dendrobenthamia japonica ((Thunb.)Hutch.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Thickets, 1200 - 2200 metres[109].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. kousa var. chinensis[G]
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious tree growing to 10m by 6m . It is hardy to zone 5. It is in flower in June, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

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Edible Uses

Fruit; Leaves.

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Medicinal Uses

Disclaimer

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Other Uses

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Wood - very hard and heavy. Used for mallets etc[151].

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Add a comment on: *Cornus kousa chinensis*

Subject:

Cornus kousa chinensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus kousa chinensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:14:19 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus macrophylla

Common name:	Large-leaf dogwood	Family:	Cornaceae
Author:	Wallich.	Botanical references:	11, 109, 200
Synonyms:	Swida macrophylla (Soják.), Cornus brachypoda (C.A.Mey.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Woodlands, 1200 - 1800 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Liang Tzu Mu [E], Sung Yang [E],
Epithets:	From a Dictionary of Botanical Epithets
	macrophylla = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 15m by 10m . It is hardy to zone 6. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit - raw or cooked[2, 105, 146, 158, 200, 218]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Anodyne; Astringent; Tonic.

Anodyne, astringent, tonic[178].

The wood is anodyne and a uterosedative[218].

The stem bark is used in the treatment of dysentery[218].

Other Uses

Charcoal; Wood.

Wood - hard, close grained, warps badly[158]. It makes a good charcoal[146, 158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

A very ornamental tree[1]. There is some confusion between this species and C. controversa[11].

Plants usually fruit heavily in Britain[11].

The flowers have a soft sweet perfume[245].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame[188].

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Scent

Flowers: Fresh

> The flowers have a soft sweet perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus brachypoda* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+macrophylla`
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Plants For A Future: Database Search Results

Cornus macrophylla

Common name:	Large-leaf dogwood	Family:	Cornaceae
Author:	Wallich.	Botanical references:	11, 109, 200
Synonyms:	Swida macrophylla (Soják.), Cornus brachypoda (C.A.Mey.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Woodlands, 1200 - 1800 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Liang Tzu Mu [E], Sung Yang [E],
Epithets:	From a Dictionary of Botanical Epithets
	macrophylla = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 15m by 10m . It is hardy to zone 6. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

Fruit - raw or cooked[2, 105, 146, 158, 200, 218]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Anodyne; Astringent; Tonic.

Anodyne, astringent, tonic[178].

The wood is anodyne and a uterosedative[218].

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Other Uses

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Wood - hard, close grained, warps badly[158]. It makes a good charcoal[146, 158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

A very ornamental tree[1]. There is some confusion between this species and C. controversa[11].

Plants usually fruit heavily in Britain[11].

The flowers have a soft sweet perfume[245].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Scent

Flowers: Fresh

> The flowers have a soft sweet perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Author:	Wallich.	Botanical references:	11, 109, 200
Synonyms:	Swida macrophylla (Soják.), Cornus brachypoda (C.A.Mey.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Woodlands, 1200 - 1800 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Liang Tzu Mu [E], Sung Yang [E],
Epithets:	From a Dictionary of Botanical Epithets
	macrophylla = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 15m by 10m . It is hardy to zone 6. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

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Woodland, Canopy, Secondary.

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Plants in this genus are notably resistant to honey fungus[200].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus macrophylla*

Subject:

Cornus macrophylla

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus macrophylla

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:14:29 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Cornus mas

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Cornelian cherry	Family:	Cornaceae
Author:	L.	Botanical references:	11, 200
Synonyms:	Cornus mascula (L.)		
Known Hazards:	None known		
Range:	Europe. Naturalized in Britain[17].		
Habitat:	Woodlands, especially in calcareous soils[7, 13].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cornelian Cherry [MS,H], Cornelian Cherry Dogwood [DEN1], Dogwood [H], Gele Kornoelje [D],
Epithets:	From a Dictionary of Botanical Epithets
	mas = male, robust;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 5m by 5m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Nana'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Variegata'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Macrocarpa'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Jolico'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Oil.

Fruit - raw, dried or used in preserves[2, 3, 7, 9, 13, 183]. Juicy, with a nice acid flavour[11]. The fully ripe fruit has a somewhat plum-like flavour and texture and is very nice eating, but the unripe fruit is rather astringent[K]. It is rather low in pectin and so needs to be used with other fruit when making jam[9]. At one time the fruit was kept in brine and used like olives[183]. The fruit is a reasonable size, up to 15mm long, with a single large seed[K].

A small amount of edible oil can be extracted from the seeds[7].

Seeds are roasted, ground into a powder and used as a coffee substitute[183].

Medicinal Uses

Disclaimer

Astringent; Febrifuge; Nutritive.

The bark and the fruit are astringent, febrifuge and nutritive[7]. The astringent fruit is a good treatment for bowel complaints and fevers, whilst it is also used in the treatment of cholera[4, 254].

The flowers are used in the treatment of diarrhoea[4].

Other Uses

Dye; Hedge; Oil; Tannin; Wood.

An oil is obtained from the seed[7].

A dye is obtained from the bark[3, 7]. No more details are given. Another report says that a red dye is obtained from the plant, but does not say which part of the plant[4].

The leaves are a good source of tannin[7].

Wood - very hard, it is highly valued by turners[7]. The wood is heavier than water and does not float[7]. It is used for tools, machine parts, etc[7, 11, 13, 61].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Prefers a moist soil[108] and a sunny position[15] but also succeeds in light shade[188]. Plants are fairly wind resistant[K]. Plants grow and crop well in pots.

A very hardy plant, tolerating temperatures down to about -25°c[184].

At one time the cornelian cherry was frequently cultivated for its edible fruit, though it has fallen into virtual disuse as a fruit crop in most areas[3]. It is still being cultivated in parts of C. Europe and there are some named varieties[183]. 'Macrocarpa' has larger fruits than the type[182]. 'Nana' is a dwarf form, derived from a yellow-fruited clone[182]. 'Variegata' has been seen on a number of occasions with very large crops of fruit, even in years when the type species has not fruited well[K]. 'Jolico' has well-flavoured fruits 3 times larger than the species. There are also a number of cultivars with yellow, white and purplish fruit.

Seedlings can take up to 20 years to come into fruit. Plants produced from cuttings come into fruit when much younger, though they do not live as long as the seedlings.

A very ornamental plant[1] it flowers quite early in the year and is a valuable early food for bees[13, 108].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame[188].

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

'Variegata'

Smaller-growing than the species, probably reaching no more than 2 metres tall and wide. It has considerable leaf variegation, is less tough than the species and does best in a sunny sheltered position. This cultivar seems to fruit well each year, producing full-sized well-flavoured fruits with less astringency than the species[K].

'Nana'

A dwarf form, it is derived from a yellow-fruited clone[182].

'Macrocarpa'

This cultivar has larger fruits than the type[182].

'Jolico'

The fruits are well-flavoured and up to 3 times larger than the species. A self-sterile clone, it requires pollination by another cultivar if fruit is to be formed.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Cornus mas* (Cornelian Cherry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+mas`
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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus mas*

Subject:

Cornus mas

Group:
Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus mas

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Cornus monbeigii

Common name:		Family:	Cornaceae
Author:	Hemsl.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

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Medicinal Uses

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Wood.

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Wood - hard, close grained, warps badly[158]. It makes a good charcoal[146, 158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[188], growing well in thin woodland[11].

This species is closely related to C. macrophylla[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain: C.

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Plants For A Future: Database Search Results

Cornus monbeigii

Common name:		Family:	Cornaceae
Author:	Hemsl.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 5m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

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This species is closely related to C. macrophylla[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Habitat:	Not known		
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	Order: Cornales . Dogwood family

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+monbeigii`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus monbeigii*

Subject:

Cornus monbeigii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus monbeigii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:14:43 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Cornus nuttallii

Common name:	Mountain dogwood	Family:	Cornaceae
Author:	Aud.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California and east to Idaho.		
Habitat:	Usually found in moist well-drained soils in the shade of coniferous trees to 1800 metres[82].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. nuttalii[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pacific Dogwood [FEIS,P,DEN1], Pacific Flowering Dogwood [B],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish)

Physical Characteristics

A decidious tree growing to 10m by 7m . It is hardy to zone 7. It is in flower in May, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Fruit.

The fruit is possibly edible[177]. The fruit is about 10mm in diameter[200] and has a thin, mealy flesh[82].

Medicinal Uses

Disclaimer

Antiperiodic; Febrifuge; Laxative; Tonic.

The bark is antiperiodic, cathartic, febrifuge, laxative and tonic[46, 61, 118, 257]. An infusion is used as a quinine substitute in the treatment of malaria[46, 118, 226]. The infusion has also been used in the treatment of stomach complaints[257]. Externally, it is used to treat ulcers[257].

Other Uses

Basketry; Dye; Tannin; Wood.

An intense brown dye is obtained by boiling the bark[257].

The bark is rich in tannin and has been used as a preservative[257].

The long slender branches have been used in making baby baskets[257].

Wood - exceedingly hard, heavy, strong, close grained. It is used for tool handles, cabinet making etc[46, 61, 82, 118].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Another report says that it does not thrive in poor chalky soils[182]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

Plants are hardy to about -15°c[184], but they require long hot humid summers in order to promote good growth[200].

A very ornamental tree[1], but it is usually short-lived in Britain and does not do well in the north of this country[11]. There is some evidence to suggest that trees grow better on poor soils and can be killed by too much kindness. A very good tree has been seen on a poor gravel soil[182].

Closely related to C. florida[226].

This species is the floral emblem of British Columbia[226]. A number of named varieties have been developed for their ornamental value[182].

Plants in this genus are notably resistant to honey fungus[200].

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Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of about 3 days warm stratification at 15°c before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus nuttallii

Common name:	Mountain dogwood	Family:	Cornaceae
Author:	Aud.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California and east to Idaho.		
Habitat:	Usually found in moist well-drained soils in the shade of coniferous trees to 1800 metres[82].		
Plants For A Future Rating (1-5):	2		

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Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish)

Physical Characteristics

A decidious tree growing to 10m by 7m . It is hardy to zone 7. It is in flower in May, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

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Woodland, Canopy, Secondary.

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Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of about 3 days warm stratification at 15°c before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Suppliers

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus nuttallii*

Subject:

Cornus nuttallii

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus nuttallii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:14:54 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus occidentalis

Common name:	Western dogwood	Family:	Cornaceae
Author:	Cov.	Botanical references:	11, 60 200
Synonyms:	Cornus pubescens (Nutt. non Willd.)		
Known Hazards:	None known		
Range:	Western N. America.		
Habitat:	Moist soils, especially by streams[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. alba var. californica[B,P] C. alba var. occidentalis[B,P] C. sericea ssp. occidentalis[B,C,CAL,,P] C. sericea subsp. occidentalis[G] C. sericea var. occidentalis[G] C. stolonifera var. californica[B] C. stolonifera var. occidentalis[B,G,P] C. x californica[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	occidentalis = of the west;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 6m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 177]. They were often eaten by native North Americans, but they are bitter and acid[161, 257].

Medicinal Uses

Disclaimer

Ophthalmic.

The bitter-tasting bark is astringent, ophthalmic and tonic[118, 257]. An infusion has been used as a wash for sore eyes[257].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in poorly drained soils[200]. Succeeds in full sun or light shade[[188].

Allied to C. stolonifera and considered to be part of that species by some botanists[11, 60, 200].

Plants in this genus are notably resistant to honey fungus[200].

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- PFAF: Edible Trees and Shrubs Hardy in Britain: C
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References for the family Cornaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain: C.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus occidentalis

Common name:	Western dogwood	Family:	Cornaceae
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Known Hazards:	None known		
Range:	Western N. America.		
Habitat:	Moist soils, especially by streams[60].		
Plants For A Future Rating (1-5):	1		

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Physical Characteristics

A decidious shrub growing to 6m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

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Subject:

Cornus occidentalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus occidentalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:15:04 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Shan Zhu Yu	Family:	Cornaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 109, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Korea.		
Habitat:	Woodland, 1200 - 1800 metres in W. China[109].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Jou Tsao [E], Sanshu [E], Shan Chu Yu [E], Shu Suan Tsao [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

A decidious shrub growing to 10m by 10m . It is hardy to zone 6 and is not frost tender. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 177]. The fully ripe fruit is quite pleasant but slightly astringent[K]. It is about 1.5cm long[200]. The fruit contains about 8.6% sugars, 2.9% malic acid, 0.74% ash[179].

Medicinal Uses

Disclaimer

Antibacterial; Antifungal; Antiperiodic; Antiseptic; Antitumor; Astringent; Diuretic; Hepatic; Hypotensive; Tonic.

Shan Zhu Yu has been used for at least 2,000 years in Chinese herbal medicine. It is a herb that "stabilizes and binds" and is used principally to reduce heavy menstrual bleeding and unusually active secretions including copious sweating, excessive urine, spermatorrhoea and premature ejaculation[147, 238, 254]. Like all herbs that suppress bodily fluids (even excessive ones), it will simply prolong or lead to a worsening of symptoms if it is used without tonic or detoxifying herbs[254]. It is, therefore, normally used in combination with herbs such as Rehmannia glutinosa and is an ingredient of the "Pill of eight ingredients" which is used in China to "warm up and invigorate the yang of the loins"[254].

The fruit is antibacterial, antifungal, hypotensive, antitumor, astringent, diuretic, hepatic and tonic[116, 147, 176, 178, 238]. The fruit, without the seed, is decocted for the treatment of arthritis, fever and a wide range of other ailments[218]. It is used in the treatment of senile lumbago, diabetes, cystitis, tinnitus etc[174, 254]. The fruit has an antibacterial action, inhibiting the growth of Bacillus dysenteriae and Staphylococcus[176]. The fruit is harvested when fully ripe and is dried for later use[238].

The stem bark is astringent, antimalarial and tonic[218].

The plant is antibacterial, diuretic, hypotensive and a urinary antiseptic[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under

with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

A very ornamental plant[1], it is very closely related to C. mas[1, 11] but is more tree-like in its habit[K].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
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- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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A translation of an ancient Chinese book on edible wild foods. Fascinating.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7

Excellent range of photographs, some cultivation details but very little information on plant uses.

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[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+officinalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+officinalis`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cornus officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Shan Zhu Yu	Family:	Cornaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 109, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Korea.		
Habitat:	Woodland, 1200 - 1800 metres in W. China[109].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Jou Tsao [E], Sanshu [E], Shan Chu Yu [E], Shu Suan Tsao [E],
Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

A decidious shrub growing to 10m by 10m . It is hardy to zone 6 and is not frost tender. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[105, 177]. The fully ripe fruit is quite pleasant but slightly astringent[K]. It is about 1.5cm long[200]. The fruit contains about 8.6% sugars, 2.9% malic acid, 0.74% ash[179].

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Disclaimer

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Other Uses

None known

Cultivation details

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Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+officinalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+officinalis`

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A decidious shrub growing to 10m by 10m . It is hardy to zone 6 and is not frost tender. It is in flower from February to March, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

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The stem bark is astringent, antimalarial and tonic[218].

The plant is antibacterial, diuretic, hypotensive and a urinary antiseptic[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

A very ornamental plant[1], it is very closely related to C. mas[1, 11] but is more tree-like in its habit[K].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+officinalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+officinalis`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus officinalis*

Subject:

Cornus officinalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus officinalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:15:15 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Cornus paucinervis

Common name:		Family:	Cornaceae
Author:	Hance.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

A specimen of this species seen growing at Kew in September 1994 was carrying a few red fruits about 30mm long and 12mm wide - these were not fully ripe and were slightly astringent but they showed some potential[K]. There must be some doubt about the validity of the name of the Kew plant since the botanical description of the plant says that the fruits are black, globose and 6mm in diameter[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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---

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera: Cornus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus paucinervis

Common name:		Family:	Cornaceae
Author:	Hance.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

A specimen of this species seen growing at Kew in September 1994 was carrying a few red fruits about 30mm long and 12mm wide - these were not fully ripe and were slightly astringent but they showed some potential[K]. There must be some doubt about the validity of the name of the Kew plant since the botanical description of the plant says that the fruits are black, globose and 6mm in diameter[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Plants For A Future: Database Search Results

Cornus paucinervis

Common name:		Family:	Cornaceae
Author:	Hance.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

A specimen of this species seen growing at Kew in September 1994 was carrying a few red fruits about 30mm long and 12mm wide - these were not fully ripe and were slightly astringent but they showed some potential[K]. There must be some doubt about the validity of the name of the Kew plant since the botanical description of the plant says that the fruits are black, globose and 6mm in diameter[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

Plants in this genus are notably resistant to honey fungus[200].

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Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Add a comment on: *Cornus paucinervis*

Subject:

Cornus paucinervis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus paucinervis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

Your Email Address:

Date: Sun May 16 02:15:24 2004

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Add Comment Reset

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Cornus poliophylla

Common name:		Family:	Cornaceae
Author:	C. Schneid.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - W. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

Fruit - raw or cooked[2, 105, 146, 158, 200, 218]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Anodyne; Astringent; Tonic.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

Anodyne, astringent, tonic[178].

The wood is anodyne and a uterosedative[218].

The stem bark is used in the treatment of dysentery[218].

Other Uses

Wood.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

Wood - hard, close grained, warps badly[158]. It makes a good charcoal[146, 158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is closely related to C. monbeigii[11, 200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

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References for the family Cornaceae.

See the PFAF Links Pages for other sources

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain: C.

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Plants For A Future: Database Search Results

Cornus poliophylla

Common name:		Family:	Cornaceae
Author:	C. Schneid.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - W. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

Fruit - raw or cooked[2, 105, 146, 158, 200, 218]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Anodyne; Astringent; Tonic.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

Anodyne, astringent, tonic[178].

The wood is anodyne and a uterosedative[218].

The stem bark is used in the treatment of dysentery[218].

Other Uses

Wood.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

Wood - hard, close grained, warps badly[158]. It makes a good charcoal[146, 158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is closely related to C. monbeigii[11, 200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

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Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Plants For A Future: Database Search Results

Cornus poliophylla

Common name:		Family:	Cornaceae
Author:	C. Schneid.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - W. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

Fruit - raw or cooked[2, 105, 146, 158, 200, 218]. The fruit is about 6mm in diameter[200].

Medicinal Uses

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The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

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Wood.

The following notes are for C. macrophylla, they quite probably also apply to this closely related species[K].

Wood - hard, close grained, warps badly[158]. It makes a good charcoal[146, 158].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

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Plants in this genus are notably resistant to honey fungus[200].

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Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Subject:

Cornus poliophylla

Group:
Plant Information

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus poliophylla

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Cornus rugosa

Common name:	Round-leaved dogwood	Family:	Cornaceae
Author:	Lam.	Botanical references:	11, 43, 200
Synonyms:	Swida rugosa (Rydb.), Cornus circinata (L'Hér.)		
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Manitoba and south to Virginia and Illinois.		
Habitat:	Dry woods and rocky slopes[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Dogwood [E], Green Osier [H], Round-leaf Dogwood [B], Round-leaved Cornel [L], Round-leaved Dogwood [L], Roundleaf Dogwood [P], Roundleaved Dogwood [H],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cathartic; Febrifuge; Kidney; TB; Tonic.

The bark is cathartic, febrifuge and tonic[61, 257].

A decoction of the roots has been used in the treatment of kidney complaints and TB[257].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in poorly drained soils[200]. Succeeds in full sun or light shade[[188].

A very ornamental[1] and free-flowering plant[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus circinata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

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Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

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Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Manitoba and south to Virginia and Illinois.		
Habitat:	Dry woods and rocky slopes[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cathartic; Febrifuge; Kidney; TB; Tonic.

The bark is cathartic, febrifuge and tonic[61, 257].

A decoction of the roots has been used in the treatment of kidney complaints and TB[257].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in poorly drained soils[200]. Succeeds in full sun or light shade[[188].

A very ornamental[1] and free-flowering plant[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus circinata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+rugosa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+rugosa`

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Plants For A Future: Database Search Results

Cornus rugosa

Common name:	Round-leaved dogwood	Family:	Cornaceae
Author:	Lam.	Botanical references:	11, 43, 200
Synonyms:	Swida rugosa (Rydb.), Cornus circinata (L'Hér.)		
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Manitoba and south to Virginia and Illinois.		
Habitat:	Dry woods and rocky slopes[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Dogwood [E], Green Osier [H], Round-leaf Dogwood [B], Round-leaved Cornel [L], Round-leaved Dogwood [L], Roundleaf Dogwood [P], Roundleaved Dogwood [H],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cathartic; Febrifuge; Kidney; TB; Tonic.

The bark is cathartic, febrifuge and tonic[61, 257].

A decoction of the roots has been used in the treatment of kidney complaints and TB[257].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in poorly drained soils[200]. Succeeds in full sun or light shade[[188].

A very ornamental[1] and free-flowering plant[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+rugosa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+rugosa`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus rugosa*

Subject:

Cornus rugosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus rugosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 02:15:44 2004

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Plants For A Future: Database Search Results

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Cornus sanguinea

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Thelycrania sanguinea (Fourr.), Swida sanguinea (Opiz.)		
Known Hazards:	Contrary to some reports, the fruit is not poisonous, but the leaves can cause skin irritations to sensitive people[65].		
Range:	Britain.		
Habitat:	Mixed woods, scrub and hedgerows, especially on calcareous soils[7, 13, 186].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sanguinea var. viridissima[G] C. stolonifera[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blood-twig Dogwood [B], Bloodtwig Dogwood [P], Cornejo [E], Dogberry [H], Dogwood [L], Hound's Tree [H], Rode Kornoelje [D],
Epithets:	From a Dictionary of Botanical Epithets
	anguinea = snake like; sanguinea = bloody;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Spain

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Oil.

Fruit - raw or cooked[105]. A bitter flavour, it can also have an emetic effect on the body[1, 7, 11]. It is not worthwhile[115]. The fruit is about 8mm in diameter[200].

An oil is obtained from the seed[2], it is edible when refined[75].

Medicinal Uses

Disclaimer

Astringent; Emetic; Febrifuge.

The bark is astringent and febrifuge[7]. It is used to treat fevers[254].

The leaves are sometimes used externally as an astringent[7].

The fruit is emetic[7].

Other Uses

Basketry; Charcoal; Dye; Fuel; Hedge; Oil; Wood.

The seed contains 45% of a non-drying oil[74], it is used in soap making and lighting[7, 13, 100, 115, 177].

A non-drying oil is also obtained from the pericarp, it is used for lighting[74]. The pericarp contains 19 - 35% oil[74].

A greenish-blue dye is obtained from the fruit[13, 74].

The young stems are very flexible and are used in basketry[7, 13, 74, 100].

Wood - tough, hard. Used for small items such as tool handles, turnery etc[11, 61, 115]. A good quality charcoal is obtained from the wood[115], the wood also makes an excellent fuel[115].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Plants are relatively shade tolerant, though they are not happy when growing in dense shade[186]. They grow badly when exposed to strong cold winds[186].

Plants are hardy to about -25°c[184].

The flowers have a rather unpleasant smell to most people, though they are attractive to insects[186].

Plants have a suckering habit and can quickly form dense thickets[186]. They can be coppiced regularly and will throw up long straight stems after being cut back[186].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Scent

Flowers: Fresh

> The flowers have a rather unpleasant smell to most people, though they are attractive to insects.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Cornus sanguinea* (dogwood)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Cornus sanguinea* (Dogwood)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Vegtable Oils

- Alternative Lighting: Plant Oils and Waxes
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*

Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus sanguinea

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Range:	Britain.		
Habitat:	Mixed woods, scrub and hedgerows, especially on calcareous soils[7, 13, 186].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sanguinea var. viridissima[G] C. stolonifera[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blood-twig Dogwood [B], Bloodtwig Dogwood [P], Cornejo [E], Dogberry [H], Dogwood [L], Hound's Tree [H], Rode Kornoelje [D],
Epithets:	From a Dictionary of Botanical Epithets
	anguinea = snake like; sanguinea = bloody;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Spain

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Oil.

Fruit - raw or cooked[105]. A bitter flavour, it can also have an emetic effect on the body[1, 7, 11]. It is not worthwhile[115]. The fruit is about 8mm in diameter[200].

An oil is obtained from the seed[2], it is edible when refined[75].

Medicinal Uses

Disclaimer

Astringent; Emetic; Febrifuge.

The bark is astringent and febrifuge[7]. It is used to treat fevers[254].

The leaves are sometimes used externally as an astringent[7].

The fruit is emetic[7].

Other Uses

Basketry; Charcoal; Dye; Fuel; Hedge; Oil; Wood.

The seed contains 45% of a non-drying oil[74], it is used in soap making and lighting[7, 13, 100, 115, 177].

A non-drying oil is also obtained from the pericarp, it is used for lighting[74]. The pericarp contains 19 - 35% oil[74].

A greenish-blue dye is obtained from the fruit[13, 74].

The young stems are very flexible and are used in basketry[7, 13, 74, 100].

Wood - tough, hard. Used for small items such as tool handles, turnery etc[11, 61, 115]. A good quality charcoal is obtained from the wood[115], the wood also makes an excellent fuel[115].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Plants are relatively shade tolerant, though they are not happy when growing in dense shade[186]. They grow badly when exposed to strong cold winds[186].

Plants are hardy to about -25°c[184].

The flowers have a rather unpleasant smell to most people, though they are attractive to insects[186].

Plants have a suckering habit and can quickly form dense thickets[186]. They can be coppiced regularly and will throw up long straight stems after being cut back[186].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Scent

Flowers: Fresh

The flowers have a rather unpleasant smell to most people, though they are attractive to insects.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Cornus sanguinea* (dogwood)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Cornus sanguinea* (Dogwood)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Vegtable Oils

- Alternative Lighting: Plant Oils and Waxes
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*

Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+sanguinea`

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Vegtable Oils

Many species of plants produce seeds containing fats - these fats are used as a food reserve for the developing seedling and they are quite often present in sufficient quantities to make their extraction, in the form of an oil, worthwhile. Vegetable oil has a wide range of uses, and whilst many of these involve processes that are too technical for small scale ventures, there are still many ways in which we can employ them - as a food for example, or as a lubricant, a fuel for paraffin lamps and as a wood preservative.

Oils are often divided into three categories according to their qualities, these categories are non-drying, semi- drying and drying. Non-drying oils are slow to oxidise and so remain liquid for a long time. This quality makes them particularly useful as lubricants and as a fuel for lamps. Drying oils, on the other hand, are quite quick to oxidise and become solid, thus they are often used in paints and varnishes - Linseed oil is a good example of this. Semi-drying oils have qualities intermediate between the above two groups.

Almost all commercially grown oil seed crops in the temperate zone are of annual plants. The list is quite long and we do not intend to deal with them in this leaflet but some of the most common ones are Rape, Soya, Linseed, Sunflower and Safflower. There are also, however, quite a few perennial species that could be utilised for oil production and some of the more promising of these will no be mentioned. Unless stated otherwise they all produce an edible oil.

Althaea officinalis - The Marshmallow is a herbaceous plant native to Britain and growing wild on the upper margins of brackish marshes, along ditches and banks, often near the sea. As the common name suggests, the roasted root of the plant was used as a confection long before the sweet of that name was made. This plant is easily cultivated, growing well in most soils and tolerant of fairly dry conditions. The seed is produced quite freely but it is quite small and tedious to harvest by hand. The oil is drying. Other uses for this plant include edible leaves, raw or cooked, a glue made from the root, an egg-white substitute that can be made from water in which the plant has been cooked and stem and root fibres in paper making.

Camellia species - Evergreen shrubs from China and Japan. This group includes the well known garden Camellias. They are quite hardy but dislike cold winds and alkaline soils, probably growing best in a thin woodland. They are sometimes cultivated as an oil crop in the Orient, this oil is non-drying and is especially popular as a hair dressing. Species to try are japonica (the garden Camellia), C. olifera and C. sasanqua.

Cephalotaxus harringtonia - Is an evergreen coniferous shrub from the woodlands of Japan. It grows in most soils, succeeds in heavy shade but prefers light shade and dislikes exposed positions. Plants are either male or female but have been known to change sex. Obviously both sexes should be grown if seed is wanted (one male for every five females) although there are reports of isolated females producing fruits with infertile seed. Both seed and fruit are edible but can taste resinous, we have no information as to the category of this oil.

Cornus sanguinea - The Dogwood, is a native deciduous shrub found wild in mixed woods, scrub and hedgerows on calcareous soils though it succeeds on most soils. It can also be grown as a hedge. The oil, which is non- drying, is obtained from both the seed and pericarp (the fleshy shell surrounding the seed). It is said to be edible when refined. Young branches of the plant are used in basket making and a grey-blue dye is obtained from the fruit.

Corylus avellana - Our native Hazel, is a deciduous shrub of woods and hedgerows found especially on calcareous soils but succeeding on most soils. The oil is non-drying. As well as its seed, Hazel was once widely grown in coppices to provide wood for making hurdles, wattles, fences, etc. It might also be worthwhile trying other members of this genus such as C. colurna, and C. sieboldiana mandschurica (synonym C. mandschurica).

Fagus sylvatica - Our native Beech tree grows on most soils but avoids heavy, wet ones, it is abundant on chalk. Heavy crops are not produced every year. The oil is semi-drying and is said to store for a long time without growing rancid. The seed is also edible as are the young leaves that are produced in the two flushes of growth in spring and mid-summer.

Glaucium flavum - The Horned Poppy is another native species found on shingle banks of the coast. It is easily grown in any good garden soil but is, unfortunately, a fairly short-lived perennial. The oil is said to burn very cleanly in lamps.

Juglans regia - The Walnut tree, is more or less naturalised in southern England. It succeeds on most soils, preferring a deep loam, and strongly disliking windy positions. The oil is drying and quickly goes rancid. The seed is, of course, edible and amongst its other uses, the crushed leaves can be used as an insect repellant. Other Juglans species also have oil rich seeds although they may not be produced freely in Britain. It might be worthwhile trying J. cinerea, J .mandschurica or J nigra.

Prunus species - This genus includes the Plum, Cherry, Almond, Apricot and Peach. The seed of all members of this genus could probably by used for oil extraction, although in our climate the Plum is probably the most reliable choice. The oil is semi-drying. One word of warning though, if the extracted oil should taste strongly of bitter almonds then it should only be consumed in small quantities.

Rhus verniciflua - The Japanese Lacquer tree is a deciduous tree from the woodlands of China and Japan. It succeeds in ordinary garden soil but is susceptible to Coral Spot fungus. The oil is drying. Indeed it is actually solid at room temperature and so can be used as a vegetable tallow in making candles. All parts of this tree including the oil are poisonous. A natural varnish or lacquer can be obtained from the sap of the tree.

Vitis vinifera - Is the Grape. Due to the size of the seed it would not normally be practicable to cultivate for oil production but if you grow a reasonable quality of grapes for wine or have access to someone else's pulp from winemaking, then you could have a go. The oil is edible when refined and is also used in lighting.

Finally, a few words on extracting the oil. The best method to use if the oil is to be eaten is to squeeze out the oil in a press. As far as we know, there are no sources of domestic size oil presses in Britain, perhaps a fruit press could be adapted or, if you are good at metal work, we could send you a plan for a small metal press - perhaps you could even make one for us! Prior to crushing, it will improve extraction rates if you grind up the seed somewhat. This method of extraction will not get all the oil out however. If you then boil up the pulp, a lot more oil will then float to the surface of the water and be skimmed off. This oil is not so wholesome to use as a food but is perfectly alright for all its other applications. The oil should be stored in air-tight containers.

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Readers Comments:

Vegtable Oils

Unknown (cswitzer@idrc.ca) Wed Feb 23 15:39:19 2000

Hello - can anyone tell me if there are any formal studies on the medicinal properties of *brassica juncea* (Indian Mustard). I know this variety is not grown in the UK or US, but perhaps someone might have contacts working in South East Asia. I recently did an ethnographic study with women in low income communities of South Delhi and rural Uttar Pradesh and Rajasthan. I learned that mustard oil (from Indian mustard and others) is currently used for a number of ailments - from ear aches to massage for women in labour. Unfortunately I can`t find any documented research on it`s medicinal properties.

Also, does anyone have suggestions on where to find detailed information on med plants in Asia? ie. networks, conferences. Any info would be much appreciated.

Cheers, Carolyn S.

PS. I have quite enjoyed your user-friendly webpage - well done.

Details of Growing Condition: South East Asia.

This comment has also been added to: brassica juncea.

Add a Follow up to this comment

Vegtable Oils

Pedro Carlos M. da C. Alves (pedrocarlos@aeiou.pt) Mon Feb 26 17:58:02 2001

Hello there!

I'm Portuguese Agroindustrial Eng. student. I love plants, hate polution and I prefer Vegetarian food.

I've one comment about VEGETABLE OILS: why aren't there the most healthy of ALL VEGETABLE OILS - those that are obtained from fruits: like OLIVE OIL, PALM OIL and DENDEM OIL?!

Bye! Pedro

This comment has also been added to: Olea europea.

This comment has also been added to the genera: Olea.

Add a Follow up to this comment

Vegtable Oils

Colin Trier (colintrier@yahoo.co.uk) Thu May 3 08:45:14 2001

Hi There is a lot of interest in linseed oil as a very nutrionally balanced oil that can easily be grown in this country. Unfortunately it tends to pass through our digestive system rather rapidly (loosens the bowels as my grandfather would say. According to Joanna Budwig (an Internet search will bring up a lot on this rather special lady) cold pressed organic linseed oil can be assimilated more easily if mixed with cottage cheese or yogurt and is an important dietary way of fighting serious illness. Has anyone got advice on growing linseed?

Add a Follow up to this comment

Vegtable Oils

melgrace c. abandula (migis@eudoramail.com) Wed Jun 20 09:44:14 2001

hello to all, i was wondering if we can make a good wax out of coconut oil. im currently thinking about making wax out of coconut oil for long shelf life of fruits and vegetables. but i have also found out that coconut oil tends to become rancid and maybe coconut oil is not good for making wax. please help me. i hope you can apprise me about this matter asap. thank you and more power!!!

Add a Follow up to this comment

Vegtable Oils

Unknown Fri Aug 17 18:13:55 2001

how do u make vestable oil?

This comment has also been added to: brassica juncea.

Add a Follow up to this comment

Vegtable Oils

() Mon Sep 2 14:56:09 2002

I'm interested in the nutritional value of palm oil. Can anyone tell me about its nutritional qualities? I've heard conflicting information about it being very high in cholesterol. What is a good source to learn more about it.

Add a Follow up to this comment

Vegtable Oils

(Kthrn287@aol.com) Tue Dec 24 16:03:33 2002

What are different types of plants that produce an edible oil? Please e-mail me if you know! Thanks!

Add a Follow up to this comment

Vegtable Oils

Marie (wish@penalvagold.net) Sun Feb 9 15:10:06 2003

Hello' thanks for the info on less common oil-plants. I would love plans for a home press, suited to olives, but I also need info on home extraction of rose-hip oil and grapeseed oil, as my local area has plenty of raw materials just begging to be harvested by the roadsides! The idea is to use these oils in soap production. The only home-scale press I've found is in the US, and pretty pricey. Any info would be received with delight! Thanks

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

brassica juncea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

vegoils.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 02:15:57 2004

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Search for Latin Name: Olea

New Search: Olea Search

Latin Name	Common Name	Family	Synonyms	Rating
Nerium oleander	Oleander	Apocynaceae	N. indica. N. odorum.; Nerium odorum; Nerium indicum	1
Olea europaea	Olive	Oleaceae	O. europea; O. gallica; O. lancifolia; O. oleaster	3
Olearia avicenniifolia	Akeake	Compositae	O. albida. Hort. non Hook.f.; Olearia albida; Shawia avicenniifolia	1
Olearia ilicifolia		Compositae	Eurybia dentata linearifolia.; Eurybia dentata linearifolia	1
Olearia macrodonta		Compositae		1
Olearia paniculata		Compositae	O. forsteri.; Olearia forsteri	1
Olearia solandri		Compositae		1
Olearia traversii		Compositae	Eurybia traversii	1
Olearia virgata		Compositae		1
Olearia x haastii		Compositae		1
Osmanthus americana		Oleaceae	Olea americana	1
Osmanthus fragrans	Fragrant olive	Oleaceae	Olea fragrans.; Olea fragrans	2

Osmanthus heterophyllus	Holly olive	Oleaceae	O. aquifolium. O. illicifolius. Ilex heterophyllus. Olea illicifolia.; Olea illicifolia; Olea aquifolium; Olea ilicifolia	1

New Search

Latin Name	Olea
Common Name	
Family	
Rating	1 — 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Nerium oleander

Common name:	Oleander	Family:	Apocynaceae
Author:	L.	Botanical references:	50, 200
Synonyms:	Nerium odorum (Sol.), Nerium indicum (Mill.)		
Known Hazards:	The whole plant is very poisonous[1, 19, 65]. Skin contact with the plant can cause irritation whilst ingestion leads to death[200]. Death has been known to follow the use of the wood of this plant as a meat skewer[200].		
Range:	S.W. Europe to E. Asia.		
Habitat:	River banks and river gravels in Europe[50].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below. Adelfa [E], Aghu [E], Alelia [E], Berberia [E], Bunga Jepun [E], Defla [E], Diflah [E], Flor Del Peru [E], Kyotiku-To [E], Laurel Rosa [E], Laurier [E], Laurier Des Jardins [E], Laurier Rose [E], Laurier Tropical [E], Lurek [E], Nd [E], Nerium [DEN2], Oleander [MS,H,E,P,B], Piruli [E], Rosa De Berberia [E], Rosa Del Peru [E], Rosa Francesa [E], Zakkum [E], Zhalah [E],
Epithets:	From a Dictionary of Botanical Epithets oleander = Nerium;
Systematics:	From a UDSA Plants Database Order: Gentianales . Dogbane family
Other Range Info:	From the Ethnobotany Database

	Argentina; China; Cuba; Dominican Republic; Europe; Haiti; Hawaii; India; India(Santal); Iraq; Kurdistan; Libya; Malaya; Mexico; Morocco; Nepal; Puerto Rico; Samoa; Spain; Turkey; Us; Venezuela; Wi

Physical Characteristics

An evergreen shrub growing to 4m by 4m . It is hardy to zone 8. It is in leaf all year, in flower from June to October. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cancer; Cardiotonic; Diaphoretic; Diuretic; Emetic; Expectorant; Resolvent; Skin; Sternutatory.

The leaves and the flowers are cardiotonic, diaphoretic, diuretic, emetic, expectorant and sternutatory[7, 147, 218]. A decoction of the leaves has been applied externally in the treatment of scabies[7], and to reduce swellings[240]. This is a very poisonous plant, containing a powerful cardiac toxin[240], and should only be used with extreme caution[7, 147].

The root is powerfully resolvent. Because of its poisonous nature it is only used externally. It is beaten into a paste with water and applied to chancres and ulcers on the penis[240].

An oil prepared from the root bark is used in the treatment of leprosy and skin diseases of a scaly nature[240].

The whole plant is said to have anticancer properties[218].

Other Uses

Dye; Hedge; Insecticide; Latex; Parasiticide; Soil stabilization.

The plant is used as a rat poison[46], a parasiticide[7] and an insecticide[100].

A green dye is obtained from the flowers[168].

The plant is commonly used for informal hedging in the Mediterranean[89, 200], though it is too tender for this use in Britain[K].

The leaves contain small amounts of latex that can be used to make rubber[227], though the amount is too small for commercial utilization[K].

The plants have an extensive root system and are often used to stabilize soil in warmer areas[148].

Cultivation details

Prefers a heavy soil[49]. Prefers a light soil according to another report[202]. Requires a position in full sun[49, 184]. Prefers a fertile well-drained soil[200]. Lime tolerant[200, 202]. Plants are very tolerant of heat and also of drought once they are established[166]. Grows well in maritime gardens, tolerating salt-laden winds[200].

This species is not very hardy in Britain, though plants tolerate temperatures down to -5°c and short periods of temperatures down to -10°c[184, 200, 260]. A popular greenhouse pot plant that can be grown outdoors in the summer, it can be grown outdoors all year round in the milder areas such as Cornwall[1, 260].

A very ornamental plant[1], there are many named varieties[200, 260]. Plants are shy to flower when grown outdoors[49, 59]. The flowers have a soft sweet perfume[245].

Propagation

Seed - sow spring in a greenhouse[113]. Do not use seed from pods infected with the bacterial disease 'oleander knot'[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter before planting them out in early summer.

Cuttings of half-ripe side shoots, August/September in a frame. Good percentage[78].

Cuttings of mature leading shoots[1].

Scent

Flowers: Fresh

> The flowers have a soft sweet perfume[245].

Cultivars

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> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

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Readers Comments

Nerium oleander

Marie Roberts Sat May 06 13:41:22 2000

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Nerium oleander

Vincent Martinez Sat Dec 7 22:44:17 2002

Link: Botanical http://www.botanical-online.com/fotosneriumoleander.htm

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

None known

Medicinal Uses

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A very ornamental plant[1], there are many named varieties[200, 260]. Plants are shy to flower when grown outdoors[49, 59]. The flowers have a soft sweet perfume[245].

Propagation

Seed - sow spring in a greenhouse[113]. Do not use seed from pods infected with the bacterial disease 'oleander knot'[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter before planting them out in early summer.

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Vincent Martinez Sat Dec 7 22:44:17 2002

Link: Botanical http://www.botanical-online.com/fotosneriumoleander.htm

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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	oleander = Nerium;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Dogbane family
Other Range Info:	From the Ethnobotany Database
	Argentina; China; Cuba; Dominican Republic; Europe; Haiti; Hawaii; India; India(Santal); Iraq; Kurdistan; Libya; Malaya; Mexico; Morocco; Nepal; Puerto Rico; Samoa; Spain; Turkey; Us; Venezuela; Wi

Physical Characteristics

An evergreen shrub growing to 4m by 4m . It is hardy to zone 8. It is in leaf all year, in flower from June to October. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cancer; Cardiotonic; Diaphoretic; Diuretic; Emetic; Expectorant; Resolvent; Skin; Sternutatory.

The leaves and the flowers are cardiotonic, diaphoretic, diuretic, emetic, expectorant and sternutatory[7, 147, 218]. A decoction of the leaves has been applied externally in the treatment of scabies[7], and to reduce swellings[240]. This is a very poisonous plant, containing a powerful cardiac toxin[240], and should only be used with extreme caution[7, 147].

The root is powerfully resolvent. Because of its poisonous nature it is only used externally. It is beaten into a paste with water and applied to chancres and ulcers on the penis[240].

An oil prepared from the root bark is used in the treatment of leprosy and skin diseases of a scaly nature[240].

The whole plant is said to have anticancer properties[218].

Other Uses

Dye; Hedge; Insecticide; Latex; Parasiticide; Soil stabilization.

The plant is used as a rat poison[46], a parasiticide[7] and an insecticide[100].

A green dye is obtained from the flowers[168].

The plant is commonly used for informal hedging in the Mediterranean[89, 200], though it is too tender for this use in Britain[K].

The leaves contain small amounts of latex that can be used to make rubber[227], though the amount is too small for commercial utilization[K].

The plants have an extensive root system and are often used to stabilize soil in warmer areas[148].

Cultivation details

Prefers a heavy soil[49]. Prefers a light soil according to another report[202]. Requires a position in full sun[49, 184]. Prefers a fertile well-drained soil[200]. Lime tolerant[200, 202]. Plants are very tolerant of heat and also of drought once they are established[166]. Grows well in maritime gardens, tolerating salt-laden winds[200].

This species is not very hardy in Britain, though plants tolerate temperatures down to -5°c and short periods of temperatures down to -10°c[184, 200, 260]. A popular greenhouse pot plant that can be grown outdoors in the summer, it can be grown outdoors all year round in the milder areas such as Cornwall[1, 260].

A very ornamental plant[1], there are many named varieties[200, 260]. Plants are shy to flower when grown outdoors[49, 59]. The flowers have a soft sweet perfume[245].

Propagation

Seed - sow spring in a greenhouse[113]. Do not use seed from pods infected with the bacterial disease 'oleander knot'[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter before planting them out in early summer.

Cuttings of half-ripe side shoots, August/September in a frame. Good percentage[78].

Cuttings of mature leading shoots[1].

Scent

Flowers: Fresh

> The flowers have a soft sweet perfume[245].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Nerium+oleander`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Nerium+oleander`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Nerium oleander*

Subject:

Nerium oleander

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Nerium oleander

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:16:10 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Olea europaea

Common name:	Olive	Family:	Oleaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Mediterranean.		
Habitat:	Woods and scrub in dry rocky places[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	O. europea[E] O. gallica[H] O. lancifolia[H] O. oleaster[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Olive [P,B,H,E], Olivo [E], Zaytoon [E], Zeytin Agaci [E],
Epithets:	From a Dictionary of Botanical Epithets
	europaea = European;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	Ei; Europe; France; Iraq; Jerusalem; Spain; Turkey; Us(Nm)

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales, South Australia.

Physical Characteristics

An evergreen tree growing to 10m by 8m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Cultivar **'Mission'**: Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.
Cultivar **'El Greco'**: Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit; Leaves; Manna; Oil.

Olive fruits are widely used, especially in the Mediterranean, as a relish and flavouring for foods. The fruit is usually pickled or cured with water, brine, oil, salt or lye[2, 3, 4, 89, 183]. They can also be dried in the sun and eaten without curing when they are called 'fachouilles'[183]. The cured fruits are eaten as a relish, stuffed with pimentos or almonds, or used in breads, soups, salads etc[183]. 'Olives schiacciate' are olives picked green, crushed, cured in oil and used as a salad[183]. The fruit contains 20 - 50µ vitamin D per 100g[74]. The fruit is up to 4cm long[200].

The seed is rich in an edible non-drying oil, this is used in salads and cooking and, because of its distinct flavour, is considered a condiment[4, 46, 57, 89, 171, 183]. There are various grades of the oil, the finest (known as 'Extra Virgin') is produced by cold pressing the seeds without using heat or chemical solvents[238]. The seed of unpalatable varieties is normally used and this oil has the lowest percentage of acidity and therefore the best flavour[238]. Other grades of the oil come from seeds that are heated (which enables more oil to be expressed but has a deleterious effect on the quality) or from using chemical solvents on seed that has already been pressed for higher grades of oil. Olive oil is mono-unsaturated and regular consumption is thought to reduce the risk of circulatory diseases[238]. The seed contains albumen, it is the only seed known to do this[7].

Leaves[2]. No more details are given.

An edible manna is obtained from the tree[183].

Medicinal Uses

Disclaimer

Antipruritic; Antiseptic; Astringent; Bach; Cholagogue; Demulcent; Emollient; Febrifuge; Hypoglycaemic; Laxative; Sedative.

The oil from the pericarp is cholagogue, a nourishing demulcent, emollient and laxative[4, 21, 240]. Eating the oil reduces gastric secretions and is therefore of benefit to patients suffering from hyperacidity[238]. The oil is also used internally as a laxative and to treat peptic ulcers[4, 238]. It is used externally to treat pruritis, the effects of stings or burns and as a vehicle for liniments[4, 21]. Used with alcohol it is a good hair tonic and used with oil of rosemary it is a good treatment for dandruff[4, 21]. The oil is also commonly used as a base for liniments and ointments[21].

The leaves are antiseptic, astringent, febrifuge and sedative[4, 21]. A decoction is used in treating obstinate fevers, they also have a tranquillising effect on nervous tension and hypertension[4, 238]. Experimentally, they have been shown to decrease blood sugar levels by 17 - 23%[240]. Externally, they are applied to abrasions[238].

The bark is astringent, bitter and febrifuge[4, 240]. It is said to be a substitute for quinine in the treatment of malaria[240].

In warm countries the bark exudes a gum-like substance that has been used as a vulnerary[4].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Complete exhaustion' and 'Mental fatigue'[209].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Hair; Oil; Soil stabilization; Wood.

The non-drying oil obtained from the seed is also used for soap making, lighting and as a lubricant[21, 46, 89]. The oil is a good hair tonic and dandruff treatment[21].

Maroon and purple dyes are obtained from the whole fresh ripe fruits[168].

Blue and black dyes are obtained from the skins of fresh ripe fruits[168].

A yellow/green dye is obtained from the leaves[168].

Plants are used to stabilize dry dusty hillsides[200].

Wood - very hard, heavy, beautifully grained, takes a fine polish and is slightly fragrant. It is used in turnery and cabinet making, being much valued by woodworkers[4, 7, 46, 100].

Cultivation details

Easily grown in a loamy soil[1] and tolerating infertile soils[200], it prefers a well-drained deep fertile soil[200]. A drought resistant plant once established, it succeeds in dry soils[200]. Requires a sunny position[3]. Tolerates salty air[59]. Plants are slow-growing and very long-lived[188].

The olive is very commonly cultivated in Mediterranean climates for its edible seed, there are many named varieties[132, 183]. Trees can produce a crop when they are 6 years old and continue producing a commercial yield for the next 50 years[200] - many trees continue to give good yields for hundreds of years, even when their trunk is hollow[4]. They succeed outdoors in the milder areas of Britain[11], though plants rarely produce fruit when grown in this country[4, 182, 200], preferring warm temperate regions with mild moist winters and hot dry summers[200]. Some reports say that trees often fruit in south-western England[11, 59]. Generally, older trees are hardy to about -10°c[3, 200]. They require the protection of a south facing wall when grown in the London area[11].

At least some cultivars are self-fertile[200]. Some cultivars have been selected mainly for their fruits whilst others have been selected for their oil[200]. 'Mission' is grown for its edible fruits. It is vigorous, prolific and very cold resistant[200]. 'Moraiolo' is grown for its oil, it is very hardy and strong-growing[200].

Flower production depends on a 12 - 15 week period of diurnally fluctuating temperatures with at least 2 months averaging below 10°c[200].

Pruning can encourage non-fruiting water-shoots[200]. Weighing down or arching the branches can encourage fruiting[200]. The plants fruit best on wood that is one year old so any pruning should take this into account[238].

An olive branch is a traditional symbol of peace[148], laurel leaves were used by the ancient Greeks to crown winners of the Olympic games[4].

Plants have male flowers and bisexual flowers[200].

Propagation

Seed - sow late winter in a shady position in a greenhouse[78]. Home produced seed should be given a period of cold stratification first[78]. Where possible, it is best to sow the seed as soon as it is ripe in a greenhouse in the autumn. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter, perhaps for their first 2 - 3 winters. Plant them out into their permanent positions in early summer and give them some protection from winter cold for at least their first winter outdoors[K].

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cultivars

'Moraiolo'

Grown mainly for the oil obtained from its fruit, this cultivar is very hardy and strong-growing[200].

'Mission'

The medium-size oval fruit is freestone, it has a firm but very bitter flesh and ripens rather late[183]. It is good for pickling and for oil[183]. It is of average oil content and is widely grown for producing cold-pressed olive oil[183]. A vigorous, prolific and very cold resistant cultivar[200], tolerating lower temperatures than most other cultivars[183].

'El Greco'

This is the cultivar most commonly available in Britain[K]. It has been selected for its heavy and reliable cropping and good oil content. One of the earliest bearing olives, it produces good-size small stoned fruits[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Olea europaea* (Olive Tree)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Olea europea* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN

0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some

details on plant uses.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Readers Comments

Vegtable Oils

Pedro Carlos M. da C. Alves Mon Feb 26 17:58:02 2001

Hello there!

I'm Portuguese Agroindustrial Eng. student. I love plants, hate polution and I prefer Vegetarian food.

I've one comment about VEGETABLE OILS: why aren't there the most healthy of ALL VEGETABLE OILS - those that are obtained from fruits: like OLIVE OIL, PALM OIL and DENDEM OIL?!

Bye! Pedro

Cross references: *Plants:* *Olea europea*. *Genera:* *Olea*. *Web-pages:* *Vegtable Oils*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Olea+europaea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Olea+europaea`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Olea europaea

Common name:	Olive	Family:	Oleaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Mediterranean.		
Habitat:	Woods and scrub in dry rocky places[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	O. europea[E] O. gallica[H] O. lancifolia[H] O. oleaster[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Olive [P,B,H,E], Olivo [E], Zaytoon [E], Zeytin Agaci [E],
Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
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Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales, South Australia.

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An evergreen tree growing to 10m by 8m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

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Cultivar **'Mission'**: Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.
Cultivar **'El Greco'**: Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

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Condiment; Fruit; Leaves; Manna; Oil.

Olive fruits are widely used, especially in the Mediterranean, as a relish and flavouring for foods. The fruit is usually pickled or cured with water, brine, oil, salt or lye[2, 3, 4, 89, 183]. They can also be dried in the sun and eaten without curing when they are called 'fachouilles'[183]. The cured fruits are eaten as a relish, stuffed with pimentos or almonds, or used in breads, soups, salads etc[183]. 'Olives schiacciate' are olives picked green, crushed, cured in oil and used as a salad[183]. The fruit contains 20 - 50µ vitamin D per 100g[74]. The fruit is up to 4cm long[200].

The seed is rich in an edible non-drying oil, this is used in salads and cooking and, because of its distinct flavour, is considered a condiment[4, 46, 57, 89, 171, 183]. There are various grades of the oil, the finest (known as 'Extra Virgin') is produced by cold pressing the seeds without using heat or chemical solvents[238]. The seed of unpalatable varieties is normally used and this oil has the lowest percentage of acidity and therefore the best flavour[238]. Other grades of the oil come from seeds that are heated (which enables more oil to be expressed but has a deleterious effect on the quality) or from using chemical solvents on seed that has already been pressed for higher grades of oil. Olive oil is mono-unsaturated and regular consumption is thought to reduce the risk of circulatory diseases[238]. The seed contains albumen, it is the only seed known to do this[7].

Leaves[2]. No more details are given.

An edible manna is obtained from the tree[183].

Medicinal Uses

Disclaimer

Antipruritic; Antiseptic; Astringent; Bach; Cholagogue; Demulcent; Emollient; Febrifuge; Hypoglycaemic; Laxative; Sedative.

The oil from the pericarp is cholagogue, a nourishing demulcent, emollient and laxative[4, 21, 240]. Eating the oil reduces gastric secretions and is therefore of benefit to patients suffering from hyperacidity[238]. The oil is also used internally as a laxative and to treat peptic ulcers[4, 238]. It is used externally to treat pruritis, the effects of stings or burns and as a vehicle for liniments[4, 21]. Used with alcohol it is a good hair tonic and used with oil of rosemary it is a good treatment for dandruff[4, 21]. The oil is also commonly used as a base for liniments and ointments[21].

The leaves are antiseptic, astringent, febrifuge and sedative[4, 21]. A decoction is used in treating obstinate fevers, they also have a tranquillising effect on nervous tension and hypertension[4, 238]. Experimentally, they have been shown to decrease blood sugar levels by 17 - 23%[240]. Externally, they are applied to abrasions[238].

The bark is astringent, bitter and febrifuge[4, 240]. It is said to be a substitute for quinine in the treatment of malaria[240].

In warm countries the bark exudes a gum-like substance that has been used as a vulnerary[4].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Complete exhaustion' and 'Mental fatigue'[209].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Hair; Oil; Soil stabilization; Wood.

The non-drying oil obtained from the seed is also used for soap making, lighting and as a lubricant[21, 46, 89]. The oil is a good hair tonic and dandruff treatment[21].

Maroon and purple dyes are obtained from the whole fresh ripe fruits[168].

Blue and black dyes are obtained from the skins of fresh ripe fruits[168].

A yellow/green dye is obtained from the leaves[168].

Plants are used to stabilize dry dusty hillsides[200].

Wood - very hard, heavy, beautifully grained, takes a fine polish and is slightly fragrant. It is used in turnery and cabinet making, being much valued by woodworkers[4, 7, 46, 100].

Cultivation details

Easily grown in a loamy soil[1] and tolerating infertile soils[200], it prefers a well-drained deep fertile soil[200]. A drought resistant plant once established, it succeeds in dry soils[200]. Requires a sunny position[3]. Tolerates salty air[59]. Plants are slow-growing and very long-lived[188].

The olive is very commonly cultivated in Mediterranean climates for its edible seed, there are many named varieties[132, 183]. Trees can produce a crop when they are 6 years old and continue producing a commercial yield for the next 50 years[200] - many trees continue to give good yields for hundreds of years, even when their trunk is hollow[4]. They succeed outdoors in the milder areas of Britain[11], though plants rarely produce fruit when grown in this country[4, 182, 200], preferring warm temperate regions with mild moist winters and hot dry summers[200]. Some reports say that trees often fruit in south-western England[11, 59]. Generally, older trees are hardy to about -10°c[3, 200]. They require the protection of a south facing wall when grown in the London area[11].

At least some cultivars are self-fertile[200]. Some cultivars have been selected mainly for their fruits whilst others have been selected for their oil[200]. 'Mission' is grown for its edible fruits. It is vigorous, prolific and very cold resistant[200]. 'Moraiolo' is grown for its oil, it is very hardy and strong-growing[200].

Flower production depends on a 12 - 15 week period of diurnally fluctuating temperatures with at least 2 months averaging below 10°c[200].

Pruning can encourage non-fruiting water-shoots[200]. Weighing down or arching the branches can encourage fruiting[200]. The plants fruit best on wood that is one year old so any pruning should take this into account[238].

An olive branch is a traditional symbol of peace[148], laurel leaves were used by the ancient Greeks to crown winners of the Olympic games[4].

Plants have male flowers and bisexual flowers[200].

Propagation

Seed - sow late winter in a shady position in a greenhouse[78]. Home produced seed should be given a period of cold stratification first[78]. Where possible, it is best to sow the seed as soon as it is ripe in a greenhouse in the autumn. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter, perhaps for their first 2 - 3 winters. Plant them out into their permanent positions in early summer and give them some protection from winter cold for at least their first winter outdoors[K].

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cultivars

'Moraiolo'

Grown mainly for the oil obtained from its fruit, this cultivar is very hardy and strong-growing[200].

'Mission'

The medium-size oval fruit is freestone, it has a firm but very bitter flesh and ripens rather late[183]. It is good for pickling and for oil[183]. It is of average oil content and is widely grown for producing cold-pressed olive oil[183]. A vigorous, prolific and very cold resistant cultivar[200], tolerating lower temperatures than most other cultivars[183].

'El Greco'

This is the cultivar most commonly available in Britain[K]. It has been selected for its heavy and reliable cropping and good oil content. One of the earliest bearing olives, it produces good-size small stoned fruits[183].

Suppliers

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The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Olea europaea* (Olive Tree)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Olea europea* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951 Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN

0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some

details on plant uses.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Readers Comments

Vegtable Oils

Pedro Carlos M. da C. Alves Mon Feb 26 17:58:02 2001

Hello there!

I'm Portuguese Agroindustrial Eng. student. I love plants, hate polution and I prefer Vegetarian food.

I've one comment about VEGETABLE OILS: why aren't there the most healthy of ALL VEGETABLE OILS - those that are obtained from fruits: like OLIVE OIL, PALM OIL and DENDEM OIL?!

Bye! Pedro

Cross references: *Plants: Olea europea. Genera: Olea. Web-pages: Vegtable Oils.*

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Plants For A Future: Database Search

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Search for Latin Name: Olea

New Search: Olea Search

Latin Name	Common Name	Family	Synonyms	Rating
Nerium oleander	Oleander	Apocynaceae	N. indica. N. odorum.; Nerium odorum; Nerium indicum	1
Olea europaea	Olive	Oleaceae	O. europea; O. gallica; O. lancifolia; O. oleaster	3
Olearia avicenniifolia	Akeake	Compositae	O. albida. Hort. non Hook.f.; Olearia albida; Shawia avicenniifolia	1
Olearia ilicifolia		Compositae	Eurybia dentata linearifolia.; Eurybia dentata linearifolia	1
Olearia macrodonta		Compositae		1
Olearia paniculata		Compositae	O. forsteri.; Olearia forsteri	1
Olearia solandri		Compositae		1
Olearia traversii		Compositae	Eurybia traversii	1
Olearia virgata		Compositae		1
Olearia x haastii		Compositae		1
Osmanthus americana		Oleaceae	Olea americana	1
Osmanthus fragrans	Fragrant olive	Oleaceae	Olea fragrans.; Olea fragrans	2

Osmanthus heterophyllus	Holly olive	Oleaceae	O. aquifolium. O. illicifolius. Ilex heterophyllus. Olea illicifolia.; Olea illicifolia; Olea aquifolium; Olea ilicifolia	1

New Search

Latin Name Olea

Common Name

Family

Rating 1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Plants For A Future: Database Search Results

Olea europaea

Common name:	Olive	Family:	Oleaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Mediterranean.		
Habitat:	Woods and scrub in dry rocky places[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	O. europea[E] O. gallica[H] O. lancifolia[H] O. oleaster[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Olive [P,B,H,E], Olivo [E], Zaytoon [E], Zeytin Agaci [E],
Epithets:	From a Dictionary of Botanical Epithets
	europaea = European;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	Ei; Europe; France; Iraq; Jerusalem; Spain; Turkey; Us(Nm)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales, South Australia.

Physical Characteristics

An evergreen tree growing to 10m by 8m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Cultivar **'Mission'**: Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.
Cultivar **'El Greco'**: Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit; Leaves; Manna; Oil.

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How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
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Plants For A Future: Database Search Results

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Olearia avicenniifolia

Common name:	Akeake	Family:	Compositae
Author:	(Raoul.) Hook. f.	Botanical references:	11, 200
Synonyms:	Olearia albida (Hort. non Hook.f.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Sub-alpine scrub to 1000 metres in South Island.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Shawia avicenniifolia[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3m by 5m . It is hardy to zone 8. It is in leaf all year, in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning[11, 49, 166, 200], this plant can be used as an effective windbreak hedge in exposed maritime areas[75]. It is rather slow growing though[75].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[11, 75]. Tolerates atmospheric pollution[200].

This species is not very hardy outside the milder western and south-western maritime areas of Britain[1], tolerating temperatures down to about -10°c[184]. Another report says that it is hardy to about -15°c[200].

Very slow growing in Britain[75], the plants generally only reach 2 - 3 metres tall in cultivation in this country.

Plants can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11].

Some named forms have been developed for their ornamental value[182].

Flowers best in years following long hot summers[200]. The flowers are sweetly scented[184].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Talbot De Malahide'

This is a cultivar, probably of O. avicennifolia, that has been specifically mentioned for its used as a wind-resistant hedge in maritime areas[11]. Very slow growing in Britain[75], plants generally only reach 2 - 3m tall in cultivation in this country.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Olearia albida* (a possible synonym).

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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Readers Comments

Olearia avicenniifolia

david nicholls Sat Dec 22 22:14:39 2001

Olearia albida tests positve for saponins in the leaves and the wood(A New Zealand Phytochemical survey Part 2 By R.Campbell, Cain & Roche NZ Journal of Science Sept 1961).

I shook some leaves in a jar of water, after 12 hrs the amount of bubbles wasn't bad, have not tried using them for anything, washing, killing fish...

The plant tested negative for alkaloids and all other things tested.

I am impressed with my one plant, it is growing pointing into the prevailing while other plants grow sculpted with the ocassionally hurricane force wind as one would expect, (observation based on one plant only) it is rather slow as you say though, and doesnt get very big at it's best.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Author:	(Raoul.) Hook. f.	Botanical references:	11, 200
Synonyms:	Olearia albida (Hort. non Hook.f.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Sub-alpine scrub to 1000 metres in South Island.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Shawia avicenniifolia[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3m by 5m . It is hardy to zone 8. It is in leaf all year, in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning[11, 49, 166, 200], this plant can be used as an effective windbreak hedge in exposed maritime areas[75]. It is rather slow growing though[75].

Cultivation details

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Some named forms have been developed for their ornamental value[182].

Flowers best in years following long hot summers[200]. The flowers are sweetly scented[184].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their

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Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

> The flowers are sweetly scented.

Cultivars

'Talbot De Malahide'

> This is a cultivar, probably of O. avicennifolia, that has been specifically mentioned for its used as a wind-resistant hedge in maritime areas[11]. Very slow growing in Britain[75], plants generally only reach 2 - 3m tall in cultivation in this country.

Suppliers

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Olearia avicenniifolia

Common name:	Akeake	Family:	Compositae
Author:	(Raoul.) Hook. f.	Botanical references:	11, 200
Synonyms:	Olearia albida (Hort. non Hook.f.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Sub-alpine scrub to 1000 metres in South Island.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Shawia avicenniifolia[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3m by 5m . It is hardy to zone 8. It is in leaf all year, in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning[11, 49, 166, 200], this plant can be used as an effective windbreak hedge in exposed maritime areas[75]. It is rather slow growing though[75].

Cultivation details

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Plants can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11].

Some named forms have been developed for their ornamental value[182].

Flowers best in years following long hot summers[200]. The flowers are sweetly scented[184].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their

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Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Talbot De Malahide'

This is a cultivar, probably of O. avicennifolia, that has been specifically mentioned for its used as a wind-resistant hedge in maritime areas[11]. Very slow growing in Britain[75], plants generally only reach 2 - 3m tall in cultivation in this country.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Olearia avicenniifolia*

Subject:

Olearia avicenniifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Olearia avicenniifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Olearia ilicifolia

Common name:		Family:	Compositae
Author:	Hook. f.	Botanical references:	11, 44, 200
Synonyms:	Eurybia dentata linearifolia (Hook.f.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to sub-alpine forest and scrub, southwards from latitude 38°s on North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	ilicifolia = Ilex leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. It is best if left untrimmed[29].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[11, 75].

This species is not very hardy outside the milder western and south-western maritime areas of Britain[1], tolerating temperatures down to about -15°c[200].

Closely related to O. macrodonta, but somewhat hardier, it succeeds outdoors at Wakehurst Place in Sussex[11].

The flowers have a strong musky perfume[245]. The plant flowers best in years following long hot summers[200].

Plants can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11].

The flowers are fragrant[188].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

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Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

The flowers have a strong musky perfume[245].

Suppliers

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[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

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Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Enter your details here:

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Plants For A Future: Database Search Results

Olearia ilicifolia

Common name:		Family:	Compositae
Author:	Hook. f.	Botanical references:	11, 44, 200
Synonyms:	Eurybia dentata linearifolia (Hook.f.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to sub-alpine forest and scrub, southwards from latitude 38°s on North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	ilicifolia = Ilex leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. It is best if left untrimmed[29].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[11, 75].

This species is not very hardy outside the milder western and south-western maritime areas of Britain[1], tolerating temperatures down to about -15°c[200].

Closely related to O. macrodonta, but somewhat hardier, it succeeds outdoors at Wakehurst Place in Sussex[11].

The flowers have a strong musky perfume[245]. The plant flowers best in years following long hot summers[200].

Plants can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11].

The flowers are fragrant[188].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

The flowers have a strong musky perfume[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
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Habitat:	Lowland to sub-alpine forest and scrub, southwards from latitude 38°s on North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	ilicifolia = Ilex leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

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The flowers are fragrant[188].

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Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

The flowers have a strong musky perfume[245].

Suppliers

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Plant Information

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Olearia ilicifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Olearia macrodonta

Common name:		Family:	Compositae
Author:	Bak.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to sub-alpine forest to 1300 metres, southwards from latitude 37° 30's on North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	macrodon = large tooth; macrodonta = large toothed;
Systematics:	From a UDSA Plants Database
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Physical Characteristics

An evergreen shrub growing to 6m by 5m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower in July, and the seeds ripen in August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure, this plant can be used as an effective windbreak hedge in exposed maritime areas[75]. One report says that it is tolerant of severe pruning[200], whilst another says that it is better not to prune severely[75]. Moderately fast growing.

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182, 200] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75].

A very ornamental plant[1], it is almost hardy throughout Britain, tolerating temperatures down to about -15°c[184] if sheltered from cold winds[11]. Flowers best in years following long hot summers[200].

Withstands light trimming but dislikes being cut back hard into old growth, it is best to trim new growth by 50% each year in order to promote basal shoots[75]. Any pruning is best done in the spring[11].

This plant is possibly a hybrid O. arborescens x O. ilicifolia. There are a number of named forms, the cultivar 'Major' is faster to establish than the type[75].

The whole plant is aromatic[182]. The leaves emit a powerful musk scent when bruised whilst the flowers are honey-scented[245].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

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Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. Very easy, succeeding even when the cuttings are planted directly into their permanent positions in exposed sites[K].

Scent

Flowers: Fresh

The flowers are honey-scented[245].

Leaves: Crushed

The leaves emit a powerful musk scent when bruised[245].

Cultivars

'Major'

This form is faster to establish than the type, especially in exposed positions[75].

Suppliers

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Plants For A Future: Database Search Results

Olearia macrodonta

Common name:		Family:	Compositae
Author:	Bak.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland to sub-alpine forest to 1300 metres, southwards from latitude 37° 30's on North and South Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	macrodon = large tooth; macrodonta = large toothed;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 6m by 5m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower in July, and the seeds ripen in August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure, this plant can be used as an effective windbreak hedge in exposed maritime areas[75]. One report says that it is tolerant of severe pruning[200], whilst another says that it is better not to prune severely[75]. Moderately fast growing.

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182, 200] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75].

A very ornamental plant[1], it is almost hardy throughout Britain, tolerating temperatures down to about -15°c[184] if sheltered from cold winds[11]. Flowers best in years following long hot summers[200].

Withstands light trimming but dislikes being cut back hard into old growth, it is best to trim new growth by 50% each year in order to promote basal shoots[75]. Any pruning is best done in the spring[11].

This plant is possibly a hybrid O. arborescens x O. ilicifolia. There are a number of named forms, the cultivar 'Major' is faster to establish than the type[75].

The whole plant is aromatic[182]. The leaves emit a powerful musk scent when bruised whilst the flowers are honey-scented[245].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another

year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. Very easy, succeeding even when the cuttings are planted directly into their permanent positions in exposed sites[K].

Scent

Flowers: Fresh

The flowers are honey-scented[245].

Leaves: Crushed

The leaves emit a powerful musk scent when bruised[245].

Cultivars

'Major'

This form is faster to establish than the type, especially in exposed positions[75].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Subject:

Olearia macrodonta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Olearia macrodonta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Add Comment Reset

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Plants For A Future: Database Search Results

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Olearia paniculata

Common name:		Family:	Compositae
Author:	(Forst. & Forst. f.) Druce.	Botanical references:	11, 200
Synonyms:	Olearia forsteri (Hook.f.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	paniculata = with panicles;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure, this plant can be used as an effective windbreak hedge in exposed maritime areas[11, 182].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very resistant to maritime exposure[11].

Plants are not very hardy outside the milder western and south-western maritime areas of Britain, they only tolerate light frosts[11, 200]. They succeed when grown against a sunny wall in the London area[11].

Plants can be pruned right back into old wood in order to promote fresh growth. Any pruning is best done in the spring[11].

Flowers best in years following long hot summers[200]. The flowers are very aromatic.

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

> The flowers are deliciously scented[245].

Suppliers

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

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Plants For A Future: Database Search Results

Olearia paniculata

Common name:		Family:	Compositae
Author:	(Forst. & Forst. f.) Druce.	Botanical references:	11, 200
Synonyms:	Olearia forsteri (Hook.f.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	paniculata = with panicles;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure, this plant can be used as an effective windbreak hedge in exposed maritime areas[11, 182].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very resistant to maritime exposure[11].

Plants are not very hardy outside the milder western and south-western maritime areas of Britain, they only tolerate light frosts[11, 200]. They succeed when grown against a sunny wall in the London area[11].

Plants can be pruned right back into old wood in order to promote fresh growth. Any pruning is best done in the spring[11].

Flowers best in years following long hot summers[200]. The flowers are very aromatic.

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

The flowers are deliciously scented[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Olearia paniculata

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Author:	(Forst. & Forst. f.) Druce.	Botanical references:	11, 200
Synonyms:	Olearia forsteri (Hook.f.)		
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	paniculata = with panicles;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure, this plant can be used as an effective windbreak hedge in exposed maritime areas[11, 182].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very resistant to maritime exposure[11].

Plants are not very hardy outside the milder western and south-western maritime areas of Britain, they only tolerate light frosts[11, 200]. They succeed when grown against a sunny wall in the London area[11].

Plants can be pruned right back into old wood in order to promote fresh growth. Any pruning is best done in the spring[11].

Flowers best in years following long hot summers[200]. The flowers are very aromatic.

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Scent

Flowers: Fresh

The flowers are deliciously scented[245].

Suppliers

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Add a comment on: *Olearia paniculata*

Subject:

Olearia paniculata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Olearia paniculata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Add Comment Reset

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Olearia solandri

Common name:		Family:	Compositae
Author:	(Hook. f.) Hook. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Coastal situations and occasionally inland on South Island[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 4m at a slow rate. It is hardy to zone 9. It is in leaf all year, in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. Very useful for the outer defences but it is slow growing[75].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75].

This species is not very hardy in Britain, it generally requires the protection of a wall outside the milder areas[1] and is sometimes killed in severe winters when growing inland in Cornwall[75]. Flowers best in years following long hot summers[200].

Very tolerant of severe pruning, plants can be pruned right back into old wood in order to promote fresh growth[200]. It is best to trim new growth by 50% each year in order to promote basal shoots[75]. Any pruning is best done in the spring[11].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Suppliers

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Plants For A Future: Database Search Results

Olearia solandri

Common name:		Family:	Compositae
Author:	(Hook. f.) Hook. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Coastal situations and occasionally inland on South Island[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 4m at a slow rate. It is hardy to zone 9. It is in leaf all year, in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. Very useful for the outer defences but it is slow growing[75].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75].

This species is not very hardy in Britain, it generally requires the protection of a wall outside the milder areas[1] and is sometimes killed in severe winters when growing inland in Cornwall[75]. Flowers best in years following long hot summers[200].

Very tolerant of severe pruning, plants can be pruned right back into old wood in order to promote fresh growth[200]. It is best to trim new growth by 50% each year in order to promote basal shoots[75]. Any pruning is best done in the spring[11].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Plants For A Future: Database Search Results

Olearia solandri

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Author:	(Hook. f.) Hook. f.	Botanical references:	11, 44, 200
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Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Coastal situations and occasionally inland on South Island[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. Very useful for the outer defences but it is slow growing[75].

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Very tolerant of severe pruning, plants can be pruned right back into old wood in order to promote fresh growth[200]. It is best to trim new growth by 50% each year in order to promote basal shoots[75]. Any pruning is best done in the spring[11].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

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Optional web-link:

Name of Site:

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Plant names you would like this comment to be added to:

Olearia solandri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Olearia traversii

Common name:		Family:	Compositae
Author:	(F. Muell.) Hook. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Forests on Chatham Island[44].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Eurybia traversii[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 10m at a medium rate. It is hardy to zone 9. It is in leaf all year, in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. Fairly fast growing, reaching 2 metres within 6 years in a very exposed site at Rosewarne in Cornwall[75].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75, 182, 200].

This species is not very hardy in Britain[182], plants have succeeded outdoors at Kew but not at other inland sites[11]. When grown by the coast, plants have also succeeded as far north as Scarborough on the east coast[11, 75]. Flowers best in years following long hot summers[200].

Very tolerant of severe pruning, plants can be pruned right back into old wood in order to promote fresh growth[200]. It is best to trim new growth by 50% each year for the first three years after planting in order to promote basal shoots[29, 75]. Any pruning is best done in the spring[11].

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Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Forests on Chatham Island[44].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

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Medicinal Uses

Disclaimer

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Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. Fairly fast growing, reaching 2 metres within 6 years in a very exposed site at Rosewarne in Cornwall[75].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75, 182, 200].

This species is not very hardy in Britain[182], plants have succeeded outdoors at Kew but not at other inland sites[11]. When grown by the coast, plants have also succeeded as far north as Scarborough on the east coast[11, 75]. Flowers best in years following long hot summers[200].

Very tolerant of severe pruning, plants can be pruned right back into old wood in order to promote fresh growth[200]. It is best to trim new growth by 50% each year for the first three years after planting in order to promote basal shoots[29, 75]. Any pruning is best done in the spring[11].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Olearia traversii*

Subject:

Olearia traversii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Olearia traversii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Olearia virgata

Common name:		Family:	Compositae
Author:	(Hook. f.) Hook. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland, shrubland and boggy ground, southwards from latitude 37°s on North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	virgata = twiggy, striped, wand like;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3.5m by 3.5m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas.

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75].

Plants are fairly hardy in Britain, tolerating temperatures down to about -15°c[200].

This species is closely related to O. odorata[11].

A polymorphic species[44].

Plants flower best in years that follow long hot summers[200].

Very tolerant of severe pruning, this plant can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their

permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[44] **Allan. H. H.** *Flora of New Zealand.* Government Printer, Wellington. 1961
The standard work, in 3 volumes though only the first two are of interest to the plant project. Very good on habitats.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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URL for Site: http://
Details:

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Olearia virgata

Common name:		Family:	Compositae
Author:	(Hook. f.) Hook. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland, shrubland and boggy ground, southwards from latitude 37°s on North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	virgata = twiggy, striped, wand like;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3.5m by 3.5m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas.

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75].

Plants are fairly hardy in Britain, tolerating temperatures down to about -15°c[200].

This species is closely related to O. odorata[11].

A polymorphic species[44].

Plants flower best in years that follow long hot summers[200].

Very tolerant of severe pruning, this plant can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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Plants For A Future: Database Search Results

Olearia virgata

Common name:		Family:	Compositae
Author:	(Hook. f.) Hook. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	Lowland, shrubland and boggy ground, southwards from latitude 37°s on North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	virgata = twiggy, striped, wand like;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 3.5m by 3.5m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas.

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75].

Plants are fairly hardy in Britain, tolerating temperatures down to about -15°c[200].

This species is closely related to O. odorata[11].

A polymorphic species[44].

Plants flower best in years that follow long hot summers[200].

Very tolerant of severe pruning, this plant can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Suppliers

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Add a comment on: *Olearia virgata*

Subject:

Olearia virgata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Olearia virgata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Add Comment Reset

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Olearia x haastii

Common name:		Family:	Compositae
Author:	Hook. f.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	A naturally occurring hybrid, O. avicenniifolia x O. moschata[11].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 2.5m by 2.5m . It is hardy to zone 8. It is in leaf all year, in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. It makes a good dwarf hedge that rarely exceeds 2 metres in height[75].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75, 200] and atmospheric pollution[182, 200].

A very ornamental plant[1], it is hardy to about -15°c[184], succeeding outdoors at Kew but liable to be cut back to the ground in severe winters[11]. It is perfectly hardy, however, in the mild maritime areas of Britain[200].

Plants flower best in years that follow long hot summers[200].

Can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11]. It is best to trim new growth of young plants by 50% each year for the first three years after planting in order to promote basal shoots[29].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer. This species is a hybrid and so will not breed true from seed.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

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[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Olearia x haastii

Common name:		Family:	Compositae
Author:	Hook. f.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand.		
Habitat:	A naturally occurring hybrid, O. avicenniifolia x O. moschata[11].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 2.5m by 2.5m . It is hardy to zone 8. It is in leaf all year, in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. It makes a good dwarf hedge that rarely exceeds 2 metres in height[75].

Cultivation details

Succeeds in any well-drained moderately fertile soil in full sun[182, 200]. Thrives in a chalky soil[182] but prefers a light loam or peaty soil[11]. Very tolerant of maritime exposure[75, 200] and atmospheric pollution[182, 200].

A very ornamental plant[1], it is hardy to about -15°c[184], succeeding outdoors at Kew but liable to be cut back to the ground in severe winters[11]. It is perfectly hardy, however, in the mild maritime areas of Britain[200].

Plants flower best in years that follow long hot summers[200].

Can be pruned right back into old wood in order to promote fresh growth[200]. Any pruning is best done in the spring[11]. It is best to trim new growth of young plants by 50% each year for the first three years after planting in order to promote basal shoots[29].

Propagation

Seed - surface sow in early spring in a greenhouse. Do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. If growth has been sufficiently good, plant them out into their permanent positions in early summer of the following year, otherwise grow them on for another year in pots and plant them out the following early summer. This species is a hybrid and so will not breed true from seed.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

Cuttings of moderately ripe wood of the current years growth, 5 - 10cm with a heel, November in a frame. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Very resistant to maritime exposure and tolerant of severe pruning, this plant can be used as an effective windbreak hedge in exposed maritime areas. It makes a good dwarf hedge that rarely exceeds 2 metres in height[75].

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Propagation

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Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Pot up in late August and overwinter in a cold frame then plant out in late spring or early summer[78]. Good percentage[11].

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Olearia x haastii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Olearia x haastii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Osmanthus americana

Common name:		Family:	Oleaceae
Author:	(L.) A. Gray.	Botanical references:	43
Synonyms:	Olea americana (L.)		
Known Hazards:	None known		
Range:	Eastern N. America - Florida to Louisiana, north to Virginia.		
Habitat:	Rich woods, swamps and bluffs[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	O. americanus[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Devilwood [B,DEN2,P],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

An evergreen tree growing to 15m. . It is in leaf all year. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Edible Uses

Fruit.

Fruit[2, 177]. This needs further verification[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - heavy, very hard, strong, durable, difficult to work[46, 61].

Cultivation details

We have very little information on this species and do not know if it will be hardy outdoors in Britain, though judging by its native range it is likely to be succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

Prefers a good loamy soil[1], but succeeds in most soils in sun or part shade[11, 184].

Plants are very tolerant of being transplanted, moving well even when quite large[182].

The flowers are deliciously scented[182]. If plants are clipped after flowering they will flower more freely each year[200].

Propagation

Seed - best sown as soon as it is ripe in a coldframe[200]. Stored seed probably germinates best if it is given 3 months warm then 3 months cold stratification before sowing[113]. The seed usually takes 6 - 18 months to germinate, it should be pricked out into individual pots when it is large enough to handle. Grow the plants on for their first winter in the greenhouse and plant them out in early summer.

Cuttings of half-ripe wood taken at the end of July, in a frame with bottom heat[11].

Cuttings of almost ripe wood, 7 - 12cm with a heel, September/October in a cold frame. A good percentage. Plant out in the spring 18 months later[78].

Layering in spring[200] or autumn[78]. Partially sever the layer leads in the following late summer and plant out in the autumn. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for *Osmanthus americanus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Oleaceae.

See the PFAF Links Pages for other sources

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Habitat:	Rich woods, swamps and bluffs[43].		
Plants For A Future Rating (1-5):	1		

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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

An evergreen tree growing to 15m. . It is in leaf all year. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

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Edible Uses

Fruit.

Fruit[2, 177]. This needs further verification[K].

Medicinal Uses

Disclaimer

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Other Uses

Wood.

Wood - heavy, very hard, strong, durable, difficult to work[46, 61].

Cultivation details

We have very little information on this species and do not know if it will be hardy outdoors in Britain, though judging by its native range it is likely to be succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

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Plants are very tolerant of being transplanted, moving well even when quite large[182].

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Plants For A Future: Database Search Results

Osmanthus americana

Common name:		Family:	Oleaceae
Author:	(L.) A. Gray.	Botanical references:	43
Synonyms:	Olea americana (L.)		
Known Hazards:	None known		
Range:	Eastern N. America - Florida to Louisiana, north to Virginia.		
Habitat:	Rich woods, swamps and bluffs[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	O. americanus[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Devilwood [B,DEN2,P],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

An evergreen tree growing to 15m. . It is in leaf all year. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Edible Uses

Fruit.

Fruit[2, 177]. This needs further verification[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - heavy, very hard, strong, durable, difficult to work[46, 61].

Cultivation details

We have very little information on this species and do not know if it will be hardy outdoors in Britain, though judging by its native range it is likely to be succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

Prefers a good loamy soil[1], but succeeds in most soils in sun or part shade[11, 184].

Plants are very tolerant of being transplanted, moving well even when quite large[182].

The flowers are deliciously scented[182]. If plants are clipped after flowering they will flower more freely each year[200].

Propagation

Seed - best sown as soon as it is ripe in a coldframe[200]. Stored seed probably germinates best if it is given 3 months warm then 3 months cold stratification before sowing[113]. The seed usually takes 6 - 18 months to germinate, it should be pricked out into individual pots when it is large enough to handle. Grow the plants on for their first winter in the greenhouse and plant them out in early summer.

Cuttings of half-ripe wood taken at the end of July, in a frame with bottom heat[11].

Cuttings of almost ripe wood, 7 - 12cm with a heel, September/October in a cold frame. A good percentage. Plant out in the spring 18 months later[78].

Layering in spring[200] or autumn[78]. Partially sever the layer leads in the following late summer and plant out in the autumn. High percentage[78].

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Osmanthus americana*

Subject:

Osmanthus americana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Osmanthus americana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:17:47 2004

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Osmanthus fragrans

Common name:	Fragrant olive	Family:	Oleaceae
Author:	Lour.	Botanical references:	11, 58, 200
Synonyms:	Olea fragrans (Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Mountains of S. Japan[58]. 1200 - 2100 metres in the Himalayas[146].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	fragrans = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	China; India

Physical Characteristics

An evergreen shrub growing to 6m by 6m . It is hardy to zone 9. It is in leaf all year, in flower from June to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Fruit.

The unripe fruits are preserved in brine like olives[183].

The very fragrant flowers are used by the Chinese to impart a pleasant aroma to tea, wine and sweet dishes such as lotus seed soup, pastries and steamed pears[2, 46, 61, 183]. They are also added to herbal medicines in order to disguise obnoxious flavours[178]. The flowers have a scent of apricots[146].

Medicinal Uses

Disclaimer

Antitussive.

The flowers are antitussive[218]. They are used in cosmetics for the hair and skin, but are mostly used to flavour other medicines[218].

A decoction of the stem bark is used in the treatment of boils, carbuncles etc[218].

A decoction of the lateral roots is used in the treatment of dysmenorrhoea, rheumatism, bruises etc[218].

Other Uses

Essential; Repellent.

An essential oil is obtained from the flowers[178]. Used as a flavouring.

The flowers are used as an insect repellent for clothes[146].

Cultivation details

Easily grown in any well-drained soil in sun or part shade[11, 200], but flowering more freely in a sunny position[11]. Thrives in chalky conditions[11]. Dislikes unduly exposed positions[11], and requires shelter from freezing winds[200].

Not very hardy outdoors in Britain[11], it succeeds on a wall in Cornwall[1] or in a woodland garden in the milder areas of the country[166].

The flowers are very fragrant[219]. They are sometimes available in oriental stores, preserved in sweetened brine or as a sugary paste called 'cassia blossom jam'[183].

Propagation

Seed - best sown as soon as it is ripe in a coldframe[200]. Stored seed probably germinates best if it is given 3 months warm then 3 months cold stratification before sowing[113]. The seed usually takes 6 - 18 months to germinate, it should be pricked out into individual pots when it is large enough to handle. Grow the plants on for their first winter in the greenhouse and plant them out in early summer.

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Scent

Flowers: Fresh

> The flowers are powerfully scented with a sweet aroma[245].

Suppliers

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References for the family Oleaceae.

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References

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

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Edible Uses

Condiment; Fruit.

The unripe fruits are preserved in brine like olives[183].

The very fragrant flowers are used by the Chinese to impart a pleasant aroma to tea, wine and sweet dishes such as lotus seed soup, pastries and steamed pears[2, 46, 61, 183]. They are also added to herbal medicines in order to disguise obnoxious flavours[178]. The flowers have a scent of apricots[146].

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Propagation

Seed - best sown as soon as it is ripe in a coldframe[200]. Stored seed probably germinates best if it is given 3 months warm then 3 months cold stratification before sowing[113]. The seed usually takes 6 - 18 months to germinate, it should be pricked out into individual pots when it is large enough to handle. Grow the plants on for their first winter in the greenhouse and plant them out in early summer.

Cuttings of half-ripe wood taken at the end of July, in a frame with bottom heat[11].

Cuttings of almost ripe wood, 7 - 12cm with a heel, September/October in a cold frame. A good percentage. Plant out in the spring 18 months later[78].

Layering in spring[200] or autumn[78]. Partially sever the layer leads in the following late summer and plant out in the autumn. High percentage[78].

Scent

Flowers: Fresh

> The flowers are powerfully scented with a sweet aroma[245].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Osmanthus fragrans*

Subject:

Osmanthus fragrans

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site: ☐

URL for Site: http://

Details: ☐

Details of Location and growing conditions:

☐

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Osmanthus fragrans

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

☐

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Osmanthus heterophyllus

Common name:	Holly olive	Family:	Oleaceae
Author:	(G. Don.) P. S. Green.	Botanical references:	11, 58, 200
Synonyms:	Osmanthus illicifolius ((Hassk.)hort. ex Carrière.), Osmanthus aquifolium (Siebold.&Zucc.), Olea illicifolia (Hassk.), Ilex heterophyllus (G.Don.)		
Known Hazards:	None known		
Range:	E. Asia - Japan, Taiwan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Ilex heterophylla[G] O. ilicifolius[G,P] Olea aquifolium[G] Olea ilicifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Holly Osmanthus [P],
Epithets:	From a Dictionary of Botanical Epithets
	heterophyllus = differently leaved;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

An evergreen shrub growing to 4m by 4m . It is hardy to zone 6. It is in leaf all year, in flower from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge; Wood.

The plant takes kindly to pruning and makes a dense hedge or screen[11, 29, 182]. Any trimming is best carried out in mid-summer[188].

Wood. Used for small furniture, toys etc[46, 61].

Cultivation details

Prefers a good loamy soil[1], but succeeds in any soil, including chalk, in sun or part shade[11, 184]. Dislikes unduly exposed conditions but succeeds in windier conditions than most other members of this genus[200].

Hardy to about -15°c[184], but plants are sometimes affected by severe prolonged frosts[1]. The form 'Purpureus' is said to be the hardiest variety[184].

Plants are very tolerant of being transplanted, moving well even when quite large[182].

The flowers are deliciously scented but plants only occasionally fruit in Britain[182]. If plants are clipped after flowering they will flower more freely each year[200].

A number of named forms have been developed for their ornamental value[182].

Propagation

Seed - best sown as soon as it is ripe in a coldframe[200]. Stored seed probably germinates best if it is given 3 months warm then 3 months cold stratification before sowing[113]. The seed usually takes 6 - 18 months to germinate, it should be pricked out into individual pots when it is large enough to handle. Grow the plants on for their first winter in the greenhouse and plant them out in early summer.

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Layering in spring[200] or autumn[78]. Partially sever the layer leads in the following late summer and plant out in the autumn. High percentage[78].

Scent

Flowers: Fresh

> The flowers are deliciously scented with a powerful fragrance[182, 245].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details: ☐

Enter your details here:

Your Name: ☐

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Osmanthus heterophyllus

Common name:	Holly olive	Family:	Oleaceae
Author:	(G. Don.) P. S. Green.	Botanical references:	11, 58, 200
Synonyms:	Osmanthus illicifolius ((Hassk.)hort. ex Carrière.), Osmanthus aquifolium (Siebold.&Zucc.), Olea illicifolia (Hassk.), Ilex heterophyllus (G.Don.)		
Known Hazards:	None known		
Range:	E. Asia - Japan, Taiwan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Ilex heterophylla[G] O. ilicifolius[G,P] Olea aquifolium[G] Olea ilicifolia[G]
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Epithets:	From a Dictionary of Botanical Epithets
	heterophyllus = differently leaved;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

An evergreen shrub growing to 4m by 4m . It is hardy to zone 6. It is in leaf all year, in flower from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade

(light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge; Wood.

The plant takes kindly to pruning and makes a dense hedge or screen[11, 29, 182]. Any trimming is best carried out in mid-summer[188].

Wood. Used for small furniture, toys etc[46, 61].

Cultivation details

Prefers a good loamy soil[1], but succeeds in any soil, including chalk, in sun or part shade[11, 184]. Dislikes unduly exposed conditions but succeeds in windier conditions than most other members of this genus[200].

Hardy to about -15°c[184], but plants are sometimes affected by severe prolonged frosts[1]. The form 'Purpureus' is said to be the hardiest variety[184].

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Scent

Flowers: Fresh

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Cultivars

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Known Hazards:	None known		
Range:	E. Asia - Japan, Taiwan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

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Systematics:	From a UDSA Plants Database
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Edible Uses

None known

Medicinal Uses

Disclaimer

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Other Uses

Hedge; Wood.

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Add a comment on: *Osmanthus heterophyllus*

Subject:

Osmanthus heterophyllus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Osmanthus heterophyllus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Subject:

Vegtable Oils

Group:

Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Olea europea

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Plant Genera you would like this comment to be added to:

Olea

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

vegoils.html

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Subject:

Vegtable Oils

Group:
Comments on Web-Pages

Comment:

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Add a comment on: *Olea europaea*

Subject:

Olea europaea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Plants for a Future
A resource centre for edible and other useful plants

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Alternative Lighting: Plant Oils and Waxes

There are a number of plants, either native of Britain or able to be grown here, that can be used to provide an alternative form of lighting. Some of these plants yield a wax or an oil that can be formed directly into candles, some yield an oil that can be burnt, and others can be used as wicks. Below is a brief guide to these plants.

Wax-bearing plants:

These plants have a quantity of wax deposited upon their fruits, leaves and catkins. The wax is obtained by boiling the plant (usually only the fruit, which tends to have the greatest quantity of wax), allowing the liquid to cool and then removing the wax as it solidifies. The wax can then be re-heated and formed into candles. The remaining liquid can be used as a blue dye. All the plants listed are said to succeed in any soil, though they would probably be happier if it was a little bit acid, and for the best fruit production they should be in a fairly sunny position. The soil should be free-draining and they would appreciate watering during dry spells. The American species are quite often cultivated specifically for their wax, which burns well and is aromatic. The fruit is also edible, often being used as a flavouring in cooking.

Myrica californica - Californian Bayberry: A hardy, evergreen shrub, native of California and growing to about 14 feet. In a severe winter (like 1985-86) it may be cut down to the ground, but it should grow away again from the base.

Myrica cerifera - Wax Myrtle: A hardy, deciduous (occasionally evergreen) tree, native of eastern North America and growing to about 40 feet.

Myrica pennsylvanica: Very similar to M. cerifera but with a more northerly distribution which should make it more hardy. It is said to be naturalised in the New Forest.

Myrica gale - Sweet Gale: A hardy, deciduous shrub, native of Britain, growing to about four feet. It is found wild in bogs and marshes and is dioecious (male and female flowers are on separate plants). Unfortunately this species does not produce the same quantity of wax as its American relatives, and, with this species, it is often the leaves and catkins which are boiled to obtain the wax.

Plants yielding an oil that solidifies:

The oil, extracted from the fruits and seeds, assumes the consistency of tallow if allowed to stand, so can be formed into candles. All the following plants will succeed in an ordinary garden soil, even if it is on the poor side. Candles made with this oil are said to burn very brightly but with a pungent smoke. Perhaps best used outside.

Rhus glabra - Smooth Sumach: A hardy, deciduous shrub, native of North America, growing to about six feet. Dioecious, so both male and female plants must be grown (one male should fertilize about six females). The fruit is edible.

Rhus succedanea - Wax Tree: A deciduous tree, native of China and Japan, growing to about 30 feet. It is only hardy in the milder areas of Britain.

Rhus verniciflua - Lacquer Tree: A hardy, deciduous tree, native of China and Japan, growing to about 30 feet. Partly dioecious. This plant is very poisonous.

Oil-yielding plants:

Many plants produce seeds that are rich in oil, and this oil can be extracted under pressure. The following list, by no means exhaustive, indicates some of the plants that can be grown in Britain and yield an oil suitable for burning.

Brassica napus - Rape: Hardy annual, native of the Mediterranean, growing to about four feet. Widely cultivated in Britain for its seed (the all too familiar yellow fields of spring!). It succeeds in most soils. Seeds often used as the 'mustard' in mustard and cress.

Cannabis sativa - Hemp: Hardy annual, native of India and Iran, growing to about eight feet. It grows in any soil, but, because of some of its other properties, can only be grown under licence.

Carthamnus tinctoria - Safflower: Hardy annual, native of Egypt, growing to about three feet. Does very well in a poor, dry soil in a sunny position. Flower petals are a substitute for saffron.

Cornus sanguinea - Dogwood: Hardy deciduous shrub, native of Britain, growing to about 10 feet. Found wild in mixed woodland, scrub and hedgerows, preferring a calcareous soil. Can be grown as a hedge.

Fagus sylvatica - Beech: Hardy, deciduous tree, native of Britain, growing to about 100 feet. Prefers a chalky soil and dislikes heavy, wet soils. It makes a superb hedge but would not then produce any seed. The seeds and young leaves are edible.

Glaucium flavum - Horned Poppy: Hardy perennial, native of Britain, growing to about two feet. Found wild on shingle banks by the coast, it will succeed in any good garden soil. Said to burn very cleanly.

Guizottia abyssinica - Ramtil: Hardy annual, native of tropical Africa, growing to about six feet. It requires a rich soil and is occasionally found wild as a non-persisting casual in Britain.

Helianthus anuus - Sunflower: Hardy annual, native of western North America, growing to about 100 feet. It prefers a fairly rich soil and a sunny position. Seeds are edible (and very nutritious).

Lallemantia iberica: Hardy annual or biennial, native of Asia, growing to about one and a half feet.

Sinapis alba - White Mustard: Hardy annual, native of Britain, growing to about one foot. Found wild on sandy and calcareous soils, it is often cultivated. Seed sometimes used in mustard and cress.

The oil obtained from these plants can be burnt in an ordinary oil-burning lamp (I doubt if it would work in a pressure lamp such as the 'Tilley').

Wicks

Wicks for candles and lamps can be made from the following plants, both natives of Britain:

Eriophorum angustifolium (Syn. E. polystachion) - Cotton Grass: A hardy perennial growing about two feet tall in peat bogs, acid meadows and marshes.

Verbascum thapsus - Aaron's Rod: A hardy biennial growing in sunny positions in cultivated fields and waste ground. It is also often grown in the flower garden.

An alternative to using lamps or candles would be to slightly adapt a method of using various species of rush to provide lighting. Any species of rush that has a continuous pith can be used, though the species most favoured in the past was Juncus effusus, the Soft Rush, a hardy perennial native of Britain, growing up to five feet tall in wet pastures, bogs, damp woods etc. A very good description of the process is given in Richard Mabey's book 'Plants with a Purpose'. The method, in brief, is as follows: Harvest the stems in autumn whilst still green. Trim off both ends and then remove the outer skin. This is said to be an acquired skill. Leave a strip of skin about a third of an inch wide to act as a spinal support, then soak the stem in warm oil or molten wax for about 30 seconds. Drain and then leave to cool and set. They can be used indoors or out, give a good light, and do not drip like candles.

Space is too short in a leaflet such as this to go into too many details of the plants. If required, we can supply more comprehensive information on any of the above species and can also often supply these plants if you cannot find another source. All information is supplied on a donations basis that must at least cover our costs (10p per sheet plus postage).

Plants For A Future is a non-profit making resource centre supplying information on useful plants and where possible supplying the plants themselves. All plants are grown without the use of artificial fertilizers, sprays or animal products (vegan-organic). We are always grateful for any donations, investments and legacies (however small or large). Visitors are always welcome to come and view our project, but please let us know in advance. Since showing people around takes up quite a lot of our time, we normally ask visitors either to spend some time working on the project with us or to make a donation For more information contact:

Plants For A Future, The Field, Penpol, Lostwithiel, Cornwall, PL22 ONG. Tel. Bodmin (01208) 873554.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

DONATE

Readers Comments:

Alternative Lighting: Plant Oils and Waxes

Unknown Fri Dec 29 00:00:51 2000

I am interested in how the extraction process is with these plants. If you guys don't mind, please e-mail me. www.thwaites@liberty.com Thankyou Tim Thwaites

Add a Follow up to this comment

Alternative Lighting: Plant Oils and Waxes

Stephen Parchment (Mandella00@hotmail.com) Thu Mar 1 19:18:14 2001

I am currently investigating the outcome of the extraction method known as Supercritical Fluid extraction. This technology as you must know is quite expensive. i am currently using a loboratory scale system which only holds samples of 10ml. I am concerned to furthur invest into a much larger scale machine do to economic feasibility. My main concern is how to determine what essential oil volume may be extracted from the plant substrait. If there is any botanical reference or method of dertemining the extract yield which could be obtainable from the plant matter, would you kindly point me in the right direction.

Add a Follow up to this comment

Alternative Lighting: Plant Oils and Waxes

() Wed Mar 14 20:47:32 2001

Thanks for helping me with my project on alternative lighting!!!!

Add a Follow up to this comment

Alternative Lighting: Plant Oils and Waxes

Sanjay (Sanjay2001@att.net) Tue Jan 1 02:30:10 2002

Thanks for this information about light because this is my science fair topic on plants that How do plants react to different kinds of music, different light, colors, and different neighbor. This helped me a lot!

Add a Follow up to this comment

Alternative Lighting: Plant Oils and Waxes

The Rt. Honourable Gbemi Saraki-Fowora () Tue Apr 30 01:33:12 2002

I stumbled on your web site and I am so glad that I did. So many times over the last three years, I have been searching for ways in which to help the poor people that I represent in Northern Nigeria. Now, I have been educated about alternative uses of plants as well as been educated on alternative sources of income for the people and ways to enrich their lives. People in the Western world take everything for granted: electricity is a luxury back home. Our lands are so fertile and we are being forced to go all mechanical that the people simply cannot afford. I hope that I can solicit your help in bringing all this to life in their lives. We have land for you to experiment on. Thank you. Thank you. Thank you

Add a Follow up to this comment

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All Comments on web pages and plants.

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Subject:

Alternative Lighting: Plant Oils and Waxes

Group:
Comments on Web-Pages

Comment:

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Subject:

Alternative Lighting: Plant Oils and Waxes

Group:
Gush

Comment:

Enter your comment about this plant here.

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Plants For A Future: Database Search Results

Cornus sanguinea

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Thelycrania sanguinea (Fourr.), Swida sanguinea (Opiz.)		
Known Hazards:	Contrary to some reports, the fruit is not poisonous, but the leaves can cause skin irritations to sensitive people[65].		
Range:	Britain.		
Habitat:	Mixed woods, scrub and hedgerows, especially on calcareous soils[7, 13, 186].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sanguinea var. viridissima[G] C. stolonifera[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blood-twig Dogwood [B], Bloodtwig Dogwood [P], Cornejo [E], Dogberry [H], Dogwood [L], Hound's Tree [H], Rode Kornoelje [D],
Epithets:	From a Dictionary of Botanical Epithets
	anguinea = snake like; sanguinea = bloody;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Spain

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Oil.

Fruit - raw or cooked[105]. A bitter flavour, it can also have an emetic effect on the body[1, 7, 11]. It is not worthwhile[115]. The fruit is about 8mm in diameter[200].

An oil is obtained from the seed[2], it is edible when refined[75].

Medicinal Uses

Disclaimer

Astringent; Emetic; Febrifuge.

The bark is astringent and febrifuge[7]. It is used to treat fevers[254].

The leaves are sometimes used externally as an astringent[7].

The fruit is emetic[7].

Other Uses

Basketry; Charcoal; Dye; Fuel; Hedge; Oil; Wood.

The seed contains 45% of a non-drying oil[74], it is used in soap making and lighting[7, 13, 100, 115, 177].

A non-drying oil is also obtained from the pericarp, it is used for lighting[74]. The pericarp contains 19 - 35% oil[74].

A greenish-blue dye is obtained from the fruit[13, 74].

The young stems are very flexible and are used in basketry[7, 13, 74, 100].

Wood - tough, hard. Used for small items such as tool handles, turnery etc[11, 61, 115]. A good quality charcoal is obtained from the wood[115], the wood also makes an excellent fuel[115].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Plants are relatively shade tolerant, though they are not happy when growing in dense shade[186]. They grow badly when exposed to strong cold winds[186].

Plants are hardy to about -25°c[184].

The flowers have a rather unpleasant smell to most people, though they are attractive to insects[186].

Plants have a suckering habit and can quickly form dense thickets[186]. They can be coppiced regularly and will throw up long straight stems after being cut back[186].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Scent

Flowers: Fresh

> The flowers have a rather unpleasant smell to most people, though they are attractive to insects.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Cornus sanguinea* (dogwood)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Cornus sanguinea* (Dogwood)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+sanguinea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+sanguinea`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

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Subject:

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Plant Information

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Date: Sun May 16 02:18:25 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus sericea

Common name:	Red osier dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Thelycrania stolonifera (Pojark.), Swida stolonifera (Rydb.), Cornus stolonifera (Michx.), Cornus alba (non L.)		
Known Hazards:	None known		
Range:	N. America - Newfoundland to New York, west to Alaska and California. Naturalized in Britain[17].		
Habitat:	Shores and thickets[43]. Along streams, rivers and moist sites, 450 - 2700 metres[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. alba ssp. stolonifera[B,P] C. alba stolonifera[H] C. alba subsp. stolonifera[H] C. alba var. baileyi[B,P] C. alba var. coloradensis[G] C. alba var. interior[B,P] C. alba var. sibirica[G] C. baileyi[B,P] C. instolonea[B,P] C. interior[B,P] C. sanguinea[B,DUTCH,E,G,H,HORTIPLEX,L,P] C. sanguinea var. viridissima[G] C. sericea ssp. sericea[B,C,CAL,,P] C. sericea ssp. stolonifera[B,P] C. sericea subsp. sericea[G] C. sericea var. interior[B,P] C. sericea var. sericea[G] C. sibirica[G] C. stolonifera var. baileyi[B,P] C. stolonifera var. coloradensis[G] C. stolonifera var. interior[B,P] C. tartarica[G] Swida instolonea[B,P] Swida sanguinea[B,P] Swida sericea[B]
Other Common	From various places around the Web, may not be correct. See below.

Names:	Blood-twig Dogwood [B], Bloodtwig Dogwood [P], Canadese Kornoelje [D], Cornejo [E], Cornel [MS], Dogberry [H], Dogwood [L], Dogwood, Red Osier [S], Hound's Tree [H], Osier, Red [S], Red &quot;Willow&quot; [S], Red Osier [S], Red-barked Dogwood [H], Red-osier Dogwood [FEIS,DEN1], Redosier [B], Redosier Dogwood [P], Reg Twig Dogwood [H], Rode Kornoelje [D], Tatarian Dogwood [H], White Dogwood [L], White-fruited Dogwood [L],
Epithets:	From a Dictionary of Botanical Epithets
	sericea = silky;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Spain; Us(Blackfoot); Us(Indian)

Physical Characteristics

A decidious shrub growing to 2.5m by 4m . It is hardy to zone 2 and is not frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Fruit; Oil; Seed.

Fruit - raw or cooked[105, 161, 257]. Juicy[101]. Bitter and unpalatable according to some reports[2], it was mixed with other fruits such as juneberries (Amelanchier spp) and then dried for winter use by native North Americans[257]. The fruit can cause nausea[172]. The fruit is up to 9mm in diameter[200].

Seed[101]. No more details are given, but the seeds are quite small and woody, looking rather less than edible[K].

An edible oil is obtained from the seed[4].

Medicinal Uses

Disclaimer

Analgesic; Astringent; Febrifuge; Miscellany; Poultice; Purgative; Skin; Stimulant; Tonic.

Red osier dogwood was widely employed by several native North American Indian tribes who valued it especially for its astringent and tonic bark, using it both internally and externally to treat diarrhoea, fevers, skin problems etc[257]. It is little used in modern herbalism.

The bark and the root bark are analgesic, astringent, febrifuge, purgative, slightly stimulant and tonic[4, 172, 257]. Drying the bark removes its tendency to purge[172]. A decoction has been used in the treatment of headaches, diarrhoea, coughs, colds and fevers[257]. Externally, the decoction has been used as a wash for sore eyes, styes and other infections and also to treat skin complaints such as poison ivy rash and ulcers[257]. The bark shavings have been applied as a dressing on wounds to stop the bleeding[257]. A poultice of the soaked inner bark, combined with ashes, has been used to alleviate pain[257].

The plant is said to have cured hydrophobia[4].

Other Uses

Basketry; Dye; Fibre; Ground cover; Oil; Teeth.

A fibre obtained from the bark is used as cordage[99]. The bark can be twisted into a rope[257].

The powdered bark has been used as a toothpowder to preserve the gums and keep the teeth white[4].

An oil obtained from the seed burns well and can be used in lighting[4].

A red dye can be obtained from the bark mixed with cedar ashes[257].

The branches are pliable, they are used as rims in basket making[99, 257]. The stem wood is very tough and flexible[212].

Plants can be grown as a tall ground cover for colonising large areas. The cultivar 'Flaviramea' has been recommended[208].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Prefers a moist soil and a position in sun or partial shade[108]. Succeeds in poorly drained soils[200].

Plants are hardy to about -35°c[184].

A rampant suckering shrub[1]. A number of cultivars have been developed for their ornamental value[182].

This species is closely allied to C. alba[11].

The flowers are very attractive to bees[108].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

'Flaviramea'

> A vigorous form with yellowish-green young branches[11, 200], it has been recommended as a tall ground cover for colonising large areas[208].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Cornus alba* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Cornus alba subsp. stolonifera* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Cornus sanguinea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus sericea ssp. sericea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

References for *Cornus sericea subsp. sericea* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Cornus stolonifera* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S]
- [S]

References for *cornus alba* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain: C.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

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Your Name:

Email Address:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+sericea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cornus+sericea`

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Plants For A Future: Database Search Results

Cornus sericea

Common name:	Red osier dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Thelycrania stolonifera (Pojark.), Swida stolonifera (Rydb.), Cornus stolonifera (Michx.), Cornus alba (non L.)		
Known Hazards:	None known		
Range:	N. America - Newfoundland to New York, west to Alaska and California. Naturalized in Britain[17].		
Habitat:	Shores and thickets[43]. Along streams, rivers and moist sites, 450 - 2700 metres[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. alba ssp. stolonifera[B,P] C. alba stolonifera[H] C. alba subsp. stolonifera[H] C. alba var. baileyi[B,P] C. alba var. coloradensis[G] C. alba var. interior[B,P] C. alba var. sibirica[G] C. baileyi[B,P] C. instolonea[B,P] C. interior[B,P] C. sanguinea[B,DUTCH,E,G,H,HORTIPLEX,L,P] C. sanguinea var. viridissima[G] C. sericea ssp. sericea[B,C,CAL,,P] C. sericea ssp. stolonifera[B,P] C. sericea subsp. sericea[G] C. sericea var. interior[B,P] C. sericea var. sericea[G] C. sibirica[G] C. stolonifera var. baileyi[B,P] C. stolonifera var. coloradensis[G] C. stolonifera var. interior[B,P] C. tartarica[G] Swida instolonea[B,P] Swida sanguinea[B,P] Swida sericea[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blood-twig Dogwood [B], Bloodtwig Dogwood [P], Canadese Kornoelje [D], Cornejo [E], Cornel [MS], Dogberry [H], Dogwood [L], Dogwood, Red Osier [S], Hound's Tree [H], Osier, Red [S], Red &quot;Willow&quot; [S], Red Osier [S], Red-barked Dogwood [H], Red-osier Dogwood [FEIS,DEN1], Redosier [B], Redosier Dogwood [P], Reg Twig Dogwood [H], Rode Kornoelje [D], Tatarian Dogwood [H], White Dogwood [L], White-fruited Dogwood [L],
Epithets:	From a Dictionary of Botanical Epithets

	sericea = silky;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Spain; Us(Blackfoot); Us(Indian)

Physical Characteristics

A decidious shrub growing to 2.5m by 4m . It is hardy to zone 2 and is not frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Fruit; Oil; Seed.

Fruit - raw or cooked[105, 161, 257]. Juicy[101]. Bitter and unpalatable according to some reports[2], it was mixed with other fruits such as juneberries (Amelanchier spp) and then dried for winter use by native North Americans[257]. The fruit can cause nausea[172]. The fruit is up to 9mm in diameter[200].

Seed[101]. No more details are given, but the seeds are quite small and woody, looking rather less than edible[K].

An edible oil is obtained from the seed[4].

Medicinal Uses

Disclaimer

Analgesic; Astringent; Febrifuge; Miscellany; Poultice; Purgative; Skin; Stimulant; Tonic.

Red osier dogwood was widely employed by several native North American Indian tribes who valued it especially for its astringent and tonic bark, using it both internally and externally to treat diarrhoea, fevers, skin problems etc[257]. It is little used in modern herbalism.

The bark and the root bark are analgesic, astringent, febrifuge, purgative, slightly stimulant and tonic[4, 172, 257]. Drying the bark removes its tendency to purge[172]. A decoction has been used in the treatment of headaches, diarrhoea, coughs, colds and fevers[257]. Externally, the decoction has been used as a wash for sore eyes, styes and other infections and also to treat skin complaints such as poison ivy rash and ulcers[257]. The bark shavings have been applied as a dressing on wounds to stop the bleeding[257]. A poultice of the soaked inner bark, combined with ashes, has been used to alleviate pain[257].

The plant is said to have cured hydrophobia[4].

Other Uses

Basketry; Dye; Fibre; Ground cover; Oil; Teeth.

A fibre obtained from the bark is used as cordage[99]. The bark can be twisted into a rope[257].

The powdered bark has been used as a toothpowder to preserve the gums and keep the teeth white[4].

An oil obtained from the seed burns well and can be used in lighting[4].

A red dye can be obtained from the bark mixed with cedar ashes[257].

The branches are pliable, they are used as rims in basket making[99, 257]. The stem wood is very tough and flexible[212].

Plants can be grown as a tall ground cover for colonising large areas. The cultivar 'Flaviramea' has been recommended[208].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Prefers a moist soil and a position in sun or partial shade[108]. Succeeds in poorly drained soils[200].

Plants are hardy to about -35°c[184].

A rampant suckering shrub[1]. A number of cultivars have been developed for their ornamental value[182].

This species is closely allied to C. alba[11].

The flowers are very attractive to bees[108].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

'Flaviramea'

> A vigorous form with yellowish-green young branches[11, 200], it has been recommended as a tall ground cover for colonising large areas[208].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.

- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Cornus alba* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Cornus alba subsp. stolonifera* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Cornus sanguinea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cornus sericea ssp. sericea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

References for *Cornus sericea subsp. sericea* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Cornus stolonifera* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S]
- [S]

References for *cornus alba* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera: Cornus. Web-pages: PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+sericea`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cornus sericea

Common name:	Red osier dogwood	Family:	Cornaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Thelycrania stolonifera (Pojark.), Swida stolonifera (Rydb.), Cornus stolonifera (Michx.), Cornus alba (non L.)		
Known Hazards:	None known		
Range:	N. America - Newfoundland to New York, west to Alaska and California. Naturalized in Britain[17].		
Habitat:	Shores and thickets[43]. Along streams, rivers and moist sites, 450 - 2700 metres[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. alba ssp. stolonifera[B,P] C. alba stolonifera[H] C. alba subsp. stolonifera[H] C. alba var. baileyi[B,P] C. alba var. coloradensis[G] C. alba var. interior[B,P] C. alba var. sibirica[G] C. baileyi[B,P] C. instolonea[B,P] C. interior[B,P] C. sanguinea[B,DUTCH,E,G,H,HORTIPLEX,L,P] C. sanguinea var. viridissima[G] C. sericea ssp. sericea[B,C,CAL,,P] C. sericea ssp. stolonifera[B,P] C. sericea subsp. sericea[G] C. sericea var. interior[B,P] C. sericea var. sericea[G] C. sibirica[G] C. stolonifera var. baileyi[B,P] C. stolonifera var. coloradensis[G] C. stolonifera var. interior[B,P] C. tartarica[G] Swida instolonea[B,P] Swida sanguinea[B,P] Swida sericea[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blood-twig Dogwood [B], Bloodtwig Dogwood [P], Canadese Kornoelje [D], Cornejo [E], Cornel [MS], Dogberry [H], Dogwood [L], Dogwood, Red Osier [S], Hound's Tree [H], Osier, Red [S], Red &quot;Willow&quot; [S], Red Osier [S], Red-barked Dogwood [H], Red-osier Dogwood [FEIS,DEN1], Redosier [B], Redosier Dogwood [P], Reg Twig Dogwood [H], Rode Kornoelje [D], Tatarian Dogwood [H], White Dogwood [L], White-fruited Dogwood [L],
Epithets:	From a Dictionary of Botanical Epithets

	sericea = silky;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Spain; Us(Blackfoot); Us(Indian)

Physical Characteristics

A decidious shrub growing to 2.5m by 4m . It is hardy to zone 2 and is not frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Fruit; Oil; Seed.

Fruit - raw or cooked[105, 161, 257]. Juicy[101]. Bitter and unpalatable according to some reports[2], it was mixed with other fruits such as juneberries (Amelanchier spp) and then dried for winter use by native North Americans[257]. The fruit can cause nausea[172]. The fruit is up to 9mm in diameter[200].

Seed[101]. No more details are given, but the seeds are quite small and woody, looking rather less than edible[K].

An edible oil is obtained from the seed[4].

Medicinal Uses

Disclaimer

Analgesic; Astringent; Febrifuge; Miscellany; Poultice; Purgative; Skin; Stimulant; Tonic.

Red osier dogwood was widely employed by several native North American Indian tribes who valued it especially for its astringent and tonic bark, using it both internally and externally to treat diarrhoea, fevers, skin problems etc[257]. It is little used in modern herbalism.

The bark and the root bark are analgesic, astringent, febrifuge, purgative, slightly stimulant and tonic[4, 172, 257]. Drying the bark removes its tendency to purge[172]. A decoction has been used in the treatment of headaches, diarrhoea, coughs, colds and fevers[257]. Externally, the decoction has been used as a wash for sore eyes, styes and other infections and also to treat skin complaints such as poison ivy rash and ulcers[257]. The bark shavings have been applied as a dressing on wounds to stop the bleeding[257]. A poultice of the soaked inner bark, combined with ashes, has been used to alleviate pain[257].

The plant is said to have cured hydrophobia[4].

Other Uses

Basketry; Dye; Fibre; Ground cover; Oil; Teeth.

A fibre obtained from the bark is used as cordage[99]. The bark can be twisted into a rope[257].

The powdered bark has been used as a toothpowder to preserve the gums and keep the teeth white[4].

An oil obtained from the seed burns well and can be used in lighting[4].

A red dye can be obtained from the bark mixed with cedar ashes[257].

The branches are pliable, they are used as rims in basket making[99, 257]. The stem wood is very tough and flexible[212].

Plants can be grown as a tall ground cover for colonising large areas. The cultivar 'Flaviramea' has been recommended[208].

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Prefers a moist soil and a position in sun or partial shade[108]. Succeeds in poorly drained soils[200].

Plants are hardy to about -35°c[184].

A rampant suckering shrub[1]. A number of cultivars have been developed for their ornamental value[182].

This species is closely allied to C. alba[11].

The flowers are very attractive to bees[108].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Cultivars

'Flaviramea'

> A vigorous form with yellowish-green young branches[11, 200], it has been recommended as a tall ground cover for colonising large areas[208].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Subject:

Cornus sericea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus sericea

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Cornus sessilis

Common name:		Family:	Cornaceae
Author:	Torr.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - N. California.		
Habitat:	Stream banks to 1500 metres[71].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Black-fruit Dogwood [B], Blackfruit Dogwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	sessilis = stalkless;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 7. It is in flower in April, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

The following note is for the closely related C. officinalis. It can probably also be applied to this species[K]. The fruit of this species is about 1 - 1.5cm long[200]:-

Fruit - raw or cooked[105, 177]. The fully ripe fruit is quite pleasant but slightly astringent[K]. It is about 1.5cm long[200]. The fruit contains about 8.6% sugars, 2.9% malic acid, 0.74% ash[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is very closely related to C. mas and C. officinalis[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

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Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

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Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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A classic with a wealth of information on the plants, but poor on pictures.

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A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

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Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Plants For A Future: Database Search Results

Cornus sessilis

Common name:		Family:	Cornaceae
Author:	Torr.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - N. California.		
Habitat:	Stream banks to 1500 metres[71].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Black-fruit Dogwood [B], Blackfruit Dogwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	sessilis = stalkless;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 7. It is in flower in April, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

The following note is for the closely related C. officinalis. It can probably also be applied to this species[K]. The fruit of this species is about 1 - 1.5cm long[200]:-

Fruit - raw or cooked[105, 177]. The fully ripe fruit is quite pleasant but slightly astringent[K]. It is about 1.5cm long[200]. The fruit contains about 8.6% sugars, 2.9% malic acid, 0.74% ash[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is very closely related to C. mas and C. officinalis[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN

0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* *Cornus*. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cornus sessilis

Common name:		Family:	Cornaceae
Author:	Torr.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - N. California.		
Habitat:	Stream banks to 1500 metres[71].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Black-fruit Dogwood [B], Blackfruit Dogwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	sessilis = stalkless;
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 7. It is in flower in April, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit.

The following note is for the closely related C. officinalis. It can probably also be applied to this species[K]. The fruit of this species is about 1 - 1.5cm long[200]:-

Fruit - raw or cooked[105, 177]. The fully ripe fruit is quite pleasant but slightly astringent[K]. It is about 1.5cm long[200]. The fruit contains about 8.6% sugars, 2.9% malic acid, 0.74% ash[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in any soil of good or moderate fertility[1], ranging from acid to shallow chalk[200]. Grows well in heavy clay soils. Succeeds in full sun or light shade[[188].

This species is very closely related to C. mas and C. officinalis[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Cuttings of half-ripe side shoots, July/August in a frame.

Cuttings of mature wood of the current year's growth, taken with a heel if possible, autumn in a cold frame. High percentage[78].

Layering of new growth in June/July. Takes 9 months[78].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus sessilis*

Subject:

Cornus sessilis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus sessilis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:18:46 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Cornus suecica

Common name:	Dwarf cornel	Family:	Cornaceae
Author:	L.	Botanical references:	17, 200
Synonyms:	Chamaepericlymenum suecicum ((L.)Aschers.&Graebn.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Moors and heaths, usually under heather or bilberries[3, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cornella suecica[B,P] Swida suecica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dogwood [H], Dwarf Bog Bunchberry [B], Dwarf Cornel [L], Lapland Cornel [P], Zweedse Kornoelje [D],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

Perennial growing to 0.15m by 0.3m . It is hardy to zone 2. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Fruit.

Fruit - raw or cooked[3, 46, 61, 62, 101]. It is usually mixed with other berries[257]. Bitter and unpalatable[2]. The fruit is rich in pectin[172].

Medicinal Uses

Disclaimer

Appetizer.

The fruit is considered to be a good tonic for the appetite[4].

Other Uses

Ground cover.

The fruit is rich in pectin[172].

A good ground-cover plant, succeeding under trees and shrubs[3].

Cultivation details

Requires a moist peaty acid sandy soil[3].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Division in spring. This plant can be a bit temperamental when it is being divided. We have found it best to tease out small divisions from the sides of the clump, to avoid the need to disturb the main clump by digging it up. Try to ensure that each division has already produced some roots. Pot them up in light shade in a greenhouse and make sure that they are not allowed to become dry. Once they are rooting and growing away well, which might take 12 months, they can be planted out into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *cornus suecica* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
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Very readable.

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Readers Comments

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Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* *PFAF: Edible Trees and Shrubs Hardy in Britain: C*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus suecica

Common name:	Dwarf cornel	Family:	Cornaceae
Author:	L.	Botanical references:	17, 200
Synonyms:	Chamaepericlymenum suecicum ((L.)Aschers.&Graebn.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Moors and heaths, usually under heather or bilberries[3, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cornella suecica[B,P] Swida suecica[B,P]
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Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

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Perennial growing to 0.15m by 0.3m . It is hardy to zone 2. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

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Fruit.

Fruit - raw or cooked[3, 46, 61, 62, 101]. It is usually mixed with other berries[257]. Bitter and unpalatable[2]. The fruit is rich in pectin[172].

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Disclaimer

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The fruit is considered to be a good tonic for the appetite[4].

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cornus+suecica`
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Plants For A Future: Database Search Results

Cornus suecica

Common name:	Dwarf cornel	Family:	Cornaceae
Author:	L.	Botanical references:	17, 200
Synonyms:	Chamaepericlymenum suecicum ((L.)Aschers.&Graebn.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Moors and heaths, usually under heather or bilberries[3, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cornella suecica[B,P] Swida suecica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dogwood [H], Dwarf Bog Bunchberry [B], Dwarf Cornel [L], Lapland Cornel [P], Zweedse Kornoelje [D],
Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

Perennial growing to 0.15m by 0.3m . It is hardy to zone 2. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Fruit.

Fruit - raw or cooked[3, 46, 61, 62, 101]. It is usually mixed with other berries[257]. Bitter and unpalatable[2]. The fruit is rich in pectin[172].

Medicinal Uses

Disclaimer

Appetizer.

The fruit is considered to be a good tonic for the appetite[4].

Other Uses

Ground cover.

The fruit is rich in pectin[172].

A good ground-cover plant, succeeding under trees and shrubs[3].

Cultivation details

Requires a moist peaty acid sandy soil[3].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts.

Division in spring. This plant can be a bit temperamental when it is being divided. We have found it best to tease out small divisions from the sides of the clump, to avoid the need to disturb the main clump by digging it up. Try to ensure that each division has already produced some roots. Pot them up in light shade in a greenhouse and make sure that they are not allowed to become dry. Once they are rooting and growing away well, which might take 12 months, they can be planted out into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cornus suecica*

Subject:

Cornus suecica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus suecica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:18:56 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cornus x unalaschkensis

Common name:	Bunchberry	Family:	Cornaceae
Author:	Ledeb.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Northern N. America - Alaska, Newfoundland.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

Perennial growing to 0.15m by 0.3m . It is hardy to zone 2. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Fruit; Pectin.

Fruit - raw or cooked[257]. The fruit can be dried for later use[257]. A small berry about 6mm in diameter[K]. The fruit is rich in pectin.

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover; Pectin.

The following use is for the closely related C. suecica, but it almost certainly also applies to this plant[K]:-

The fruit is rich in pectin[172].

A good ground-cover plant, succeeding under trees and shrubs[3].

Cultivation details

Requires a moist peaty acid sandy soil[3].

This is a naturally occurring hybrid, C. canadensis x C. suecica, and is intermediate in characteristics between the parents[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts. This species is a hybrid and so might not breed true from seed.

Division in spring. This plant can be a bit temperamental when it is being divided. We have found it best to tease out small divisions from the sides of the clump, to avoid the need to disturb the main clump by digging it up. Try to ensure that each division has already produced some roots. Pot them up in light shade in a greenhouse and make sure that they are not allowed to become dry. Once they are rooting and growing away well, which might take 12 months, they can be planted out into their permanent positions.

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cornaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
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Readers Comments

Edible Trees and Shrubs Hardy in Britain: C

Charles Ford (CharlesFord@aol.com) Tue Feb 24 16:05:15 2004

You left out the fruit of Cornus kousa. Delicious.

Cross references: *Genera:* Cornus. *Web-pages:* PFAF: Edible Trees and Shrubs Hardy in Britain: C.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cornus x unalaschkensis

Common name:	Bunchberry	Family:	Cornaceae
Author:	Ledeb.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Northern N. America - Alaska, Newfoundland.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

Perennial growing to 0.15m by 0.3m . It is hardy to zone 2. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 3 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Fruit; Pectin.

Fruit - raw or cooked[257]. The fruit can be dried for later use[257]. A small berry about 6mm in diameter[K]. The fruit is rich in pectin.

Medicinal Uses

Disclaimer

None known

Other Uses

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The following use is for the closely related C. suecica, but it almost certainly also applies to this plant[K]:-

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Cultivation details

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Seed - best sown as soon as it is ripe in a cold frame or in an outdoors seedbed if there is sufficient seed[80, 113]. The seed must be separated from the fruit flesh since this contains germination inhibitors[80, 164]. Stored seed should be cold stratified for 3 - 4 months and sown as early as possible in the year[164]. Scarification may also help as may a period of warm stratification before the cold stratification[80, 164]. Germination, especially of stored seed, can be very slow, taking 18 months or more[164]. Prick out the seedlings of cold-frame sown seeds into individual pots as soon as they are large enough to handle and grow the plants on for their first winter in a greenhouse, planting out in the spring after the last expected frosts. This species is a hybrid and so might not breed true from seed.

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Synonyms:			
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Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Cornales . Dogwood family

Physical Characteristics

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Disclaimer

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Add a comment on: *Cornus x unalaschkensis*

Subject:

Cornus x unalaschkensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cornus x unalaschkensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Plants For A Future: Database Search Results

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Sorbus domestica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Service tree	Family:	Rosaceae
Author:	L.	Botanical references:	11, 45, 200
Synonyms:	Pyrus sorbus (Gaertn.), Cormus domestica ((L.)Spach.)		
Known Hazards:	The seeds probably contain hydrogen cyanide. This is the ingredient that gives almonds their characteristic flavour. Unless the seed is very bitter it should be perfectly safe in reasonable quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	Europe.		
Habitat:	Woods and bushy places[45].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Pyrus domestica[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Service Tree [E], Service-tree [H], Servicetree [P],
Epithets:	From a Dictionary of Botanical Epithets domestica = cultivated; orbus = orphan;
Systematics:	From a UDSA Plants Database

	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Eurasia
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower in May, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Fruit.

Fruit - raw or cooked. The fruit is usually bletted if it is going to be eaten raw[1, 2, 3, 11, 115, 183]. This involves storing the fruit in a cool dry place until it is almost but not quite going rotten. At this stage the fruit has a delicious taste, somewhat like a luscious tropical fruit[K]. The fruit will often begin its bletting process whilst still on the tree and we have eaten delicious fruits straight from the tree in mid-September[K]. The fruit can also be dried and used like prunes. The fruit is up to 3cm across[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Tannin; Wood.

The bark is a source of tannin[61].

Wood - fine grained, very heavy, hard to split. Used for furniture, screws, wine presses etc[11, 46, 61, 74, 115].

Cultivation details

Succeeds in most reasonably good soils in an open sunny position[11]. Tolerates light shade[188], though it fruits better in a sunny position[K].

The service tree is occasionally cultivated for its edible fruit[3, 45, 132]. There are 2 distinct forms, S. domestica pomifera. (Hayne.)Rehd. with apple shaped fruits (which ripen from September) and S. domestica pyriformis. (Hayne.)Rehd. with pear shaped fruits which ripen from October[11, 132].

Plants are susceptible to fireblight[188] and to canker (which is especially prevalent in areas with high rainfall)[K]. They grow best in the drier areas of Britain, which in general means the eastern half of the country[121].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78, 80]. If you have sufficient seed it can be sown in an outdoor seedbed[78, 80]. Stored seed germinates better if given 2 weeks warm then 14 - 16 weeks cold stratification[98], so sow it as early in the year as possible. Prick out the seedlings into individual pots when they are large enough to handle. Seedlings are very slow to put on top-growth for their first year or two[11], but they are busy building up a good root system. It is best to keep them in pots in a cold frame for their first winter and then plant them out into their permanent positions in late spring.

Cultivars

'Pyriformis'

> The fruits are pear-shaped. This form fruits very freely and regularly at Kew, the fruit is of very good quality.

'Maliformis'

> The fruits are apple-shaped.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Fruit - Food of the Gods
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
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Plants For A Future: Database Search Results

Sorbus domestica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Service tree	Family:	Rosaceae
Author:	L.	Botanical references:	11, 45, 200
Synonyms:	Pyrus sorbus (Gaertn.), Cormus domestica ((L.)Spach.)		
Known Hazards:	The seeds probably contain hydrogen cyanide. This is the ingredient that gives almonds their characteristic flavour. Unless the seed is very bitter it should be perfectly safe in reasonable quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	Europe.		
Habitat:	Woods and bushy places[45].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pyrus domestica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Service Tree [E], Service-tree [H], Servicetree [P],
Epithets:	From a Dictionary of Botanical Epithets
	domestica = cultivated; orbus = orphan;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Eurasia
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower in May, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Fruit.

Fruit - raw or cooked. The fruit is usually bletted if it is going to be eaten raw[1, 2, 3, 11, 115, 183]. This involves storing the fruit in a cool dry place until it is almost but not quite going rotten. At this stage the fruit has a delicious taste, somewhat like a luscious tropical fruit[K]. The fruit will often begin its bletting process whilst still on the tree and we have eaten delicious fruits straight from the tree in mid-September[K]. The fruit can also be dried and used like prunes. The fruit is up to 3cm across[200].

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Readers Comments

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Español

Fruit - Food of the Gods

What is a Fruit?

Fruits are produced by many plants in order to help in the dispersal of their seeds. It would be pointless for a plant to drop all its seeds directly beneath, by its roots, since all the seedlings would then compete with each other and their parent. Plants have therefore evolved various mechanisms by which their seeds can be dispersed. Some plants, such as sycamore, have dry spiky or leathery fruits which may be dispersed by the wind, others such as burdock have barbs that attach themselves to animal's fur or our clothing, but the fruits that we are interested in here are those fleshy fruits which the plant has made attractive for animals to eat.

As the seeds mature, the ovary and sometimes also the receptacle swell up around the seeds to become a juicy, fleshy and often sweet fruit. The seeds inside usually have a tough outer coat so that when the animal eats the fruit it will either, if the seeds are small, deposit the seeds unharmed in its faeces some distance from the parent plant e.g. the pips in soft fruit, or if the seed is large, as in plums, the fruit may be carried away and the seed dropped somewhere. Normally the fruit tastes awful before the seeds are ripe, so it will not get eaten before the seeds are mature enough to germinate. Seeds and fruit therefore ripen at the same time to ensure that the seeds are at the right stage when taken by an animal. Either way the animal has "paid" for its nice meal by doing the plant a favour in dispersing it seeds.

One of the wonderful things about fruits is that we are actually eating something offered to us by the plant. Assuming that we are living a fairly natural lifestyle - i.e. not eating imported fruit that could never grow in this climate, eating fresh fruit that is in season, not eating seedless varieties, not flushing our faeces into the sea but composting it in a suitable way, and not throwing fruit seeds or cores into the rubbish bin where they have no chance of re-entering the natural cycle, then the plant would want us to eat the fruit. In turn the plant has done us a favour by producing this nice juicy, tasty morsel full of naturally filtered water , natural sugars, flavours, vitamins and minerals and other nutrients. Fruits are amongst the most delicious foods on Earth. Most are light and easy to digest and they are a natural convenience food because there is normally no preparation needed.

The Nutritional Value of Fruits

Most fruits are very easy to digest because food is stored in the fruit as sugars. (Unripe fruits are often high in starch and organic acids [which makes them taste very sour] and these are converted to sugars only as the fruit ripens). Most fruits contain no fats at all though some, such as olives and avocados are quite high. Whilst it is not really feasible to grow these fruits here, we can grow Elaeagnus and Hippophae berries which contain Essential Fatty Acids (EFA's).

Most fruits also contain no protein. Protein and fats are present in the seed but this is usually not eaten (e.g. in plums) or passes straight through (pips in berries) so fruits are NOT a complete food and could not really be recommended as the sole part of the diet. Also, unless you eat Special Berries (see below) all year round, you will go quite short of minerals. Most fruits are particularly low in calcium and magnesium which are necessary for healthy teeth and bones.

Fruits are also very low in zinc which is essential for the function of the immune system, the formation of skin, the healing of wounds, brain function and it is essential for the function of the reproductive organs. But do not despair, this deficiency can be made up by eating plenty of green leaves (see our 'Green Gold' leaflet).

Fruits are best eaten fresh, ripe and raw. There is normally no need to cook them - unless you have a glut and want to preserve some by bottling it (which can be done without sugar if your jar has a good seal), or if there are windfall apples that are not ripe enough to eat raw. But it is preferable if cooked fruit only forms a small part of the diet, as it is so much healthier and more satisfying when one eats them raw.

A word of warning about fruits for those who are not use to eating much of it: Like leaves, fruits are a very strongly cleansing food, capable of stirring up and removing toxins that were long buried in the body. (These toxins come from certain foods especially "junk food" with chemical additives, an excess of meat, dairy products etc. and environmental toxins). However unlike leaves, which actually help to carry toxins out of the body as well, fruits often tend to stir them up without carrying the away. So if you know that your diet has not been all it could have been over the last few years and that your system is liable to be rather toxic, then please approach fruit with caution.

Do not suddenly eat a lot of fruit in one go (especially of the more acid berries) until you know that your system can cope with it. What is liable to happen is that a lot of toxins will be stirred up into what is known as a Healing Crisis and you will feel ill. Perhaps you will blame the healthy diet for making you ill and perhaps even go to the doctor for some pills. These will only suppress the symptoms and drive the toxins deeper into the body, as well as adding more toxins, - so you will be worse off than before. So unless you understand about healing crises and know how to manage them, please go easy on the fruit if you are not used to it. Many Naturopaths have used short term fruit diets for healing with a great deal of success. This is because of the wonderful cleansing and healing properties of fruits, especially if accompanied by green leaves or leaf juices. However this tends to be too drastic for most people nowadays because of the general decrease in health and nutrition of the overall population. This is still possible to do but I would only recommend it under the guidance of a qualified Naturopath or Nutritional Therapist.

The types of fruit

When the writer, who is an avid fruit fan, was studying the Dietary Therapy Course she was very disappointed to hear the teacher play down the nutritional value of fruits as he extolled the value of vegetables, especially green leaves . Fruits contain quite good levels of vitamins but are quite low in many important minerals. On their own, they will not provide you with enough minerals. And to bear this out, I know of two people who tried eating just fruit for a while and lost all their teeth. So I thought it was all right to eat a lot of fruit as long as one eats a lot of leaves as well. However, when I studied the tables of mineral composition amongst various different fruits that I had been given, I noticed that there were three main groups.

1). The large cultivated fruits such as apples, pears and tomatoes. Although these form the bulk of most people's fruit intake, they are pretty low in minerals and vitamins. They have been selectively bred, sometimes over thousands of years, in order to produce a bigger size, milder flavour, more sugar and higher water content. Unfortunately the nutrient content has sadly lost out. Hence the wild crab apples and pears - though often inedible due to their acidity and astringency - are actually more nutritious than the cultivated ones. A clear example of this can be seen if we look at the tomato. The wild tomato is no larger than a cherry, yet a single fruit contains more vitamins and minerals than a single much larger cultivated tomato. When comparing the size of each fruit you begin to realise just how much nutrient we have lost from many of our cultivated foods!

2). Small berries such as strawberries, raspberries, blackberries, blackcurrants and gooseberries. These are far richer in minerals than the other group but the teacher didn't take much notice of them and continued to say that fruits were not very useful in the diet! Although these berries have also been bred up for size etc., they are much closer to their natural state than the big fruits, and consequently are richer in nutrients. *However, they still do not compare in nutritional value to green leaves* The berries are also higher in fibre (the pips really do help to keep you regular!) and lower in calories.

3). The special berries. These are normally wild plants which have not been bred up and hence not been devitalised and demineralised in that way. They are much richer in nutrients than the other fruits and also often have great medicinal value. A few examples of these are mentioned below:-.

- **Hippophae and Elaeagnus** These, and especially the Hippophae, are the special fruits par excellence. They are probably the most nutritious fruits you can grow in the Temperate zone and are a very rich source of vitamins and minerals. In particular they re very good sources of vitamin C and bioflavinoids, as well as containing essential fatty acids (EFA's). *(See the leaflets on Hippophae salicifolia and Elaeagnus x ebbingei for more details.)*
- **Rosehips.** Whilst wild rosehips are extremely nutritious, though most are small and fiddly to harvest and use because the layer of flesh covering the hairy seeds is very thin. However, Rosa rugosa has particularly large hips which can be eaten much more easily (and certain varieties have larger fruits than others). Another good source of vitamin C, it also contains some EFA's and is also very high in carotene or provitamin A, the precursor of vitamin A. While true vitamin A or retinol, which is only found in animal products, is toxic in large

amounts, carotene is found in plant foods and is totally non-toxic. The body only makes as much vitamin A from it as it needs. Ripe Rosa rugosa fruits are also extremely delicious - true ambrosia!

- **Hawthorns.** Whilst the fruits of our two native hawthorns are edible few people are going to want to eat many of them. However, there are several species with cherry-size fruits that are absolutely delicious to eat. Again these fruits are high in bioflavonoids and fairly high in vitamin C. They also have several useful medicinal properties including making a good heart tonic whilst reducing high blood pressure and cholesterol levels in the blood. See our leaflet on the hawthorns for more information.
- **Barberries.** These fruits usually have a rather acid flavour, but are pleasant nonetheless and go very well in a muesli. They have a particularly beneficial effect on the urinary system which they cleanse and stimulate.

It is particularly important that we take in vitamin C because so much of our food is cooked nowadays and thus largely devoid of vitamin C. Also, during evolution we lost the ability to manufacture Vitamin C in our own bodies so we are at a disadvantage to most other animals who can. This is one of the reasons why we need to eat lots of fresh raw food. Vitamin C is also useful in the treatment of many diseases ranging from colds to Cancer.

Elaeagnus and Hippophae are very rich in bioflavonoids, which are beneficial plant pigments that assist in the utilisation of vitamin C and are said to improve the function of the brain. Bioflavonoids are also very beneficial to our health in many other ways. For example, the bioflavonoids found in the fruits of all Elaeagnus and Hippophae species have been shown to be an effective preventative and treatment of Cancer.

EFA's are essential for the formation of healthy cell membranes and necessary for many body functions especially that of the Immune system. Hence these fruits are extremely beneficial, but are of particular benefit for those with diseases of the immune system such as MS, ME, Rheumatoid Arthritis, Juvenile onset diabetes, Cancer and Aids. This is especially true of the Hippophae. Considering also that high levels of vitamin C, B vitamins and minerals are also beneficial to the immune system, these berries are a particularly good food, tonic and medicine for anyone with an under functioning immune.

So the general conclusion is that all fruit is good for you but some are more nutritious than others. They are not as nutritious as leaves but they do taste nicer because the plant has deliberately laced the fruit with sugars and pleasant flavours to tempt us.

The fresh fruit season

It is important, as far as possible, to eat fruit that is fresh, ripe and in season. Fruits that are picked unripe will never develop their full flavour, sweetness or nutritional value because the plant hasn't had enough time to put all it wanted to in the fruit. Fruit that has been transported halfway across the globe is normally picked under ripe and sprayed to stop it rotting. It is also not in harmony with the climatic zone in which we live so is much less good for us, as well as contributing to unnecessary pollution in the transportation process. The ideal way to eat fruit is to eat it straight from the plant. Once it starts to age it loses its nutritional value in the same way as other parts of the plant do.

With careful planning it is possible to pick fresh fruit from your garden for 10 or even eleven months of the year. The season starts with the evergreen Elaeagnus in early April. These will continue to crop until the middle or end of May when Mahonias and the first strawberries ripen. The variety of fruits then increases considerably with the greatest abundance coming in late summer and early autumn. There are, however, many different fruits that can be harvested in late autumn and early winter. These include the Hippophae, which we can usually harvest until the middle of January, and various Gaultherias which we have picked as late as March. However, these late harvests are usually quite small in quantity - more a nibble than a real meal.

Fruits that store

In order to extend the season, there are certain fruits that store very well with little loss of nutrient. Thus you can ensure a supply of fresh fruit throughout the winter, spring and early summer when few or no berries are available. A few of these fruits are detailed below:-

- The apple is the best example for this climate. There are many late-ripening varieties that will keep for varying amounts of time in storage, the latest storing for a whole year or more in good condition. These late keeping apples are normally not actually ready to be eaten when they are harvested. When in storage, the starches and acids in the fruit are gradually converted to sugars and the fruit becomes ripe over a period of weeks or months. If the late apples were allowed to ripen fully on the tree they would get damaged by the weather and eaten by the birds before they ripened properly, so they would not store at all. Whilst not the most nutritious fruit, they are very good for ensuring a year round supply of fresh fruit in this climate.
- Certain pear varieties will keep for several months in a similar way to apples though each variety ripens over a much shorter period so you can end up with a sudden glut of fruit which will quickly go over-ripe and then rot if they are not eaten in time.
- Contrary to popular opinion, kiwi fruits can be grown very successfully in much of Britain. If the fruits are picked in November, they will keep in a cool store for several months. Kiwis are actually very nutritious, being very high in vitamin C and also good sources of carotene and folic acid (because of their green colour).
- I have heard stories of the Victorians storing grapes in cellars over winter. Grapes can be grown in this climate but most varieties tend to be small and sour unless grown in a green house because our summers are not hot enough to ripen the fruit. Try growing varieties such as Brandt or Isabella which do much better here. Also, select your growing position carefully - a south or west facing wall should give best results. In terms of nutritional value grapes they can probably be classified with the berries. They have a moderate amount of folic acid due to their light green colour. (Purple grapes also have some green in them.)
- Golden berries are closely related to tomatoes, but have a much richer flavour. Any green fruits left on the plant when the first frosts come along can be stored in a cool place and will ripen slowly over the next few months.
- The bletted fruits. Certain fruits, such as Mespilus germanica (the medlar) and Sorbus domestica, (the service tree) do not ripen fully in this climate. They are picked in late

autumn and will then ripen slowly in store. They do not become edible raw until they are almost at the point of going rotten (a process known as bletting), but when at this stage taste like a delicious tropical fruit. However, you do need to be careful because if you overdo the bletting the fruits will ferment in your stomach and cause digestive problems.

Therefore with the summer and autumn berries, and stored apples (and possibly pears and kiwis) over the winter and spring, it is very possible to be totally self sufficient in fruit in this climate.

In Conclusion

- Fruits are amongst the most delectable and delicious foods on Earth, and unlike other foods, are actually deliberately produced by the plant to be eaten. This is not pure altruism on their behalf, but symbiosis or co-operation, because in return they want their seeds to be dispersed. They are also the ideal healthy convenience or snack food because you can just pick them up and eat them - no preparation is usually needed - just make sure they are ripe.
- Most conventional shop bought fruit is a reasonable source of vitamins, depending on how fresh it is, but is not very rich in minerals. The ideal suppliers of vitamins and minerals are the green leaves (See Green Gold leaflet).
- The small wild and semi wild berries are far more nutrient-rich because they are closer to their natural state and have not had the nutrients bred out of them. Some berries such as Elaeagnus, Hippophae, Rosa Rugosa and Crataegus are particularly nutrient-rich and have numerous beneficial health giving properties. It is a good idea to include more berries in your diet, especially the Special Berries. The easiest and best way to do this is to grow them yourself because this ensures their availability, freshness and enables you to pick them at their best (assuming the birds don't get there first!) (See leaflet on alternative fruits for more details).
- While being a very enjoyable and healthy food, please bear in mind that fruits are far from being a complete food (unless you are a Fruit Bat!) so do not rely on them too heavily - or your teeth might fall out! (this is particularly true of the imbalanced commercial fruit).
- In most fruits food is stored in the form of sugars so they are a very light and easy to digest food. Digestive problems will respond quite well to a temporary diet of fruit to give it a rest from heavy foods.
- A few fruits do contain fats.
- Most fruits have no or virtually no protein. This is stored in their seeds.
- Fruits are very cleansing and detoxifying and in this way are very helpful in the treatment of diseases. If you have a cold, flu or other infection, a fruit (and leaf) diet will clear it out of you faster. They are also very helpful in the treatment of chronic diseases. But unless you are absolutely sure of what you are doing, and can cope with the possibility of a flare up (Healing Crisis) WITHOUT going to the doctor for suppressive drugs, then this use of fruit must be done under the supervision of a qualified practitioner. (One of the members of Plants For A Future is a qualified Dietary Therapist).

Well, I hope this leaflet has given you some new insights into fruit and that you will consider growing and eating more of these wonderful foods.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Readers Comments:

PFAF: Fruit - Food of the Gods

Gail Heeb (gheeb@aol.com) Fri Mar 31 06:15:14 2000

I have a question, please. I am seeking information about the storage of fruit and how storage temperatures (counter vs refrigeration) affect nutrient retention or quality in fruit. Thank you for any help.

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Regresar a la Plantas para un Futuro página principal: Español English

English

Frutas - Alimento de los Dioses

¿Qué es una fruta?

Las frutas son producidas por muchas plantas con la finalidad de ayudar a dispersar sus semillas. No es conveniente para una planta dejar caer todas sus semillas directamente bajo ella, por sus raíces, ya que de hacerlo las nuevas plantas competirían con ella y entre ellas mismas. Por eso las plantas han desarrollado diferentes mecanismos con el fin de dispersar sus semillas. Algunas plantas, como el sicomoro, forman frutos similares a tachuelas con pelusas que pueden ser dispersadas por el viento, otras como la Badana tienen barbas y ganchos para asirse por si mismos a la piel de los animales o a nuestra ropa, pero los frutos en que estamos interesados aquí son las frutas carnosas que las plantas han hecho atractivas para que los animales se las coman.

A medida que las semillas maduran, el ovario y algunas veces también el receptáculo se desarrollan alrededor de la semilla para formar una fruta carnosa, jugosa y a veces dulce. Las semillas en el interior usualmente tienen un recubrimiento protector de modo que cuando el animal las come puedan, si las semillas son pequeñas, depositarlas sin daño con el excremento a alguna distancia de la planta madre como sucede con las pepitas en las frutas suaves, o si la semilla es grande, como en la ciruela, la fruta puede ser transportada lejos y la semilla dejada en cualquier sitio. Normalmente la fruta tiene mal sabor antes de que las semillas maduren, por lo tanto no será comida antes de que las semillas tengan posibilidades de germinar. Las semillas y la fruta maduran al mismo tiempo para asegurar que las semillas estén en la etapa correcta cuando sean tomadas por el animal. De cualquier modo el animal es recompensado con un alimento agradable por el servicio que hace a la planta al dispersar sus semillas.

Una de las cosas maravillosas acerca de las frutas es que realmente estamos comiendo algo que nos ha sido ofrecido por la planta. Suponiendo que tengamos un estilo de vida natural - esto es, que no comamos fruta importada que no tiene posibilidades de crecer en este clima, que comemos fruta fresca que esta en su punto, que no comemos variedades sin semilla, que no tiramos las heces al mar por el excusado sino que las reciclamos de una forma natural y no tiramos las semillas y los corazones de las frutas al bote de basura donde pierden la oportunidad de reintegrarse al ciclo natural, entonces la planta deseará que nos comamos su fruto. Por su parte la planta nos ha hecho el favor de producir este delicioso y jugoso bocado lleno de agua filtrada naturalmente, azúcares naturales, sabores, vitaminas, minerales y otros nutrientes. Las frutas son sin duda la comida más deliciosa de la tierra. La mayoría son ligeras y fáciles de digerir y son la comida natural más conveniente ya que normalmente no necesitan ninguna preparación.

El valor nutritivo de las frutas.

La mayoría de las frutas son muy fáciles de digerir porque el alimento esta almacenado en la fruta como azúcares. (Las frutas no maduras son altas en almidones y ácidos orgánicos [que dan su sabor muy agrio] que se convierten en azúcares solo cuando la fruta madura). La mayoría de ellas no contiene grasas aunque algunas, como la aceituna y el aguacate tienen muchas. Mientras no sea realmente posible cultivar aquí estos frutos, podemos las bayas Elaeagnus y Hippophae que contienen los Ácidos Grasos Esenciales (EFA's).

La mayoría de las frutas no contienen proteínas. Las proteínas y grasas están en la semilla que normalmente no nos comemos (por ejemplo la de ciruela) o pasa directamente por el tubo digestivo (las pepitas de las bayas) de modo que las frutas NO SON un alimento completo y no se puede recomendar una dieta exclusiva de frutas. También, a menos que coma algunas bayas especiales (vea más adelante) durante todo el año, se quedará con una deficiencia de minerales. La mayoría de las frutas son particularmente bajas en calcio y magnesio los cuales son necesarios para la salud de los dientes y los huesos.

Las frutas tienen un contenido muy bajo de zinc que es esencial para el funcionamiento del sistema inmunológico, la formación de piel, la cicatrización de las heridas, las funciones cerebrales y es muy importante en la función de los órganos reproductores. Pero no desespere, esta deficiencia puede ser cubierta comiendo hojas verdes en abundancia. (Vea nuestro folleto 'Oro Verde').

Es mejor comer las frutas frescas, maduras y crudas. Normalmente no necesita cocinarlas - a menos que este harto de haber comido muchas y desee conservar algunas envasándolas (lo que puede hacerse sin usar azúcar si su envase tiene un buen sello), o si tiene manzanas que tiró el viento y no están aún suficientemente maduras para comerlas crudas. Pero es preferible que la fruta cocida solo forme una pequeña parte de su dieta, es mucho más saludable comerlas crudas.

*Una palabra de advertencia acerca de las frutas para aquellos que no acostumbran comerlas con frecuencia:*Como las hojas, las frutas son un alimento mucho muy purificador, capaces de remover y eliminar toxinas que fueron durante largo tiempo quemadas en el cuerpo. (Estas toxinas provienen de ciertos alimentos especialmente "comida chatarra" con aditivos químicos, un exceso de carne, productos procesados, etc. y además contaminantes ambientales). Sin embargo, a diferencia de las hojas verdes, que ayudan a extraer las toxinas del cuerpo, las frutas tienden a removerlas sin extraerlas del cuerpo. De modo que si usted sabe que su dieta no ha sido de lo más sana en los últimos años y que es posible que su organismo esté muy intoxicado, entonces consuma fruta con precaución.

No coma de repente una gran cantidad de fruta en una sentada (especialmente de las bayas más ácidas) hasta que usted sepa que su organismo puede soportarlo. Lo que puede suceder es que muchas toxinas sean removidas y se produzca lo que se llama "crisis curativa" y lo hará sentirse enfermo. Entonces maldecirá la dieta curativa por hacerlo sentirse mal e irá al médico por algunas pastillas. Esto solo suprimirá los síntomas y arraigará las toxinas más profundamente en su cuerpo, además agregará más toxinas, - por lo tanto usted terminará peor de lo que estaba. Así, hasta que usted entienda lo que es la crisis curativa y sepa como manejarla, es mejor que tenga precaución con la fruta si no esta habituado a usarla. Muchos Patólogos naturistas han usado dietas de frutas de corto plazo con fines curativos y han tenido gran éxito. Esto se debe a las maravillosas propiedades purificadoras y curativas de las frutas, especialmente si se acompañan de hojas verdes o jugos de hojas verdes. Sin embargo, esto puede resultar demasiado drástico para la mayoría de la gente en la actualidad porque hay un gran decremento en la salud y nutrición en la generalidad de la población. Esto es aún posible de realizar pero yo recomendaría hacerlo bajo la guía de un Naturopata o Terapeuta Nutricional calificado.

Los tipos de frutas.

Cuando la que esto escribe, que es una ávida fanática de las frutas, estaba estudiando el Curso de Terapia Dietética se desanimó mucho al oír al maestro menospreciar el valor nutritivo de las frutas mientras exaltaba el valor de los vegetales, especialmente las hojas verdes. Las frutas contienen muy buenos niveles de vitaminas pero son muy pobres en minerales muy importantes. Por si mismas no los proveerán de suficientes minerales. De hecho, conozco a dos personas que comieron durante un tiempo exclusivamente frutas y perdieron todos sus dientes. Por lo tanto yo pienso que es correcto comer grandes cantidades de frutas pero al mismo tiempo comer grandes cantidades de hojas verdes. Sin embargo, cuando estudié las tablas de contenidos minerales de diferentes frutas que había conseguido, noté que hay tres grupos principales.

1). Las grandes frutas cultivadas como la manzana, las peras y los tomates. Aunque estas forman el núcleo principal de las frutas que la mayoría de la gente consume, son muy bajas en minerales y vitaminas. Han sido cultivadas selectivamente, algunas veces a lo largo de miles de años, tratando de que sean más grandes, de sabor moderado, más dulces y con mayor contenido de agua. Desgraciadamente el contenido de nutrientes se ha reducido. Como consecuencia, las peras y manzanas silvestres - aunque frecuentemente incomibles por su acidez y astringencia - son actualmente más nutritivas que las cultivadas. Un claro ejemplo de esto puede apreciarse en el tomate. El tomate silvestre no es mayor que una cereza, pero aún así contiene más vitaminas y minerales que un grande y hermoso tomate cultivado. ¡Cuándo comparamos el tamaño de cada fruta empezamos a comprender cuántos nutrientes hemos perdido en muchos de nuestros alimentos cultivados!

2). Pequeñas bayas tales como la fresa, frambuesa, zarzamora, grosella negra y uva espina. Son bastante más ricas en minerales que el otro grupo ¡Pero el maestro no las tomo en cuenta y continuo diciendo que las frutas no son muy útiles en la dieta!. Aunque estas bayas también han sido cultivadas selectivamente para mejorar su tamaño, sabor, etc., se han conservado más cerca de su estado natural que las frutas grandes, y en consecuencia son más ricas en nutrientes. *Sin embargo, aún así no se comparan al valor nutritivo de las hojas verdes.* Las bayas son también más altas en fibras (¡Las pepitas realmente ayudan contra el estreñimiento!) y son bajas en calorías.

3). Las bayas especiales. Son normalmente plantas silvestres que no han sido cultivadas selectivamente y por lo tanto no han perdido sus vitaminas y minerales a consecuencia de esto. Son mucho más ricas en nutrientes que las demás frutas y también son a menudo de un gran valor medicinal. Algunos ejemplos de éstas se mencionan a continuación:

- **Hippophae y Elaeagnus** Estas, y especialmente el "Ramno de mar de hoja de Sauce"(Hippophae), son las frutas especiales por excelencia. Son probablemente las frutas más nutritivas que usted puede cultivar en la zona templada y son una fuente muy rica de vitaminas y minerales. En particular son muy buenas fuentes de vitamina C y bioflavonóides, además contienen los ácidos grasos (EFA's). *(Vea los folletos sobre Hippophae salicifolia y Elaeagnus x ebbingei para más detalles.)*
- **Rosehips (Fruto de Rosa).** La cápsula de las semillas de la Rosa silvestre es extremadamente nutritiva, pero la mayoría de ellas son pequeñas y difíciles de cosechar y usar ya que la capa de carne que cubre las semillas pilosas es muy delgada. Sin embargo, la Rosa rugosa tiene cápsulas grandes que pueden comerse con mayor facilidad (y ciertas variedades tienen más grandes frutos que otras). Es otra buena fuente de vitamina C, también contienen algunos ácidos grasos esenciales (EFA) y son también muy altos en caroteno o protovitamina A, precursor de la vitamina A. Mientras que la verdadera vitamina A o retinol, que solo se encuentra en productos animales es tóxica si se consume en grandes cantidades, el caroteno se encuentra en las plantas y es totalmente inocuo. El cuerpo solo hace a partir de él la vitamina A que necesita. Las frutas maduras de la Rosa rugosa son también deliciosas - ¡verdadera ambrosía!.
- **Espino blanco (Hawthorns).** Aún cuando los frutos de nuestros dos espinos blancos nativos son comestibles poca gente querrá comer muchos de ellos. Sin embargo, hay varias especies con frutas del tamaño de una cereza que son absolutamente deliciosas. Estas frutas también son ricas en bioflavonóides y vitamina C. Tienen también varias propiedades medicinales muy útiles entre ellas un buen tónico cardiaco que al mismo tiempo baja la presión arterial y los niveles de colesterol en la sangre. Vea nuestro folleto hawthorns para mayor información.
- **Berberís (Barberries).** Estas frutas tienen generalmente un fuerte sabor ácido, pero aún así son placenteras y quedan muy bien en un muesli. Tienen efectos particularmente benéficos en el sistema urinario al que estimulan y limpian.

Es especialmente importante que consumamos vitamina C ya que muchos de nuestros alimentos actualmente son cocinados por lo que pierden mucha de ella. Además, durante nuestra evolución nuestro organismo ha perdido la capacidad de producir la vitamina A por lo que estamos en desventaja con la mayoría de los animales que si lo hacen. Esta es la razón de que necesitemos comer buenas cantidades de comida fresca y cruda. La vitamina C es útil para tratar muchas enfermedades que van desde el resfriado hasta el cáncer.

Elaeagnus y Hippophae son muy ricos en bioflavonóides, que son pigmentos benéficos de las plantas que ayudan en la utilización de la vitamina C y se dice que mejoran las funciones del cerebro. También benefician a nuestra salud en muchas otras formas. Por ejemplo, los bioflavonóides que se encuentran en las frutas de todas las especies de Elaeagnus y Hippophae han demostrado ser preventivos efectivos en el tratamiento del cáncer.

Los ácidos grasos esenciales (EFA's) son esenciales para la formación de membranas celulares saludables y muchas de las funciones corporales especialmente el sistema inmunológico. En consecuencia estas frutas son extremadamente benéficas, pero lo son en particular para los que padecen enfermedades del sistema inmunológico tales como MS, ME, Artritis Reumática, diabetes juvenil, cáncer y sida. Esto es especialmente cierto para el Hippophae. Considerando también que los altos niveles de vitamina C, vitaminas B y minerales ayudan al sistema inmunológico, estas bayas son especialmente un buen alimento, tónico y medicina para cualquiera con el sistema inmunológico decaído.

Por lo tanto, la conclusión general es que toda la fruta es buena para usted pero algunas son más nutritivas que otras. No son tan nutritivas como las hojas verdes pero tienen mejor sabor porque la planta deliberadamente ensalza la fruta con azúcares y sabores placenteros para invitarnos a comerla.

La estación de la fruta fresca.

Es importante, tanto como sea posible, comer la fruta fresca, madura y de la estación. Las frutas cortadas antes de madurar nunca tendrán su sabor, su dulzura ni su valor nutritivo pleno porque la planta aún no ha alcanzado a poner todo lo que quiere en la fruta. La fruta que ha sido transportada al otro extremo del mundo normalmente se corta antes de madurar y se refrigera o trata químicamente para retrasar su pudrición. No está tampoco en armonía con la zona climática en que vivimos por lo que es mucho menos buena para nosotros y contribuye a una contaminación innecesaria durante el proceso de transportación. La forma ideal de comer la fruta es comerla directamente desde la planta. Después de cortada empieza a envejecer y pierde su valor nutritivo en la misma forma que cualquier otra parte de la planta lo hace.

Planeándolo cuidadosamente es posible recoger fruta fresca en su jardín durante 10 ó incluso 11 meses del año. La estación empieza con el Elaeagnus siempre verde a principios de abril. Continuará produciendo hasta mediados o finales de mayo cuando los Berberís y las primeras fresas maduran. La variedad de frutas se incrementa considerablemente con la gran abundancia que aparece a finales del verano y principios del otoño. Hay, sin embargo, muchas diferentes frutas que pueden cosecharse a finales del otoño y principios del invierno. Estas incluyen la Hippophae, que generalmente puede cosecharse hasta mediados de enero, y varias Gaultherias que hemos recolectado tan tarde como en marzo. Sin embargo, estas cosechas tardías generalmente son muy pequeñas en cantidad - más un aperitivo que una comida real.

Frutas que se almacenan.

Con el fin de prolongar la estación, hay ciertas frutas que se almacenan muy bien con poca pérdida de nutrientes. Así usted puede asegurar una provisión de fruta fresca durante el invierno, la primavera y los inicios del verano son pocas o de plano no hay bayas disponibles. Unas pocas de estas frutas se detallan a continuación:

- La manzana es el mejor ejemplo para este clima. Hay muchas variedades de maduración tardía que se mantendrán almacenadas por un tiempo variable, las últimas almacenándose por un año completo o más en buenas condiciones. Estas manzanas tardías no están listas para comerse cuando se cosechan. Durante el almacenamiento, los almidones y ácidos de la fruta se convierten gradualmente en azúcares y la fruta llega a madurar a lo largo de un período de semanas o meses. Si las manzanas tardías fueran dejadas a madurar en el árbol serían dañadas por el clima y se las comerían los pájaros antes de madurar apropiadamente, de modo que no se almacenarían después de todo. Aunque no son las frutas más nutritivas, son muy buenas para asegurar la provisión de frutas frescas durante el año en este clima.

- Ciertas variedades de pera se mantendrán por varios meses en forma similar a las manzanas pero algunas variedades maduran en un período más corto de tiempo de modo que puede terminar repentinamente con una gran cantidad de fruta que se pasara de madura y se pudrirá rápidamente si no se la come a tiempo.
- En contra de la opinión popular, el kiwi puede cultivarse exitosamente en la mayor parte de Inglaterra. Si las frutas se recogen en noviembre, pueden almacenarse refrigeradas por varios meses. Los Kiwis son muy nutritivos, muy altos en contenido de vitamina C y son también buenas fuentes de caroteno y ácido fólico (debido a su color verde).
- He oído historias de que los Victorianos almacenaban uvas en el sótano durante el invierno. Las uvas pueden cultivarse en este clima pero la mayoría de las variedades tienden a ser pequeñas y ácidas a menos que se cultiven en invernadero porque nuestros veranos no son suficientemente calientes para que la fruta madure. Intente cultivar variedades como la Brandt ó Isabella que se dan mucho mejor aquí. También seleccione su lugar de cultivo cuidadosamente - un muro con vista al sur o al oeste dará los mejores resultados. En términos de valor nutritivo las uvas pueden clasificarse posiblemente con las bayas. Tienen una cantidad moderada de ácido fólico debido a su color verde. (Las uvas púrpura tienen también algo de verde en ellas.)
- La baya Dorada es un pariente cercano de los tomates, pero tiene un sabor más rico. Cualquier fruto verde dejado en la planta cuando llegan las primeras heladas puede almacenarse en un lugar fresco y madurará lentamente en pocos meses.
- Las frutas sobre maduradas. Ciertas frutas, tales como Mespilus germanica (el níspero) y Sorbus domestica, (serba) no maduran completamente en este clima. Se recolectan a finales de otoño y madurarán lentamente en almacenamiento. No estarán comestibles crudas hasta que estén casi al punto de empezar a podrirse (un proceso llamado podredumbre incipiente), pero cuando están en este estado tienen un sabor delicioso a fruta tropical. Sin embargo, necesita ser cuidadoso porque si la fruta se pasa de punto fermentará en su estomago causándole problemas digestivos.

Entonces con las bayas del verano y del otoño, y las manzanas almacenadas (y posiblemente las peras y los kiwis) a lo largo del invierno y la primavera, puede ser totalmente autosuficiente en frutas en este clima.

En conclusión

Las frutas son con mucho el más paladeable y delicioso alimento de la Tierra, y a diferencia de otros alimentos, es producido intencionalmente por la planta para que sea comido. Esto no es altruismo puro en su consideración, sino simbiosis o cooperación, porque en reciprocidad ellas quieren que sus semillas sean dispersadas. Ellas son también un alimento saludable ya sea como comida o como entremés o botana porque usted solo necesita cortarla y comerla - generalmente no necesita preparación - solo esté seguro de que está madura.

La fruta más convencional comprada en el mercado es una fuente razonable de vitaminas, dependiendo de su frescura, pero no es muy rica en minerales. La fuente ideal de vitaminas y minerales son las hojas verdes (Vea el folleto "Oro Verde" (Green Gold).

Las pequeñas bayas silvestres y semisilvestres son con mucho más ricas en nutrientes porque están más cerca de su estado natural y el cultivo selectivo no ha hecho que pierdan sus nutrientes. Algunas bayas tales como Elaeagnus, Hippophae, Rosa Rugosa y Crataegus son especialmente ricas en nutrientes y tienen numerosas propiedades benéficas para la salud. Es buena idea incluir más bayas en su dieta, de preferencia las bayas especiales. La mejor y más fácil forma de hacer esto es cultivarlas usted mismo porque esto asegura su disponibilidad, su frescura y le permite cortarlas en su mejor punto de maduración (¡suponiendo que los pájaros no se las ganen!) (Vea el folleto acerca de "Frutas alternativas"(alternative fruits) para más detalles).

Son las frutas un alimento saludable y deleitable, pero por favor tenga en mente que están muy lejos de ser un alimento (¡a menos qué sea usted un murciélago frugívoro!) De modo que no dependa demasiado de ellas - ¡o sus dientes pueden caérsele por falta de algunos minerales! (Esto es particularmente cierto con la fruta comercial desbalanceada).

En la mayoría de las frutas el alimento esta almacenado en forma de azúcares por lo que son muy ligeras y fáciles de digerir. Los problemas digestivos responderán muy bien a una dieta temporal de frutas para dar descanso al estómago de las comidas pesadas.

Algunas pocas frutas contienen grasas. La mayoría de las frutas no tienen o virtualmente no tienen proteínas. Estas están almacenadas en sus semillas.

Las frutas limpian y desintoxican el organismo con mucha efectividad por lo que son muy útiles en el combate de las enfermedades. Si usted tiene un resfrío, influenza u otra infección, una dieta de frutas (y hojas verdes) lo ayudará a sanar pronto. Son también muy útiles en el tratamiento de enfermedades crónicas. Pero a menos que esté usted muy seguro de lo que está haciendo y pueda sobrellevar la posibilidad de una "crisis curativa" SIN ir al doctor para que le de drogas que supriman los síntomas, entonces este uso de la fruta debe hacerse bajo supervisión de un practicante calificado. (Uno de los miembros de Plantas para un Futuro es un Terapeuta Dietético calificado).

Bien, espero que este folleto le haya dado algunas nuevas luces acerca de las frutas y que considere cultivarlas y comer más de estos maravillosos alimentos.

Regresar a la Plantas para un Futuro página principal: Español English

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versión HTML preparada por Rich Morris pfaf@scs.leeds.ac.uk - Home Page
Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Plants for a Future
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Elaeagnus x ebbingei - A Plant for all Reasons.

Some plants are so exciting and have so much potential for the permaculture grower, that I really cannot understand why they are not better known. Just one such plant is Elaeagnus x ebbingei. This hybrid species of garden origin, the result of a cross between E. macrophylla and E. pungens (or perhaps E. x reflexa), is commonly grown as a garden ornamental - in the future I hope it will be extensively grown as a multi-purpose plant in many permaculture systems.

Relatives.

Before I go into specific details of this plant, I would like to take a brief look at some of the plants that are related to it. E. x ebbingei belongs to the family Elaeagnaceae. This is a fairly small family comprising just three genera and fifty or so species, yet it contains a very high percentage of plants for permaculture. All of the species, for example, have potentially edible fruits, though in some cases they are not that desirable. The three genera are:-

1. *Elaeagnus:* This contains about 45 species of evergreen and deciduous shrubs, some of which become scrambling climbers when planted under trees. Possibly the best known of those grown for their fruit are E. multiflora (the Goumi) and E. angustifolia (the winter olive). Ten species and 15 cultivars are currently offered in British nurseries, all of them as ornamental plants. I do not know of any nursery offering cultivars that have been developed for their fruit.
2. *Hippophae:* The latest research says that there are 7 quite closely related species in this genus. H. rhamnoides is our native sea buckthorn and this is often cultivated in N. Europe and China for its fruit. This fruit is very rich in vitamin C and many other nutrients, but is too acid for most tastes (rather like a very acid lemon). It does make a superb fruit juice and can also be added to other fruit juices. The Asiatic species H. salicifolia has become the centre of a multi-million pound industry in Nepal and China where it is cultivated as a fruit crop, a medicinal plant and for a wide range of other uses. These are the only species currently offered in British nurseries.
3. *Shepherdia:* There are just two species in this genus. They are very closely related to Elaeagnus differing mainly in having opposite instead of alternate leaves and also having dioecious flowers (all male flowers on some plants and all female flowers on others). This genus probably produces the least interesting fruit of the family. Only one species is currently available in British nurseries.

Whilst all members of this family produce edible fruits, those of Shepherdia contain saponins and can cause poisoning. Saponins are in fact to be found in several of the foods that we eat (including beans). They are poorly absorbed by the body and are also destroyed by heat so cases of poisoning are rare. Nevertheless they should be treated with some caution. Saponins have the ability to lather up in water and can be used as soap substitutes - for which reason one of these species has a common name of soap berry.

Other Uses.

The family as a whole contains many plants of interest to the permaculturalist. Apart from producing edible fruits, most species also have a wide range of other uses. These include:-

- Most, if not all, of the species in the family have edible seeds. These are often too small and fiddly to be worthwhile, though several of the evergreen Elaeagnus species have quite large seeds. These seeds have a mild flavour, can be eaten raw or cooked and are a rich source of protein and fats.
- All the species have a symbiotic relationship with certain soil bacteria. These bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby. This means that all members of the family are excellent companion plants. When grown in orchards, for example, they can increase the yields of fruit trees by up to 10% (this is especially the case with plums and nuts which respond more to nitrogenous fertilization).
- All of the species in cultivation are quite wind resistant, indeed the majority of them will

grow successfully even in severe maritime exposure. Since most of the species can also be grown as hedges, they can provide a superb protection for windy gardens.

- The fruit of many members of this family is a very rich source of vitamins and minerals (especially vitamins A, C and E), flavanoids and other bioactive compounds. It is also a good source of essential fatty acids, which is fairly unusual for a fruit. Current research indicates that consumption of the fruit greatly reduces the incidence of cancer in humans, not only that but the compounds in the fruit are possibly capable of slowing or even reversing the growth of cancers that are already in the body. Most of the research to date has been with the genus Hippophae, but the fruits of all other members of the family also contain these compounds.

Elaeagnus x ebbingei

Let us return to the species that this leaflet is mainly concerned with. E. x ebbingei is an evergreen shrub growing perhaps 5 metres high and eventually about the same wide. When planted under trees it will adopt a semi-climbing habit and will reach its way up into the bottom branches. It is very tolerant of pruning, however, and can be easily kept much smaller. I have seen hedges of it about 1.5 metres tall and only 45cm wide, though this did seem a bit extreme to me and I feel that allowing at least 1 metre width would produce a better hedge. Plants can be a little slow to establish in their first year (do not buy bare-rooted plants since they do not like the disturbance) but then settle down and can make new growth of 75cm or more in a year.

The plant is very tolerant of site conditions, the only situation that is a definite no-no is one that becomes waterlogged. It far prefers a well-drained soil, is capable of growing in very poor soils and, once established, is very drought resistant and will succeed in quite dry soils. It is as happy in full sun as it is in quite deep shade. I have seen it planted under a line of mature pine trees that had been planted as protection from maritime winds. With the passage of time these pines had lost their lower branches and the wind was funnelling through, causing considerable problems in the garden. Within a few years the Elaeagnus had filled in the gaps, restoring shelter from the winds. Plants have also been successfully established on the top of Cornish drystone walls (these are made with two walls of stone plus a sandwich of soil between them) and then provide a very good wind protection. This is one of those species that is extremely resistant to maritime exposure and salt-laden winds. I have seen it growing well right next to the sea and giving a very good wind protection to the garden.

Plants are fairly hardy in Britain, though they are probably not suited for the coldest parts of the country. They grow well at Edinburgh Botanic Gardens, though are defoliated in harsh winters. Plants are, in general, better suited to the southern parts of the country and I do not know if they will fruit when grown that far north. The plants are said to be hardy to about -20 c, though of course this is an arbitrary figure and the actual cold hardiness will also depend on other factors such as wetness and exposure.

The plants are usually very easy to grow. They have shown considerable resistance to honey fungus and, apart from slugs eating out the young shoots of small plants, I have yet to see them attacked by insects, pests or diseases. The only problem that they do seem to suffer from is that sometimes whole branches die out for no apparent reason. This happens most frequently when the plants are grafted onto the deciduous E. multiflora, so make sure that any plants you buy are grown on their own roots from cuttings. Any dead branches should be removed from the plant.

The Fruit.

Now to move on to one of the most exciting aspects of these plants. They produce insignificant but exquisitely scented flowers in the autumn (October to December in Cornwall) and then ripen their very attractive fruits in early April (yes, I did mean April). These fruits are the shape of a rugby ball and can be 2cm or more long and 1cm wide. They are red with a very attractive silver marbling effect. Unless fully ripe, these fruits can be quite astringent, but as they ripen they develop a very acceptable flavour and at their peak of ripeness they become very pleasant, almost delicious in fact. They are also very easy to pick - I have managed to harvest 300 fruits in about 5 minutes without any real difficulty from one very good plant.

The fruit does contain a rather large seed, however, but this is no real problem since the seed is also edible. It does have an inedible fibrous protective coat - you can either eat both fruit and seed together and then spit out the fibrous remains or you can just eat the fruit, spit out the seed then peel it before eating it. The seed has a very mild flavour, I have detected a subtle taste of peanuts but even my best friends accuse me of hallucinating.

Further Research

There still needs to be quite a lot of research carried out into these plants, they certainly do not fruit well every year and some plants never seem to fruit. I know of several plants, however, (including one superb hedge) that regularly produce heavy crops. There are several reasons why good yields might not always be obtained. Those that I am currently looking at include:-

Weather conditions. Flowering when they do, it is quite possible that the flowers and/or pollen can be damaged by cold weather. I feel, however, that this is probably not a reason for poor yields since some of the plants I have been recording over the past 6 or more years have produced exceptional crops every year in both mild and harsh winters.

Fertilization. Two possible problems here. Firstly, it is possible that there are insufficient pollinating insects around in late autumn to effect fertilization. I tend to disregard this possibility because I have seen fruits formed without the flower even opening, suggesting some sort of self-fertilization. Also, one of the hedges that I monitor is in such a position (in the middle of 6 lanes of constantly congested roadway) that it discourages insect fertilization - yet this hedge always produces a superb crop of fruit. The second reason for lack of fertilization could be due to the fact that this plant is a garden hybrid and that cross-pollination is required to effect fertilization. Whilst this does seem to be a possibility with some of the plants that I have been observing, it is by no means a general rule. I have often seen isolated plants with very good yields of fruit. At the present I am recommending growing the very ornamental variegated cultivar GILT EDGE together with the closely related E. pungens VARIEGATA alongside E. x ebbingei since this combination has led to very good yields in a couple of sites.

Trimming. E. x ebbingei flowers and fruits most freely on the current years growth, though it does also produce short fruiting spurs on old wood. If the plants are trimmed in late summer (when being grown as a hedge for example) then you will be removing most of the plants potential for producing fruit. The simple answer to this is to only trim the hedge in the spring, after harvesting the fruit.

Too rich a soil. The very best fruiting forms that I have seen have been growing under stress, usually caused by poor soil or a site heavily polluted by vehicles etc. It is also fairly common for small plants growing in pots to flower and fruit quite well, but then stop flowering when planted in the open ground. It is quite possible that, when grown in very good conditions the plants see no need to reproduce themselves by seed, putting all their energies instead into vegetative growth.

Cultivars.

Even without taking into account all of the uses that were listed earlier, Elaeagnus x ebbingei is a popular and very useful plant for the garden or farm. Apart from the basic hybrid, there are also a number of ornamental cultivars, most of them displaying some degree of variegation:-

- COASTAL GOLD This variegated form has been seen bearing a few fruits on a number of occasions and might be a good pollinator for E. x ebbingei.
- GILT EDGE This cultivar has bright yellow streaking in the leaves. I have seen this form with a heavy crop of fruit on a number of occasions and we are recommending it for growing, especially as a pollinator..
- LIMELIGHT Another variegated form, this time with a more silvery appearance to the leaves. I have seen small pot- grown specimens with quite good yields, but once the plants are put into the open ground they seem to put more energy into vegetative growth and do not flower for a while. We are waiting for our young plants to settle down before we know if they will fruit in the open ground.
- SALCOMBE SEEDLING This, to my eyes at least, seems to be identical to the type species. It is said to flower more freely than the type and to have more strongly scented flowers. Our plants are too young and have not flowered as yet.

Related Species.

There are also a number of closely related species with exactly the same uses, though perhaps without all of the potential we feel that E. x ebbingei has. These species are:-

- E. glabra. The true species is not often grown, though the very similar hybrid E. x reflexa is often wrongly labelled as this plant. I have yet to see this species flowering very freely, but it needs closer examination.
- E. macrophylla. This species is rather similar in appearance to E. x ebbingei (which is not surprising since it is one of the parents). It is not very widely grown, though I have seen it with good crops of fruit on a couple of occasions. We have some young plants in pots that, in the late winter of 1995, are bearing their first small crop of fruit. This looks as though it is going to be about the same size as E. x ebbingei.
- E. pungens. This species, so far, is showing the most promise as another fruit crop and it is

probably also the best pollinator for E. x ebbingei. It is commonly grown in gardens and there are many named forms, most of which are variegated. One, appropriately called VARIEGATA, has been seen on a number of occasions with a reasonable crop, but the other cultivars also merit more investigation.

Propagation.

Since E. x ebbingei is a hybrid, it will not breed true from seed. Seed does, however, offer the opportunity to develop improved cultivars. It is best to sow fresh seed in the spring in a cold greenhouse and this will usually germinate freely within a month or two (259 out of 260 seeds sown in April 1994 germinated within two months). As soon as the seedlings are large enough to handle they should be planted into individual pots and then grown on in a cold greenhouse or frame at least until the following spring before planting out into their permanent positions. Keep the slugs and snails away, or they will decimate the plants. Many of these seedlings will be very poor doers, but you should end up with about 40 - 60% of vigorous plants.

Stored seed can be very slow to germinate. Placing it in a plastic bag with moist sand and then giving it four weeks warmth at around 15 - 20 c followed by 12 weeks cold stratification at about 1 c can help. Stored seed usually germinates quite well if you are patient.

In order to produce plants that are true to type, it is essential to propagate plants vegetatively. Cuttings are the simplest way and we have had best results with mature wood of the current year's growth. This is taken in lengths 10 - 12cm long with a heel during November and placed in a shady position in a frame. Either put them in individual pots and leave them for 12 months, or put them all into one pot and then pot them up into individual pots as soon as roots are seen (towards the middle of spring with us).

Cuttings can also be taken of half-ripe wood, 7 - 10cm long with a heel as soon as fresh growth is available during the early summer. This needs more attention - we place the cuttings in pots in a closed frame in a shady position and keep them humid by spraying occasionally with water. They take 3 - 8 weeks to root and must be put into individual pots as soon as possible. It is also possible to increase stock by layering plants in the early autumn. They take about 12 months to root.

Conclusion.

I feel that this species has a huge potential as a commercial crop in this country. Not only does it have a very acceptable and nutritious edible fruit and seed, it also has many other uses in the garden and farm - as a good companion, shelter provider, ornamental etc. There still needs to be much research, however, in order to determine the best conditions for obtaining regular and large crops of fruit. There is also much potential for breeding improved cultivars with larger fruits (though with care to make sure that the nutritional value is not compromised).

We need to obtain a better picture of how well this plant is performing as a fruit crop in Britain. It would be greatly appreciated if readers of this leaflet could look out for this plant in gardens etc. and keep a record of how well it grows and fruits. Apart from the points mentioned earlier in the section dealing with further research, the following points should also be noted:-

- It is especially important to check plants in the autumn to see if they flower and then again in the spring to see if they fruit and what their yield is.
- Is the plant growing on its own or is it accompanied by any of the other cultivars and species mentioned in this report. (A number of the same plants growing together is effectively one plant since they are all genetically identical.)
- Finally, it is also important to make a note of the growing conditions of the plant (site, sun, soil type etc.).

If a copy of these records could be sent to me for collation then I will gradually be able to draw up a clearer picture of how this plant is performing in different parts of the country and how to ensure good yields. All information we receive will be made available to anyone who requests it. Please send your observations to the address below.

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Readers Comments:

Elaeagnus - Autumn Olive

Matt Trahan (matttrahan@ecsu.campus.mci.net) Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the

Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

This comment has also been added to the genera: Elaeagnus.

Add a Follow up to this comment

Elaeagnus multiflora

Jeff Grover (grov.indus@juno.com) Mon Aug 07 10:53:37 2000

I'm glad I finally found your web page. I've been growing Elaeagnus multiflora for six years as a fruit crop and have been searching for others doing the same.

The original two plants were *E. multiflora* grafted on either *E. umbellata* or *E. angustifolia* rootstock. This grafted plant produces blossoms in April to produce a heavy crop around the first of July. Besides wood ash from the wood stove there has been no soil amenities added. They are planted on a 25 degree slope with virtually no topsoil over clay .

The USDA Zone for here is 6 but due to the altitude (1400 ft) and heavy rainfall (45 in) we tend to get a lot of freezing rain in the winter and some very hard frosts late in the spring.

The reason I chose *E. multiflora* for an orchard crop was for the hardiness and the fact that deer won't eat them, as they have everything else in the orchard, and I can harvest a unique berry for the tourist market here.

The information provided on your web page is not available in American horticulture books and is an inspiration for me to expand my orchard.

This comment has also been added to: Elaeagnus multiflora , Elaeagnus umbellata , Elaeagnus angustifolia.

Add a Follow up to this comment

Elaeagnus x ebbingei

david nicholls (davidni@xtra.co.nz) Thu Oct 12 23:16:07 2000

I think this may the best performing plant so far on my ridiculously gale battered place, I've trialed about 150 reputedly coastal plants (it is still early days). This seems to be virtually the only species that actually makes progress during gales while virtually everything else gets cut back, including E. pungens. Only hail at around 100 k/hr made a dent, tore leaves more than on some things.

I think I have PFF mainly to thank for info on edibility, but would hate to admit that. I wonder if its' obsurity has anything to do with the awkward name it would never work in supermarkets (I suppose cafe society might think it is Italian or sophisticated) how about "Binge fruit",bingey, Bingy , bing, bingj ?

Haven't tasted it yet.

Details of Growing Condition: new zealand.

This comment has also been added to: Elaeagnus x ebbingei.

Add a Follow up to this comment

Elaeagnus angustifolia

Rich (webmaster@pfaf.org) Tue Nov 21 20:19:03 2000

Autumn olive is a very troublesome invasive species in Virginia. In addition to its prolific fruiting, seed dispersal by birds, rapid growth and ability to thrive in poor soils, Autumn olive resprouts vigorously after cutting or burning. It creates heavy shade which suppresses plants that require direct sunlight.

Although less abundant in Virginia, Russian olive poses similar threats. In the western United States it has become a major problem in riparian woodlands, threatening even large, hardy native trees such as cottonwood.

Taken from Virginia Natural Heritage Program.

This comment has also been added to: Elaeagnus angustifolia.

Add a Follow up to this comment

Elaeagnus - Autumn Olive

Myra Bonhage-Hale (lapaix@iolinc.ne) Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative

smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

This comment has also been added to the genera: Elaeagnus.

Add a Follow up to this comment

Elaeagnus multiflora

marguerite nabinger (webmaster@appollonia.net) Fri Jun 1 07:59:14 2001

I was recently reading a website on sustainable agriculture called Wild Thyme Farm which is located in the Oregon/Washington area of the US. He was very enthusiastic about this plant and suggested planting it liberally in pasture areas for forage for cattle. He suggested the plant be coppiced so that it would put out abundant shoots after being cut back. That might be an idea for plant control if the eleagnus is running wild, just turn a herd of goats out in it for a few days!

Details of Growing Condition: From website, Oregon/Wash USA area. Cool coastal area with fogs. Rural farm with diversified products..

This comment has also been added to: Elaeagnus multiflora , Elaeagnus umbellata , Elaeagnus angustifolia.

Add a Follow up to this comment

Elaeagnus - Autumn Olive

Larry (Larrytoo@mailcity.com) Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can

the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

This comment has also been added to the genera: Elaeagnus.

Add a Follow up to this comment

Elaeagnus - Autumn Olive

() Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

This comment has also been added to: Elaeagnus angustifolia , Elaeagnus umbellata.

This comment has also been added to the genera: Elaeagnus.

Add a Follow up to this comment

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

This comment has also been added to: Elaeagnus x ebbingei.

This comment has also been added to the genera: Elaeagnus.

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Search for Latin Name: Elaeagnus

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Latin Name	Common Name	Family	Synonyms	Rating
Elaeagnus angustifolia	Oleaster	Elaeagnaceae	E. argentea. non Pursh. E. hortensis.; Elaeagnus hortensis; Elaeagnus argentea; E. angustifolius; E. argenteus; E. commutata; E. moorcroftii; E. orientalis	4
Elaeagnus commutata	Silverberry	Elaeagnaceae	E. argentea. non Moench.; Elaeagnus argentea; E. argenteus	3
Elaeagnus cordifolia		Elaeagnaceae		5
Elaeagnus formosana		Elaeagnaceae		2
Elaeagnus fragrans		Elaeagnaceae	E. umbellata rotundifolia. Makino.; Elaeagnus umbellata rotundifolia	2
Elaeagnus glabra		Elaeagnaceae		4
Elaeagnus gonuanthes		Elaeagnaceae		2
Elaeagnus latifolia	Bastard oleaster	Elaeagnaceae		3
Elaeagnus macrophylla		Elaeagnaceae		5
Elaeagnus maritima		Elaeagnaceae		2
Elaeagnus montana		Elaeagnaceae		2

Elaeagnus multiflora	Goumi	Elaeagnaceae	E. longipes.; Elaeagnus longipes	5
Elaeagnus multiflora ovata	Goumi	Elaeagnaceae	E. longipes.	5
Elaeagnus oldhamii		Elaeagnaceae		2
Elaeagnus orientalis	Trebizond date	Elaeagnaceae	E. angustifolia orientalis.; Elaeagnus angustifolia orientalis; E. angustifolia; E. angustifolia var. orientalis; E. hortensis; E. moorcroftii	4
Elaeagnus parvifolia		Elaeagnaceae	E. umbellata parvifolia. (Royle.)Schneid.; Elaeagnus umbellata parvifolia; E. umbellata var. parvifolia	4
Elaeagnus pungens	Elaeagnus	Elaeagnaceae		5
Elaeagnus pyriformis		Elaeagnaceae		2
Elaeagnus thunbergii		Elaeagnaceae		2
Elaeagnus umbellata	Autumn olive	Elaeagnaceae	E. crispa.; Elaeagnus crispa	4
Elaeagnus x ebbingei	Elaeagnus	Elaeagnaceae		5
Elaeagnus x reflexa		Elaeagnaceae	E. pungens reflexa.; Elaeagnus pungens reflexa; E. pungens var. reflexa	3
Elaeagnus yoshinoi		Elaeagnaceae		2
Shepherdia argentea	Buffalo berry	Elaeagnaceae	Hippophae argentea.; Elaeagnus utilis	3
Shepherdia canadensis	Buffalo berry	Elaeagnaceae	Hippophae canadensis.; Elaeagnus canadensis	3

New Search

Latin Name Elaeagnus

Common Name

Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

Submit

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/find_lat?LAT=Elaeagnus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/find_lat?LAT=Elaeagnus`

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Elaeagnus angustifolia

Common name:	Oleaster	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 93, 200
Synonyms:	Elaeagnus hortensis (Bieb.), Elaeagnus argentea (non Pursh.)		
Known Hazards:	None known		
Range:	Europe to W. Asia, extending as far north as latitude 55° in Russia.		
Habitat:	By streams and along river banks to 3000 metres in Turkey[93].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. angustifolius[E] E. argenteus[L] E. commutata[B,DUTCH,G,H,HORTIPLEX,P] E. moorcroftii[G] E. orientalis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Silver-berry [B], Oleaster [H], Russian Olive [H,P], Russian-olive [DEN1,FEIS,B], Sanjad [E], Silverberry [FEIS,P,L], Smalle Olijfwilg [D], Zilverwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	Iraq; Spain

Physical Characteristics

A decidious shrub growing to 7m by 7m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in June, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked as a seasoning in soups[1, 2, 3, 100, 146, 74]. Dry, sweet and mealy[11, 145, 183]. The fruit can also be made into jellies or sherbets[183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 10mm long[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer; Febrifuge; Pectoral.

The oil from the seeds is used with syrup as an electuary in the treatment of catarrh and bronchial affections[240].

The juice of the flowers has been used in the treatment of malignant fevers[240].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Essential; Fuel; Gum; Hedge; Wood.

Plants can be grown as a hedge in exposed positions[29], tolerating maritime exposure[200]. It is fairly fast-growing and very tolerant of pruning, but is rather open in habit and does not form a dense screen[K]. Because the plant fixes atmospheric nitrogen, it makes a hedge that enriches the soil rather than depriving it of nutrients[K].

An essential oil obtained from the flowers is used in perfumery[74].

A gum from the plant is used in the textile industry in calico printing[74].

Wood - hard, fine-grained. Used for posts, beams, domestic items[74, 100], it is also much used for carving[245]. The wood is an excellent fuel[74, 146].

Cultivation details

An easily grown plant, it succeeds in most soils that are well-drained[200], though it dislikes shallow chalk soils[98]. Prefers a light sandy soil that is only moderately fertile[11], succeeding in poor soils and dry soils[11, 200]. Requires a position in full sun, growing very well in hot dry positions[182]. Plants are very drought and wind resistant[1, 166, 200], they tolerate conditions of considerable salinity and alkalinity[227].

A very hardy plant, tolerating temperatures down to about -40°c[184]. However, plants prefer a continental climate[49] and are apt to be cut back in severe winters in Britain because the summer is often not warm enough to have fully ripened the wood[1].

A very variable species[214].

This species is often cultivated in N. Europe for its edible fruits, there are many named varieties and some of these are thornless[214].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Plants are very tolerant of pruning, they usually resprout freely even when cut right back to the ground.

This species is notably resistant to honey fungus[88, 200].

The flowers are sweetly and heavily scented[184].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Difficult[113].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Root cuttings in the winter[200].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03

Item: *Elaeagnus angustifolia* (Silver Russian Olive)
Item: *Elaeagnus angustifolia caspica*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Food Crops
- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects

Information System.

References for *Elaeagnus angustifolius* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Elaeagnus argentea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Elaeagnus argenteus* (a possible synonym).

References for *Elaeagnus commutata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[93] **Davis. P. H.** *Flora of Turkey.* Edinburgh University Press 1965
Not for the casual reader, this is an immense work in many volumes. Some details of plant uses and habitats.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated

though.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus multiflora

Jeff Grover Mon Aug 07 10:53:37 2000

I'm glad I finally found your web page. I've been growing Elaeagnus multiflora for six years as a fruit crop and have been searching for others doing the same.

The original two plants were *E. multiflora* grafted on either *E. umbellata* or *E. angustifolia* rootstock. This grafted plant produces blossoms in April to produce a heavy crop around the first of July. Besides wood ash from the wood stove there has been no soil amenities added. They are planted on a 25 degree slope with virtually no topsoil over clay .

The USDA Zone for here is 6 but due to the altitude (1400 ft) and heavy rainfall (45 in) we tend to get a lot of freezing rain in the winter and some very hard frosts late in the spring.

The reason I chose *E. multiflora* for an orchard crop was for the hardiness and the fact that deer won't eat them, as they have everything else in the orchard, and I can harvest a unique berry for the tourist market here.

The information provided on your web page is not available in American horticulture books and is an inspiration for me to expand my orchard.

Cross references: *Plants: Elaeagnus multiflora , Elaeagnus umbellata . Web-pages: Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus angustifolia

Rich Tue Nov 21 20:19:03 2000

Autumn olive is a very troublesome invasive species in Virginia. In addition to its prolific fruiting, seed dispersal by birds, rapid growth and ability to thrive in poor soils, Autumn olive resprouts vigorously after cutting or burning. It creates heavy shade which suppresses plants that require direct sunlight.

Although less abundant in Virginia, Russian olive poses similar threats. In the western United States it has become a major problem in riparian woodlands, threatening even large, hardy native trees such as cottonwood.

Taken from Virginia Natural Heritage Program.

Cross references: *Web-pages: Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera: Elaeagnus. Web-pages: Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus multiflora

marguerite nabinger Fri Jun 1 07:59:14 2001

I was recently reading a website on sustainable agriculture called Wild Thyme Farm which is located in the Oregon/Washington area of the US. He was very enthusiastic about this plant and suggested planting it liberally in pasture areas for forage for cattle. He suggested the plant be coppiced so that it would put out abundant shoots after being cut back. That might be an idea for plant control if the eleagnus is running wild, just turn a herd of goats out in it for a few days!

Details of Growing Condition: From website, Oregon/Wash USA area. Cool coastal area with fogs. Rural farm with diversified products..

Cross references: *Plants:* *Elaeagnus multiflora* , *Elaeagnus umbellata* . *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages: Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+angustifolia
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Plants For A Future: Database Search Results

Elaeagnus angustifolia

Common name:	Oleaster	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 93, 200
Synonyms:	Elaeagnus hortensis (Bieb.), Elaeagnus argentea (non Pursh.)		
Known Hazards:	None known		
Range:	Europe to W. Asia, extending as far north as latitude 55° in Russia.		
Habitat:	By streams and along river banks to 3000 metres in Turkey[93].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. angustifolius[E] E. argenteus[L] E. commutata[B,DUTCH,G,H,HORTIPLEX,P] E. moorcroftii[G] E. orientalis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Silver-berry [B], Oleaster [H], Russian Olive [H,P], Russian-olive [DEN1,FEIS,B], Sanjad [E], Silverberry [FEIS,P,L], Smalle Olijfwilg [D], Zilverwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	Iraq; Spain

Physical Characteristics

A decidious shrub growing to 7m by 7m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in June, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked as a seasoning in soups[1, 2, 3, 100, 146, 74]. Dry, sweet and mealy[11, 145, 183]. The fruit can also be made into jellies or sherbets[183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 10mm long[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer; Febrifuge; Pectoral.

The oil from the seeds is used with syrup as an electuary in the treatment of catarrh and bronchial affections[240].

The juice of the flowers has been used in the treatment of malignant fevers[240].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Essential; Fuel; Gum; Hedge; Wood.

Plants can be grown as a hedge in exposed positions[29], tolerating maritime exposure[200]. It is fairly fast-growing and very tolerant of pruning, but is rather open in habit and does not form a dense screen[K]. Because the plant fixes atmospheric nitrogen, it makes a hedge that enriches the soil rather than depriving it of nutrients[K].

An essential oil obtained from the flowers is used in perfumery[74].

A gum from the plant is used in the textile industry in calico printing[74].

Wood - hard, fine-grained. Used for posts, beams, domestic items[74, 100], it is also much used for carving[245]. The wood is an excellent fuel[74, 146].

Cultivation details

An easily grown plant, it succeeds in most soils that are well-drained[200], though it dislikes shallow chalk soils[98]. Prefers a light sandy soil that is only moderately fertile[11], succeeding in poor soils and dry soils[11, 200]. Requires a position in full sun, growing very well in hot dry positions[182]. Plants are very drought and wind resistant[1, 166, 200], they tolerate conditions of considerable salinity and alkalinity[227].

A very hardy plant, tolerating temperatures down to about -40°c[184]. However, plants prefer a continental climate[49] and are apt to be cut back in severe winters in Britain because the summer is often not warm enough to have fully ripened the wood[1].

A very variable species[214].

This species is often cultivated in N. Europe for its edible fruits, there are many named varieties and some of these are thornless[214].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Plants are very tolerant of pruning, they usually resprout freely even when cut right back to the ground.

This species is notably resistant to honey fungus[88, 200].

The flowers are sweetly and heavily scented[184].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking

more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Difficult[113].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Root cuttings in the winter[200].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus angustifolia* (Silver Russian Olive)
  Item: *Elaeagnus angustifolia caspica*

For more details of plant suppliers please see our Suppliers Page which lists many more places to

look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Food Crops
- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Elaeagnus angustifolius* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Elaeagnus argentea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Elaeagnus argenteus* (a possible synonym).

References for *Elaeagnus commutata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[93] **Davis. P. H.** *Flora of Turkey.* Edinburgh University Press 1965
Not for the casual reader, this is an immense work in many volumes. Some details of plant uses and habitats.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2

Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and

silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus multiflora

Jeff Grover Mon Aug 07 10:53:37 2000

I'm glad I finally found your web page. I've been growing Elaeagnus multiflora for six years as a fruit crop and have been searching for others doing the same.

The original two plants were *E. multiflora* grafted on either *E. umbellata* or *E. angustifolia* rootstock. This grafted plant produces blossoms in April to produce a heavy crop around the first of July. Besides wood ash from the wood stove there has been no soil amenities added. They are planted on a 25 degree slope with virtually no topsoil over clay .

The USDA Zone for here is 6 but due to the altitude (1400 ft) and heavy rainfall (45 in) we tend to get a lot of freezing rain in the winter and some very hard frosts late in the spring.

The reason I chose *E. multiflora* for an orchard crop was for the hardiness and the fact that deer won't eat them, as they have everything else in the orchard, and I can harvest a unique berry for the tourist market here.

The information provided on your web page is not available in American horticulture books and is an inspiration for me to expand my orchard.

Cross references: *Plants:* *Elaeagnus multiflora* , *Elaeagnus umbellata* . *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus angustifolia

Rich Tue Nov 21 20:19:03 2000

Autumn olive is a very troublesome invasive species in Virginia. In addition to its prolific fruiting, seed dispersal by birds, rapid growth and ability to thrive in poor soils, Autumn olive resprouts vigorously after cutting or burning. It creates heavy shade which suppresses plants that require direct sunlight.

Although less abundant in Virginia, Russian olive poses similar threats. In the western United States it has become a major problem in riparian woodlands, threatening even large, hardy native trees such as cottonwood.

Taken from Virginia Natural Heritage Program.

Cross references: *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus multiflora

marguerite nabinger Fri Jun 1 07:59:14 2001

I was recently reading a website on sustainable agriculture called Wild Thyme Farm which is located in the Oregon/Washington area of the US. He was very enthusiastic about this plant and suggested planting it liberally in pasture areas for forage for cattle. He suggested the plant be coppiced so that it would put out abundant shoots after being cut back. That might be an idea for plant control if the eleagnus is running wild, just turn a herd of goats out in it for a few days!

Details of Growing Condition: From website, Oregon/Wash USA area. Cool coastal area with fogs. Rural farm with diversified products..

Cross references: *Plants:* *Elaeagnus multiflora* , *Elaeagnus umbellata* . *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+angustifolia`
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Plants for a Future
A resource centre for edible and other useful plants

Back to Plants For A Future home page.

Español

Alternative Food Crops

There are quite literally thousands of species of edible plants that can be grown in Britain, yet most people are only aware of the thirty or so species to be found in the Greengrocers, and many of these will have been imported. In this leaflet we will give you a small selection of little known edible plants currently being grown at Plants for a Future (PFAF). They are all fairly easily grown in most soils and often require less attention then many of our better known food crops. All are perennial unless stated otherwise.

Root Crops:

Yam (*Dioscorea batatas*) - Few people realise that Yams can be grown outdoors in Britain. This is a perfectly hardy perennial species from China and its root is delicious baked. The only drawback is that it can be 3 foot long in good soils with the thickest part of the root at the bottom - quite a task to harvest, which is probably why it is not commercially cultivated. Propagation is either by replanting the top portion of the root, stem cuttings in late spring or by tubercles - baby tubers that are freely formed in the leaf axil of older plants treated like seed, being sown in pots in the greenhouse, preferably as soon as ripe.

Oca (*Oxalis tuberosa*) - Comes from S. America. At least as hardy as the potato and grown in a similar way except it doesn't need to be earthed up and does not suffer all the diseases that potatoes do. The tubers do not form till late summer to autumn so yields can be low if you get early hard frosts, unless you protect the plants. When freshly harvested the tubers have a pleasant acid-lemon flavour and can be eaten raw or cooked. By storing them in the light, the tubers become sweet and some varieties in S. America (which we have not as yet obtained), become so sweet that they are eaten as a fruit.

Earth Pea (*Lathyrus tuberosa*) - Is a rare native or naturalised plant in Britain. Not very high yielding, unfortunately, but the starch rich tubers are quite delicious baked. Plant in spring.

Tiger Nuts (*Cyperus esculentus*) - Not a nut at all, but another tuber. This plant is a weed in the tropics and subtropics but has proved to be hardy in temperate zones also. It is cultivated in Spain and is occasionally found for sale in Britain. It grows best in a moist soil, the tubers are about the size of peanuts and are abundantly produced. Eaten raw they make a very nice convenient snack when travelling. These tubers are quite unusual in being rich in oil. This oil is occasionally extracted for culinary and industrial use. Plant tubers in spring and harvest late autumn. Mice love these tubers so look out for any sign of burrowing.

Leaves:

Mallow (*Malva verticillata 'Crispa'*) - One of the very few annuals to get onto the list, this mallow is sometimes cultivated in the Mediterranean. The leaves have a mild flavour suitable for use in quantity in the salad bowl and can be harvested over many weeks. Sow in situ from April to June.

Campanula (*Campanula versicolor*) - This Mediterranean plant would grace any ornamental garden with its lovely blue harebell flowers. An evergreen perennial, its mild, slightly sweet flavoured leaves can be added in quantity to the salad bowl all year round. Sow seeds March/April in pots and plant out when large enough or divide in spring. It may not be hardy in some colder regions of Britain.

Iron Cross Plant (*Oxalis deppei*) - Another one for the flower garden, this S. American bulbous plant is my favourite edible leaf, and its flowers are perhaps even nicer. They have a lemony flavour ideal for adding in small quantities to salads but should not be eaten in large quantities since they contain oxalic acid. Plant the bulbs in April and they will provide fresh leaves and flowers throughout the summer. Harvest the bulbs when cut down by sharp frosts, each bulb should have produced a cluster of bulbs on top of a white tap root. This tap root can be eaten raw or cooked - it has the texture of a crisp apple but very little flavour.

Anise Hyssop (*Agastache anethiodorum*) - A North American member of the mint family, the leaves have a rich aniseed flavour, delicious in salads. It usually comes out tops in tasting trials by visitors to the plant project. Sow spring in pots and plant out when large enough.

Fruits:

Elaeagnus Species - A genus of deciduous and evergreen shrubs mainly from Asia. A number of species have great potential as fruit crops. They are easily grown in most soils (but dislike very wet soils), tolerate very exposed situations and drought, are virtually untroubled by pests or diseases and produce nitrogen nodules on their roots thus helping to increase soil fertility. Some of the evergreen species (notably *E. pungens - E. x. ebbingei*) ripen their fruits in April/May before any of our home-grown fruits are ripe and so are especially valuable. Other species will worth trying are the deciduous E. angustifolia and E. multifllora.

Japanese Raisin Tree (*Hovenia dulcis*) - A deciduous tree, I've not yet tried the fruit, but as its name suggests, it is said to taste like raisins. Crataegus schraderiana - A Hawthorn from the Mediterranean The ripe fruit is quite delicious, soft, sweet and almost literally melting in the mouth.

Tomatillo (*Physalis ixocarpa*) - Is a N. American annual grown in the same way as tomatoes (but does not need training) and used in all the ways you would cook tomatoes. It adds a lovely flavour to stews, is simple to grow, yields well and has not as yet suffered from pests or diseases with us.

Seeds:

Lupinus mutabilis - A South American annual Lupin with edible seeds. The seed has a similar nutritional value to the soya bean but is a lot easier to grow and is higher yielding in temperate climates. New varieties are being developed with sweet seeds, our form unfortunately has bitter seeds, but this bitterness is removed by soaking overnight. Seed is sown April/May in situ.

Quinoa (*Chenopodium quinoa*) - Another easily grown S. American annual with edible seeds. The seeds look a bit like millet and can be used in all the ways rice is used in sweet or savoury dishes. The seed is coated with a bitter substance (saponins) which prevents it being eaten by birds. These saponins can be easily removed by soaking the seed overnight and then rinsing thoroughly. The young leaves make a tasty spinach. Sow April in situ - be careful not to weed the seedlings out since they look very much like Fat Hen, which can also be eaten like spinach.

Monkey Puzzle (*Araucaria araucana*) - An evergreen tree from Chile. If you have enough land and can afford to wait 30-40 years or would like to leave something of value for future generations, do seriously consider planting a grove of these trees. Female specimens produce a delicious almond-sized fatty seed which is a staple food in the tree's natural habitat. Trees do much better in the western part of Britain and can withstand severe exposure. The nuts are produced in cones about the size of a person's head, each cone contains up to 200 seeds and the mature cone falls to the ground before releasing the seeds, so harvesting is quite simple.

Maidenhair Tree (*Ginkgo biloba*) - A deciduous tree from China. When male and female trees are grown together, the female produces yellow plum-like fruits in autumn. When these fall to the ground and are squashed they give off a truly disgusting odour but contained within the fruit is a seed which is considered a delicacy in China where it is usually roasted before being eaten. Another very easily grown tree.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Readers Comments:

Alternative Food Crops

() Thu Feb 24 12:59:20 2000

please reply about monkey puzzle to moehomerbarney@hotmail.com

Add a Follow up to this comment

Alternative Food Crops

() Sat Mar 25 16:49:25 2000

Do you know about the Canadian Plant Exchange? Type in Garden Web and search....when you get Garden Web go to their huge list of subjects and you'll see Canadian Plant/Seed Exchange. I've seen monkey trees up here in Canada. They grow in Victoria and Vancouver, BC very well. Maybe someone can help you on that forum.

Add a Follow up to this comment

Alternative Food Crops

Unknown (rogpam@trvnet.net) Mon Feb 5 21:18:02 2001

I would like some suggestions for growing a small cash crop for a 3.5 acre piece of land. Any idea's? We had thought of herbs for vitamins and natural healing to sell to retailers.

Add a Follow up to this comment

Alternative Food Crops

Amy Jensen (amyjet@hotmail.com) Tue Nov 20 15:29:51 2001

I think that these plants are very good and help us a lot. They make our environment heathly and look a lot better. Thank You! Amy & Jessie

Add a Follow up to this comment

Add A Comment

All Comments on web pages and plants.

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Last modified: Sep 8, 1995

Plants for a Future
A resource centre for edible and other useful plants

Regresar a la Plantas para un Futuro página principal: Español English

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English

Cultivos alimenticios alternativos

Hay literalmente miles de especies de plantas comestibles que pueden cultivarse en Inglaterra, aunque la mayoría de la gente únicamente conoce algo así como 30 especies que son las que encuentra en las verdulerías, y muchas de estas han de ser importadas. En este folleto le daremos una pequeña selección de las plantas alimenticias poco conocidas que actualmente se están cultivando en Plantas para un Futuro (PFAF). Todas ellas son fáciles de cultivar en la mayoría de los suelos y a menudo requieren menos atención que muchos de los cultivos tradicionales que nos son familiares. Todas las plantas son perennes a menos que se diga otra cosa.

Raíces:

Ñame (*Dioscorea batatas*) - Poca gente sabe que los Ñames pueden cultivarse en el exterior en Inglaterra. Es una especie perenne perfectamente resistente originaria de China y su raíz es deliciosa asada. El único inconveniente es que, en buenos suelos, puede alcanzar 90 centímetros de longitud con la parte más gruesa de la raíz en el fondo - lo que la hace difícil de cosechar y es probablemente la razón de que no se cultive comercialmente. Su propagación puede hacerse ya sea replantando la parte superior de la raíz, con tallos cortados al final de la primavera o por tubérculos - Pequeños tubérculos que se forman en la base de las hojas de las plantas viejas y se tratan como semillas, se siembran en maceta en el invernadero, de preferencia tan pronto como maduran.

Oca (*Oxalis tuberosa*) - Originaria de S. América. Al menos tan resistente como la papa y crece en forma similar, sin embargo, no necesita extraerse de la tierra y no sufre todas las enfermedades que sufren las papas. Los tubérculos se forman hasta finales del verano y durante el otoño, por lo que si en la región hay heladas tempranas, la cosecha será pobre a menos que proteja las plantas. Recién cosechados los tubérculos tienen un agradable sabor de limón ácido y pueden comerse crudos o cocidos. Almacenándolos expuestos a la luz, los tubérculos se hacen dulces y algunas variedades en S. América (que aún no hemos obtenido), llegan a ser tan dulces que se comen como fruta.

Chícharo de tierra (*Lathyrus tuberosa*) - Es una planta rara, nativa o naturalizada en Inglaterra. No se logran grandes cosechas, desgraciadamente, pero sus tubérculos ricos en almidón son deliciosos asados. Plántese en primavera.

Nuez del Tigre (*Cyperus esculentus*) - No es una nuez sino otra tuberosa. Esta planta es una hierba en los trópicos y subtrópicos pero ha demostrado resistir también los climas templados. Se cultiva en España y ocasionalmente se encuentra a la venta en Inglaterra. Crece mejor en suelo húmedo, los tubérculos tienen el tamaño de los cacahuetes y se producen en abundancia. Si los come crudos, son un agradable y conveniente aperitivo cuando se viaja. Es muy poco usual que éste tipo de tubérculo sea rico en aceite. Este aceite se extrae ocasionalmente para usos industriales y culinarios. La planta forma los tubérculos en primavera y se cosechan a finales de otoño. Les encantan a los ratones así que este pendiente de cualquier signo de su presencia.

Hojas:

Malva (*Malva verticillata 'Crispa'*) - Una de las muy pocas plantas anuales en esta lista, esta Malva es a veces cultivada en el mediterráneo. Las hojas tienen un sabor suave que la hace apropiada para usarse en cantidad en las ensaladas y puede ser cosechada durante muchas semanas. Siémbrese en el sitio deseado desde abril hasta junio.

Jacinto (*Campanula versicolor*) - Esta planta mediterránea adornará cualquier jardín con sus hermosas flores azules en forma de campanilla. Es una perenne siempre verde, sus hojas de sabor suave y ligeramente dulce pueden ser agregadas en abundancia a las ensaladas durante todo el año. Siembre las semillas entre marzo y abril en macetas y trasplante al exterior cuando estén suficientemente grandes o divídalas en primavera. Puede no resistir en las regiones más frías de Inglaterra.

Planta de la Cruz de Hierro (*Oxalis deppei*) - Otra más para el jardín de flores, esta planta bulbosa S. Americana es mi hoja comestible favorita, y sus hojas son quizá aún mejores. Tienen un sabor a limón ideal para agregarlas a las ensaladas pero no deben comerse en exceso porque contienen ácido oxálico. Plante los bulbos en abril y proveerán hojas frescas a lo largo del verano. Coseche los bulbos cuando la planta se acabe por las heladas, cada bulbo debe haber producido un grupo de bulbos en el tope de un tallo radical blanco. Este tallo radical puede comerse crudo o cocido - tiene la textura de una manzana crespa pero muy poco sabor.

Hisopo anisado (*Agastache anethiodorum*) - Un miembro Norteamericano de la familia de la menta, las hojas tienen un rico sabor anisado, delicioso en ensaladas. Generalmente es una de las hojas que más gustan a nuestros visitantes cuando las prueban en nuestras instalaciones. Siémbrela en macetas en primavera y trasplántela cuando estén suficientemente grandes.

Frutas:

Elaeagnus Species - Un género de arbustos de hoja caduca y siempre verdes originarios principalmente de Asia. Un buen número de sus especies tiene un gran potencial como cultivos frutales. Se cultivan fácilmente en la mayoría de los suelos (pero le disgustan los suelos muy húmedos), tolera situaciones muy expuestas y secas, virtualmente está exento de plagas y enfermedades y produce nódulos de nitrógeno en sus raíces por lo que incrementa la fertilidad del suelo. Algunas de las especies siempre verdes (notablemente *E. pungens* - *E. x. ebbingei*) maduran sus frutos en abril y mayo antes que cualquiera de nuestros frutales comunes maduren, por lo que son especialmente valiosas. Otras especies que se pueden probar de preferencia son las de hoja caduca E. angustifolia y E. multifllora.

Arbol de pasas Japonesas (*Hovenia dulcis*) - Arbol de hoja caduca, Yo no he probado el fruto aún, pero como su nombre sugiere, debe saber como las pasas.

Crataegus schraderiana - Un espino blanco del mediterráneo. La fruta madura es deliciosa, suave, dulce y que literalmente casi se derrite en la boca.

Tomatillo (*Physalis ixocarpa*) - Es una planta Norteamericana anual que se cultiva en la misma forma que los tomates (pero no se necesita entrenamiento) y se usa en la misma forma en que usted cocinaría los tomates. Agrega un agradable sabor a los guisados, es fácil de cultivar, es productivo y hasta ahora aún no ha sufrido por plagas y enfermedades con nosotros.

Semillas:

Lupinus mutabilis - Un Altramuz Sudamericano anual con semillas comestibles. La semilla tiene un valor nutritivo similar al del frijol de soya pero es bastante más fácil de cultivar y tiene mayor productividad en climas templados. Se han estado desarrollando nuevas variedades con semillas dulces, nuestra variedad desdichadamente tiene semillas amargas, pero lo amargo se le quita remojándolo toda la noche. La semilla se siembra en abril/mayo en su lugar definitivo.

La Quinoa (Epazote) (*Chenopodium quinoa*) - Otra planta anual Sudamericana de fácil cultivo y semillas comestibles. Sus semillas se parecen un poco al Mijo y pueden usarse en las mismas formas que se usa el arroz en platillos dulces o sazonados. La semilla está cubierta con una sustancia amarga (saponinas) que previene que sea comida por los pájaros. Estas saponinas se remueven fácilmente remojándolas durante la noche y enjuagándola abundantemente. Las hojas tiernas hacen una sabrosa espinaca. Se siembra en Abril en su lugar definitivo - tenga cuidado de no arrancar las plantas pues se parecen mucho la hierba "Gallina gorda", que también puede comerse como espinaca.

Araucaria (*Araucaria araucana*) - Un árbol siempre verde de Chile. Si usted tiene suficiente terreno y puede esperar de 30 a 40 años o le gustaría dejar a las futuras generaciones algo valioso, considere seriamente sembrar un bosquecillo de estos árboles. La planta hembra produce una deliciosa semilla grasosa del tamaño de una almendra que es un alimento muy importante en el hábitat natural de los árboles. Los árboles se desarrollan mejor en la parte oeste de Gran Bretaña y pueden soportar exposición severa. Las nueces se producen en conos del tamaño de la cabeza de una persona, cada cono contiene más de 200 semillas y cuando madura cae a tierra antes de soltar las semillas, por lo que la cosecha es muy fácil

Arbol de culantrillo (*Ginkgo biloba*) - Un árbol de hoja caduca de China. Cuando los árboles macho y hembra crecen juntos, la hembra produce en otoño unos frutos amarillos parecidos a la ciruela. Cuando caen a la tierra y son apachurrados despiden un olor francamente desagradable, pero dentro del fruto hay una semilla que se considera una delicia en China, donde normalmente se asa antes de comerla. Es otro árbol fácil de cultivar.

Nota del traductor: Los nombres comunes de las plantas que se citan en este folleto son traducciones con base a diccionarios, literales de la palabra en inglés y en algunos casos dejé el

nombre común en inglés por no encontrar uno equivalente, sin embargo, la referencia fundamental debe ser el nombre científico, los nombres comunes varían mucho con cada región.

Nota de Rich Morris: Por favor si me envía algún email hágalo en inglés, pues no comprendo el español.

Regresar a la Plantas para un Futuro página principal: Español English

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Traducción de Leonel A. del Río Valdés. Saltillo, Coahuila, México.

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Add a comment on: *Alternative Food Crops*

Subject:

Alternative Food Crops

Group:
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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

altfood.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:19:39 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Elaeagnus angustifolia

Common name:	Oleaster	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 93, 200
Synonyms:	Elaeagnus hortensis (Bieb.), Elaeagnus argentea (non Pursh.)		
Known Hazards:	None known		
Range:	Europe to W. Asia, extending as far north as latitude 55° in Russia.		
Habitat:	By streams and along river banks to 3000 metres in Turkey[93].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. angustifolius[E] E. argenteus[L] E. commutata[B,DUTCH,G,H,HORTIPLEX,P] E. moorcroftii[G] E. orientalis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Silver-berry [B], Oleaster [H], Russian Olive [H,P], Russian-olive [DEN1,FEIS,B], Sanjad [E], Silverberry [FEIS,P,L], Smalle Olijfwilg [D], Zilverwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	Iraq; Spain

Physical Characteristics

A decidious shrub growing to 7m by 7m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in June, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked as a seasoning in soups[1, 2, 3, 100, 146, 74]. Dry, sweet and mealy[11, 145, 183]. The fruit can also be made into jellies or sherbets[183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 10mm long[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer; Febrifuge; Pectoral.

The oil from the seeds is used with syrup as an electuary in the treatment of catarrh and bronchial affections[240].

The juice of the flowers has been used in the treatment of malignant fevers[240].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Essential; Fuel; Gum; Hedge; Wood.

Plants can be grown as a hedge in exposed positions[29], tolerating maritime exposure[200]. It is fairly fast-growing and very tolerant of pruning, but is rather open in habit and does not form a dense screen[K]. Because the plant fixes atmospheric nitrogen, it makes a hedge that enriches the soil rather than depriving it of nutrients[K].

An essential oil obtained from the flowers is used in perfumery[74].

A gum from the plant is used in the textile industry in calico printing[74].

Wood - hard, fine-grained. Used for posts, beams, domestic items[74, 100], it is also much used for carving[245]. The wood is an excellent fuel[74, 146].

Cultivation details

An easily grown plant, it succeeds in most soils that are well-drained[200], though it dislikes shallow chalk soils[98]. Prefers a light sandy soil that is only moderately fertile[11], succeeding in poor soils and dry soils[11, 200]. Requires a position in full sun, growing very well in hot dry positions[182]. Plants are very drought and wind resistant[1, 166, 200], they tolerate conditions of considerable salinity and alkalinity[227].

A very hardy plant, tolerating temperatures down to about -40°c[184]. However, plants prefer a continental climate[49] and are apt to be cut back in severe winters in Britain because the summer is often not warm enough to have fully ripened the wood[1].

A very variable species[214].

This species is often cultivated in N. Europe for its edible fruits, there are many named varieties and some of these are thornless[214].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Plants are very tolerant of pruning, they usually resprout freely even when cut right back to the ground.

This species is notably resistant to honey fungus[88, 200].

The flowers are sweetly and heavily scented[184].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking

more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Difficult[113].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Root cuttings in the winter[200].

Scent

Flowers: Fresh

The flowers are sweetly and heavily scented.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus angustifolia* (Silver Russian Olive)
Item: *Elaeagnus angustifolia caspica*

For more details of plant suppliers please see our Suppliers Page which lists many more places to

look.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+angustifolia`
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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+angustifolia`

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Plants For A Future: Database Search

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Search for Latin Name: Elaeagnus

New Search: Elaeagnus Search

Latin Name	Common Name	Family	Synonyms	Rating
Elaeagnus angustifolia	Oleaster	Elaeagnaceae	E. argentea. non Pursh. E. hortensis.; Elaeagnus hortensis; Elaeagnus argentea; E. angustifolius; E. argenteus; E. commutata; E. moorcroftii; E. orientalis	4
Elaeagnus commutata	Silverberry	Elaeagnaceae	E. argentea. non Moench.; Elaeagnus argentea; E. argenteus	3
Elaeagnus cordifolia		Elaeagnaceae		5
Elaeagnus formosana		Elaeagnaceae		2
Elaeagnus fragrans		Elaeagnaceae	E. umbellata rotundifolia. Makino.; Elaeagnus umbellata rotundifolia	2
Elaeagnus glabra		Elaeagnaceae		4
Elaeagnus gonuanthes		Elaeagnaceae		2
Elaeagnus latifolia	Bastard oleaster	Elaeagnaceae		3
Elaeagnus macrophylla		Elaeagnaceae		5
Elaeagnus maritima		Elaeagnaceae		2
Elaeagnus montana		Elaeagnaceae		2

Elaeagnus multiflora	Goumi	Elaeagnaceae	E. longipes.; Elaeagnus longipes	5
Elaeagnus multiflora ovata	Goumi	Elaeagnaceae	E. longipes.	5
Elaeagnus oldhamii		Elaeagnaceae		2
Elaeagnus orientalis	Trebizond date	Elaeagnaceae	E. angustifolia orientalis.; Elaeagnus angustifolia orientalis; E. angustifolia; E. angustifolia var. orientalis; E. hortensis; E. moorcroftii	4
Elaeagnus parvifolia		Elaeagnaceae	E. umbellata parvifolia. (Royle.)Schneid.; Elaeagnus umbellata parvifolia; E. umbellata var. parvifolia	4
Elaeagnus pungens	Elaeagnus	Elaeagnaceae		5
Elaeagnus pyriformis		Elaeagnaceae		2
Elaeagnus thunbergii		Elaeagnaceae		2
Elaeagnus umbellata	Autumn olive	Elaeagnaceae	E. crispa.; Elaeagnus crispa	4
Elaeagnus x ebbingei	Elaeagnus	Elaeagnaceae		5
Elaeagnus x reflexa		Elaeagnaceae	E. pungens reflexa.; Elaeagnus pungens reflexa; E. pungens var. reflexa	3
Elaeagnus yoshinoi		Elaeagnaceae		2
Shepherdia argentea	Buffalo berry	Elaeagnaceae	Hippophae argentea.; Elaeagnus utilis	3
Shepherdia canadensis	Buffalo berry	Elaeagnaceae	Hippophae canadensis.; Elaeagnus canadensis	3

New Search

Latin Name	Elaeagnus
Common Name	

Family		
Rating	1	5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/find_lat?LAT=Elaeagnus&CAN=READER`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/find_lat?LAT=Elaeagnus&CAN=READER`

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Plants For A Future: Database Search Results

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Elaeagnus commutata

Common name:	Silverberry	Family:	Elaeagnaceae
Author:	Bernh.	Botanical references:	11, 43, 200
Synonyms:	Elaeagnus argentea (non Moench.)		
Known Hazards:	None known		
Range:	N. America - Quebec to Alaska and south to Utah, S. Dakota and Minnesota..		
Habitat:	Dry calcareous slopes[43, 184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. argenteus[L]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Silver-berry [B], Silverberry [L,P,FEIS], Zilverwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	commutata = changeable; mutata = different;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 3m by 1.5m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in May, and the seeds ripen from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 2, 3, 43, 106]. Dry and mealy[11, 95, 172, 183]. Good when added to soups they also make an excellent jelly[183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer; Salve; VD.

A strong decoction of the bark, mixed with oil, has been used as a salve for children with frostbite[257].

A decoction of the roots, combined with sumac roots (Rhus spp.), has been used in the treatment of syphilis[257]. This medicine was considered to be very poisonous and, if you survived it, you were likely to become sterile[257].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Beads; Fibre; Hedge; Soap.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. They have a rather open habit, however, and so do not afford a lot of wind protection. Because they fix atmospheric nitrogen, they enrich the soil and so make a very good companion hedge in orchards etc[K].

The fibrous bark is used in weaving, it has been twisted to make strong ropes and has also been used to make blankets and clothing[99, 257].

Dried fruits are used as beads[99, 257].

The berries have been used to make a soap[257].

Cultivation details

An easily grown plant, it succeeds in most soils that are well-drained[200], though it dislikes shallow chalk soils[98]. This last report conflicts rather with the record of its natural habitat, it should grow well on chalk[K]. Prefers a light sandy soil that is only moderately fertile, succeeding in poor and dry soils[11, 200]. Requires a position in full sun[11, 200]. Plants are very drought and wind resistant[1, 11, 200].

A very hardy plant, tolerating temperatures down to about -40°c[184]. However, plants prefer a continental climate and are liable to be cut back in severe winters in Britain mainly because the wood is not fully ripened in our cooler summers.

A moderately fast-growing plant[202].

The small flowers are deliciously scented[245].

This species does not normally require pruning but the plant can regenerate from very old wood and so can be cut back severely if required[202].

Plants resent root disturbance and should be placed in their permanent positions as soon as possible[202].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Often confused with E. angustifolia even though it is very distinct[50].

Plants produce suckers quite freely, often sending them up at some distance from the plant[182, K].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Division of suckers during the dormant season[3, 11]. The larger suckers can be planted out direct into their permanent positions, but it is probably best to pot up smaller suckers and grow them on in a cold frame until they are established.

Scent

Flowers: Fresh

The small flowers are deliciously scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- PFAF Plant Catalogue (D-E)

- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Elaeagnus argentea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Elaeagnus argenteus* (a possible synonym).

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the

Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+commutata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+commutata`

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Plants For A Future: Database Search Results

Elaeagnus commutata

Common name:	Silverberry	Family:	Elaeagnaceae
Author:	Bernh.	Botanical references:	11, 43, 200
Synonyms:	Elaeagnus argentea (non Moench.)		
Known Hazards:	None known		
Range:	N. America - Quebec to Alaska and south to Utah, S. Dakota and Minnesota..		
Habitat:	Dry calcareous slopes[43, 184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. argenteus[L]
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	American Silver-berry [B], Silverberry [L,P,FEIS], Zilverwilg [D],
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Systematics:	From a UDSA Plants Database
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Physical Characteristics

A decidious shrub growing to 3m by 1.5m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in May, and the seeds ripen from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 2, 3, 43, 106]. Dry and mealy[11, 95, 172, 183]. Good when added to soups they also make an excellent jelly[183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

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The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

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An easily grown plant, it succeeds in most soils that are well-drained[200], though it dislikes shallow chalk soils[98]. This last report conflicts rather with the record of its natural habitat, it should grow well on chalk[K]. Prefers a light sandy soil that is only moderately fertile, succeeding in poor and dry soils[11, 200]. Requires a position in full sun[11, 200]. Plants are very drought and wind resistant[1, 11, 200].

A very hardy plant, tolerating temperatures down to about -40°c[184]. However, plants prefer a continental climate and are liable to be cut back in severe winters in Britain mainly because the wood is not fully ripened in our cooler summers.

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Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking

more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Division of suckers during the dormant season[3, 11]. The larger suckers can be planted out direct into their permanent positions, but it is probably best to pot up smaller suckers and grow them on in a cold frame until they are established.

Scent

Flowers: Fresh

> The small flowers are deliciously scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- PFAF Plant Catalogue (D-E)
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Elaeagnus argentea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Elaeagnus argenteus* (a possible synonym).

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*,

Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Plants For A Future: Database Search Results

Elaeagnus commutata

Common name:	Silverberry	Family:	Elaeagnaceae
Author:	Bernh.	Botanical references:	11, 43, 200
Synonyms:	Elaeagnus argentea (non Moench.)		
Known Hazards:	None known		
Range:	N. America - Quebec to Alaska and south to Utah, S. Dakota and Minnesota..		
Habitat:	Dry calcareous slopes[43, 184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. argenteus[L]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Silver-berry [B], Silverberry [L,P,FEIS], Zilverwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	commutata = changeable; mutata = different;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 3m by 1.5m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in May, and the seeds ripen from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 2, 3, 43, 106]. Dry and mealy[11, 95, 172, 183]. Good when added to soups they also make an excellent jelly[183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer; Salve; VD.

A strong decoction of the bark, mixed with oil, has been used as a salve for children with frostbite[257].

A decoction of the roots, combined with sumac roots (Rhus spp.), has been used in the treatment of syphilis[257]. This medicine was considered to be very poisonous and, if you survived it, you were likely to become sterile[257].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Beads; Fibre; Hedge; Soap.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. They have a rather open habit, however, and so do not afford a lot of wind protection. Because they fix atmospheric nitrogen, they enrich the soil and so make a very good companion hedge in orchards etc[K].

The fibrous bark is used in weaving, it has been twisted to make strong ropes and has also been used to make blankets and clothing[99, 257].

Dried fruits are used as beads[99, 257].

The berries have been used to make a soap[257].

Cultivation details

An easily grown plant, it succeeds in most soils that are well-drained[200], though it dislikes shallow chalk soils[98]. This last report conflicts rather with the record of its natural habitat, it should grow well on chalk[K]. Prefers a light sandy soil that is only moderately fertile, succeeding in poor and dry soils[11, 200]. Requires a position in full sun[11, 200]. Plants are very drought and wind resistant[1, 11, 200].

A very hardy plant, tolerating temperatures down to about -40°c[184]. However, plants prefer a continental climate and are liable to be cut back in severe winters in Britain mainly because the wood is not fully ripened in our cooler summers.

A moderately fast-growing plant[202].

The small flowers are deliciously scented[245].

This species does not normally require pruning but the plant can regenerate from very old wood and so can be cut back severely if required[202].

Plants resent root disturbance and should be placed in their permanent positions as soon as possible[202].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Often confused with E. angustifolia even though it is very distinct[50].

Plants produce suckers quite freely, often sending them up at some distance from the plant[182, K].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking

more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Division of suckers during the dormant season[3, 11]. The larger suckers can be planted out direct into their permanent positions, but it is probably best to pot up smaller suckers and grow them on in a cold frame until they are established.

Scent

Flowers: Fresh

> The small flowers are deliciously scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Elaeagnus umbellata

Common name:	Autumn olive	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Elaeagnus crispa (Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Thickets and thin woods in the lowland and hills[58].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Autumn Oleaster [H], Autumn Olive [P], Autumn-olive [FEIS,B,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	bella = pretty;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: West Virginia.

Physical Characteristics

A decidious shrub growing to 4.5m by 4m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Hidden Springs'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Jazbo'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[2, 46, 105]. Juicy and pleasantly acid, they are tasty raw and can also be made into jams, preserves etc[160, 183, 194]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains about 8.3% sugars, 4.5% protein, 1% ash[194]. The vitamin C content is about 12mg per 100g[194]. Mature bushes in the wild yield about 650g of fruit over 2 - 3 pickings[194]. The harvested fruit stores for about 15 days at room temperature[194]. The fruit is about 8mm in diameter[200] and contains a single large seed[K].

Seed - raw or cooked[194]. It can be eaten with the fruit though the seed case is rather fibrous[160].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac; Pectoral; Stimulant.

The flowers are astringent, cardiac and stimulant[240].

The seeds are used as a stimulant in the treatment of coughs[240]. The expressed oil from the seeds is used in the treatment of pulmonary affections[240].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Fuel; Hedge.

Very tolerant of maritime exposure, it makes a good informal hedge, succeeding even in very exposed positions[75]. The plants make a reasonable wind-protecting screen, they are about as wide as they are tall. They make a good companion hedge, enriching the soil and fertilizing neighbouring plants[K].

The wood is a good fuel[146].

Cultivation details

Succeeds in most soils that are well-drained[11, 200], though it dislikes shallow chalk soils[98]. It prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position[11]. Established plants are very drought resistant[1].

A very hardy plant, tolerating temperatures down to at least -40°c[200].

This species is somewhat similar to E. multiflora, but it flowers a few weeks later[182].

Sometimes cultivated for its edible fruit, there are some named varieties[183]. 'Cardinal' and 'Red Wing' are very good fruiting forms (developed for ornament and not for fruit quality)[182]. 'Jazbo' has been bred for its edible fruits which are said to be ripe when 'they drop into your hand'[214]. This makes them valuable in breeding programmes to develop easily harvested fruits[214].

Flowers are rich in nectar and very aromatic, they are much visited by bees.

Polymorphic[11]. This species is notably resistant to honey fungus[88, 200].

Plants can fruit in 6 years from seed[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Cultivars

'Red Wing'

> A very good fruiting form (though it was developed for ornament and not for fruit quality)[182].

'Jazbo'

> This cultivar has been bred for its edible fruits which are said to be ripe when 'they drop into your hand'[214]. This makes them valuable in breeding programmes to develop easily harvested fruits[214]. The fruit is sweet and tasty, if they are still astringent when harvested then this is because they are not fully ripe - storing them in a warm place for a day or so will complete the ripening process[183].

'Hidden Springs'

> Selected for its larger and better flavoured fruit[183].

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> A very good fruiting form (though it was developed for ornament and not for fruit quality)[182].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus umbellata* (Autumn olive)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
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References

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A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera*: *Elaeagnus*. *Web-pages*: *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera*: *Elaeagnus*. *Web-pages*: *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* . *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*,

Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Your Name:	
Email Address:	

Submit

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+umbellata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+umbellata`

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Plants For A Future: Database Search Results

Elaeagnus umbellata

Common name:	Autumn olive	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Elaeagnus crispa (Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Thickets and thin woods in the lowland and hills[58].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Autumn Oleaster [H], Autumn Olive [P], Autumn-olive [FEIS,B,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	bella = pretty;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: West Virginia.

Physical Characteristics

A decidious shrub growing to 4.5m by 4m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil

and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Hidden Springs'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Jazbo'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[2, 46, 105]. Juicy and pleasantly acid, they are tasty raw and can also be made into jams, preserves etc[160, 183, 194]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains about 8.3% sugars, 4.5% protein, 1% ash[194]. The vitamin C content is about 12mg per 100g[194]. Mature bushes in the wild yield about 650g of fruit over 2 - 3 pickings[194]. The harvested fruit stores for about 15 days at room temperature[194]. The fruit is about 8mm in diameter[200] and contains a single large seed[K].

Seed - raw or cooked[194]. It can be eaten with the fruit though the seed case is rather fibrous[160].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac; Pectoral; Stimulant.

The flowers are astringent, cardiac and stimulant[240].

The seeds are used as a stimulant in the treatment of coughs[240]. The expressed oil from the seeds is used in the treatment of pulmonary affections[240].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Fuel; Hedge.

Very tolerant of maritime exposure, it makes a good informal hedge, succeeding even in very exposed positions[75]. The plants make a reasonable wind-protecting screen, they are about as wide as they are tall. They make a good companion hedge, enriching the soil and fertilizing neighbouring plants[K].

The wood is a good fuel[146].

Cultivation details

Succeeds in most soils that are well-drained[11, 200], though it dislikes shallow chalk soils[98]. It prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position[11]. Established plants are very drought resistant[1].

A very hardy plant, tolerating temperatures down to at least -40°c[200].

This species is somewhat similar to E. multiflora, but it flowers a few weeks later[182].

Sometimes cultivated for its edible fruit, there are some named varieties[183]. 'Cardinal' and 'Red Wing' are very good fruiting forms (developed for ornament and not for fruit quality)[182]. 'Jazbo' has been bred for its edible fruits which are said to be ripe when 'they drop into your hand'[214]. This makes them valuable in breeding programmes to develop easily harvested fruits[214].

Flowers are rich in nectar and very aromatic, they are much visited by bees.

Polymorphic[11]. This species is notably resistant to honey fungus[88, 200].

Plants can fruit in 6 years from seed[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into

individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

The flowers are sweetly and heavily scented.

Cultivars

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A very good fruiting form (though it was developed for ornament and not for fruit quality)[182].

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philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham

NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus umbellata* (Autumn olive)

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[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief

cultivation details. There are no illustrations.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

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I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

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Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

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Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

Plant information taken from the Plants For A Future - Species Database. Copyright (c) 1997-2003.
WEB search engine by Rich Morris - Home Page- Contact Info

Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+umbellata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+umbellata`

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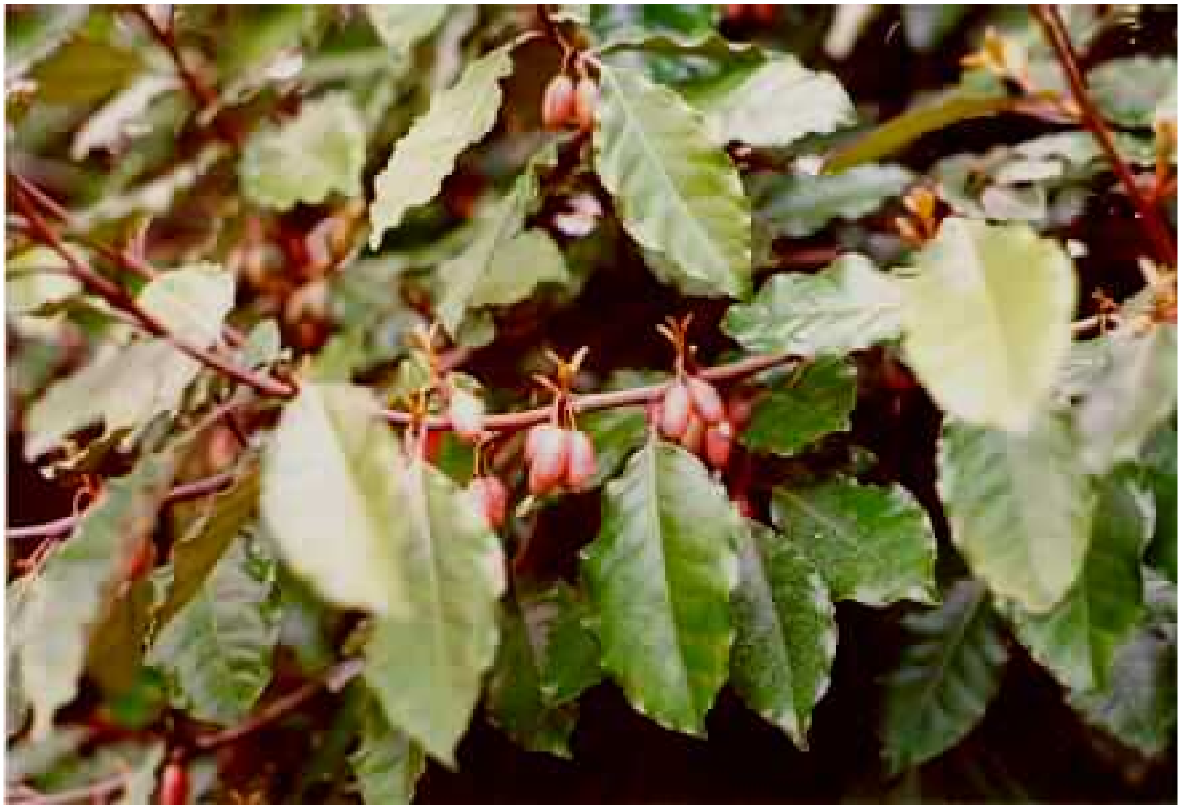
Elaeagnus x ebbingei



Common name:	Elaeagnus	Family:	Elaeagnaceae
Author:	Boom.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	A garden hybrid, E. macrophylla x E. pungens or E. x. reflexa.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	5		

	From a UDSA Plants Database

Systematics:	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 5m by 5m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in leaf all year, in flower from October to January, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.

Cultivar **'The Hague'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Southern Seedling'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Salcombe Seedling'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Limelight'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Gilt Edge'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Aurea'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Coastal Gold'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. A reasonable size, it is about 20mm long and 13mm wide although it does have a large seed[K]. The fully ripe fruit has a very rich flavour and makes pleasant tasting with a slight acidity[K]. The fruit should be deep red in colour and very soft when it is fully ripe, otherwise it will be astringent[K]. The flavour improves further if the fruit is stored for a day or two after being picked. The fruit ripens intermittently over a period of about 6 weeks from early to mid April until May[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K]. The taste is vaguely like peanuts[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in very exposed positions, tolerating maritime exposure. The plants provide a very good protection from the wind, they are very resistant to damage by salt winds and are also tolerant of regular trimming[75]. They have a strong vigorous growth and are faster growing than E. macrophylla[75, 200]. Because they fix atmospheric nitrogen, they make good companion plants and improve the growth of neighbouring species[K]. They can be planted in the line of an old shelterbelt of trees that is becoming bare at the base and will in time fill up the empty spaces and climb into the bottom parts of the trees[K].

Cultivation details

A very easily grown plant, it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. A drought resistant plant once established, it can be grown on top of Cornish hedges (drystone walls with earth between two vertical layers of stones). It is very tolerant of shade and grows well under trees[200]. Plants are very tolerant of maritime exposure, growing well right by the coast[K].

Plants are hardy to about -20°c, but they can be deciduous in very cold winters[200].

Fruiting as it does in early April to May, this plant has excellent potential as a commercial fruit crop in Britain. The fruit is of a reasonable size and when fully ripe is very acceptable for dessert[K]. It should be fairly easy to selectively breed for improved fruit size and flavour[K].

Not all plants bear many fruits, though many specimens have been seen that produce very heavy crops on a regular basis[K]. Since this is a hybrid species, yields may be improved by growing a selection of cultivars or one of the parent plants nearby for cross pollination. E. pungens is perhaps the best candidate for this and its cultivar E. pungens 'Variegata' has been seen on a number of occasions with good crops of fruit next to E. x ebbingei plants that are also laden with fruit[K]. The cultivar E. x ebbingei 'Gilt Edge' is also probably a good pollinator[K]. Other cultivars worth looking at are 'Salcombe Seedling', which is said to flower more abundantly than the type[200] and 'Limelight', which has been seen with a good crop of fruits even on small bushes[K].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Plants produce very aromatic flowers in late autumn and early winter[182].

This species is notably resistant to honey fungus[88, 200].

Sometimes whole branches die out for no apparent reason. This happens most frequently when it is grafted onto E. multiflora[182]. These branches should be removed from the plant.

Propagation

Seed - this is a hybrid and it will not breed true from seed. If this is not a problem, then the seed is best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Rather slow, but you usually get a good percentage rooting[78]. June is the best time to take cuttings[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Cultivars

'The Hague'

'Southern Seedling'

'Salcombe Seedling'

'Limelight'

> This cultivar has variegated foliage and is slower-growing than the type species. It also has larger fruits than the type, a one year cutting less than 25cm tall had 15 good sized almost ripe fruits on it in early March, it had probably spent at least some of the winter indoors[K]. A large shrub at Hilliers Arboretum was flowering very heavily in mid-September 1994[K]. Since this is a hybrid species yields may be improved by growing one of the parent plants nearby for cross pollination. E. pungens is perhaps the best candidate for this[K].

'Gilt Edge'

> This cultivar has been seen on a number of occasions with good crops of fruit. On these occasions it has always been close to E. x ebbingei and has sometimes also had E. pungens 'Variegata' growing nearby with a reasonable set of fruit[K].

'Coastal Gold'

'Aurea'

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: ***Elaeagnus x ebbingei***

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative Food Crops
- Alternative fruits
- PFAF Catalogue 1996/97
- PFAF Catalogue: Checklist of plants
- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- Why Perennials
- Woodland Garden Plants
- PFAF: Fruit - Food of the Gods
- PFAF Plant Catalogue (D-E)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in

exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
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Elaeagnus x ebbingei

david nicholls Thu Oct 12 23:16:07 2000

I think this may the best performing plant so far on my ridiculously gale battered place, I've trialed about 150 reputedly coastal plants (it is still early days). This seems to be virtually the only species that actually makes progress during gales while virtually everything else gets cut back, including E. pungens. Only hail at around 100 k/hr made a dent, tore leaves more than on some things.

I think I have PFF mainly to thank for info on edibility, but would hate to admit that. I wonder if its' obsurity has anything to do with the awkward name it would never work in supermarkets (I suppose cafe society might think it is Italian or sophisticated) how about "Binge fruit",bingey, Bingy , bing, bingj ?

Haven't tasted it yet.

Details of Growing Condition: new zealand.

Cross references: *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Elaeagnus x ebbingei

Klaus Wed Jun 6 21:39:00 2001

After we planted 4 e.x ebbingei in spring `00, in autumn we planted another 4 e.x e."gilt edge". The latter all didn`t survive the winter with -10° to -15°C. So maybe this variety isn`t as hardy as the species.

Details of Growing Condition: The location is near the town Verden in Lowersachsony. 650mm average, sandy soil, 6,2pH. 1324 hours of sun during the vegetation period. Hardyness zone 7. Rather windy, open fields in the main wind-direction to the horizon..

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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+x+ebbingei`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+x+ebbingei`

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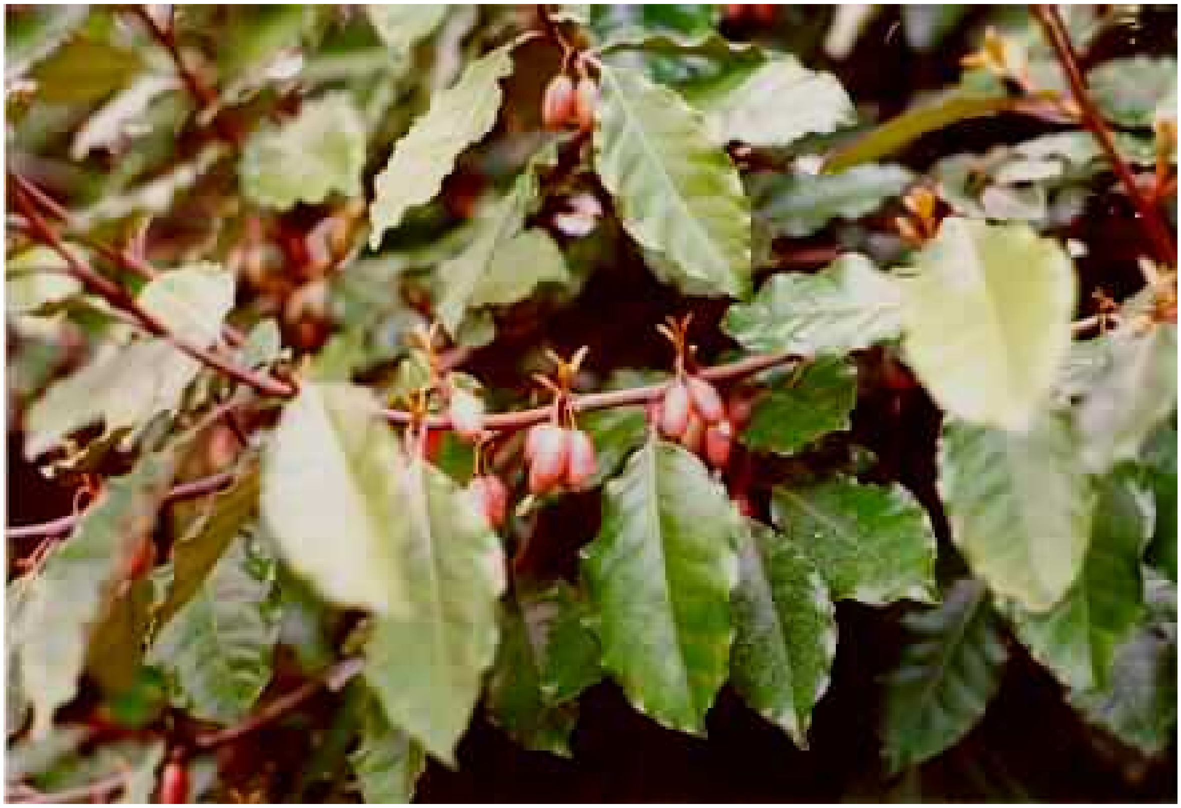
Plants For A Future: Database Search Results

Elaeagnus x ebbingei



Common name:	Elaeagnus	Family:	Elaeagnaceae
Author:	Boom.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	A garden hybrid, E. macrophylla x E. pungens or E. x. reflexa.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	5		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 5m by 5m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in leaf all year, in flower from October to January, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.

Cultivar **'The Hague'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Southern Seedling'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Salcombe Seedling'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Limelight'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Gilt Edge'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Aurea'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Coastal Gold'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. A reasonable size, it is about 20mm long and 13mm wide although it does have a large seed[K]. The fully ripe fruit has a very rich flavour and makes pleasant tasting with a slight acidity[K]. The fruit should be deep red in colour and very soft when it is fully ripe, otherwise it will be astringent[K]. The flavour improves further if the fruit is stored for a day or two after being picked. The fruit ripens intermittently over a period of about 6 weeks from early to mid April until May[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K]. The taste is vaguely like peanuts[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in very exposed positions, tolerating maritime exposure. The plants provide a very good protection from the wind, they are very resistant to damage by salt winds and are also tolerant of regular trimming[75]. They have a strong vigorous growth and are faster growing than E. macrophylla[75, 200]. Because they fix atmospheric nitrogen, they make good companion plants and improve the growth of neighbouring species[K]. They can be planted in the line of an old shelterbelt of trees that is becoming bare at the base and will in time fill up the empty spaces and climb into the bottom parts of the trees[K].

Cultivation details

A very easily grown plant, it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. A drought resistant plant once established, it can be grown on top of Cornish hedges (drystone walls with earth between two vertical layers of stones). It is very tolerant of shade and grows well under trees[200]. Plants are very tolerant of maritime exposure, growing well right by the coast[K].

Plants are hardy to about -20°c, but they can be deciduous in very cold winters[200].

Fruiting as it does in early April to May, this plant has excellent potential as a commercial fruit crop in Britain. The fruit is of a reasonable size and when fully ripe is very acceptable for dessert[K]. It should be fairly easy to selectively breed for improved fruit size and flavour[K].

Not all plants bear many fruits, though many specimens have been seen that produce very heavy crops on a regular basis[K]. Since this is a hybrid species, yields may be improved by growing a selection of cultivars or one of the parent plants nearby for cross pollination. E. pungens is perhaps the best candidate for this and its cultivar E. pungens 'Variegata' has been seen on a number of occasions with good crops of fruit next to E. x ebbingei plants that are also laden with fruit[K]. The cultivar E. x ebbingei 'Gilt Edge' is also probably a good pollinator[K]. Other cultivars worth looking at are 'Salcombe Seedling', which is said to flower more abundantly than the type[200] and 'Limelight', which has been seen with a good crop of fruits even on small bushes[K].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Plants produce very aromatic flowers in late autumn and early winter[182].

This species is notably resistant to honey fungus[88, 200].

Sometimes whole branches die out for no apparent reason. This happens most frequently when it is grafted onto E. multiflora[182]. These branches should be removed from the plant.

Propagation

Seed - this is a hybrid and it will not breed true from seed. If this is not a problem, then the seed is best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Rather slow, but you usually get a good percentage rooting[78]. June is the best time to take cuttings[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Cultivars

'The Hague'

'Southern Seedling'

'Salcombe Seedling'

'Limelight'

This cultivar has variegated foliage and is slower-growing than the type species. It also has larger fruits than the type, a one year cutting less than 25cm tall had 15 good sized almost ripe fruits on it in early March, it had probably spent at least some of the winter indoors[K]. A large shrub at Hilliers Arboretum was flowering very heavily in mid-September 1994[K]. Since this is a hybrid species yields may be improved by growing one of the parent plants nearby for cross pollination. E. pungens is perhaps the best candidate for this[K].

'Gilt Edge'

This cultivar has been seen on a number of occasions with good crops of fruit. On these occasions it has always been close to E. x ebbingei and has sometimes also had E. pungens 'Variegata' growing nearby with a reasonable set of fruit[K].

'Coastal Gold'

'Aurea'

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus x ebbingei*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative Food Crops
- Alternative fruits
- PFAF Catalogue 1996/97

- PFAF Catalogue: Checklist of plants
- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- Why Perennials
- Woodland Garden Plants
- PFAF: Fruit - Food of the Gods
- PFAF Plant Catalogue (D-E)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei

david nicholls Thu Oct 12 23:16:07 2000

I think this may the best performing plant so far on my ridiculously gale battered place, I've trialed about 150 reputedly coastal plants (it is still early days). This seems to be virtually the only species that actually makes progress during gales while virtually everything else gets cut back, including E. pungens. Only hail at around 100 k/hr made a dent, tore leaves more than on some things.

I think I have PFF mainly to thank for info on edibility, but would hate to admit that. I wonder if its' obsurity has anything to do with the awkward name it would never work in supermarkets (I suppose cafe society might think it is Italian or sophisticated) how about "Binge fruit",bingey, Bingy , bing, bingj ?

Haven't tasted it yet.

Details of Growing Condition: new zealand.

Cross references: *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei

Klaus Wed Jun 6 21:39:00 2001

After we planted 4 e.x ebbingei in spring `00, in autumn we planted another 4 e.x e."gilt edge". The latter all didn`t survive the winter with -10° to -15°C. So maybe this variety isn`t as hardy as the species.

Details of Growing Condition: The location is near the town Verden in Lowersachsony. 650mm average, sandy soil, 6,2pH. 1324 hours of sun during the vegetation period. Hardyness zone 7. Rather windy, open fields in the main wind-direction to the horizon..

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*,

Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+x+ebbingei`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+x+ebbingei`

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Plants For A Future: Database Search Results

Elaeagnus umbellata

Common name:	Autumn olive	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Elaeagnus crispa (Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Thickets and thin woods in the lowland and hills[58].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Autumn Oleaster [H], Autumn Olive [P], Autumn-olive [FEIS,B,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	bella = pretty;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: West Virginia.

Physical Characteristics

A decidious shrub growing to 4.5m by 4m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil

and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Hidden Springs'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Jazbo'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[2, 46, 105]. Juicy and pleasantly acid, they are tasty raw and can also be made into jams, preserves etc[160, 183, 194]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains about 8.3% sugars, 4.5% protein, 1% ash[194]. The vitamin C content is about 12mg per 100g[194]. Mature bushes in the wild yield about 650g of fruit over 2 - 3 pickings[194]. The harvested fruit stores for about 15 days at room temperature[194]. The fruit is about 8mm in diameter[200] and contains a single large seed[K].

Seed - raw or cooked[194]. It can be eaten with the fruit though the seed case is rather fibrous[160].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac; Pectoral; Stimulant.

The flowers are astringent, cardiac and stimulant[240].

The seeds are used as a stimulant in the treatment of coughs[240]. The expressed oil from the seeds is used in the treatment of pulmonary affections[240].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Fuel; Hedge.

Very tolerant of maritime exposure, it makes a good informal hedge, succeeding even in very exposed positions[75]. The plants make a reasonable wind-protecting screen, they are about as wide as they are tall. They make a good companion hedge, enriching the soil and fertilizing neighbouring plants[K].

The wood is a good fuel[146].

Cultivation details

Succeeds in most soils that are well-drained[11, 200], though it dislikes shallow chalk soils[98]. It prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position[11]. Established plants are very drought resistant[1].

A very hardy plant, tolerating temperatures down to at least -40°c[200].

This species is somewhat similar to E. multiflora, but it flowers a few weeks later[182].

Sometimes cultivated for its edible fruit, there are some named varieties[183]. 'Cardinal' and 'Red Wing' are very good fruiting forms (developed for ornament and not for fruit quality)[182]. 'Jazbo' has been bred for its edible fruits which are said to be ripe when 'they drop into your hand'[214]. This makes them valuable in breeding programmes to develop easily harvested fruits[214].

Flowers are rich in nectar and very aromatic, they are much visited by bees.

Polymorphic[11]. This species is notably resistant to honey fungus[88, 200].

Plants can fruit in 6 years from seed[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into

individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

The flowers are sweetly and heavily scented.

Cultivars

'Red Wing'

A very good fruiting form (though it was developed for ornament and not for fruit quality)[182].

'Jazbo'

This cultivar has been bred for its edible fruits which are said to be ripe when 'they drop into your hand'[214]. This makes them valuable in breeding programmes to develop easily harvested fruits[214]. The fruit is sweet and tasty, if they are still astringent when harvested then this is because they are not fully ripe - storing them in a warm place for a day or so will complete the ripening process[183].

'Hidden Springs'

Selected for its larger and better flavoured fruit[183].

'Cardinal'

A very good fruiting form (though it was developed for ornament and not for fruit quality)[182].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

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philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
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Nottingham

NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus umbellata* (Autumn olive)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Alnus nepalensis

Common name:	Nepalese alder	Family:	Betulaceae
Author:	Don.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Himalayas		
Habitat:	Forests in ravines, on stream banks and occasionally in drier localities, 900 - 2700 metres in the Himalayas[146].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Nepal Alder [P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious tree growing to 22m at a fast rate. It is hardy to zone 9. It is in flower from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

None known

Medicinal Uses

Disclaimer

Diuretic.

A useful diuretic for reducing swelling of the leg[269].

Other Uses

Dye; Fuel; Soil stabilization; Wood.

The bark contains 7% tannin[240], it is used in dyeing[11, 146]. It is used to deepen the red colour of madder, Rubia cordifolia[269].

A fast growing species, it is suitable for plantation cultivation in tropical uplands[269]. The tree is locally cultivated by West Java Forest Service to reforest eroded slopes under ever-wet climates[269].

Wood - soft, tough, even grained, rather durable, easily sawn, seasons well and does not warp. It is used to a limited extent in carpentry, house construction, tea boxes, for making furniture, rope bridges etc[146, 158, 269]. A very good timber, it deserves to be more widely used[146]. In India the trees are coppiced every two years for fuel[269].

Cultivation details

Prefers a heavy soil and a damp situation[1, 11]. Grows well in heavy clay soils[11]. Succeeds in very infertile sites[200]. The Nepalese alder is reported to tolerate clay, flooding, fog, gravel, sand, shade, slope, water-logging, and weeds[269]. It is not tolerant of high winds[269].

Grows best in deep well-drained loams or loamy soils of alluvial soils, but ranges from gravel to sand to clay[269]. Prefers an annual rainfall estimated at 50 - 250cm, an annual average temperature in the range of 19 - 23°C, and a pH of 6 - 8[269].

This species is possibly only hardy in the milder areas of Britain[11].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe and only just covered[200]. Spring sown seed should also germinate successfully so long as it is not covered[200, K]. The seed should germinate in the spring as the weather warms up. When large enough to handle, prick the seedlings out into individual pots. If growth is sufficient, it is possible to plant them out into their permanent positions in the summer, otherwise keep them in pots outdoors and plant them out in the spring.

If you have sufficient quantity of seed, it can be sown thinly in an outdoor seed bed in the spring[78]. The seedlings can either be planted out into their permanent positions in the autumn/winter, or they can be allowed to grow on in the seed bed for a further season before planting them.

Cuttings of mature wood, taken as soon as the leaves fall in autumn, outdoors in sandy soil.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Disclaimer

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A useful diuretic for reducing swelling of the leg[269].

Other Uses

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Gleditsia triacanthos

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Honey locust	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	The plant contains potentially toxic compounds[222].		
Range:	Eastern N. America. Occasionally naturalized in C. and S. Europe.		
Habitat:	Usually growing singly, though occasionally forming almost pure woods, on the borders of streams and in rich woods, usually in moist fertile soils but sometimes on dry sterile gravelly hills[43, 82].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. ferox[H] G. triacanthos var. inermis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Acacia Negra [E], Espinheiro Da Virginia [E], Fevier D'Amerique [E], Honey Locust [H], Honey-locust [FEIS,B], Honeylocust [P,DEN1], Soet Peui [H], Three-horned Acacia [H], Three-thorned Acacia [H],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	France; Lesotho; Portugal; Spain

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales, Queensland.

Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 3. It is in flower in July, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Ashworth'**: Woodland, Canopy.

Edible Uses

Coffee; Drink; Seed; Seedpod; Sweetener.

Seed - raw or cooked. It can contain up to 30% sugar[160]. Young seeds taste like raw peas[183]. Seeds are not always borne in maritime regions because the tree prefers long hot summers[11]. The oval seeds are about 8mm long[227]. They contain 10.6 - 24.1% protein, 0.8 - 4.3% fat, 84.7% carbohydrate, 21.1% fibre, 4% ash, 280mg calcium and 320mg phosphorus per 100g[218].

The seeds have been roasted and used as a coffee substitute[269].

Seedpods - the pulp is sweet and can be eaten raw or made into sugar[149, 159, 183]. The render young seedpods can be cooked and eaten[183]. The pulp in older pods turns bitter[227]. The seedpods are up to 40cm long and 4cm wide[227].

A sweet, pleasant tasting drink can be made from the seed pods[257].

The seed pulp has been used to make a drink[257].

Medicinal Uses

Disclaimer

Anaesthetic; Antiseptic; Cancer; Stomachic.

The pods have been made into a tea for the treatment of indigestion, measles, catarrh etc[222, 257]. The juice of the pods is antiseptic[222]. The pods have been seen as a good antidote for children's complaints[257].

The alcoholic extract of the fruits of the honey locust, after elimination of tannin, considerably retarded the growth, up to 63% of Ehrlich mouse carcinoma[269]. However, the cytotoxicity of the extract was quite high and the animals, besides losing weight, showed dystrophic changes in their liver and spleen[260]. The alcoholic extract of the fruit exerted moderate oncostatic activity against sarcoma 180 and Ehrlich carcinoma at the total dose 350 mg/kg/body weight/mouse. Weight loss was considerable[269].

An infusion of the bark has been drunk and used as a wash in the treatment of dyspepsia[257]. It has also been used in the treatment of whooping cough, measles, smallpox etc[257].

The twigs and the leaves contain the alkaloids gleditschine and stenocarpine[4]. Stenocarpine has been used as a local anaesthetic whilst gleditschine causes stupor and loss of reflex activity[4].

Current research is examining the leaves as a potential source of anticancer compounds[222].

Other Uses

Gum; Soil reclamation; Tannin; Wood.

Planted for land reclamation on mining waste[200].

The gum from the seeds has been suggested as an emulsifying substitute for acacia and tragacanth[269].

The heartwood contains 4 - 4.8% tannin[240].

Wood - strong, coarse-grained, elastic, very hard, very durable in contact with the soil, highly shock resistant[46, 61, 82, 149]. It does not shrink much but splits rather easily and does not glue well[227]. It weighs 42lb per cubic foot[227]. Largely used for making fence posts and rails, wheel hubs, farm implements etc and in construction[46, 61, 82, 149].

Cultivation details

Succeeds in most soils, acid or alkaline[160, 200], so long as they are well-drained[202]. Requires a sunny position[11]. Tolerates drought once established[1] and atmospheric pollution[200]. Salt tolerant[200]. The honey locust is speculated to tolerate an annual precipitation of 60 to 150cm, an annual temperature range of 10 to 21°C, and a pH in the range of 6 to 8[269].

Trees are rather tender when young, but they are hardy to about -30°c once they are established[200]. They grow best in southern Britain[11].

The honey locust is often cultivated in warm temperate zones for its edible seeds and seedpods[202], trees start to bear when about 10 years old and produce commercial crops for about 100 years[227]. Wild trees seldom live longer than 120 years[229]. Trees are shy to flower and therefore do not often produce a worthwhile crop in Britain due to our cooler summers[202]. There are some named varieties[183]. The sub-species nana produced lots of viable seed in the hot summer of 1989 at Kew[K], it also had a very good crop in 1994, 1996 and in 1999[K]. The sub-species inermis had a very good crop of pods in the autumn of 1996[K]. 'Ashworth' has pods with a very sweet pulp that has a melon-like flavour[183].

The flowers have a pleasing scent[245].

A very ornamental tree[1], the flowers are very attractive to bees[149, 269].

Trees have a light canopy, they come into leaf late and lose their leaves early[11] making them an excellent canopy tree for a woodland garden.

Plants in this genus are notably resistant to honey fungus[200].

Unlike most plants in this family, honey locusts do not fix atmospheric nitrogen[160, 226].

Propagation

Seed - pre-soak for 24 hours in warm water and then sow in spring in a greenhouse[78]. The seed should have swollen up, in which case it can be sown, if it has not swollen then soak it for another 24 hours in warm water. If this does not work then file away some of the seed coat but be careful not to damage the embryo[78]. Further soaking should then cause the seed to swell. One it has swollen, the seed should germinate within 2 - 4 weeks at 20°c. As soon as they are large enough to handle, prick the seedlings out into individual deep pots and plant them out into their permanent positions in the summer. Give the plants some protection from the cold for their first few winters outdoors.

Scent

Flowers: Fresh

The flowers have a pleasing scent.

Cultivars

'Ashworth'

The seed pods contain a very sweet pulp with a melon-like flavour[183]. An extremely hardy, spineless tree[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN

0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Gleditsia+triacanthos`
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Plants For A Future: Database Search Results

Gleditsia triacanthos

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Honey locust	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	The plant contains potentially toxic compounds[222].		
Range:	Eastern N. America. Occasionally naturalized in C. and S. Europe.		
Habitat:	Usually growing singly, though occasionally forming almost pure woods, on the borders of streams and in rich woods, usually in moist fertile soils but sometimes on dry sterile gravelly hills[43, 82].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. ferox[H] G. triacanthos var. inermis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Acacia Negra [E], Espinheiro Da Virginia [E], Fevier D'Amerique [E], Honey Locust [H], Honey-locust [FEIS,B], Honeylocust [P,DEN1], Soet Peui [H], Three-horned Acacia [H], Three-thorned Acacia [H],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	France; Lesotho; Portugal; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales, Queensland.

Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 3. It is in flower in July, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Ashworth'**: Woodland, Canopy.

Edible Uses

Coffee; Drink; Seed; Seedpod; Sweetener.

Seed - raw or cooked. It can contain up to 30% sugar[160]. Young seeds taste like raw peas[183]. Seeds are not always borne in maritime regions because the tree prefers long hot summers[11]. The oval seeds are about 8mm long[227]. They contain 10.6 - 24.1% protein, 0.8 - 4.3% fat, 84.7% carbohydrate, 21.1% fibre, 4% ash, 280mg calcium and 320mg phosphorus per 100g[218].

The seeds have been roasted and used as a coffee substitute[269].

Seedpods - the pulp is sweet and can be eaten raw or made into sugar[149, 159, 183]. The render young seedpods can be cooked and eaten[183]. The pulp in older pods turns bitter[227]. The seedpods are up to 40cm long and 4cm wide[227].

A sweet, pleasant tasting drink can be made from the seed pods[257].

The seed pulp has been used to make a drink[257].

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Disclaimer

Anaesthetic; Antiseptic; Cancer; Stomachic.

The pods have been made into a tea for the treatment of indigestion, measles, catarrh etc[222, 257]. The juice of the pods is antiseptic[222]. The pods have been seen as a good antidote for children's complaints[257].

The alcoholic extract of the fruits of the honey locust, after elimination of tannin, considerably retarded the growth, up to 63% of Ehrlich mouse carcinoma[269]. However, the cytotoxicity of the extract was quite high and the animals, besides losing weight, showed dystrophic changes in their liver and spleen[260]. The alcoholic extract of the fruit exerted moderate oncostatic activity against sarcoma 180 and Ehrlich carcinoma at the total dose 350 mg/kg/body weight/mouse. Weight loss was considerable[269].

An infusion of the bark has been drunk and used as a wash in the treatment of dyspepsia[257]. It has also been used in the treatment of whooping cough, measles, smallpox etc[257].

The twigs and the leaves contain the alkaloids gleditschine and stenocarpine[4]. Stenocarpine has been used as a local anaesthetic whilst gleditschine causes stupor and loss of reflex activity[4].

Current research is examining the leaves as a potential source of anticancer compounds[222].

Other Uses

Gum; Soil reclamation; Tannin; Wood.

Planted for land reclamation on mining waste[200].

The gum from the seeds has been suggested as an emulsifying substitute for acacia and tragacanth[269].

The heartwood contains 4 - 4.8% tannin[240].

Wood - strong, coarse-grained, elastic, very hard, very durable in contact with the soil, highly shock resistant[46, 61, 82, 149]. It does not shrink much but splits rather easily and does not glue well[227]. It weighs 42lb per cubic foot[227]. Largely used for making fence posts and rails, wheel hubs, farm implements etc and in construction[46, 61, 82, 149].

Cultivation details

Succeeds in most soils, acid or alkaline[160, 200], so long as they are well-drained[202]. Requires a sunny position[11]. Tolerates drought once established[1] and atmospheric pollution[200]. Salt tolerant[200]. The honey locust is speculated to tolerate an annual precipitation of 60 to 150cm, an annual temperature range of 10 to 21°C, and a pH in the range of 6 to 8[269].

Trees are rather tender when young, but they are hardy to about -30°c once they are established[200]. They grow best in southern Britain[11].

The honey locust is often cultivated in warm temperate zones for its edible seeds and seedpods[202], trees start to bear when about 10 years old and produce commercial crops for about 100 years[227]. Wild trees seldom live longer than 120 years[229]. Trees are shy to flower and therefore do not often produce a worthwhile crop in Britain due to our cooler summers[202]. There are some named varieties[183]. The sub-species nana produced lots of viable seed in the hot summer of 1989 at Kew[K], it also had a very good crop in 1994, 1996 and in 1999[K]. The sub-species inermis had a very good crop of pods in the autumn of 1996[K]. 'Ashworth' has pods with a very sweet pulp that has a melon-like flavour[183].

The flowers have a pleasing scent[245].

A very ornamental tree[1], the flowers are very attractive to bees[149, 269].

Trees have a light canopy, they come into leaf late and lose their leaves early[11] making them an excellent canopy tree for a woodland garden.

Plants in this genus are notably resistant to honey fungus[200].

Unlike most plants in this family, honey locusts do not fix atmospheric nitrogen[160, 226].

Propagation

Seed - pre-soak for 24 hours in warm water and then sow in spring in a greenhouse[78]. The seed should have swollen up, in which case it can be sown, if it has not swollen then soak it for another 24 hours in warm water. If this does not work then file away some of the seed coat but be careful not to damage the embryo[78]. Further soaking should then cause the seed to swell. One it has swollen, the seed should germinate within 2 - 4 weeks at 20°c. As soon as they are large enough to handle, prick the seedlings out into individual deep pots and plant them out into their permanent positions in the summer. Give the plants some protection from the cold for their first few winters outdoors.

Scent

Flowers: Fresh

> The flowers have a pleasing scent.

Cultivars

'Ashworth'

> The seed pods contain a very sweet pulp with a melon-like flavour[183]. An extremely hardy, spineless tree[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements.

The text is terse but informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Alnus nepalensis

Common name:	Nepalese alder	Family:	Betulaceae
Author:	Don.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Himalayas		
Habitat:	Forests in ravines, on stream banks and occasionally in drier localities, 900 - 2700 metres in the Himalayas[146].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Nepal Alder [P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious tree growing to 22m at a fast rate. It is hardy to zone 9. It is in flower from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

None known

Medicinal Uses

Disclaimer

Diuretic.

A useful diuretic for reducing swelling of the leg[269].

Other Uses

Dye; Fuel; Soil stabilization; Wood.

The bark contains 7% tannin[240], it is used in dyeing[11, 146]. It is used to deepen the red colour of madder, Rubia cordifolia[269].

A fast growing species, it is suitable for plantation cultivation in tropical uplands[269]. The tree is locally cultivated by West Java Forest Service to reforest eroded slopes under ever-wet climates[269].

Wood - soft, tough, even grained, rather durable, easily sawn, seasons well and does not warp. It is used to a limited extent in carpentry, house construction, tea boxes, for making furniture, rope bridges etc[146, 158, 269]. A very good timber, it deserves to be more widely used[146]. In India the trees are coppiced every two years for fuel[269].

Cultivation details

Prefers a heavy soil and a damp situation[1, 11]. Grows well in heavy clay soils[11]. Succeeds in very infertile sites[200]. The Nepalese alder is reported to tolerate clay, flooding, fog, gravel, sand, shade, slope, water-logging, and weeds[269]. It is not tolerant of high winds[269].

Grows best in deep well-drained loams or loamy soils of alluvial soils, but ranges from gravel to sand to clay[269]. Prefers an annual rainfall estimated at 50 - 250cm, an annual average temperature in the range of 19 - 23°C, and a pH of 6 - 8[269].

This species is possibly only hardy in the milder areas of Britain[11].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe and only just covered[200]. Spring sown seed should also germinate successfully so long as it is not covered[200, K]. The seed should germinate in the spring as the weather warms up. When large enough to handle, prick the seedlings out into individual pots. If growth is sufficient, it is possible to plant them out into their permanent positions in the summer, otherwise keep them in pots outdoors and plant them out in the spring.

If you have sufficient quantity of seed, it can be sown thinly in an outdoor seed bed in the spring[78]. The seedlings can either be planted out into their permanent positions in the autumn/winter, or they can be allowed to grow on in the seed bed for a further season before planting them.

Cuttings of mature wood, taken as soon as the leaves fall in autumn, outdoors in sandy soil.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future: Database Search Results

Gleditsia triacanthos

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Honey locust	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	The plant contains potentially toxic compounds[222].		
Range:	Eastern N. America. Occasionally naturalized in C. and S. Europe.		
Habitat:	Usually growing singly, though occasionally forming almost pure woods, on the borders of streams and in rich woods, usually in moist fertile soils but sometimes on dry sterile gravelly hills[43, 82].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. ferox[H] G. triacanthos var. inermis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Acacia Negra [E], Espinheiro Da Virginia [E], Fevier D'Amerique [E], Honey Locust [H], Honey-locust [FEIS,B], Honeylocust [P,DEN1], Soet Peui [H], Three-horned Acacia [H], Three-thorned Acacia [H],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	France; Lesotho; Portugal; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales, Queensland.

Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 3. It is in flower in July, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Ashworth'**: Woodland, Canopy.

Edible Uses

Coffee; Drink; Seed; Seedpod; Sweetener.

Seed - raw or cooked. It can contain up to 30% sugar[160]. Young seeds taste like raw peas[183]. Seeds are not always borne in maritime regions because the tree prefers long hot summers[11]. The oval seeds are about 8mm long[227]. They contain 10.6 - 24.1% protein, 0.8 - 4.3% fat, 84.7% carbohydrate, 21.1% fibre, 4% ash, 280mg calcium and 320mg phosphorus per 100g[218].

The seeds have been roasted and used as a coffee substitute[269].

Seedpods - the pulp is sweet and can be eaten raw or made into sugar[149, 159, 183]. The render young seedpods can be cooked and eaten[183]. The pulp in older pods turns bitter[227]. The seedpods are up to 40cm long and 4cm wide[227].

A sweet, pleasant tasting drink can be made from the seed pods[257].

The seed pulp has been used to make a drink[257].

Medicinal Uses

Disclaimer

Anaesthetic; Antiseptic; Cancer; Stomachic.

The pods have been made into a tea for the treatment of indigestion, measles, catarrh etc[222, 257]. The juice of the pods is antiseptic[222]. The pods have been seen as a good antidote for children's complaints[257].

The alcoholic extract of the fruits of the honey locust, after elimination of tannin, considerably retarded the growth, up to 63% of Ehrlich mouse carcinoma[269]. However, the cytotoxicity of the extract was quite high and the animals, besides losing weight, showed dystrophic changes in their liver and spleen[260]. The alcoholic extract of the fruit exerted moderate oncostatic activity against sarcoma 180 and Ehrlich carcinoma at the total dose 350 mg/kg/body weight/mouse. Weight loss was considerable[269].

An infusion of the bark has been drunk and used as a wash in the treatment of dyspepsia[257]. It has also been used in the treatment of whooping cough, measles, smallpox etc[257].

The twigs and the leaves contain the alkaloids gleditschine and stenocarpine[4]. Stenocarpine has been used as a local anaesthetic whilst gleditschine causes stupor and loss of reflex activity[4].

Current research is examining the leaves as a potential source of anticancer compounds[222].

Other Uses

Gum; Soil reclamation; Tannin; Wood.

Planted for land reclamation on mining waste[200].

The gum from the seeds has been suggested as an emulsifying substitute for acacia and tragacanth[269].

The heartwood contains 4 - 4.8% tannin[240].

Wood - strong, coarse-grained, elastic, very hard, very durable in contact with the soil, highly shock resistant[46, 61, 82, 149]. It does not shrink much but splits rather easily and does not glue well[227]. It weighs 42lb per cubic foot[227]. Largely used for making fence posts and rails, wheel hubs, farm implements etc and in construction[46, 61, 82, 149].

Cultivation details

Succeeds in most soils, acid or alkaline[160, 200], so long as they are well-drained[202]. Requires a sunny position[11]. Tolerates drought once established[1] and atmospheric pollution[200]. Salt tolerant[200]. The honey locust is speculated to tolerate an annual precipitation of 60 to 150cm, an annual temperature range of 10 to 21°C, and a pH in the range of 6 to 8[269].

Trees are rather tender when young, but they are hardy to about -30°c once they are established[200]. They grow best in southern Britain[11].

The honey locust is often cultivated in warm temperate zones for its edible seeds and seedpods[202], trees start to bear when about 10 years old and produce commercial crops for about 100 years[227]. Wild trees seldom live longer than 120 years[229]. Trees are shy to flower and therefore do not often produce a worthwhile crop in Britain due to our cooler summers[202]. There are some named varieties[183]. The sub-species nana produced lots of viable seed in the hot summer of 1989 at Kew[K], it also had a very good crop in 1994, 1996 and in 1999[K]. The sub-species inermis had a very good crop of pods in the autumn of 1996[K]. 'Ashworth' has pods with a very sweet pulp that has a melon-like flavour[183].

The flowers have a pleasing scent[245].

A very ornamental tree[1], the flowers are very attractive to bees[149, 269].

Trees have a light canopy, they come into leaf late and lose their leaves early[11] making them an excellent canopy tree for a woodland garden.

Plants in this genus are notably resistant to honey fungus[200].

Unlike most plants in this family, honey locusts do not fix atmospheric nitrogen[160, 226].

Propagation

Seed - pre-soak for 24 hours in warm water and then sow in spring in a greenhouse[78]. The seed should have swollen up, in which case it can be sown, if it has not swollen then soak it for another 24 hours in warm water. If this does not work then file away some of the seed coat but be careful not to damage the embryo[78]. Further soaking should then cause the seed to swell. One it has swollen, the seed should germinate within 2 - 4 weeks at 20°c. As soon as they are large enough to handle, prick the seedlings out into individual deep pots and plant them out into their permanent positions in the summer. Give the plants some protection from the cold for their first few winters outdoors.

Scent

Flowers: Fresh

> The flowers have a pleasing scent.

Cultivars

'Ashworth'

> The seed pods contain a very sweet pulp with a melon-like flavour[183]. An extremely hardy, spineless tree[183].

Suppliers

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Grevillea robusta

Common name:	Silky oak	Family:	Proteaceae
Author:	Cunn.	Botanical references:	154, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland.		
Habitat:	Temperate rainforests[157]		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Silk-oak [B], Silkoak [P],
Epithets:	From a Dictionary of Botanical Epithets
	robusta = robust;
Systematics:	From a UDSA Plants Database
	Order: Proteales . Protea family

Physical Characteristics

An evergreen tree growing to 30m by 15m at a fast rate. It is hardy to zone 9. It is in leaf all year, in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Nectar.

The flowers are one of the richest sources of nectar[183]. This can be sucked directly from the flowers, shaken into a bowl or washed out in a small quantity of water[183]. The nectar falls in showers when the flowers are shaken[144].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Gum; Rootstock; Wood.

The plant yields small quantities of a gum resin[154].

The leaves contain rutin, though quantities are not specified[240].

Intense yellow and green dyes are obtained from the leaves[168].

This species is more resistant than other members of the genus to root-rotting fungus, it is sometimes used as a rootstock for the more susceptible species[200].

Wood - strong, silky textured, light, easily split, durable but porous. Used for panelling, joinery, cabinet making etc[154, 156, 167].

Cultivation details

An easy and fast-growing tree requiring a well-drained slightly acid soil and a sunny position[260]. It prefers a rich moist soil[167], but it also succeeds in dry soils. Dislikes limey soils[1, 157]. Established plants are drought resistant[154].

This species is not very hardy when grown outdoors in Britain. In its native range it does experience frosts, though these are normally light and short-lived[167]. Plants tolerate temperatures down to -7°c in Australian gardens[157] though this cannot be translated directly to

British gardens because of our cooler summers and longer, colder and wetter winters. It is usually grown as a pot plant in Britain, though it rarely flowers here[1].

A very ornamental plant[1], it is often grown as a street tree in suitable climates[260].

Hybridizes freely with other members of this genus[157].

The flowers are very attractive to bees[154].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow February in a warm greenhouse. Germination is usually good[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, June/July in a frame[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Proteaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8
A very readable book.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
A well illustrated and very readable book, but it does not contain much information for the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

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Plants For A Future: Database Search Results

Grevillea robusta

Common name:	Silky oak	Family:	Proteaceae
Author:	Cunn.	Botanical references:	154, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland.		
Habitat:	Temperate rainforests[157]		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Silk-oak [B], Silkoak [P],
Epithets:	From a Dictionary of Botanical Epithets
	robusta = robust;
Systematics:	From a UDSA Plants Database
	Order: Proteales . Protea family

Physical Characteristics

An evergreen tree growing to 30m by 15m at a fast rate. It is hardy to zone 9. It is in leaf all year, in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Nectar.

The flowers are one of the richest sources of nectar[183]. This can be sucked directly from the flowers, shaken into a bowl or washed out in a small quantity of water[183]. The nectar falls in showers when the flowers are shaken[144].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Gum; Rootstock; Wood.

The plant yields small quantities of a gum resin[154].

The leaves contain rutin, though quantities are not specified[240].

Intense yellow and green dyes are obtained from the leaves[168].

This species is more resistant than other members of the genus to root-rotting fungus, it is sometimes used as a rootstock for the more susceptible species[200].

Wood - strong, silky textured, light, easily split, durable but porous. Used for panelling, joinery, cabinet making etc[154, 156, 167].

Cultivation details

An easy and fast-growing tree requiring a well-drained slightly acid soil and a sunny position[260]. It prefers a rich moist soil[167], but it also succeeds in dry soils. Dislikes limey soils[1, 157]. Established plants are drought resistant[154].

This species is not very hardy when grown outdoors in Britain. In its native range it does experience frosts, though these are normally light and short-lived[167]. Plants tolerate temperatures down to -7°c in Australian gardens[157] though this cannot be translated directly to British gardens because of our cooler summers and longer, colder and wetter winters. It is usually grown as a pot plant in Britain, though it rarely flowers here[1].

A very ornamental plant[1], it is often grown as a street tree in suitable climates[260].

Hybridizes freely with other members of this genus[157].

The flowers are very attractive to bees[154].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow February in a warm greenhouse. Germination is usually good[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, June/July in a frame[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Proteaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of

plants.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Hippophae rhamnoides

Common name:	Sea buckthorn	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Some reports suggest that the fruit is poisonous[13, 100], whilst it may be very acid it is most definitely not poisonous[65].		
Range:	Britain.		
Habitat:	Usually found near the coast, often forming thickets on fixed dunes and sea cliffs[9, 17, 244].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Duindoorn [D], Espino Falso [E], Oblebicha [E], Olivella Spinosa [E], Sallow Thorn [H], Sea Buckthorn [H,E], Sea-buckthorn [L,B], Seabuckthorn [P],
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	Britain; India; Italy; Spain; Tibet; Ussr

Physical Characteristics

A decidious shrub growing to 6m by 2.5m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in April, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge.

Cultivar **'Vitaminnaja'**: Bog Garden, Woodland, Sunny Edge.
Cultivar **'Novostj Altaja'**: Bog Garden, Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. Very rich in vitamin C (120mg per 100g)[74] and vitamin A[183], they are too acid when raw for most peoples tastes[11, 158], though most children seem to relish them[K]. Used for making fruit juice, it is high in vitamins and has an attractive aroma[141]. It is being increasingly used in making fruit juices, especially when mixed with other fruits, because of its reputed health benefits[214]. The fruits of some species and cultivars (not specified) contain up to 9.2% oil[214]. The fruit is very freely borne along the stems[K] and is about 6 - 8mm in diameter[200]. The fruit becomes less acid after a frost or if cooked[74]. The fruit is ripe from late September and usually hangs on the plants all winter if not eaten by the birds. It is best used before any frosts since the taste and quality of frosted berries quickly deteriorates[214].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac; Poultice; Tonic; Vermifuge.

The twigs and leaves contain 4 - 5% tannin[240]. They are astringent and vermifuge[7, 100].

The tender branches and leaves contain bio-active substances which are used to produce an oil that is quite distinct from the oil produced from the fruit. Yields of around 3% of oil are obtained[240]. This oil is used as an ointment for treating burns[214].

A high-quality medicinal oil is made from the fruit and used in the treatment of cardiac disorders, it is also said to be particularly effective when applied to the skin to heal burns, eczema and radiation injury, and is taken internally in the treatment of stomach and intestinal diseases[214].

The fruit is astringent and used as a tonic[9, 254]. The freshly-pressed juice is used in the treatment of colds, febrile conditions, exhaustion etc[9]. The fruit is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214]. The juice is also a component of many vitamin-rich medicaments and cosmetic preparations such as face-creams and toothpastes[9]. A decoction of the fruit has been used as a wash to treat skin irritation and eruptions[254].

Other Uses

Charcoal; Cosmetic; Dye; Fuel; Oil; Pioneer; Soil stabilization; Wood.

Very tolerant of maritime exposure[29, 49, 75, 182], it can be used as a shelter hedge. It dislikes much trimming[75]. A very thorny plant, it quickly makes an impenetrable barrier.

Sea buckthorn has an extensive root system and suckers vigorously and so has been used in soil conservation schemes, especially on sandy soils. The fibrous and suckering root system acts to bind the sand[186, 244].

Because the plant grows quickly, even in very exposed conditions, and also adds nitrogen to the soil, it can be used as a pioneer species to help the re-establishment of woodland in difficult areas. Because the plant is very light-demanding it will eventually be out-competed by the woodland trees and so will not out-stay its welcome[K].

The seeds contain 12 - 13% of a slow-drying oil[240].

The vitamin-rich fruit juice is used cosmetically in face-masks etc[9].

A yellow dye is obtained from the fruit[74]. A yellow dye is obtained from the stems, root and foliage[4].

A blackish-brown dye is obtained from the young leaves and shoots[74].

Wood - tough, hard, very durable, fine-grained. Used for fine carpentry, turning etc[46, 61, 74]. The wood is also used for fuel and charcoal[146].

Cultivation details

Succeeds in most soils[200], including poor ones[186], so long as they are not too dry[182, 200]. Grows well by water and in fairly wet soils[182]. Established plants are very drought resistant[186]. Requires a sunny position[3], seedlings failing to grow in a shady position and mature shrubs quickly dying if overshadowed by taller plants[186]. Does well in very sandy soils[1, 186]. Very tolerant of maritime exposure[75]. Plants are fairly slow growing[75].

Although usually found near the coast in the wild, they thrive when grown inland[11] and are hardy to about -25°c[184].

A very ornamental plant[1, 11], it is occasionally cultivated, especially in N. Europe, for its edible fruit, there are some named varieties[183]. 'Leikora' is a free-fruiting form, developed for its ornamental value.

Members of this genus are attracting considerable interest from breeding institutes for their nutrient-rich fruits that can promote the general health of the body (see edible and medicinal uses below)[214].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[113, 186, 200]. Plants produce abundant suckers, especially when grown on sandy soils[186].

Dioecious. Male and female plants must be grown if seed is required. The sexes of plants cannot be distinguished before flowering, but on flowering plants the buds of male plants in winter are conical and conspicuous whilst female buds are smaller and rounded[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow spring in a sunny position in a cold frame[78]. Germination is usually quick and good although 3 months cold stratification may improve the germination rate. Alternatively the seed can be sown in a cold frame as soon as it is ripe in the autumn. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a greenhouse for their first winter. Plant out in late spring into their permanent positions. Male seedlings, in spring, have very prominent axillary buds whilst females are clear and smooth at this time[78].

Cuttings of half-ripe wood, June/July in a frame[200]. Difficult[113]. This is the easiest method of vegetative propagation[214].

Cuttings of mature wood in autumn[200]. Difficult[113]. The cuttings should be taken at the end of autumn or very early in the spring before the buds burst. Store them in sand and peat until April, cut into 7 - 9cm lengths and plant them in a plastic tent with bottom heat[214]. Rooting should take place within 2 months and they can be put in their permanent positions in the autumn[214].

Division of suckers in the winter. They can be planted out direct into their permanent positions and usually establish well and quickly[K].

Layering in autumn[200].

Cultivars

'Vitaminnaja'

Medium-size fruit of good quality, weighing just under ½ gram on average[183]. Richer in vitamins and minerals than 'Novostj Altaja', though more acidic in flavour[183]. A moderately productive tree, though somewhat susceptible to wilt[183].

'Novostj Altaja' 'Altai News'

Medium-sized fruit of high quality, each weighing just over ½ gram on average[183]. A very productive tree, yielding on average 15 tonnes of fruit per hectare, the branches are relatively free of spines[183]. This is the most wilt-resistant cultivar developed to date (1990)[183].

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Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

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philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Hippophae rhamnoides* (Sea buckthorn)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Elaeagnus x ebbingei - A Plant for all Reasons.
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: G-I

- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *hippophae rhamnoides* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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Hippophae rhamnoides

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May 31 We've just planted 3 different varities of seabuckthorn. I am looking for recipes. Jam, liquor, juice, anything.

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Hristo Hristov (bg_seeds@yahoo.com) Wed Jun 25 15:40:13 2003

Link: Hippophae rhamnoides L. - Sea buckthorn (Russian cultivars, description). Description of the Russian cultivars of Hippophae rhamnoides L. - Sea buckthorn (Russian - Oblepiha).

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Hippophae rhamnoides

Common name:	Sea buckthorn	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Some reports suggest that the fruit is poisonous[13, 100], whilst it may be very acid it is most definitely not poisonous[65].		
Range:	Britain.		
Habitat:	Usually found near the coast, often forming thickets on fixed dunes and sea cliffs[9, 17, 244].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Duindoorn [D], Espino Falso [E], Oblebicha [E], Olivella Spinosa [E], Sallow Thorn [H], Sea Buckthorn [H,E], Sea-buckthorn [L,B], Seabuckthorn [P],
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	Britain; India; Italy; Spain; Tibet; Ussr

Physical Characteristics

A decidious shrub growing to 6m by 2.5m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in April, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought. The plant can tolerate

maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge.

Cultivar **'Vitaminnaja'**: Bog Garden, Woodland, Sunny Edge.
Cultivar **'Novostj Altaja'**: Bog Garden, Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. Very rich in vitamin C (120mg per 100g)[74] and vitamin A[183], they are too acid when raw for most peoples tastes[11, 158], though most children seem to relish them[K]. Used for making fruit juice, it is high in vitamins and has an attractive aroma[141]. It is being increasingly used in making fruit juices, especially when mixed with other fruits, because of its reputed health benefits[214]. The fruits of some species and cultivars (not specified) contain up to 9.2% oil[214]. The fruit is very freely borne along the stems[K] and is about 6 - 8mm in diameter[200]. The fruit becomes less acid after a frost or if cooked[74]. The fruit is ripe from late September and usually hangs on the plants all winter if not eaten by the birds. It is best used before any frosts since the taste and quality of frosted berries quickly deteriorates[214].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac; Poultice; Tonic; Vermifuge.

The twigs and leaves contain 4 - 5% tannin[240]. They are astringent and vermifuge[7, 100].

The tender branches and leaves contain bio-active substances which are used to produce an oil that is quite distinct from the oil produced from the fruit. Yields of around 3% of oil are obtained[240]. This oil is used as an ointment for treating burns[214].

A high-quality medicinal oil is made from the fruit and used in the treatment of cardiac disorders, it is also said to be particularly effective when applied to the skin to heal burns, eczema and radiation injury, and is taken internally in the treatment of stomach and intestinal diseases[214].

The fruit is astringent and used as a tonic[9, 254]. The freshly-pressed juice is used in the treatment of colds, febrile conditions, exhaustion etc[9]. The fruit is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214]. The juice is also a component of many vitamin-rich medicaments and cosmetic preparations such as face-creams and toothpastes[9]. A decoction of the fruit has been used as a wash to treat skin irritation and eruptions[254].

Other Uses

Charcoal; Cosmetic; Dye; Fuel; Oil; Pioneer; Soil stabilization; Wood.

Very tolerant of maritime exposure[29, 49, 75, 182], it can be used as a shelter hedge. It dislikes much trimming[75]. A very thorny plant, it quickly makes an impenetrable barrier.

Sea buckthorn has an extensive root system and suckers vigorously and so has been used in soil conservation schemes, especially on sandy soils. The fibrous and suckering root system acts to bind the sand[186, 244].

Because the plant grows quickly, even in very exposed conditions, and also adds nitrogen to the soil, it can be used as a pioneer species to help the re-establishment of woodland in difficult areas. Because the plant is very light-demanding it will eventually be out-competed by the woodland trees and so will not out-stay its welcome[K].

The seeds contain 12 - 13% of a slow-drying oil[240].

The vitamin-rich fruit juice is used cosmetically in face-masks etc[9].

A yellow dye is obtained from the fruit[74]. A yellow dye is obtained from the stems, root and foliage[4].

A blackish-brown dye is obtained from the young leaves and shoots[74].

Wood - tough, hard, very durable, fine-grained. Used for fine carpentry, turning etc[46, 61, 74]. The wood is also used for fuel and charcoal[146].

Cultivation details

Succeeds in most soils[200], including poor ones[186], so long as they are not too dry[182, 200]. Grows well by water and in fairly wet soils[182]. Established plants are very drought resistant[186]. Requires a sunny position[3], seedlings failing to grow in a shady position and mature shrubs quickly dying if overshadowed by taller plants[186]. Does well in very sandy soils[1, 186]. Very tolerant of maritime exposure[75]. Plants are fairly slow growing[75].

Although usually found near the coast in the wild, they thrive when grown inland[11] and are hardy to about -25°c[184].

A very ornamental plant[1, 11], it is occasionally cultivated, especially in N. Europe, for its edible fruit, there are some named varieties[183]. 'Leikora' is a free-fruiting form, developed for its ornamental value.

Members of this genus are attracting considerable interest from breeding institutes for their nutrient-rich fruits that can promote the general health of the body (see edible and medicinal uses below)[214].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[113, 186, 200]. Plants produce abundant suckers, especially when grown on sandy soils[186].

Dioecious. Male and female plants must be grown if seed is required. The sexes of plants cannot be distinguished before flowering, but on flowering plants the buds of male plants in winter are conical and conspicuous whilst female buds are smaller and rounded[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow spring in a sunny position in a cold frame[78]. Germination is usually quick and good although 3 months cold stratification may improve the germination rate. Alternatively the seed can be sown in a cold frame as soon as it is ripe in the autumn. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a greenhouse for their first winter. Plant out in late spring into their permanent positions. Male seedlings, in spring, have very prominent axillary buds whilst females are clear and smooth at this time[78].

Cuttings of half-ripe wood, June/July in a frame[200]. Difficult[113]. This is the easiest method of vegetative propagation[214].

Cuttings of mature wood in autumn[200]. Difficult[113]. The cuttings should be taken at the end of autumn or very early in the spring before the buds burst. Store them in sand and peat until April, cut into 7 - 9cm lengths and plant them in a plastic tent with bottom heat[214]. Rooting should take place within 2 months and they can be put in their permanent positions in the autumn[214].

Division of suckers in the winter. They can be planted out direct into their permanent positions and usually establish well and quickly[K].

Layering in autumn[200].

Cultivars

'Vitaminnaja'

> Medium-size fruit of good quality, weighing just under ½ gram on average[183]. Richer in vitamins and minerals than 'Novostj Altaja', though more acidic in flavour[183]. A moderately productive tree, though somewhat susceptible to wilt[183].

'Novostj Altaja' 'Altai News'

> Medium-sized fruit of high quality, each weighing just over ½ gram on average[183]. A very productive tree, yielding on average 15 tonnes of fruit per hectare, the branches are relatively free of spines[183]. This is the most wilt-resistant cultivar developed to date (1990)[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

> philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
> 10 Ivy Grove
> Nottingham
> NG7 7LZ
> Distribution: UK
> How to order: Direct from Cool Temperate by email/phone
> Notes: Many Trees supplied on their own rootstock
> Last Updated: April 03
> **Item: *Hippophae rhamnoides* (Sea buckthorn)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Elaeagnus x ebbingei - A Plant for all Reasons.
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: G-I
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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *hippophae rhamnoides* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Grevillea robusta

Common name:	Silky oak	Family:	Proteaceae
Author:	Cunn.	Botanical references:	154, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland.		
Habitat:	Temperate rainforests[157]		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Silk-oak [B], Silkoak [P],
Epithets:	From a Dictionary of Botanical Epithets
	robusta = robust;
Systematics:	From a UDSA Plants Database
	Order: Proteales . Protea family

Physical Characteristics

An evergreen tree growing to 30m by 15m at a fast rate. It is hardy to zone 9. It is in leaf all year, in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Nectar.

The flowers are one of the richest sources of nectar[183]. This can be sucked directly from the flowers, shaken into a bowl or washed out in a small quantity of water[183]. The nectar falls in showers when the flowers are shaken[144].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Gum; Rootstock; Wood.

The plant yields small quantities of a gum resin[154].

The leaves contain rutin, though quantities are not specified[240].

Intense yellow and green dyes are obtained from the leaves[168].

This species is more resistant than other members of the genus to root-rotting fungus, it is sometimes used as a rootstock for the more susceptible species[200].

Wood - strong, silky textured, light, easily split, durable but porous. Used for panelling, joinery, cabinet making etc[154, 156, 167].

Cultivation details

An easy and fast-growing tree requiring a well-drained slightly acid soil and a sunny position[260]. It prefers a rich moist soil[167], but it also succeeds in dry soils. Dislikes limey soils[1, 157]. Established plants are drought resistant[154].

This species is not very hardy when grown outdoors in Britain. In its native range it does experience frosts, though these are normally light and short-lived[167]. Plants tolerate temperatures down to -7°c in Australian gardens[157] though this cannot be translated directly to British gardens because of our cooler summers and longer, colder and wetter winters. It is usually grown as a pot plant in Britain, though it rarely flowers here[1].

A very ornamental plant[1], it is often grown as a street tree in suitable climates[260].

Hybridizes freely with other members of this genus[157].

The flowers are very attractive to bees[154].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow February in a warm greenhouse. Germination is usually good[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 8cm with a heel, June/July in a frame[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future: Database Search Results

Hippophae rhamnoides

Common name:	Sea buckthorn	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Some reports suggest that the fruit is poisonous[13, 100], whilst it may be very acid it is most definitely not poisonous[65].		
Range:	Britain.		
Habitat:	Usually found near the coast, often forming thickets on fixed dunes and sea cliffs[9, 17, 244].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Duindoorn [D], Espino Falso [E], Oblebicha [E], Olivella Spinosa [E], Sallow Thorn [H], Sea Buckthorn [H,E], Sea-buckthorn [L,B], Seabuckthorn [P],
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	Britain; India; Italy; Spain; Tibet; Ussr

Physical Characteristics

A decidious shrub growing to 6m by 2.5m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in April, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought. The plant can tolerate

maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge.

Cultivar **'Vitaminnaja'**: Bog Garden, Woodland, Sunny Edge.
Cultivar **'Novostj Altaja'**: Bog Garden, Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked. Very rich in vitamin C (120mg per 100g)[74] and vitamin A[183], they are too acid when raw for most peoples tastes[11, 158], though most children seem to relish them[K]. Used for making fruit juice, it is high in vitamins and has an attractive aroma[141]. It is being increasingly used in making fruit juices, especially when mixed with other fruits, because of its reputed health benefits[214]. The fruits of some species and cultivars (not specified) contain up to 9.2% oil[214]. The fruit is very freely borne along the stems[K] and is about 6 - 8mm in diameter[200]. The fruit becomes less acid after a frost or if cooked[74]. The fruit is ripe from late September and usually hangs on the plants all winter if not eaten by the birds. It is best used before any frosts since the taste and quality of frosted berries quickly deteriorates[214].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac; Poultice; Tonic; Vermifuge.

The twigs and leaves contain 4 - 5% tannin[240]. They are astringent and vermifuge[7, 100].

The tender branches and leaves contain bio-active substances which are used to produce an oil that is quite distinct from the oil produced from the fruit. Yields of around 3% of oil are obtained[240]. This oil is used as an ointment for treating burns[214].

A high-quality medicinal oil is made from the fruit and used in the treatment of cardiac disorders, it is also said to be particularly effective when applied to the skin to heal burns, eczema and radiation injury, and is taken internally in the treatment of stomach and intestinal diseases[214].

The fruit is astringent and used as a tonic[9, 254]. The freshly-pressed juice is used in the treatment of colds, febrile conditions, exhaustion etc[9]. The fruit is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214]. The juice is also a component of many vitamin-rich medicaments and cosmetic preparations such as face-creams and toothpastes[9]. A decoction of the fruit has been used as a wash to treat skin irritation and eruptions[254].

Other Uses

Charcoal; Cosmetic; Dye; Fuel; Oil; Pioneer; Soil stabilization; Wood.

Very tolerant of maritime exposure[29, 49, 75, 182], it can be used as a shelter hedge. It dislikes much trimming[75]. A very thorny plant, it quickly makes an impenetrable barrier.

Sea buckthorn has an extensive root system and suckers vigorously and so has been used in soil conservation schemes, especially on sandy soils. The fibrous and suckering root system acts to bind the sand[186, 244].

Because the plant grows quickly, even in very exposed conditions, and also adds nitrogen to the soil, it can be used as a pioneer species to help the re-establishment of woodland in difficult areas. Because the plant is very light-demanding it will eventually be out-competed by the woodland trees and so will not out-stay its welcome[K].

The seeds contain 12 - 13% of a slow-drying oil[240].

The vitamin-rich fruit juice is used cosmetically in face-masks etc[9].

A yellow dye is obtained from the fruit[74]. A yellow dye is obtained from the stems, root and foliage[4].

A blackish-brown dye is obtained from the young leaves and shoots[74].

Wood - tough, hard, very durable, fine-grained. Used for fine carpentry, turning etc[46, 61, 74]. The wood is also used for fuel and charcoal[146].

Cultivation details

Succeeds in most soils[200], including poor ones[186], so long as they are not too dry[182, 200]. Grows well by water and in fairly wet soils[182]. Established plants are very drought resistant[186]. Requires a sunny position[3], seedlings failing to grow in a shady position and mature shrubs quickly dying if overshadowed by taller plants[186]. Does well in very sandy soils[1, 186]. Very tolerant of maritime exposure[75]. Plants are fairly slow growing[75].

Although usually found near the coast in the wild, they thrive when grown inland[11] and are hardy to about -25°c[184].

A very ornamental plant[1, 11], it is occasionally cultivated, especially in N. Europe, for its edible fruit, there are some named varieties[183]. 'Leikora' is a free-fruiting form, developed for its ornamental value.

Members of this genus are attracting considerable interest from breeding institutes for their nutrient-rich fruits that can promote the general health of the body (see edible and medicinal uses below)[214].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[113, 186, 200]. Plants produce abundant suckers, especially when grown on sandy soils[186].

Dioecious. Male and female plants must be grown if seed is required. The sexes of plants cannot be distinguished before flowering, but on flowering plants the buds of male plants in winter are conical and conspicuous whilst female buds are smaller and rounded[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - sow spring in a sunny position in a cold frame[78]. Germination is usually quick and good although 3 months cold stratification may improve the germination rate. Alternatively the seed can be sown in a cold frame as soon as it is ripe in the autumn. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a greenhouse for their first winter. Plant out in late spring into their permanent positions. Male seedlings, in spring, have very prominent axillary buds whilst females are clear and smooth at this time[78].

Cuttings of half-ripe wood, June/July in a frame[200]. Difficult[113]. This is the easiest method of vegetative propagation[214].

Cuttings of mature wood in autumn[200]. Difficult[113]. The cuttings should be taken at the end of autumn or very early in the spring before the buds burst. Store them in sand and peat until April, cut into 7 - 9cm lengths and plant them in a plastic tent with bottom heat[214]. Rooting should take place within 2 months and they can be put in their permanent positions in the autumn[214].

Division of suckers in the winter. They can be planted out direct into their permanent positions and usually establish well and quickly[K].

Layering in autumn[200].

Cultivars

'Vitaminnaja'

> Medium-size fruit of good quality, weighing just under ½ gram on average[183]. Richer in vitamins and minerals than 'Novostj Altaja', though more acidic in flavour[183]. A moderately productive tree, though somewhat susceptible to wilt[183].

'Novostj Altaja' 'Altai News'

Medium-sized fruit of high quality, each weighing just over ½ gram on average[183]. A very productive tree, yielding on average 15 tonnes of fruit per hectare, the branches are relatively free of spines[183]. This is the most wilt-resistant cultivar developed to date (1990)[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
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Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
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Item: *Hippophae rhamnoides* (Sea buckthorn)

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Olneya tesota

Common name:		Family:	Leguminosae
Author:	Gray.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California to Arizona and Mexico.		
Habitat:	Desert washes below 600 metres[71].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Desert Ironwood [P,DEN2], Desert-ironwood [B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Mexico(Seri)

Physical Characteristics

Tree growing to 9m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Seed - raw or cooked[46, 61, 105, 161]. A similar taste to peanuts[2].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood - very hard, it can blunt a saw[161].

Cultivation details

257362

This species requires an almost frost-free climate.

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

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Disclaimer

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Seed -

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- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania* *sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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Robinia pseudoacacia

Common name:	Black locust	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	All parts of the plant (except the flowers) and especially the bark, should be considered to be toxic[4, 65, 76]. The toxins are destroyed by heat[65].		
Range:	Eastern N. America - Appalachian and Ozark mountain ranges. Naturalized in Britain[17].		
Habitat:	Woods and thickets[43], especially in deep well-drained calcareous soils[149].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. pseudacacia[H,L] R. pseudo-acacia[E] R. pseudoacacia f. erecta[G] R. pseudoacacia f. inermis[G] R. pseudoacacia f. microphylla[G] R. pseudoacacia f. pyramidalis[G] R. pseudoacacia f. rehderi[G] R. pseudoacacia f. rozynskiana[G] R. pseudoacacia f. semperflorens[G] R. pseudoacacia var. microphylla[G] R. pseudoacacia var. pyramidalis[G] R. pseudoacacia var. rectissima[B,P] R. pseudoacacia var. rozynskiana[G] R. pseudoacacia var. semperflorens[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akasya [E], Al Sant Al Kathib [E], Black Locust [FEIS,P,DEN1,E,B,L,H], Common Locust [L], False Acacia [H,L], Locust Tree [H], Robinia [D], Salgim Chichekli Aghaji [E],

Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Iraq; Turkey; Us

Physical Characteristics

A decidious tree growing to 25m by 15m at a fast rate. It is hardy to zone 3. It is in flower in June, and the seeds ripen from November to March. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Drink; Flowers; Oil; Seed; Seedpod.

Seed - cooked[2, 55, 61]. Oily[161]. They are boiled and used like peas[183]. After boiling the seeds lose their acid taste[213]. The seed is about 4mm long and is produced in pods up to 10cm long that contain 4 - 8 seeds[82]. A nutritional analysis is available[218].

Young seedpods - cooked[105]. The pods contain a sweetish pulp that is safe to eat and is relished by small children[201].(This report is quite probably mistaken, having been confused with the honey locust, Gleditsia spp[K].)

A strong, narcotic and intoxicating drink is made from the skin of the fruit[13].

Piperonal is extracted from the plant, it is used as a vanilla substitute[105]. No further details.

All the above entries should be treated with some caution, see the notes at the top of the page regarding toxicity.

Flowers - cooked. A fragrant aroma, they are used in making jams and pancakes[7, 183]. They can also be made into a pleasant drink[183].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Protein: 21 Fat: 3 Fibre: 28 Ash: 6.8
In milligrammes per 100g weight of food:
Calcium: 1400 Phosphorus: 0.3
Source: [218]

Medicinal Uses

Disclaimer

Antispasmodic; Antiviral; Aromatic; Cholagogue; Diuretic; Emetic; Emollient; Febrifuge; Laxative; Narcotic; Purgative; Tonic.

Febrifuge[13, 46].

The flowers are antispasmodic, aromatic, diuretic, emollient and laxative[218]. They are cooked and eaten for the treatment of eye ailments[218].

The inner bark and the root bark are emetic, purgative and tonic[4, 7, 218, 257]. The root bark has been chewed to induce vomiting, or held in the mouth to allay toothache[222, 257], though it is rarely if ever prescribed as a therapeutic agent in Britain[4].

The fruit is narcotic[13]. This probably refers to the seedpod.

The leaves are cholagogue and emetic[7]. The leaf juice inhibits viruses[218].

Other Uses

Dye; Essential; Fibre; Fuel; Soil stabilization; Wood.

A drying oil is obtained from the seed[2, 7].

An essential oil is obtained from the flowers. Highly valued, it is used in perfumery[7, 57, 100].

A yellow dye is obtained from the bark[223]. The bark contains tannin, but not in sufficient quantity for utilization[223]. On a 10% moisture basis, the bark contains 7.2% tannin and the heartwood of young trees 5.7%[223].

The bark is used to make paper and is a substitute for silk and wool[13].

Trees sucker freely, especially if coppiced, and they can be used for stabilizing banks etc[200,

226].

Wood - close-grained, exceedingly hard, heavy, very strong, resists shock and is very durable in contact with the soil. It weighs 45lb per cubic foot and is used in shipbuilding and for making fence posts, treenails, floors etc[4, 7, 11, 13, 46, 61, 82, 149, 171, 227]. A very good fuel[82], but it should be used with caution because it flares up and projects sparks[226].

Cultivation details

Succeeds in any well-drained soil, preferring one that is not too rich[1, 200]. Succeeds in dry barren sites, tolerating drought and atmospheric pollution[60, 200]. Succeeds in a hot dry position.

A fast-growing tree[188], it can begin to flower when only 6 years old, though 10 - 12 years is more normal[229]. The flowers are a rich source of nectar and are very fragrant[82] with a vanilla-like scent[245].

The branches are brittle and very liable to wind damage[200]. When plants are grown in rich soils they produce coarse and rank growth which is even more liable to wind damage[11, 200].

The plants sucker freely and often form dense thickets, the suckers have vicious thorns[226]. There are some named varieties selected for their ornamental value[188], some of these are thornless[226].

Any pruning should be done in late summer in order to reduce the risk of bleeding[200].

The leaves are rich in tannin and other substances which inhibit the growth of other plants[13]. A very greedy tree, tending to impoverish the soil[13]. (Although a legume, I believe it does not fix atmospheric nitrogen[K])

A very good bee plant[7, 13, 20, 201].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - pre-soak for 48 hours in warm water and sow the seed in late winter in a cold frame[80]. A short stratification improves germination rates and time[80]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in the following summer. Other reports say that the seed can be sown in an outdoor seedbed in spring[78, 98]. The seed stores for over 10 years[113].

Suckers taken during the dormant season.

Scent

Flowers: Fresh

> The flowers are very fragrant with a vanilla-like scent[245].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

> philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
> 10 Ivy Grove
> Nottingham
> NG7 7LZ
> Distribution: UK
> How to order: Direct from Cool Temperate by email/phone
> Notes: Many Trees supplied on their own rootstock
> Last Updated: April 03
> **Item: *Robinia pseudoacacia* (Black Locust)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Robinia pseudacacia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Robinia pseudo-acacia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *robinia pseudoacacia* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951

Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394

Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952

Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Robinia pseudoacacia

Klaus Dichtel Tue Dec 25 17:22:37 2001

I wonder how Ken comes to believe it doesn`t fix atmospheric nitrogen. All other sources are telling the opposite, e.g. Martin Crawford/"Nitrogen-fixing Plants"

Robinia pseudoacacia

Klaus Dichtel Sat Jan 5 21:26:03 2002

In the german PC-mailinglist, Jürgen Wahl (j.orca@t-online.de) says that he saw nodulatet roots and N-loving plants nearby such as utrica ssp., galium aparine and sambucus nigra. Here his original message:"...Bis jetzt hatte jede Robinie der ich an die Wurzeln gegangen bin Knöllchen +die sind bei allenLeguminosen ort derSymbiose die N aus der Luft bindet. Fernerhabe ich bis heute in jedem Robiniengehölz eine N-liebende Begleitflora gefunden(Brennnessel,Klettenlabkraut,Hollunderetc.)..."

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Name of Site:	
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Details:	

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Your Name:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Robinia+pseudoacacia`
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Plants For A Future: Database Search Results

Robinia pseudoacacia

Common name:	Black locust	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	All parts of the plant (except the flowers) and especially the bark, should be considered to be toxic[4, 65, 76]. The toxins are destroyed by heat[65].		
Range:	Eastern N. America - Appalachian and Ozark mountain ranges. Naturalized in Britain[17].		
Habitat:	Woods and thickets[43], especially in deep well-drained calcareous soils[149].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. pseudacacia[H,L] R. pseudo-acacia[E] R. pseudoacacia f. erecta[G] R. pseudoacacia f. inermis[G] R. pseudoacacia f. microphylla[G] R. pseudoacacia f. pyramidalis[G] R. pseudoacacia f. rehderi[G] R. pseudoacacia f. rozynskiana[G] R. pseudoacacia f. semperflorens[G] R. pseudoacacia var. microphylla[G] R. pseudoacacia var. pyramidalis[G] R. pseudoacacia var. rectissima[B,P] R. pseudoacacia var. rozynskiana[G] R. pseudoacacia var. semperflorens[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akasya [E], Al Sant Al Kathib [E], Black Locust [FEIS,P,DEN1,E,B,L,H], Common Locust [L], False Acacia [H,L], Locust Tree [H], Robinia [D], Salgim Chichekli Aghaji [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Iraq; Turkey; Us

Physical Characteristics

A decidious tree growing to 25m by 15m at a fast rate. It is hardy to zone 3. It is in flower in June, and the seeds ripen from November to March. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Drink; Flowers; Oil; Seed; Seedpod.

Seed - cooked[2, 55, 61]. Oily[161]. They are boiled and used like peas[183]. After boiling the seeds lose their acid taste[213]. The seed is about 4mm long and is produced in pods up to 10cm long that contain 4 - 8 seeds[82]. A nutritional analysis is available[218].

Young seedpods - cooked[105]. The pods contain a sweetish pulp that is safe to eat and is relished by small children[201].(This report is quite probably mistaken, having been confused with the honey locust, Gleditsia spp[K].)

A strong, narcotic and intoxicating drink is made from the skin of the fruit[13].

Piperonal is extracted from the plant, it is used as a vanilla substitute[105]. No further details.

All the above entries should be treated with some caution, see the notes at the top of the page regarding toxicity.

Flowers - cooked. A fragrant aroma, they are used in making jams and pancakes[7, 183]. They can also be made into a pleasant drink[183].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Protein: 21 Fat: 3 Fibre: 28 Ash: 6.8
In milligrammes per 100g weight of food:

Calcium: 1400 Phosphorus: 0.3
Source: [218]

Medicinal Uses

Disclaimer

Antispasmodic; Antiviral; Aromatic; Cholagogue; Diuretic; Emetic; Emollient; Febrifuge; Laxative; Narcotic; Purgative; Tonic.

Febrifuge[13, 46].

The flowers are antispasmodic, aromatic, diuretic, emollient and laxative[218]. They are cooked and eaten for the treatment of eye ailments[218].

The inner bark and the root bark are emetic, purgative and tonic[4, 7, 218, 257]. The root bark has been chewed to induce vomiting, or held in the mouth to allay toothache[222, 257], though it is rarely if ever prescribed as a therapeutic agent in Britain[4].

The fruit is narcotic[13]. This probably refers to the seedpod.

The leaves are cholagogue and emetic[7]. The leaf juice inhibits viruses[218].

Other Uses

Dye; Essential; Fibre; Fuel; Soil stabilization; Wood.

A drying oil is obtained from the seed[2, 7].

An essential oil is obtained from the flowers. Highly valued, it is used in perfumery[7, 57, 100].

A yellow dye is obtained from the bark[223]. The bark contains tannin, but not in sufficient quantity for utilization[223]. On a 10% moisture basis, the bark contains 7.2% tannin and the heartwood of young trees 5.7%[223].

The bark is used to make paper and is a substitute for silk and wool[13].

Trees sucker freely, especially if coppiced, and they can be used for stabilizing banks etc[200, 226].

Wood - close-grained, exceedingly hard, heavy, very strong, resists shock and is very durable in contact with the soil. It weighs 45lb per cubic foot and is used in shipbuilding and for making fence posts, treenails, floors etc[4, 7, 11, 13, 46, 61, 82, 149, 171, 227]. A very good fuel[82], but it should be used with caution because it flares up and projects sparks[226].

Cultivation details

Succeeds in any well-drained soil, preferring one that is not too rich[1, 200]. Succeeds in dry barren sites, tolerating drought and atmospheric pollution[60, 200]. Succeeds in a hot dry position.

A fast-growing tree[188], it can begin to flower when only 6 years old, though 10 - 12 years is more normal[229]. The flowers are a rich source of nectar and are very fragrant[82] with a vanilla-like scent[245].

The branches are brittle and very liable to wind damage[200]. When plants are grown in rich soils they produce coarse and rank growth which is even more liable to wind damage[11, 200].

The plants sucker freely and often form dense thickets, the suckers have vicious thorns[226]. There are some named varieties selected for their ornamental value[188], some of these are thornless[226].

Any pruning should be done in late summer in order to reduce the risk of bleeding[200].

The leaves are rich in tannin and other substances which inhibit the growth of other plants[13]. A very greedy tree, tending to impoverish the soil[13]. (Although a legume, I believe it does not fix atmospheric nitrogen[K])

A very good bee plant[7, 13, 20, 201].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - pre-soak for 48 hours in warm water and sow the seed in late winter in a cold frame[80]. A short stratification improves germination rates and time[80]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in the following summer. Other reports say that the seed can be sown in an outdoor seedbed in spring[78, 98]. The seed stores for over 10 years[113].

Suckers taken during the dormant season.

Scent

Flowers: Fresh

> The flowers are very fragrant with a vanilla-like scent[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Robinia pseudoacacia* (Black Locust)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Robinia pseudacacia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Robinia pseudo-acacia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *robinia pseudoacacia* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5

Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7

Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Robinia pseudoacacia

Klaus Dichtel Tue Dec 25 17:22:37 2001

I wonder how Ken comes to believe it doesn`t fix atmospheric nitrogen. All other sources are telling the opposite, e.g. Martin Crawford/"Nitrogen-fixing Plants"

Robinia pseudoacacia

Klaus Dichtel Sat Jan 5 21:26:03 2002

In the german PC-mailinglist, Jürgen Wahl (j.orca@t-online.de) says that he saw nodulatet roots and N-loving plants nearby such as utrica ssp., galium aparine and sambucus nigra. Here his original message:"...Bis jetzt hatte jede Robinie der ich an die Wurzeln gegangen bin Knöllchen +die sind bei allenLeguminosen ort derSymbiose die N aus der Luft bindet. Fernerhabe ich bis heute in jedem Robiniengehölz eine N-liebende Begleitflora gefunden(Brennnessel,Klettenlabkraut,Hollunderetc.)..."

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Olneya tesota

Common name:		Family:	Leguminosae
Author:	Gray.	Botanical references:	71
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California to Arizona and Mexico.		
Habitat:	Desert washes below 600 metres[71].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Desert Ironwood [P,DEN2], Desert-ironwood [B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Mexico(Seri)

Physical Characteristics

Tree growing to 9m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Seed - raw or cooked[46, 61, 105, 161]. A similar taste to peanuts[2].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood - very hard, it can blunt a saw[161].

Cultivation details

257362

This species requires an almost frost-free climate.

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Robinia pseudoacacia

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Synonyms:			
Known Hazards:	All parts of the plant (except the flowers) and especially the bark, should be considered to be toxic[4, 65, 76]. The toxins are destroyed by heat[65].		
Range:	Eastern N. America - Appalachian and Ozark mountain ranges. Naturalized in Britain[17].		
Habitat:	Woods and thickets[43], especially in deep well-drained calcareous soils[149].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. pseudacacia[H,L] R. pseudo-acacia[E] R. pseudoacacia f. erecta[G] R. pseudoacacia f. inermis[G] R. pseudoacacia f. microphylla[G] R. pseudoacacia f. pyramidalis[G] R. pseudoacacia f. rehderi[G] R. pseudoacacia f. rozynskiana[G] R. pseudoacacia f. semperflorens[G] R. pseudoacacia var. microphylla[G] R. pseudoacacia var. pyramidalis[G] R. pseudoacacia var. rectissima[B,P] R. pseudoacacia var. rozynskiana[G] R. pseudoacacia var. semperflorens[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akasya [E], Al Sant Al Kathib [E], Black Locust [FEIS,P,DEN1,E,B,L,H], Common Locust [L], False Acacia [H,L], Locust Tree [H], Robinia [D], Salgim Chichekli Aghaji [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Iraq; Turkey; Us

Physical Characteristics

A decidious tree growing to 25m by 15m at a fast rate. It is hardy to zone 3. It is in flower in June, and the seeds ripen from November to March. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Drink; Flowers; Oil; Seed; Seedpod.

Seed - cooked[2, 55, 61]. Oily[161]. They are boiled and used like peas[183]. After boiling the seeds lose their acid taste[213]. The seed is about 4mm long and is produced in pods up to 10cm long that contain 4 - 8 seeds[82]. A nutritional analysis is available[218].

Young seedpods - cooked[105]. The pods contain a sweetish pulp that is safe to eat and is relished by small children[201].(This report is quite probably mistaken, having been confused with the honey locust, Gleditsia spp[K].)

A strong, narcotic and intoxicating drink is made from the skin of the fruit[13].

Piperonal is extracted from the plant, it is used as a vanilla substitute[105]. No further details.

All the above entries should be treated with some caution, see the notes at the top of the page regarding toxicity.

Flowers - cooked. A fragrant aroma, they are used in making jams and pancakes[7, 183]. They can also be made into a pleasant drink[183].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Protein: 21 Fat: 3 Fibre: 28 Ash: 6.8
In milligrammes per 100g weight of food:

Calcium: 1400 Phosphorus: 0.3
Source: [218]

Medicinal Uses

Disclaimer

Antispasmodic; Antiviral; Aromatic; Cholagogue; Diuretic; Emetic; Emollient; Febrifuge; Laxative; Narcotic; Purgative; Tonic.

Febrifuge[13, 46].

The flowers are antispasmodic, aromatic, diuretic, emollient and laxative[218]. They are cooked and eaten for the treatment of eye ailments[218].

The inner bark and the root bark are emetic, purgative and tonic[4, 7, 218, 257]. The root bark has been chewed to induce vomiting, or held in the mouth to allay toothache[222, 257], though it is rarely if ever prescribed as a therapeutic agent in Britain[4].

The fruit is narcotic[13]. This probably refers to the seedpod.

The leaves are cholagogue and emetic[7]. The leaf juice inhibits viruses[218].

Other Uses

Dye; Essential; Fibre; Fuel; Soil stabilization; Wood.

A drying oil is obtained from the seed[2, 7].

An essential oil is obtained from the flowers. Highly valued, it is used in perfumery[7, 57, 100].

A yellow dye is obtained from the bark[223]. The bark contains tannin, but not in sufficient quantity for utilization[223]. On a 10% moisture basis, the bark contains 7.2% tannin and the heartwood of young trees 5.7%[223].

The bark is used to make paper and is a substitute for silk and wool[13].

Trees sucker freely, especially if coppiced, and they can be used for stabilizing banks etc[200, 226].

Wood - close-grained, exceedingly hard, heavy, very strong, resists shock and is very durable in contact with the soil. It weighs 45lb per cubic foot and is used in shipbuilding and for making fence posts, treenails, floors etc[4, 7, 11, 13, 46, 61, 82, 149, 171, 227]. A very good fuel[82], but it should be used with caution because it flares up and projects sparks[226].

Cultivation details

Succeeds in any well-drained soil, preferring one that is not too rich[1, 200]. Succeeds in dry barren sites, tolerating drought and atmospheric pollution[60, 200]. Succeeds in a hot dry position.

A fast-growing tree[188], it can begin to flower when only 6 years old, though 10 - 12 years is more normal[229]. The flowers are a rich source of nectar and are very fragrant[82] with a vanilla-like scent[245].

The branches are brittle and very liable to wind damage[200]. When plants are grown in rich soils they produce coarse and rank growth which is even more liable to wind damage[11, 200].

The plants sucker freely and often form dense thickets, the suckers have vicious thorns[226]. There are some named varieties selected for their ornamental value[188], some of these are thornless[226].

Any pruning should be done in late summer in order to reduce the risk of bleeding[200].

The leaves are rich in tannin and other substances which inhibit the growth of other plants[13]. A very greedy tree, tending to impoverish the soil[13]. (Although a legume, I believe it does not fix atmospheric nitrogen[K])

A very good bee plant[7, 13, 20, 201].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - pre-soak for 48 hours in warm water and sow the seed in late winter in a cold frame[80]. A short stratification improves germination rates and time[80]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in the following summer. Other reports say that the seed can be sown in an outdoor seedbed in spring[78, 98]. The seed stores for over 10 years[113].

Suckers taken during the dormant season.

Scent

Flowers: Fresh

> The flowers are very fragrant with a vanilla-like scent[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Robinia pseudoacacia* (Black Locust)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Search for Latin Name: Acacia

New Search: Acacia Search

Latin Name	Common Name	Family	Synonyms	Rating
Acacia aneura	Mulga acacia	Leguminosae	Racosperma aneurum	2
Acacia coriacea	Wiry wattle	Leguminosae		2
Acacia cultriformis	Knife-leaf wattle	Leguminosae	Racosperma cultriforme	2
Acacia dealbata	Mimosa	Leguminosae	A. decurrens dealbata.; Acacia decurrens dealbata; A. decurrens var. dealbata; Racosperma dealbatum	2
Acacia decurrens	Green wattle	Leguminosae	Mimosa decurrens.; Mimosa decurrens; A. decurrens var. pauciglandulosa; Racosperma decurrens	3
Acacia farnesiana	Sweet acacia	Leguminosae	Mimosa farnesiana; Acacia smallii; A. minuta; A. minuta ssp. densiflora; A. minuta ssp. minuta; A. smallei; Pithecellobium minutum; Vachellia densiflora; Vachellia farnesiana	2
Acacia longifolia	Sidney golden wattle	Leguminosae	Mimosa longifolia.; Mimosa longifolia; A. latifolia	3
Acacia melanoxylon	Blackwood	Leguminosae	Racosperma melanoxylon	2
Acacia mucronata		Leguminosae		3

Acacia paradoxa	Kangaroo thorn	Leguminosae	Acacia armata; Racosperma paradoxum	1
Acacia podalyriifolia	Queensland silver wattle	Leguminosae	Racosperma podalyriifolium	1
Acacia pycnantha	Golden wattle	Leguminosae		3
Acacia retinodes	Swamp wattle	Leguminosae		2
Acacia saligna	Blue-leaved wattle	Leguminosae	Acacia cyanophylla; A. acinacea; A. cyclophylla; A. obliqua; A. salicina; Mimosa saligna; Racosperma salicinum; Racosperma salignum	1
Acacia sophorae	Coastal wattle	Leguminosae	A. longifolia var. sophorae; Mimosa sophorae; Racosperma sophorae	2
Acacia verticillata	Prickly Moses	Leguminosae	Mimosa verticillata; Racosperma verticillatum	1
Albizia julibrissin	Mimosa	Leguminosae	Acacia mollis. Acacia julibrissin.; Acacia julibrissin; Acacia nemu	3
Arracacia xanthorrhiza	Arracacha	Umbelliferae	A. esculenta. Conium arracacia.; Conium arracacia; Arracacia esculenta; Conium arracacha	3
Robinia pseudoacacia	Black locust	Leguminosae	R. pseudacacia; R. pseudo-acacia; R. pseudoacacia f. erecta; R. pseudoacacia f. inermis; R. pseudoacacia f. microphylla; R. pseudoacacia f. pyramidalis; R. pseudoacacia f. rehderi; R. pseudoacacia f. rozynskiana; R. pseudoacacia f. semperflorens; R.	3

			pseudoacacia var. microphylla; R. pseudoacacia var. pyramidalis; R. pseudoacacia var. rectissima; R. pseudoacacia var. rozynskiana; R. pseudoacacia var. semperflorens	

New Search

Latin Name	Acacia	
Common Name		
Family		
Rating	1	5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Acacia aneura

Common name:	Mulga acacia	Family:	Leguminosae
Author:	F. Muell.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland, South Australia.		
Habitat:	Arid areas in all mainland states except Victoria[157, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma aneurum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mulga Acacia [H],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 9. It is in leaf all year, in flower from March to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Drink; Flowers; Gum; Manna; Seed.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters[144].

The bark exudes an edible gum[183]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly[193]. The gum can be warmed when it becomes soft and chewable[193].

Seed - cooked. It is dried, ground into a flour and used with cereals in making cakes etc[177, 183].

A sweet red or white 'lerp' that forms on the leaves and branches is eaten[183]. Lerp is a protective shield secreted from the anus of sap-sucking insects[193]. The taste is sweet and it was used as a staple food by the Aborigines in some areas of Australia[193]. It is not clear if the lerp is eaten when the insects are still present or if it can be eaten after they have gone[K].

A large succulent gall, known as 'mulga apple' is produced by the tree and is said to quench the thirst[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Brush; Dye; Soil stabilization; Wood.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

The twigs are used to make a dishmop[156].

Wood - turns well, takes a high polish. It is used extensively for ornaments and fencing[156, 157,

167].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in any good garden soil that is not excessively limey[11]. Most species become chlorotic on limey soils[200]. In the wild this species tolerates periodic inundation[167], though it is also very drought tolerant[245].

Hardy to at least -7c in Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and longer colder and wetter winters. Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8
A very readable book.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
A well illustrated and very readable book, but it does not contain much information for the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*,

Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Plants For A Future: Database Search Results

Acacia aneura

Common name:	Mulga acacia	Family:	Leguminosae
Author:	F. Muell.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland, South Australia.		
Habitat:	Arid areas in all mainland states except Victoria[157, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma aneurum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mulga Acacia [H],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 9. It is in leaf all year, in flower from March to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Drink; Flowers; Gum; Manna; Seed.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters[144].

The bark exudes an edible gum[183]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly[193]. The gum can be warmed when it becomes soft and chewable[193].

Seed - cooked. It is dried, ground into a flour and used with cereals in making cakes etc[177, 183].

A sweet red or white 'lerp' that forms on the leaves and branches is eaten[183]. Lerp is a protective shield secreted from the anus of sap-sucking insects[193]. The taste is sweet and it was used as a staple food by the Aborigines in some areas of Australia[193]. It is not clear if the lerp is eaten when the insects are still present or if it can be eaten after they have gone[K].

A large succulent gall, known as 'mulga apple' is produced by the tree and is said to quench the thirst[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Brush; Dye; Soil stabilization; Wood.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

The twigs are used to make a dishmop[156].

Wood - turns well, takes a high polish. It is used extensively for ornaments and fencing[156, 157, 167].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in any good garden soil that is not excessively limey[11]. Most species become chlorotic on limey soils[200]. In the wild this species tolerates periodic inundation[167], though it is also very drought tolerant[245].

Hardy to at least -7c in Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and longer colder and wetter winters. Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8
A very readable book.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
A well illustrated and very readable book, but it does not contain much information for the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169

An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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Plants For A Future: Database Search Results

Acacia aneura

Common name:	Mulga acacia	Family:	Leguminosae
Author:	F. Muell.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland, South Australia.		
Habitat:	Arid areas in all mainland states except Victoria[157, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma aneurum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mulga Acacia [H],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 9. It is in leaf all year, in flower from March to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Drink; Flowers; Gum; Manna; Seed.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters[144].

The bark exudes an edible gum[183]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly[193]. The gum can be warmed when it becomes soft and chewable[193].

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A large succulent gall, known as 'mulga apple' is produced by the tree and is said to quench the thirst[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Brush; Dye; Soil stabilization; Wood.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

The twigs are used to make a dishmop[156].

Wood - turns well, takes a high polish. It is used extensively for ornaments and fencing[156, 157, 167].

Cultivation details

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Hardy to at least -7c in Australian gardens[157], though this cannot be translated directly to British gardens due to our cooler summers and longer colder and wetter winters. Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

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Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Search for Latin Name: Actinorhizal

New Search: Actinorhizal Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Actinorhizal

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Actinorhizal
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Albizia

New Search: Albizia Search

Latin Name	Common Name	Family	Synonyms	Rating
Albizia julibrissin	Mimosa	Leguminosae	Acacia mollis. Acacia julibrissin.; Acacia julibrissin; A. julibrissin var. julibrissin; Acacia nemu; Mimosa arborea; Mimosa julibrissin	3

New Search

Latin Name Albizia

Common Name

Family

Rating 1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

Submit

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Albizia julibrissin

Common name:	Mimosa	Family:	Leguminosae
Author:	(Willd.) Durazz.	Botanical references:	11, 51, 200
Synonyms:	Acacia julibrissin ((Durazz.)Willd.)		
Known Hazards:	None known		
Range:	W. Asia and E. Asia - Iran to China.		
Habitat:	Open sunny ravines, forests and by rivers up to 2100 metres in the Himalayas[51, 158].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. julibrissin var. julibrissin[G] Acacia nemu[H] Mimosa arborea[G,H] Mimosa julibrissin[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ho Huan [E], Ho Hun [E], Mimosa [H,DEN1], Nemu-No-Ki [E], Silk Tree [H], Silktree [P,B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 12m by 10m . It is hardy to zone 7 and is frost tender. It is in flower from July to August, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, By Walls, By South Wall.

Edible Uses

Flowers; Leaves; Tea.

Young leaves - cooked. An aromatic flavour[2, 106, 178, 179], they are used as a potherb[183].

Flowers - cooked. Eaten as a vegetable[183].

The dried leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Anthelmintic; Carminative; Digestive; Diuretic; Oxytoxic; Plaster; Sedative; Stimulant; Tonic; Vulnerary.

The flower heads are carminative, digestive, sedative and tonic[176, 218, 238]. They are used internally in the treatment of insomnia, irritability, breathlessness and poor memory[176, 238]. The flowers are harvested as they open and are dried for later use[238].

The stembark is anodyne, anthelmintic, carminative, discutient, diuretic, oxytocic, sedative, stimulant, tonic, vermifuge and vulnerary[176, 178, 218]. It is used internally in the treatment of insomnia, irritability, boils and carbuncles[238]. Externally, it is applied to injuries and swellings[238]. The bark is harvested in spring or late summer and is dried for later use[238].

A gummy extract obtained from the plant is used as a plaster for abscesses, boils etc and also as a retentive in fractures and sprains[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Gum; Plaster.

A gummy extract of the plant is used as a plaster[178]. No more details are given.

Wood - dense, hard, strong, takes a good polish. Used for furniture, industrial applications etc[74, 158].

Cultivation details

Requires a well-drained moisture retentive soil and a very sunny position[200]. Succeeds in dry soils. Highly fertile soils can promote soft sappy growth which is frost tender[200]. Trees tolerate a high pH, saline soils, high winds and drought[200, 238]. They also succeed in poor soils[238].

Trees prefer a more continental climate than Britain[11] and when dormant are hardy to about -20°c in such a zone[200]. They are only hardy to about -10°c in the maritime climate of this country[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. They succeed on a sunny wall at Kew[11], and also in a more open but sunny sheltered position there[K], but only really succeed outdoors in the mildest areas of Britain[1]. If killed back to the ground by a severe winter, plants can often resprout from the base[200]. The form 'Rosea' is hardier and more compact, succeeding even in the drier parts of Britain if given some protection[11].

Plants are quite tolerant of pruning and can be fan-trained for growing on a wall. Any pruning is best done in late winter or early spring[202].

Often grown as a summer bedding plant[1].

Quite tolerant of being transplanted[200]. Plants often produce suckers[200].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak 24 hours in hot water and sow March/April in a greenhouse or sow as soon as it is ripe in a cold frame[113]. Germinates in 2 - 3 months at 19°c. Scarification helps[133]. There are about 11,000 seeds to a pound, about 25 - 33% of which germinate[227]. Prick out the seedlings into individual pots of fairly rich soil when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant out in late spring or early summer and consider giving them some protection from the cold for their first winter or two outdoors[K].

Root cuttings, late winter in a greenhouse[113, 200].

Cuttings of half-ripe wood, July/August in a frame[200].

Suckers planted out in late winter[200].

Cultivars

'Rosea'

> A hardier and more compact form of the species, it succeeds in the drier parts of the country if given some protection[11].

Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology

Deptarments' Tree Fact Sheets.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Albizia julibrissin var. julibrissin* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

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References

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

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Plants For A Future: Database Search Results

Albizia julibrissin

Common name:	Mimosa	Family:	Leguminosae
Author:	(Willd.) Durazz.	Botanical references:	11, 51, 200
Synonyms:	Acacia julibrissin ((Durazz.)Willd.)		
Known Hazards:	None known		
Range:	W. Asia and E. Asia - Iran to China.		
Habitat:	Open sunny ravines, forests and by rivers up to 2100 metres in the Himalayas[51, 158].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. julibrissin var. julibrissin[G] Acacia nemu[H] Mimosa arborea[G,H] Mimosa julibrissin[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ho Huan [E], Ho Hun [E], Mimosa [H,DEN1], Nemu-No-Ki [E], Silk Tree [H], Silktree [P,B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 12m by 10m . It is hardy to zone 7 and is frost tender. It is in flower from July to August, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge, By Walls, By South Wall.

Edible Uses

Flowers; Leaves; Tea.

Young leaves - cooked. An aromatic flavour[2, 106, 178, 179], they are used as a potherb[183].

Flowers - cooked. Eaten as a vegetable[183].

The dried leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Anthelmintic; Carminative; Digestive; Diuretic; Oxytoxic; Plaster; Sedative; Stimulant; Tonic; Vulnerary.

The flower heads are carminative, digestive, sedative and tonic[176, 218, 238]. They are used internally in the treatment of insomnia, irritability, breathlessness and poor memory[176, 238]. The flowers are harvested as they open and are dried for later use[238].

The stembark is anodyne, anthelmintic, carminative, discutient, diuretic, oxytocic, sedative, stimulant, tonic, vermifuge and vulnerary[176, 178, 218]. It is used internally in the treatment of insomnia, irritability, boils and carbuncles[238]. Externally, it is applied to injuries and swellings[238]. The bark is harvested in spring or late summer and is dried for later use[238].

A gummy extract obtained from the plant is used as a plaster for abscesses, boils etc and also as a retentive in fractures and sprains[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Gum; Plaster.

A gummy extract of the plant is used as a plaster[178]. No more details are given.

Wood - dense, hard, strong, takes a good polish. Used for furniture, industrial applications etc[74, 158].

Cultivation details

Requires a well-drained moisture retentive soil and a very sunny position[200]. Succeeds in dry soils. Highly fertile soils can promote soft sappy growth which is frost tender[200]. Trees tolerate a high pH, saline soils, high winds and drought[200, 238]. They also succeed in poor soils[238].

Trees prefer a more continental climate than Britain[11] and when dormant are hardy to about -20°c in such a zone[200]. They are only hardy to about -10°c in the maritime climate of this country[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. They succeed on a sunny wall at Kew[11], and also in a more open but sunny sheltered position there[K], but only really succeed outdoors in the mildest areas of Britain[1]. If killed back to the ground by a severe winter, plants can often resprout from the base[200]. The form 'Rosea' is hardier and more compact, succeeding even in the drier parts of Britain if given some protection[11].

Plants are quite tolerant of pruning and can be fan-trained for growing on a wall. Any pruning is best done in late winter or early spring[202].

Often grown as a summer bedding plant[1].

Quite tolerant of being transplanted[200]. Plants often produce suckers[200].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak 24 hours in hot water and sow March/April in a greenhouse or sow as soon as it is ripe in a cold frame[113]. Germinates in 2 - 3 months at 19°c. Scarification helps[133]. There are about 11,000 seeds to a pound, about 25 - 33% of which germinate[227]. Prick out the seedlings into individual pots of fairly rich soil when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant out in late spring or early summer and consider giving them some protection from the cold for their first winter or two outdoors[K].

Root cuttings, late winter in a greenhouse[113, 200].

Cuttings of half-ripe wood, July/August in a frame[200].

Suckers planted out in late winter[200].

Cultivars

'Rosea'

> A hardier and more compact form of the species, it succeeds in the drier parts of the country if given some protection[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Albizia julibrissin var. julibrissin* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of

edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

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Plants For A Future: Database Search Results

Albizia julibrissin

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Author:	(Willd.) Durazz.	Botanical references:	11, 51, 200
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Known Hazards:	None known		
Range:	W. Asia and E. Asia - Iran to China.		
Habitat:	Open sunny ravines, forests and by rivers up to 2100 metres in the Himalayas[51, 158].		
Plants For A Future Rating (1-5):	3		

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	Ho Huan [E], Ho Hun [E], Mimosa [H,DEN1], Nemu-No-Ki [E], Silk Tree [H], Silktree [P,B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious tree growing to 12m by 10m . It is hardy to zone 7 and is frost tender. It is in flower from July to August, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

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Wood - dense, hard, strong, takes a good polish. Used for furniture, industrial applications etc[74, 158].

Cultivation details

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Often grown as a summer bedding plant[1].

Quite tolerant of being transplanted[200]. Plants often produce suckers[200].

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Suckers planted out in late winter[200].

Cultivars

'Rosea'

> A hardier and more compact form of the species, it succeeds in the drier parts of the country if given some protection[11].

Suppliers

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Search for Latin Name: Casuarina

New Search: Casuarina Search

Latin Name	**Common Name**	**Family**	**Synonyms**	**Rating**
Casuarina cristata		Casuarinaceae	C. lepidophylla.; Casuarina lepidophylla; C. lepidophloia	1
Casuarina cunninghamiana	River she-oak	Casuarinaceae		1
Casuarina glauca	Swamp oak	Casuarinaceae		1
Casuarina littoralis	She oak	Casuarinaceae	C. suberosa. Otto.&Dietr.; Casuarina suberosa; Allocasuarina littoralis	1
Casuarina torulosa	Forest oak	Casuarinaceae	Allocasuarina torulosa.; Allocasuarina torulosa; C. tenuissima	1
Casuarina verticillata		Casuarinaceae	C. stricta. Ait. Allocasuarina verticillata.; Casuarina stricta; Allocasuarina verticillata; C. quadrivalvis	1

New Search

Latin Name	Casuarina
Common Name	
Family	

Rating 1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/find_lat?LAT=Casuarina&CAN=READER`
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Casuarina cristata

Common name:		Family:	Casuarinaceae
Author:	Miq.	Botanical references:	200
Synonyms:	Casuarina lepidophylla		
Known Hazards:	None known		
Range:	Australia - New South Wales, South Australia, Victoria, Western Australia.		
Habitat:	Drier areas[157], usually on heavier soils and avoiding ridges[156].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. lepidophloia[B,G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Belah [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	cristata = crested;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Florida.

Physical Characteristics

An evergreen tree growing to 12m at a fast rate. It is hardy to zone 9. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Tannin; Wood.

The bark is rich in tannin[229].

Wood - very hard, not durable, takes a good polish. Mainly used for furniture and fencing, it is also a good fuel[156, 229].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. A report for Australian gardens says that it prefers growing in dry areas but also thrives in very wet soils[157]. Fast growing[157].

This plant tolerates temperatures down to at least -7°c in Australian gardens[157] although this cannot be translated directly to British gardens due to our cooler summers and longer, colder wetter winters. It might succeed outdoors in the mildest areas of the country[200].

The plant produces suckers from the roots and often forms dense groves[229].

Unlike most members of this genus, this plant does not fix atmospheric nitrogen[200].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Casuarina lepidophloia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Casuarinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8

A very readable book.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Readers Comments

Casuarina cristata

Mon Mar 11 07:13:33 2002

The Casuarina cristata is found in central Australian, it is important to this environment because it stops fires. The reason for this is beacuse of its low litter accumulation. Therefore it is important not a noxious weed.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia* *albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera: Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages: Edible Trees and Shrubs Hardy in Britain*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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Your Name:	
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Plants For A Future: Database Search Results

Casuarina cristata

Common name:		Family:	Casuarinaceae
Author:	Miq.	Botanical references:	200
Synonyms:	Casuarina lepidophylla		
Known Hazards:	None known		
Range:	Australia - New South Wales, South Australia, Victoria, Western Australia.		
Habitat:	Drier areas[157], usually on heavier soils and avoiding ridges[156].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. lepidophloia[B,G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Belah [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	cristata = crested;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Florida.

Physical Characteristics

An evergreen tree growing to 12m at a fast rate. It is hardy to zone 9. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Tannin; Wood.

The bark is rich in tannin[229].

Wood - very hard, not durable, takes a good polish. Mainly used for furniture and fencing, it is also a good fuel[156, 229].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. A report for Australian gardens says that it prefers growing in dry areas but also thrives in very wet soils[157]. Fast growing[157].

This plant tolerates temperatures down to at least -7°c in Australian gardens[157] although this cannot be translated directly to British gardens due to our cooler summers and longer, colder wetter winters. It might succeed outdoors in the mildest areas of the country[200].

The plant produces suckers from the roots and often forms dense groves[229].

Unlike most members of this genus, this plant does not fix atmospheric nitrogen[200].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

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Mon Mar 11 07:13:33 2002

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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family
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Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

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Other Uses

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The bark is rich in tannin[229].

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Search for Latin Name: Gliricidia

New Search: Gliricidia Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Gliricidia

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Gliricidia	
Common Name		
Family		
Rating	1	5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Leucaena

New Search: Leucaena Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Leucaena

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Leucaena
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Prosopis

New Search: Prosopis Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Prosopis

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Prosopis
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Plants For A Future: Database Search

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Search for Latin Name: Myroxylon

New Search: Myroxylon Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Myroxylon

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name: Myroxylon
Common Name:
Family:
Rating: 1 — 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List]() or email [webmaster@pfaf.org]() (note we don't have the time to answer individual plant related queries).

Add a comment on: *Casuarina cristata*

Subject:

Casuarina cristata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Casuarina cristata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Casuarina cunninghamiana

Common name:	River she-oak	Family:	Casuarinaceae
Author:	Miq.	Botanical references:	200, 265
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Northern Territories, Victoria.		
Habitat:	Usually found by freshwater streams[156, 167] in alluvial sands and loams[167]. It experiences severe frosts in some parts of its range[167].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	River She-oak [H,B], River Sheoak [P],
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Florida.

Physical Characteristics

An evergreen tree growing to 18m. It is hardy to zone 9. It is in leaf all year, in flower from May to June, and the seeds ripen from September to December. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix

Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Shelterbelt; Soil reclamation; Soil stabilization; Tannin; Wood.

Gold, green and grey dyes are obtained from the leaves[156].

The bark can be used as tanbark[269].

The plant forms suckers and is a good soil stabilizer[156]. It is much planted in Egypt for protecting roads from the sand[269]. It is often planted along the sides of streams to protect them from erosion[269].

In suitable climates, the plant is much used in windbreaks, shelterbelts and for land reclamation[269].

Wood - dark, durable, closely grained, nicely marked, not as heavy as that of other members of this genus. Used for flooring, axe handles, firewood, poles etc[156, 269].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. Succeeds in most soils, whether well-drained or damp, in Australian gardens[157, 167]. The plant is reported to tolerate acid soils, alkaline soils, calcareous soils (perhaps chlorotic), drought, muck, sand dunes, salt, weeds, and wind[269]. Plants tolerate an annual precipitation in the range of 50 to 150cm[269].

This plant tolerates temperatures down to at least -7°c in Australian gardens[157] although this cannot be translated directly to British gardens due to our cooler summers and longer, colder wetter winters. It experiences severe frosts in parts of its range[167] and so some provenances should succeed outdoors in the mildest areas of this country. Plants have survived temperatures of -8°C with no apparent injury. They are said to tolerate up to 50 light frosts per year[269].

Closely related to C. glauca and often hybridises in the wild with that species[265].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157, 200].

Dioecious, male and female plants must be grown if seed is required.

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. There are 440,000 - 550,000 seeds per kilo[269].

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Casuarinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
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[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8
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Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Casuarina cunninghamiana

Common name:	River she-oak	Family:	Casuarinaceae
Author:	Miq.	Botanical references:	200, 265
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Northern Territories, Victoria.		
Habitat:	Usually found by freshwater streams[156, 167] in alluvial sands and loams[167]. It experiences severe frosts in some parts of its range[167].		
Plants For A Future Rating (1-5):	1		

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Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Shelterbelt; Soil reclamation; Soil stabilization; Tannin; Wood.

Gold, green and grey dyes are obtained from the leaves[156].

The bark can be used as tanbark[269].

The plant forms suckers and is a good soil stabilizer[156]. It is much planted in Egypt for protecting roads from the sand[269]. It is often planted along the sides of streams to protect them from erosion[269].

In suitable climates, the plant is much used in windbreaks, shelterbelts and for land reclamation[269].

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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

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Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Plants For A Future: Database Search Results

Casuarina cunninghamiana

Common name:	River she-oak	Family:	Casuarinaceae
Author:	Miq.	Botanical references:	200, 265
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Northern Territories, Victoria.		
Habitat:	Usually found by freshwater streams[156, 167] in alluvial sands and loams[167]. It experiences severe frosts in some parts of its range[167].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	River She-oak [H,B], River Sheoak [P],
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Florida.

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Shelterbelt; Soil reclamation; Soil stabilization; Tannin; Wood.

Gold, green and grey dyes are obtained from the leaves[156].

The bark can be used as tanbark[269].

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Dioecious, male and female plants must be grown if seed is required.

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Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. There are 440,000 - 550,000 seeds per kilo[269].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Casuarina cunninghamiana*

Subject:

Casuarina cunninghamiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Casuarina cunninghamiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:22:35 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Casuarina glauca

Common name:	Swamp oak	Family:	Casuarinaceae
Author:	Spreng.	Botanical references:	200, 265
Synonyms:			
Known Hazards:	There is a report that the pollen might be allergenic[269].		
Range:	Australia - New South Wales, Queensland, Victoria.		
Habitat:	Usually found in swampy localities[156]. Near salt water estuaries, along sluggish creeks and occasionally on rising ground[265].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Gray She-oak [B], Gray Sheoak [P],
Epithets:	From a Dictionary of Botanical Epithets
	glauca = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Florida.

Physical Characteristics

An evergreen tree growing to 18m. It is hardy to zone 9. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

Leaves.

The needles are chewed to relieve thirst[177]. We assume that this means the leaves[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Shelterbelt; Wood.

The plant suckers freely and forms a good windbreak[167]. It has been used to reclaim land, especially eroded mountainsides, and to provide shelterbelts[269]. The plant can spread very freely by means of suckers and has become a noxious weed in some areas - its planting is banned in some parts of Florida[269]. Ditches are sometimes dug on either side of the shelterbelt planting in order to control its spread[269].

Wood - tough. Used for axe handles etc, it is said to be better than hickory (Carya spp) for this purpose[156]. The brownish timber is nicely marked and is used for fencing rails, shingles, salt water pilings, poles, charcoal and fuel[269]. Casuarina spp. have very dense wood, with a specific gravity of 0.8 - 1.2, and a calorific value of ca 5,000 kcal/kg[269]. The wood splits easily, and burns slowly with little smoke or ash[269]. It also can be burned when green, an important advantage in fuel short areas[269]. From their fourth year, trees shed about 4 tons cones/year. These, too, make good pellet-sized fuel (NAS, 1983e)[269].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. Succeeds in most soils in Australian gardens, including saline ones, and is tolerant of salt spray[157, 167, 269]. Plants are reported to tolerate high pH, limestone soils, low pH, salt and sand dunes, water-logging, weeds, and wind[269]. Reported to tolerate an annual precipitation in the range of 50 to 400cm, estimated annual temperature range of 18 to 28°C, and a pH of 5 to 8[269]. Plants have grown in Israel under a soil crust of salt (50,000 ppm)[269].

Rarely tolerates temperatures lower than -3°C[269]. Tolerates temperatures down to at least -7°c in Australian gardens[157], and plants are said to tolerate frost in South Africa[269], although this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. It might succeed outdoors in the mildest areas of the country.

Spreading by means of root suckers, this species has become a pest in some parts of Florida[269].

Closely related to C. cunninghamiana, though somewhat less hardy[269], it often hybridises in the wild with that species[265]. In fine-textured clays, even in waterlogged soils, C. glauca can develop a deep root system, while C. cunninghamiana and C. equisetifolia develop shallow roots and grow poorly[269].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157]. Although Nitrogen nodulation is most successful at pH 6 to 8, some natural stands are well nodulated in acid soils (pH ca 4)[269].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. There are between 700,000 - 970,000 seeds per kilo[269].

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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References for the family Casuarinaceae.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Casuarina glauca

Common name:	Swamp oak	Family:	Casuarinaceae
Author:	Spreng.	Botanical references:	200, 265
Synonyms:			
Known Hazards:	There is a report that the pollen might be allergenic[269].		
Range:	Australia - New South Wales, Queensland, Victoria.		
Habitat:	Usually found in swampy localities[156]. Near salt water estuaries, along sluggish creeks and occasionally on rising ground[265].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Gray She-oak [B], Gray Sheoak [P],
Epithets:	From a Dictionary of Botanical Epithets
	glauca = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Florida.

Physical Characteristics

An evergreen tree growing to 18m. It is hardy to zone 9. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not

maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

Leaves.

The needles are chewed to relieve thirst[177]. We assume that this means the leaves[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Shelterbelt; Wood.

The plant suckers freely and forms a good windbreak[167]. It has been used to reclaim land, especially eroded mountainsides, and to provide shelterbelts[269]. The plant can spread very freely by means of suckers and has become a noxious weed in some areas - its planting is banned in some parts of Florida[269]. Ditches are sometimes dug on either side of the shelterbelt planting in order to control its spread[269].

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Plants For A Future Rating (1-5):	1		

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Casuarina glauca*

Subject:

Casuarina glauca

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Casuarina glauca

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Casuarina littoralis

Common name:	She oak	Family:	Casuarinaceae
Author:	Salisb.	Botanical references:	200, 265
Synonyms:	Casuarina suberosa (Otto.&Dietr.), Allocasuarina littoralis ((Salisb.)L.Johnson.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania.		
Habitat:	Sandy coastal heaths[200], especially on poor sandstone soils[167]. Widespread on heath and in open forests[265].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	littoralis = of the sea shore; littoral;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 8m. It is hardy to zone 9. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - hard, durable. Used for veneer and joinery, it is also an excellent fuel[167].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. This species is often found growing in poor dry soils in the wild[167, 200]. Judging by the plants native habitat, it is likely to tolerate maritime exposure[K].

This species is not very frost tolerant, but it might succeed outdoors in the milder maritime areas of the country[200].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157, 200].

The bark is rarely corky, in spite of its synonym (suberosa means corky)[1].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Allocasuarina littoralis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Casuarinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera: Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages: Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Plants For A Future: Database Search Results

Casuarina littoralis

Common name:	She oak	Family:	Casuarinaceae
Author:	Salisb.	Botanical references:	200, 265
Synonyms:	Casuarina suberosa (Otto.&Dietr.), Allocasuarina littoralis ((Salisb.)L.Johnson.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania.		
Habitat:	Sandy coastal heaths[200], especially on poor sandstone soils[167]. Widespread on heath and in open forests[265].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	littoralis = of the sea shore; littoral;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 8m. It is hardy to zone 9. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - hard, durable. Used for veneer and joinery, it is also an excellent fuel[167].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. This species is often found growing in poor dry soils in the wild[167, 200]. Judging by the plants native habitat, it is likely to tolerate maritime exposure[K].

This species is not very frost tolerant, but it might succeed outdoors in the milder maritime areas of the country[200].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157, 200].

The bark is rarely corky, in spite of its synonym (suberosa means corky)[1].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Plants For A Future: Database Search Results

Casuarina littoralis

Common name:	She oak	Family:	Casuarinaceae
Author:	Salisb.	Botanical references:	200, 265
Synonyms:	Casuarina suberosa (Otto.&Dietr.), Allocasuarina littoralis ((Salisb.)L.Johnson.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania.		
Habitat:	Sandy coastal heaths[200], especially on poor sandstone soils[167]. Widespread on heath and in open forests[265].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	littoralis = of the sea shore; littoral;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 8m. It is hardy to zone 9. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - hard, durable. Used for veneer and joinery, it is also an excellent fuel[167].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. This species is often found growing in poor dry soils in the wild[167, 200]. Judging by the plants native habitat, it is likely to tolerate maritime exposure[K].

This species is not very frost tolerant, but it might succeed outdoors in the milder maritime areas of the country[200].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157, 200].

The bark is rarely corky, in spite of its synonym (suberosa means corky)[1].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Casuarina littoralis*

Subject:

Casuarina littoralis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Casuarina littoralis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Casuarina torulosa

Common name:	Forest oak	Family:	Casuarinaceae
Author:	Ait.	Botanical references:	200
Synonyms:	Allocasuarina torulosa ((Aiton.)L.Johnson.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland.		
Habitat:	Coastal eucalyptus forests and on moist fertile soils in hilly eucalyptus forests[167]. Experiences frost and snow in the south of its range[167].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. tenuissima[G]
Epithets:	From a Dictionary of Botanical Epithets
	torulosa = cyclindrical but marked with swellings; torulosa = ;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Wood.

Wood - tough, durable. Used for veneer and joinery, it is also a very good fuel[156, 167].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. Succeeds in most soils and aspects in Australian gardens[157].

Tolerates temperatures down to at least -7°c in Australian gardens[157] although this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. It experiences frost and snow in parts of its native range and so some provenances should succeed outdoors at least in the mildest areas of the country[K].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157, 200].

A dioecious species, at least one male plant is required for every 5 - 6 females in order to produce seed[265].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Wood.

Wood - tough, durable. Used for veneer and joinery, it is also a very good fuel[156, 167].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. Succeeds in most soils and aspects in Australian gardens[157].

Tolerates temperatures down to at least -7°c in Australian gardens[157] although this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. It experiences frost and snow in parts of its native range and so some provenances should succeed outdoors at least in the mildest areas of the country[K].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157, 200].

A dioecious species, at least one male plant is required for every 5 - 6 females in order to produce seed[265].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late

spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Allocasuarina torulosa* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Casuarinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[156] **Cribb. A. B. and J. W.** *Useful Wild Plants in Australia.* William Collins Pty Ltd. Sidney 1981 ISBN 0-00-216441-8
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Casuarina torulosa

Common name:	Forest oak	Family:	Casuarinaceae
Author:	Ait.	Botanical references:	200
Synonyms:	Allocasuarina torulosa ((Aiton.)L.Johnson.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland.		
Habitat:	Coastal eucalyptus forests and on moist fertile soils in hilly eucalyptus forests[167]. Experiences frost and snow in the south of its range[167].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. tenuissima[G]
Epithets:	From a Dictionary of Botanical Epithets
	torulosa = cyclindrical but marked with swellings; torulosa = ;
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Wood.

Wood - tough, durable. Used for veneer and joinery, it is also a very good fuel[156, 167].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. Succeeds in most soils and aspects in Australian gardens[157].

Tolerates temperatures down to at least -7°c in Australian gardens[157] although this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. It experiences frost and snow in parts of its native range and so some provenances should succeed outdoors at least in the mildest areas of the country[K].

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157, 200].

A dioecious species, at least one male plant is required for every 5 - 6 females in order to produce seed[265].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late

spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Casuarina torulosa*

Subject:

Casuarina torulosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Casuarina torulosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Casuarina verticillata

Common name:		Family:	Casuarinaceae
Author:	Lam.	Botanical references:	200
Synonyms:	Casuarina stricta (Aiton.), Allocasuarina verticillata		
Known Hazards:	None known		
Range:	Australia - New South Wales, South Australia, Tasmania, Victoria.		
Habitat:	Calcareous sands by the coast, inland on poor rocky soils and on sand overlying clay[167].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. quadrivalvis[G]
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 10m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - tough[146, 156].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. Often found in poor dry soils in the wild[167]. Succeeds in most soils and aspects in Australian gardens. Tolerates salt spray and maritime exposure.

Tolerates temperatures down to at least -7°c in Australian gardens[157] although this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. It should succeed outdoors in the mildest maritime areas of this country.

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Casuarinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Casuarina verticillata

Common name:		Family:	Casuarinaceae
Author:	Lam.	Botanical references:	200
Synonyms:	Casuarina stricta (Aiton.), Allocasuarina verticillata		
Known Hazards:	None known		
Range:	Australia - New South Wales, South Australia, Tasmania, Victoria.		
Habitat:	Calcareous sands by the coast, inland on poor rocky soils and on sand overlying clay[167].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. quadrivalvis[G]
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 10m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - tough[146, 156].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. Often found in poor dry soils in the wild[167]. Succeeds in most soils and aspects in Australian gardens. Tolerates salt spray and maritime exposure.

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Web References

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Known Hazards:	None known		
Range:	Australia - New South Wales, South Australia, Tasmania, Victoria.		
Habitat:	Calcareous sands by the coast, inland on poor rocky soils and on sand overlying clay[167].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. quadrivalvis[G]
Systematics:	From a UDSA Plants Database
	Order: Casuarinales . She-oak family

Physical Characteristics

An evergreen tree growing to 10m. It is hardy to zone 9. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Secondary, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - tough[146, 156].

Cultivation details

Requires a well-drained moisture-retentive soil in full sun[200]. Often found in poor dry soils in the wild[167]. Succeeds in most soils and aspects in Australian gardens. Tolerates salt spray and maritime exposure.

Tolerates temperatures down to at least -7°c in Australian gardens[157] although this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. It should succeed outdoors in the mildest maritime areas of this country.

This species has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[157].

Propagation

Seed - sow late winter to early summer in a greenhouse and only just cover the seed[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame[157, 200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Casuarina+verticillata`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Casuarina+verticillata`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Casuarina verticillata*

Subject:

Casuarina verticillata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Casuarina verticillata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:23:14 2004

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Add a comment on: *Albizia julibrissin*

Subject:

Albizia julibrissin

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Albizia julibrissin

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Your Name:

Your Email Address:

Date: Sun May 16 02:23:16 2004

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Add a comment on: *Acacia aneura*

Subject:

Acacia aneura

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia aneura

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:23:19 2004

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Acacia coriacea

Common name:	Wiry wattle	Family:	Leguminosae
Author:	DC.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Australia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	coriacea = leathery;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Seed - cooked. Sweet and nutritious[193]. The seed contains about 20% protein[193].

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Composition

Seed (Fresh weight)
In grammes per 100g weight of food:
Protein: 20

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most species become chlorotic on limey soils[200].

Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on

the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a sunny position in the greenhouse for at least their first winter. Plant out in early summer and consider giving some protection from winter cold for their first year or two outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

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Web References

- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*,

Sesbania sesban, *Ziziphus mauritiana*. *Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Acacia coriacea

Common name:	Wiry wattle	Family:	Leguminosae
Author:	DC.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	Australia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	coriacea = leathery;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Seed - cooked. Sweet and nutritious[193]. The seed contains about 20% protein[193].

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 20

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most species become chlorotic on limey soils[200].

Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a sunny position in the greenhouse for at least their first winter. Plant out in early summer and consider giving some protection from winter cold for their first year or two outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Acacia coriacea

Common name:	Wiry wattle	Family:	Leguminosae
Author:	DC.	Botanical references:	
Synonyms:			
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Range:	Australia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

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Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Seed - cooked. Sweet and nutritious[193]. The seed contains about 20% protein[193].

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 20

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

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Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Acacia+coriacea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Acacia+coriacea`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List](#) or email [webmaster@pfaf.org](#) (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia coriacea*

Subject:

Acacia coriacea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia coriacea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:23:29 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Acacia cultriformis

Common name:	Knife-leaf wattle	Family:	Leguminosae
Author:	Cunn. ex G. Don.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales and Queensland.		
Habitat:	Rocky ridges[260]. Dry sclerophyll forests and heath[265].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma cultriforme[G]
Epithets:	From a Dictionary of Botanical Epithets
	cultriformis = knife shaped;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

Prefers a well-drained sandy loam and a very sunny position[1]. Succeeds in dry soils and is drought tolerant. Succeeds in any good garden soil that is not excessively limey[11]. Most species become chlorotic on limey soils[200].

This species is probably very tender in Britain, but it has been grown outdoors in the mildest parts of Cornwall[11].

Closely related to A. pravissima[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
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[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias,*

Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Acacia cultriformis

Common name:	Knife-leaf wattle	Family:	Leguminosae
Author:	Cunn. ex G. Don.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales and Queensland.		
Habitat:	Rocky ridges[260]. Dry sclerophyll forests and heath[265].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma cultriforme[G]
Epithets:	From a Dictionary of Botanical Epithets
	cultriformis = knife shaped;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

Prefers a well-drained sandy loam and a very sunny position[1]. Succeeds in dry soils and is drought tolerant. Succeeds in any good garden soil that is not excessively limey[11]. Most species become chlorotic on limey soils[200].

This species is probably very tender in Britain, but it has been grown outdoors in the mildest parts of Cornwall[11].

Closely related to A. pravissima[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough

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Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

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Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales and Queensland.		
Habitat:	Rocky ridges[260]. Dry sclerophyll forests and heath[265].		
Plants For A Future Rating (1-5):	2		

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Epithets:	From a Dictionary of Botanical Epithets
	cultriformis = knife shaped;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Acacia+cultriformis`
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Add a comment on: *Acacia cultriformis*

Subject:

Acacia cultriformis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia cultriformis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:23:39 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Acacia dealbata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mimosa	Family:	Leguminosae
Author:	Link.	Botanical references:	11, 154, 200
Synonyms:	Acacia decurrens dealbata ((Link.)F.Muell.)		
Known Hazards:	None known		
Range:	Australia - Victoria, New South Wales, Tasmania. Naturalized in S. Europe[50].		
Habitat:	In many habitats by streams, gullies and alpine ridges[154, 184]. Dry forests[260].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. decurrens var. dealbata[B,G,H,P] Racosperma dealbatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mimosa [H], Silver Wattle [H,B,P],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white; dealbata = whitened;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 25m by 8m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from January to February. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

A gum that exudes naturally from the trunk is edible and is used as a substitute for Gum Arabic[46]. It is very soluble in water and viscous[46, 153], but is of low quality[64]. Larger quantities can be obtained by tapping the trunk[64]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly.[193]. The gum can be warmed when it becomes soft and chewable[193].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Tannin is obtained from the bark[61, 171]. On a 10% moisture basis, the bark contains 19.1%

tannin[223].

Cultivation details

Prefers a sandy loam and a very sunny position sheltered from strong winds[1, 11]. Succeeds in any good garden soil that is lime-free[11]. Plants become chlorotic on limey soils[200]. They grow well in a hot dry position[166], and are very drought tolerant[245]. Fast growing[88]. Although it prefers a well-drained soil, the plant is tolerant of both drought and wet conditions[260].

Hardy to about -10°c, this species succeeds outdoors in the milder areas of Britain[11, 184], growing well in Cornwall[49, 59]. If it is cut down by frosts it usually resprouts from the base to form a thicket of slender stems[166]. It can be trained and grown against a sunny wall[202]. Plants require hot, sunny summers if they are to ripen their wood fully and flower freely. In Britain they tend to do best when grown in coastal gardens in a sunny, sheltered position that is protected from the wind[11].

This species is closely allied to A. decurrens[11].

Old specimens sucker very freely, often at considerable distances from the parent tree[200]. Plants can be coppiced[134].

A very ornamental tree[1], there are some named varieties[260]. The species is cultivated in S. Europe for ornament, timber and soil stabilization[50]. The flowers are very attractive and are often sold in florists[11, 61]. The violet-like perfume of the flowers can be quite intoxicating on a calm day[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

The violet-like perfume can be quite intoxicating on a calm day when there are plenty of flowers in bloom.

Cultivars

'Mirandole'

Said to be the hardiest form of this species[260].

'Kambah Karpet'

A prostrate ground-covering form[260].

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Readers Comments

Acacia dealbata

Kristina Getch Tue May 27 21:53:16 2003

I live in Georgia, USA and have tried to locate either the seeds of the Acacia Dealbata or a small shurb to be shipped to the US for my garden. I have tried various leads without success. Can you help me?

Thank you,

Kristina

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera: Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages: Edible Trees and Shrubs Hardy in Britain*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Acacia+dealbata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Acacia+dealbata`

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Plants For A Future: Database Search Results

Acacia dealbata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mimosa	Family:	Leguminosae
Author:	Link.	Botanical references:	11, 154, 200
Synonyms:	Acacia decurrens dealbata ((Link.)F.Muell.)		
Known Hazards:	None known		
Range:	Australia - Victoria, New South Wales, Tasmania. Naturalized in S. Europe[50].		
Habitat:	In many habitats by streams, gullies and alpine ridges[154, 184]. Dry forests[260].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. decurrens var. dealbata[B,G,H,P] Racosperma dealbatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mimosa [H], Silver Wattle [H,B,P],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white; dealbata = whitened;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 25m by 8m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from January to February. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

A gum that exudes naturally from the trunk is edible and is used as a substitute for Gum Arabic[46]. It is very soluble in water and viscous[46, 153], but is of low quality[64]. Larger quantities can be obtained by tapping the trunk[64]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly.[193]. The gum can be warmed when it becomes soft and chewable[193].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Tannin is obtained from the bark[61, 171]. On a 10% moisture basis, the bark contains 19.1% tannin[223].

Cultivation details

Prefers a sandy loam and a very sunny position sheltered from strong winds[1, 11]. Succeeds in any good garden soil that is lime-free[11]. Plants become chlorotic on limey soils[200]. They grow well in a hot dry position[166], and are very drought tolerant[245]. Fast growing[88]. Although it prefers a well-drained soil, the plant is tolerant of both drought and wet conditions[260].

Hardy to about -10°c, this species succeeds outdoors in the milder areas of Britain[11, 184], growing well in Cornwall[49, 59]. If it is cut down by frosts it usually resprouts from the base to form a thicket of slender stems[166]. It can be trained and grown against a sunny wall[202]. Plants require hot, sunny summers if they are to ripen their wood fully and flower freely. In Britain they tend to do best when grown in coastal gardens in a sunny, sheltered position that is protected from the wind[11].

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A very ornamental tree[1], there are some named varieties[260]. The species is cultivated in S. Europe for ornament, timber and soil stabilization[50]. The flowers are very attractive and are often sold in florists[11, 61]. The violet-like perfume of the flowers can be quite intoxicating on a calm day[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The violet-like perfume can be quite intoxicating on a calm day when there are plenty of flowers in bloom.

Cultivars

'Mirandole'

Said to be the hardiest form of this species[260].

'Kambah Karpet'

A prostrate ground-covering form[260].

Suppliers

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Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Acacia dealbata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mimosa	Family:	Leguminosae
Author:	Link.	Botanical references:	11, 154, 200
Synonyms:	Acacia decurrens dealbata ((Link.)F.Muell.)		
Known Hazards:	None known		
Range:	Australia - Victoria, New South Wales, Tasmania. Naturalized in S. Europe[50].		
Habitat:	In many habitats by streams, gullies and alpine ridges[154, 184]. Dry forests[260].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. decurrens var. dealbata[B,G,H,P] Racosperma dealbatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mimosa [H], Silver Wattle [H,B,P],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white; dealbata = whitened;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 25m by 8m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from January to February. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

A gum that exudes naturally from the trunk is edible and is used as a substitute for Gum Arabic[46]. It is very soluble in water and viscous[46, 153], but is of low quality[64]. Larger quantities can be obtained by tapping the trunk[64]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly.[193]. The gum can be warmed when it becomes soft and chewable[193].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Tannin is obtained from the bark[61, 171]. On a 10% moisture basis, the bark contains 19.1% tannin[223].

Cultivation details

Prefers a sandy loam and a very sunny position sheltered from strong winds[1, 11]. Succeeds in any good garden soil that is lime-free[11]. Plants become chlorotic on limey soils[200]. They grow well in a hot dry position[166], and are very drought tolerant[245]. Fast growing[88]. Although it prefers a well-drained soil, the plant is tolerant of both drought and wet conditions[260].

Hardy to about -10°c, this species succeeds outdoors in the milder areas of Britain[11, 184], growing well in Cornwall[49, 59]. If it is cut down by frosts it usually resprouts from the base to form a thicket of slender stems[166]. It can be trained and grown against a sunny wall[202]. Plants require hot, sunny summers if they are to ripen their wood fully and flower freely. In Britain they tend to do best when grown in coastal gardens in a sunny, sheltered position that is protected from the wind[11].

This species is closely allied to A. decurrens[11].

Old specimens sucker very freely, often at considerable distances from the parent tree[200]. Plants can be coppiced[134].

A very ornamental tree[1], there are some named varieties[260]. The species is cultivated in S. Europe for ornament, timber and soil stabilization[50]. The flowers are very attractive and are often sold in florists[11, 61]. The violet-like perfume of the flowers can be quite intoxicating on a calm day[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The violet-like perfume can be quite intoxicating on a calm day when there are plenty of flowers in bloom.

Cultivars

'Mirandole'

Said to be the hardiest form of this species[260].

'Kambah Karpet'

A prostrate ground-covering form[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia dealbata*

Subject:

Acacia dealbata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia dealbata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Acacia decurrens

Common name:	Green wattle	Family:	Leguminosae
Author:	(Wendl.) Willd.	Botanical references:	11, 200
Synonyms:	Mimosa decurrens (J.C.Wendl.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria.		
Habitat:	Sheltered forests, mainly on shales and sandstone[153]. Usually on cool moist hills and gullies[167].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. decurrens var. pauciglandulosa[G] Racosperma decurrens[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Wattle [H], Green Wattle [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	decurrens = running down, towards;
Systematatics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 12m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in April. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

A gum that exudes naturally from the trunk is edible and is used as a substitute for Gum Arabic in making jellies etc[46, 105, 177]. It is insoluble in water[153] and is of low quality[64]. Larger quantities can be obtained by tapping the trunk[64]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly.[193]. The gum can be warmed when it becomes soft and chewable[193].

Medicinal Uses

Disclaimer

Astringent.

The bark is astringent[4, 153]. It should be stored for 12 months before being used[4]. Its main use is in the treatment of diarrhoea[4].

Other Uses

Dye; Hedge; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Often grown as a screen in Australia[157].

The bark contains about 40% tannin[61, 171]. On a 10% moisture basis, the bark contains 36.6% tannin[223].

Cultivation details

Prefers a light sandy loam and a very sunny position sheltered from strong winds[1, 49, 89]. Succeeds in any good garden soil that is not excessively limey[11], it also succeeds in dry soils. Most species in this genus become chlorotic on limey soils[200].

Plants tolerate temperatures down to about -5°c[260]. This species is one of the hardiest members of the genus, it succeeds outdoors in the milder areas of the country, but even in Cornwall it can be killed back to the ground in excessively harsh winters[11]. It will, however, usually resprout from the base. Plants require hot, sunny summers if they are to ripen their wood fully and flower freely. In Britain they tend to do best when grown in coastal gardens in a sunny, sheltered position that is protected from the wind[11].

A fast-growing and very ornamental tree[1, 260], it is closely related to A. dealbata[11].

The cultivar 'Mollis' is notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Cultivars

'Mollis'

> This form is notably resistant to the disease honey fungus[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202

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[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

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A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
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[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
A well illustrated and very readable book, but it does not contain much information for the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina,* *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages: Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Acacia decurrens

Common name:	Green wattle	Family:	Leguminosae
Author:	(Wendl.) Willd.	Botanical references:	11, 200
Synonyms:	Mimosa decurrens (J.C.Wendl.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria.		
Habitat:	Sheltered forests, mainly on shales and sandstone[153]. Usually on cool moist hills and gullies[167].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. decurrens var. pauciglandulosa[G] Racosperma decurrens[G]
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Epithets:	From a Dictionary of Botanical Epithets
	decurrens = running down, towards;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 12m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in April. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

A gum that exudes naturally from the trunk is edible and is used as a substitute for Gum Arabic in making jellies etc[46, 105, 177]. It is insoluble in water[153] and is of low quality[64]. Larger quantities can be obtained by tapping the trunk[64]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly.[193]. The gum can be warmed when it becomes soft and chewable[193].

Medicinal Uses

Disclaimer

Astringent.

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Other Uses

Dye; Hedge; Soil stabilization; Tannin.

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A green dye is obtained from the seed pods[168].

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Often grown as a screen in Australia[157].

The bark contains about 40% tannin[61, 171]. On a 10% moisture basis, the bark contains 36.6% tannin[223].

Cultivation details

Prefers a light sandy loam and a very sunny position sheltered from strong winds[1, 49, 89]. Succeeds in any good garden soil that is not excessively limey[11], it also succeeds in dry soils. Most species in this genus become chlorotic on limey soils[200].

Plants tolerate temperatures down to about -5°c[260]. This species is one of the hardiest members of the genus, it succeeds outdoors in the milder areas of the country, but even in Cornwall it can be killed back to the ground in excessively harsh winters[11]. It will, however, usually resprout from the base. Plants require hot, sunny summers if they are to ripen their wood fully and flower freely. In Britain they tend to do best when grown in coastal gardens in a sunny, sheltered position that is protected from the wind[11].

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This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

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Cultivars

'Mollis'

> This form is notably resistant to the disease honey fungus[200].

Suppliers

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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
A well illustrated and very readable book, but it does not contain much information for the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Acacia decurrens

Common name:	Green wattle	Family:	Leguminosae
Author:	(Wendl.) Willd.	Botanical references:	11, 200
Synonyms:	Mimosa decurrens (J.C.Wendl.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria.		
Habitat:	Sheltered forests, mainly on shales and sandstone[153]. Usually on cool moist hills and gullies[167].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. decurrens var. pauciglandulosa[G] Racosperma decurrens[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Wattle [H], Green Wattle [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	decurrens = running down, towards;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 12m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in April. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

A gum that exudes naturally from the trunk is edible and is used as a substitute for Gum Arabic in making jellies etc[46, 105, 177]. It is insoluble in water[153] and is of low quality[64]. Larger quantities can be obtained by tapping the trunk[64]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly.[193]. The gum can be warmed when it becomes soft and chewable[193].

Medicinal Uses

Disclaimer

Astringent.

The bark is astringent[4, 153]. It should be stored for 12 months before being used[4]. Its main use is in the treatment of diarrhoea[4].

Other Uses

Dye; Hedge; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Often grown as a screen in Australia[157].

The bark contains about 40% tannin[61, 171]. On a 10% moisture basis, the bark contains 36.6% tannin[223].

Cultivation details

Prefers a light sandy loam and a very sunny position sheltered from strong winds[1, 49, 89]. Succeeds in any good garden soil that is not excessively limey[11], it also succeeds in dry soils. Most species in this genus become chlorotic on limey soils[200].

Plants tolerate temperatures down to about -5°c[260]. This species is one of the hardiest members of the genus, it succeeds outdoors in the milder areas of the country, but even in Cornwall it can be killed back to the ground in excessively harsh winters[11]. It will, however, usually resprout from the base. Plants require hot, sunny summers if they are to ripen their wood fully and flower freely. In Britain they tend to do best when grown in coastal gardens in a sunny, sheltered position that is protected from the wind[11].

A fast-growing and very ornamental tree[1, 260], it is closely related to A. dealbata[11].

The cultivar 'Mollis' is notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Cultivars

'Mollis'

> This form is notably resistant to the disease honey fungus[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia decurrens*

Subject:

Acacia decurrens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia decurrens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 02:24:03 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Plants For A Future: Database Search Results

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Acacia farnesiana

Common name:	Sweet acacia	Family:	Leguminosae
Author:	(L.) Willd.	Botanical references:	82, 200, 227
Synonyms:	Mimosa farnesiana (L.), Acacia smallii (Isely.)		
Known Hazards:	The seeds, containing an unnamed alkaloid, are used to kill rabid dogs in Brazil[269].		
Range:	South-eastern N. America - Florida.		
Habitat:	Dry sandy soils in pinelands, hammocks and disturbed areas[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. minuta[B] A. minuta ssp. densiflora[B] A. minuta ssp. minuta[P] A. smallei[E] Pithecellobium minutum[B,P] Vachellia densiflora[B] Vachellia farnesiana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cassie [H], Coastal Scrub Wattle [P], Cuji [E], Desert Sweet Acacia [L], Esponjeira [E], Huisache [L,H], Kambang Japun [E], Kembang Bandira [E], Kembang Nagasiri [E], Mealy Wattle [B], Opopanax [H], Perfume Acacia [H], Popinac [H], Sweet Acacia [DEN2,P,L], Tusca [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database

	Brazil; China; India(Santal); Java; Malaya; Mexico; Mexico(Kickapoo); Mexico(Warihio); Spain; Venezuela

Physical Characteristics

A decidious shrub growing to 9m. It is hardy to zone 8. It is in flower from February to March. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid, very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

Astringent; Demulcent; Poultice; Stomachic.

The bark is astringent and demulcent[240]. Along with the leaves and roots it is used for medicinal purposes[269]. Colombians bathe in the bark decoction as a treatment for typhoid[269].

The gummy roots have been chewed as a treatment for sore throat[269].

A decoction of the gum from the trunk has been used in the treatment of diarrhoea[269].

An infusion of the flowers has been used as a stomachic. It is also used in the treatment of dyspepsia and neuroses[269]. The flowers are added to ointment, which is rubbed on the forehead to treat headaches[269].

The powdered dried leaves have been applied externally as a treatment for wounds[269].

The green pods have been decocted and used in the treatment of dysentery and inflammations of the skin and raucous membranes[269]. An infusion of the pod has been used in the treatment of sore throats, diarrhoea, leucorrhoea, conjunctivitis, and uterorrhagia[269].

Other Uses

Adhesive; Dye; Essential; Gum; Ink; Tannin; Teeth; Wood.

An essential oil called Cassie is distilled from the flowers[229, 269]. Cassie absolute is employed in preparation of violet bouquets and is extensively used in European perfumery[269]. Cassie pomades are manufactured in Uttar Pradesh and the Punjab. A deliciously scented essential oil, it has a fragrance of violets[245]. A mature plant 10 years old can yield 9 kg of flowers each year[245]. In a suitable climate, the trees begin to flower from their third year. The perfume is extracted from the flowers in form of concrete or pomade. Macerated flowers are placed in melted purified natural fat and allowed to stand for several hours. They are then replaced by fresh flowers and the process repeated until the fat is saturated with perfume. The fat is then melted, strained and cooled. This constitutes the pomade. Odour is that of violets but more intense. Absolute is prepared by mixing pomade with alcohol (2 - 3 kg to about 4 litres) and allowed to stand for 3 - 4 weeks at about -5°C. The alcohol is then separated and distilled over. The extract obtained is an olive-green liquid with strong odour of cassie flowers[269]. Mature trees can yield about 1 kilo of flowers per year[269].

The bark and the fruit are a source of tannin and used in making dyes and inks[227]. The seedpods contain about 23% tannin[240]. The bark, in combination with iron ores and salts, is used as a black dyestuff[269].

A gummy substance obtained from the young pods is used to mend pottery[227, 269].

A mucilage can be manufactured from the gummy sap[229]. A gum exuding from trunk is considered to be superior to gum arabic in arts[269].

The woody branches are used in India as tooth brushes[269].

In suitable climates the plant is grown as a hedge[82]. The trees have also been used for erosion control in sandy soils[269].

Wood - heavy, hard, durable in the soil, close-grained. Used for fencing posts, agricultural implements, pegs, woodenware etc[82, 227, 269].

Cultivation details

Prefers a light sandy loam and a very sunny position sheltered from strong winds[1, 49, 89]. Plants can grow well in pure sand[269]. Most species in this genus become chlorotic on limey soils[200]. Established plants are very drought tolerant[227, 245]. The species and its cultivars are reported to exhibit tolerance to drought, high pH, heat, low pH, salt, sand, slope, and Savannah[269]. Plants tolerate a pH range from 5.0 to 8.0[269].

Whilst this species is not very tolerant of cold, being damaged by even a few degrees of frost, the variety A. farnesiana cavenia seems to be more resistant to both drought and frost[269].

Both A. farnesiana and its var. cavenia are extensively cultivated for the essential oil in their flowers in and around Cannes, southern France, which is the centre for production of the perfume[229, 269. Assigned to the South American Centre of Diversity, cassie (2n = 52, 104).

A good bee plant[227].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[269].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> An essential oil is obtained from the violet-scented flowers.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acacia minuta ssp. minuta* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Acacia smallei* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Acacia smallii* (a possible synonym).

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

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If you know of another site which has good information about this plant fill in the following the details here.

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Details:

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Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Acacia farnesiana

Common name:	Sweet acacia	Family:	Leguminosae
Author:	(L.) Willd.	Botanical references:	82, 200, 227
Synonyms:	Mimosa farnesiana (L.), Acacia smallii (Isely.)		
Known Hazards:	The seeds, containing an unnamed alkaloid, are used to kill rabid dogs in Brazil[269].		
Range:	South-eastern N. America - Florida.		
Habitat:	Dry sandy soils in pinelands, hammocks and disturbed areas[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. minuta[B] A. minuta ssp. densiflora[B] A. minuta ssp. minuta[P] A. smallei[E] Pithecellobium minutum[B,P] Vachellia densiflora[B] Vachellia farnesiana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cassie [H], Coastal Scrub Wattle [P], Cuji [E], Desert Sweet Acacia [L], Esponjeira [E], Huisache [L,H], Kambang Japun [E], Kembang Bandira [E], Kembang Nagasiri [E], Mealy Wattle [B], Opopanax [H], Perfume Acacia [H], Popinac [H], Sweet Acacia [DEN2,P,L], Tusca [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Brazil; China; India(Santal); Java; Malaya; Mexico; Mexico(Kickapoo); Mexico(Warihio); Spain; Venezuela

Physical Characteristics

A decidious shrub growing to 9m. It is hardy to zone 8. It is in flower from February to March. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid, very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

Astringent; Demulcent; Poultice; Stomachic.

The bark is astringent and demulcent[240]. Along with the leaves and roots it is used for medicinal purposes[269]. Colombians bathe in the bark decoction as a treatment for typhoid[269].

The gummy roots have been chewed as a treatment for sore throat[269].

A decoction of the gum from the trunk has been used in the treatment of diarrhoea[269].

An infusion of the flowers has been used as a stomachic. It is also used in the treatment of dyspepsia and neuroses[269]. The flowers are added to ointment, which is rubbed on the forehead to treat headaches[269].

The powdered dried leaves have been applied externally as a treatment for wounds[269].

The green pods have been decocted and used in the treatment of dysentery and inflammations of the skin and raucous membranes[269]. An infusion of the pod has been used in the treatment of sore throats, diarrhoea, leucorrhoea, conjunctivitis, and uterorrhagia[269].

Other Uses

Adhesive; Dye; Essential; Gum; Ink; Tannin; Teeth; Wood.

An essential oil called Cassie is distilled from the flowers[229, 269]. Cassie absolute is employed in preparation of violet bouquets and is extensively used in European perfumery[269]. Cassie pomades are manufactured in Uttar Pradesh and the Punjab. A deliciously scented essential oil, it has a fragrance of violets[245]. A mature plant 10 years old can yield 9 kg of flowers each year[245]. In a suitable climate, the trees begin to flower from their third year. The perfume is extracted from the flowers in form of concrete or pomade. Macerated flowers are placed in melted purified natural fat and allowed to stand for several hours. They are then replaced by fresh flowers and the process repeated until the fat is saturated with perfume. The fat is then melted, strained and cooled. This constitutes the pomade. Odour is that of violets but more intense. Absolute is prepared by mixing pomade with alcohol (2 - 3 kg to about 4 litres) and allowed to stand for 3 - 4 weeks at about -5°C. The alcohol is then separated and distilled over. The extract obtained is an olive-green liquid with strong odour of cassie flowers[269]. Mature trees can yield about 1 kilo of flowers per year[269].

The bark and the fruit are a source of tannin and used in making dyes and inks[227]. The seedpods contain about 23% tannin[240]. The bark, in combination with iron ores and salts, is used as a black dyestuff[269].

A gummy substance obtained from the young pods is used to mend pottery[227, 269].

A mucilage can be manufactured from the gummy sap[229]. A gum exuding from trunk is considered to be superior to gum arabic in arts[269].

The woody branches are used in India as tooth brushes[269].

In suitable climates the plant is grown as a hedge[82]. The trees have also been used for erosion control in sandy soils[269].

Wood - heavy, hard, durable in the soil, close-grained. Used for fencing posts, agricultural implements, pegs, woodenware etc[82, 227, 269].

Cultivation details

Prefers a light sandy loam and a very sunny position sheltered from strong winds[1, 49, 89]. Plants can grow well in pure sand[269]. Most species in this genus become chlorotic on limey soils[200]. Established plants are very drought tolerant[227, 245]. The species and its cultivars are reported to exhibit tolerance to drought, high pH, heat, low pH, salt, sand, slope, and Savannah[269]. Plants tolerate a pH range from 5.0 to 8.0[269].

Whilst this species is not very tolerant of cold, being damaged by even a few degrees of frost, the variety A. farnesiana cavenia seems to be more resistant to both drought and frost[269].

Both A. farnesiana and its var. cavenia are extensively cultivated for the essential oil in their flowers in and around Cannes, southern France, which is the centre for production of the perfume[229, 269. Assigned to the South American Centre of Diversity, cassie (2n = 52, 104).

A good bee plant[227].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[269].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

An essential oil is obtained from the violet-scented flowers.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acacia minuta ssp. minuta* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Acacia smallei* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Acacia smallii* (a possible synonym).

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN

0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*,

Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Acacia+farnesiana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Acacia+farnesiana`

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Plants For A Future: Database Search Results

Acacia farnesiana

Common name:	Sweet acacia	Family:	Leguminosae
Author:	(L.) Willd.	Botanical references:	82, 200, 227
Synonyms:	Mimosa farnesiana (L.), Acacia smallii (Isely.)		
Known Hazards:	The seeds, containing an unnamed alkaloid, are used to kill rabid dogs in Brazil[269].		
Range:	South-eastern N. America - Florida.		
Habitat:	Dry sandy soils in pinelands, hammocks and disturbed areas[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. minuta[B] A. minuta ssp. densiflora[B] A. minuta ssp. minuta[P] A. smallei[E] Pithecellobium minutum[B,P] Vachellia densiflora[B] Vachellia farnesiana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cassie [H], Coastal Scrub Wattle [P], Cuji [E], Desert Sweet Acacia [L], Esponjeira [E], Huisache [L,H], Kambang Japun [E], Kembang Bandira [E], Kembang Nagasiri [E], Mealy Wattle [B], Opopanax [H], Perfume Acacia [H], Popinac [H], Sweet Acacia [DEN2,P,L], Tusca [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Brazil; China; India(Santal); Java; Malaya; Mexico; Mexico(Kickapoo); Mexico(Warihio); Spain; Venezuela

Physical Characteristics

A decidious shrub growing to 9m. It is hardy to zone 8. It is in flower from February to March. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid, very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

None known

Medicinal Uses

Disclaimer

Astringent; Demulcent; Poultice; Stomachic.

The bark is astringent and demulcent[240]. Along with the leaves and roots it is used for medicinal purposes[269]. Colombians bathe in the bark decoction as a treatment for typhoid[269].

The gummy roots have been chewed as a treatment for sore throat[269].

A decoction of the gum from the trunk has been used in the treatment of diarrhoea[269].

An infusion of the flowers has been used as a stomachic. It is also used in the treatment of dyspepsia and neuroses[269]. The flowers are added to ointment, which is rubbed on the forehead to treat headaches[269].

The powdered dried leaves have been applied externally as a treatment for wounds[269].

The green pods have been decocted and used in the treatment of dysentery and inflammations of the skin and raucous membranes[269]. An infusion of the pod has been used in the treatment of sore throats, diarrhoea, leucorrhoea, conjunctivitis, and uterorrhagia[269].

Other Uses

Adhesive; Dye; Essential; Gum; Ink; Tannin; Teeth; Wood.

An essential oil called Cassie is distilled from the flowers[229, 269]. Cassie absolute is employed in preparation of violet bouquets and is extensively used in European perfumery[269]. Cassie pomades are manufactured in Uttar Pradesh and the Punjab. A deliciously scented essential oil, it has a fragrance of violets[245]. A mature plant 10 years old can yield 9 kg of flowers each year[245]. In a suitable climate, the trees begin to flower from their third year. The perfume is extracted from the flowers in form of concrete or pomade. Macerated flowers are placed in melted purified natural fat and allowed to stand for several hours. They are then replaced by fresh flowers and the process repeated until the fat is saturated with perfume. The fat is then melted, strained and cooled. This constitutes the pomade. Odour is that of violets but more intense. Absolute is prepared by mixing pomade with alcohol (2 - 3 kg to about 4 litres) and allowed to stand for 3 - 4 weeks at about -5°C. The alcohol is then separated and distilled over. The extract obtained is an olive-green liquid with strong odour of cassie flowers[269]. Mature trees can yield about 1 kilo of flowers per year[269].

The bark and the fruit are a source of tannin and used in making dyes and inks[227]. The seedpods contain about 23% tannin[240]. The bark, in combination with iron ores and salts, is used as a black dyestuff[269].

A gummy substance obtained from the young pods is used to mend pottery[227, 269].

A mucilage can be manufactured from the gummy sap[229]. A gum exuding from trunk is considered to be superior to gum arabic in arts[269].

The woody branches are used in India as tooth brushes[269].

In suitable climates the plant is grown as a hedge[82]. The trees have also been used for erosion control in sandy soils[269].

Wood - heavy, hard, durable in the soil, close-grained. Used for fencing posts, agricultural implements, pegs, woodenware etc[82, 227, 269].

Cultivation details

Prefers a light sandy loam and a very sunny position sheltered from strong winds[1, 49, 89]. Plants can grow well in pure sand[269]. Most species in this genus become chlorotic on limey soils[200]. Established plants are very drought tolerant[227, 245]. The species and its cultivars are reported to exhibit tolerance to drought, high pH, heat, low pH, salt, sand, slope, and Savannah[269]. Plants tolerate a pH range from 5.0 to 8.0[269].

Whilst this species is not very tolerant of cold, being damaged by even a few degrees of frost, the variety A. farnesiana cavenia seems to be more resistant to both drought and frost[269].

Both A. farnesiana and its var. cavenia are extensively cultivated for the essential oil in their flowers in and around Cannes, southern France, which is the centre for production of the perfume[229, 269. Assigned to the South American Centre of Diversity, cassie (2n = 52, 104).

A good bee plant[227].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[269].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

An essential oil is obtained from the violet-scented flowers.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia farnesiana*

Subject:

Acacia farnesiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia farnesiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Acacia longifolia

Common name:	Sidney golden wattle	Family:	Leguminosae
Author:	(Andrews.) Willd.	Botanical references:	11, 200
Synonyms:	Mimosa longifolia (Andr.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland, Southern Australia, Tasmania, Victoria.		
Habitat:	Sandy soils mainly by the coast[167].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. latifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Sydney Golden Wattle [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	longifolia = long leaved;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 9m by 6m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower in March. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed; Seedpod.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters. The flowers have a violet-like fragrance[245].

Seed - roasted[2, 46, 61, 105]. Starchy[177].

Seedpods - roasted[177]. The pods are up to 10cm long[219].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Hedge; Rootstock; Soil stabilization; Wood.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200]. It is used on sandy soils and steep banks[200].

Trees are planted as a screen in Australia[157].

This species is often grown as a rootstock for grafting lime-intolerant members of the genus[11].

Wood - pale, tough[154].

Cultivation details

Prefers a sandy loam and a very sunny position.[1, 182]. Succeeds in any good garden soil that is not excessively limey[11]. This species is fairly lime-tolerant[11, 200]. Succeeds in a hot dry position[166] and in poor soils[184]. A fairly wind resistant tree, growing well in maritime areas[49, 166, 182]. Tolerates some salt in the soil[200].

Hardy to about -10°c for short periods[200], it can be grown outdoors in many of the milder areas of the country though, even in Cornwall, it is liable to be cut back to the ground in excessively cold winters[11]. It can resprout from the base[11]. Tasmanian provenances are the hardiest forms in British gardens[182].

Dislikes root disturbance[78].

A very ornamental plant[1].

The flowers are scented of violets[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The flowers are violet-scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Trees and Shrubs for Shelterbelts: A
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
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[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN

3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
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[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta,* *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Plants For A Future: Database Search Results

Acacia longifolia

Common name:	Sidney golden wattle	Family:	Leguminosae
Author:	(Andrews.) Willd.	Botanical references:	11, 200
Synonyms:	Mimosa longifolia (Andr.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland, Southern Australia, Tasmania, Victoria.		
Habitat:	Sandy soils mainly by the coast[167].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. latifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Sydney Golden Wattle [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	longifolia = long leaved;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 9m by 6m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower in March. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed; Seedpod.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters. The flowers have a violet-like fragrance[245].

Seed - roasted[2, 46, 61, 105]. Starchy[177].

Seedpods - roasted[177]. The pods are up to 10cm long[219].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Hedge; Rootstock; Soil stabilization; Wood.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200]. It is used on sandy soils and steep banks[200].

Trees are planted as a screen in Australia[157].

This species is often grown as a rootstock for grafting lime-intolerant members of the genus[11].

Wood - pale, tough[154].

Cultivation details

Prefers a sandy loam and a very sunny position.[1, 182]. Succeeds in any good garden soil that is not excessively limey[11]. This species is fairly lime-tolerant[11, 200]. Succeeds in a hot dry position[166] and in poor soils[184]. A fairly wind resistant tree, growing well in maritime areas[49, 166, 182]. Tolerates some salt in the soil[200].

Hardy to about -10°c for short periods[200], it can be grown outdoors in many of the milder areas of the country though, even in Cornwall, it is liable to be cut back to the ground in excessively cold winters[11]. It can resprout from the base[11]. Tasmanian provenances are the hardiest forms in British gardens[182].

Dislikes root disturbance[78].

A very ornamental plant[1].

The flowers are scented of violets[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The flowers are violet-scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Trees and Shrubs for Shelterbelts: A
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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Plants For A Future: Database Search Results

Acacia longifolia

Common name:	Sidney golden wattle	Family:	Leguminosae
Author:	(Andrews.) Willd.	Botanical references:	11, 200
Synonyms:	Mimosa longifolia (Andr.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland, Southern Australia, Tasmania, Victoria.		
Habitat:	Sandy soils mainly by the coast[167].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. latifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Sydney Golden Wattle [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	longifolia = long leaved;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 9m by 6m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower in March. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed; Seedpod.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters. The flowers have a violet-like fragrance[245].

Seed - roasted[2, 46, 61, 105]. Starchy[177].

Seedpods - roasted[177]. The pods are up to 10cm long[219].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Hedge; Rootstock; Soil stabilization; Wood.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200]. It is used on sandy soils and steep banks[200].

Trees are planted as a screen in Australia[157].

This species is often grown as a rootstock for grafting lime-intolerant members of the genus[11].

Wood - pale, tough[154].

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Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The flowers are violet-scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia longifolia*

Subject:

Acacia longifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia longifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Acacia melanoxylon

Common name:	Blackwood	Family:	Leguminosae
Author:	R. Br.	Botanical references:	11, 154, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria. Locally naturalized in S.W. Europe[50].		
Habitat:	Wet forests on good soils up to the montane zone[152, 154]. Usually an under-storey tree in Eucalyptus forests[167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma melanoxylon[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blackwood [P,B], Blackwood Acacia [H],
Epithets:	From a Dictionary of Botanical Epithets
	melanoxylon = black wood;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 30m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower in April. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters. The flowers have a penetrating scent[245].

Medicinal Uses

Disclaimer

Antirheumatic.

Antirheumatic[152].

Other Uses

Dye; Soil stabilization; Tannin; Wood.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

The bark is rich in tannin[152].

Wood - hard, dark, close grained, high quality, takes a high polish. Used for furniture, fittings etc[1, 4, 11, 154, 156, 167].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Prefers a deep moist soil[167]. Succeeds in a hot dry position[166]. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic on limey soils[200].

This is one of the hardier members of the genus, tolerating temperatures down to about -10°c[260].

It succeeds outdoors in Britain from Dorset westwards, also in south-western Scotland and in Ireland[1, 11]. However, even in the mildest areas of the country it is liable to be cut back to the ground in excessively cold winters though it can resprout from the base[11]. It is planted for timber in south-west Europe[50].

This species produces both phyllodes (basically a flattened stem that looks and acts like a leaf) and true leaves[1, 166].

The roots are very vigorous and extensive - they often produce suckers[260] and can damage the foundations of buildings[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

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Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The flowers have a penetrating scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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References

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Acacia melanoxylon

Common name:	Blackwood	Family:	Leguminosae
Author:	R. Br.	Botanical references:	11, 154, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria. Locally naturalized in S.W. Europe[50].		
Habitat:	Wet forests on good soils up to the montane zone[152, 154]. Usually an under-storey tree in Eucalyptus forests[167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma melanoxylon[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blackwood [P,B], Blackwood Acacia [H],
Epithets:	From a Dictionary of Botanical Epithets
	melanoxylon = black wood;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 30m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower in April. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters. The flowers have a penetrating scent[245].

Medicinal Uses

Disclaimer

Antirheumatic.

Antirheumatic[152].

Other Uses

Dye; Soil stabilization; Tannin; Wood.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

The bark is rich in tannin[152].

Wood - hard, dark, close grained, high quality, takes a high polish. Used for furniture, fittings etc[1, 4, 11, 154, 156, 167].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Prefers a deep moist soil[167]. Succeeds in a hot dry position[166]. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic on limey soils[200].

This is one of the hardier members of the genus, tolerating temperatures down to about -10°c[260]. It succeeds outdoors in Britain from Dorset westwards, also in south-western Scotland and in Ireland[1, 11]. However, even in the mildest areas of the country it is liable to be cut back to the ground in excessively cold winters though it can resprout from the base[11]. It is planted for timber in south-west Europe[50].

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Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The flowers have a penetrating scent.

Suppliers

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Web References

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Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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> The flowers have a penetrating scent.

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Add a comment on: *Acacia melanoxylon*

Subject:

Acacia melanoxylon

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia melanoxylon

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Acacia mucronata

Common name:		Family:	Leguminosae
Author:	Willd.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Tasmania, Victoria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	mucronata = mucronate, short point;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 9m by 6m . It is hardy to zone 8. It is in leaf all year, in flower in March. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

The following uses are for the closely related A. longifolia, they almost certainly also apply to this species[K].

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Seed - roasted[2, 46, 61, 105]. Starchy[177].

Seedpods - roasted[177]. The pods are up to 10cm long[219].

Medicinal Uses

Disclaimer

None known

Other Uses

The following uses are for the closely related A. longifolia, they almost certainly also apply to this species[K].

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200]. It is used on sandy soils and steep banks[200].

Trees are planted as a screen in Australia[157].

This species is often grown as a rootstock for grafting lime-intolerant members of the genus[11].

Wood - pale, tough[154].

Cultivation details

Prefers a sandy loam and a very sunny position.[1, 182] Succeeds in any good garden soil that is not excessively limey[11]. This species is fairly lime-tolerant[11, 200]. Plants are very tolerant of drought[260], they succeed in a hot dry position[166] and in poor soils[184]. A fairly wind resistant tree, growing well in maritime areas[49, 166, 182]. Tolerates some salt in the soil[200].

Hardy to about -10°c for short periods[200], it can be grown outdoors in many of the milder areas of the country though, even in Cornwall, it is liable to be cut back to the ground in excessively cold winters[11]. It can resprout from the base[11].

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Dislikes root disturbance[78].

A very ornamental plant[1].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia mucronata*

Subject:

Acacia mucronata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia mucronata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:24:46 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Acacia paradoxa

Common name:	Kangaroo thorn	Family:	Leguminosae
Author:	DC.	Botanical references:	200, 265
Synonyms:	Acacia armata (R.Br.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Victoria.		
Habitat:	Grows in dry sclerophyl forests[265].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma paradoxum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Paradox Acacia [P],
Epithets:	From a Dictionary of Botanical Epithets
	paradoxa = unusual;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Queensland.

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

A very tough plant that stands both wet and drought well, it is lime-tolerant and also withstands salt-laden winds[260]. Prefers a sandy loam and a very sunny position[1]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic when grown on limey soils[200].

Trees are not very hardy outdoors in Britain, they tolerate occasional temperatures down to between -5 and -10°c, but even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acacia armata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Acacia+paradoxa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Acacia+paradoxa`

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Plants For A Future: Database Search Results

Acacia paradoxa

Common name:	Kangaroo thorn	Family:	Leguminosae
Author:	DC.	Botanical references:	200, 265
Synonyms:	Acacia armata (R.Br.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Victoria.		
Habitat:	Grows in dry sclerophyl forests[265].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma paradoxum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Paradox Acacia [P],
Epithets:	From a Dictionary of Botanical Epithets
	paradoxa = unusual;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Queensland.

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It

cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

A very tough plant that stands both wet and drought well, it is lime-tolerant and also withstands salt-laden winds[260]. Prefers a sandy loam and a very sunny position[1]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic when grown on limey soils[200].

Trees are not very hardy outdoors in Britain, they tolerate occasional temperatures down to between -5 and -10°c, but even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but

some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

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References for *Acacia armata* (a possible synonym).

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Also try Photos and info from the The Plants Database which has 14,000 images.

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Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Acacia+paradoxa`

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Plants For A Future: Database Search Results

Acacia paradoxa

Common name:	Kangaroo thorn	Family:	Leguminosae
Author:	DC.	Botanical references:	200, 265
Synonyms:	Acacia armata (R.Br.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Victoria.		
Habitat:	Grows in dry sclerophyl forests[265].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma paradoxum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Paradox Acacia [P],
Epithets:	From a Dictionary of Botanical Epithets
	paradoxa = unusual;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Queensland.

Physical Characteristics

An evergreen shrub growing to 5m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It

cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

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A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia paradoxa*

Subject:

Acacia paradoxa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia paradoxa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:24:55 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Acacia podalyriifolia

Common name:	Queensland silver wattle	Family:	Leguminosae
Author:	G. Don.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma podalyriifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pearl Wattle [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower from January to May. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters[183]. The flowers have a delicate sweet perfume[245].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

When planted on steep slopes or other fragile soil systems, the extensive root system of this plant binds the soil together and helps to prevent erosion[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in any good garden soil that is not excessively limey[11, 167]. Many members of this genus become chlorotic on limey soils[200]. Can succeed in a hot dry position in a mixed border[166].

Plants are not very cold-hardy, tolerating temperatures down to about -3°c[260]. They succeed outdoors in the mildest areas of Britain, though even there they can be cut back to the ground in severe winters[1, 11].

A very ornamental tree[1], it can be pruned back hard after flowering in order to induce good flowering the following year[260].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but

some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The flowers have a delicate sweet perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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A good book on plants that you didn't know could be grown outdoors in Britain.

[167] **Holliday. I. and Hill. R.** *A Field Guide to Australian Trees.* Frederick Muller Ltd. 1974 ISBN 0-85179-627-3
A well illustrated and very readable book, but it does not contain much information for the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few

plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Plants For A Future: Database Search Results

Acacia podalyriifolia

Common name:	Queensland silver wattle	Family:	Leguminosae
Author:	G. Don.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma podalyriifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pearl Wattle [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower from January to May. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters[183]. The flowers have a delicate sweet perfume[245].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

When planted on steep slopes or other fragile soil systems, the extensive root system of this plant binds the soil together and helps to prevent erosion[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in any good garden soil that is not excessively limey[11, 167]. Many members of this genus become chlorotic on limey soils[200]. Can succeed in a hot dry position in a mixed border[166].

Plants are not very cold-hardy, tolerating temperatures down to about -3°c[260]. They succeed outdoors in the mildest areas of Britain, though even there they can be cut back to the ground in severe winters[1, 11].

A very ornamental tree[1], it can be pruned back hard after flowering in order to induce good flowering the following year[260].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

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Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

> The flowers have a delicate sweet perfume.

Suppliers

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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Acacia podalyriifolia

Common name:	Queensland silver wattle	Family:	Leguminosae
Author:	G. Don.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Queensland.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Racosperma podalyriifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pearl Wattle [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower from January to May. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters[183]. The flowers have a delicate sweet perfume[245].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

When planted on steep slopes or other fragile soil systems, the extensive root system of this plant binds the soil together and helps to prevent erosion[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in any good garden soil that is not excessively limey[11, 167]. Many members of this genus become chlorotic on limey soils[200]. Can succeed in a hot dry position in a mixed border[166].

Plants are not very cold-hardy, tolerating temperatures down to about -3°c[260]. They succeed outdoors in the mildest areas of Britain, though even there they can be cut back to the ground in severe winters[1, 11].

A very ornamental tree[1], it can be pruned back hard after flowering in order to induce good flowering the following year[260].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Flowers: Fresh

The flowers have a delicate sweet perfume.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia podalyriifolia*

Subject:

Acacia podalyriifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site: ☐

URL for Site: http://

Details: ☐

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia podalyriifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Acacia pycnantha

Common name:	Golden wattle	Family:	Leguminosae
Author:	Benth.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Southern Australia, Victoria.		
Habitat:	Thickets, or as an under-storey in Eucalyptus forests, especially on very poor soils[167].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Golden Wattle [P],
Epithets:	From a Dictionary of Botanical Epithets
	pycnantha = densely flowered;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 8m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from March to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

The plant yields an oily gum which is said to be edible[177, 183]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly.[193]. The gum can be warmed when it becomes soft and chewable[193].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200]. It is often planted for this purpose on sandy banks[167].

The bark is rich in tannin[1, 171]. On a 10% moisture basis, the bark contains 40.8% tannin[223].

Cultivation details

Prefers a rather poor sandy loam and a very sunny position[1, 11]. Succeeds in any good garden soil that is not excessively limey and in dry soils[11]. Most members of this genus become chlorotic on limey soils[200]. Prefers a pH in the range 5.8 to 6.5.

This species is not very hardy outdoors in Britain. Plants require hot, sunny summers if they are to ripen their wood fully and flower freely. In Britain they tend to do best when grown in coastal gardens in a sunny, sheltered position that is protected from the wind[11].

A fast growing but short-lived tree in cultivation[167]. It is sometimes cultivated for the tannin obtained from its bark[1, 171].

This tree is the floral emblem of Australia[167].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

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Plants For A Future: Database Search Results

Acacia pycnantha

Common name:	Golden wattle	Family:	Leguminosae
Author:	Benth.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Southern Australia, Victoria.		
Habitat:	Thickets, or as an under-storey in Eucalyptus forests, especially on very poor soils[167].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Golden Wattle [P],
Epithets:	From a Dictionary of Botanical Epithets
	pycnantha = densely flowered;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 8m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from March to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

The plant yields an oily gum which is said to be edible[177, 183]. Some species produce a gum that is dark and is liable to be astringent and distasteful, but others produce a light gum and this is sweet and pleasant. It can be sucked like candy or soaked in water to make a jelly.[193]. The gum can be warmed when it becomes soft and chewable[193].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200]. It is often planted for this purpose on sandy banks[167].

The bark is rich in tannin[1, 171]. On a 10% moisture basis, the bark contains 40.8% tannin[223].

Cultivation details

Prefers a rather poor sandy loam and a very sunny position[1, 11]. Succeeds in any good garden soil that is not excessively limey and in dry soils[11]. Most members of this genus become chlorotic on limey soils[200]. Prefers a pH in the range 5.8 to 6.5.

This species is not very hardy outdoors in Britain. Plants require hot, sunny summers if they are to ripen their wood fully and flower freely. In Britain they tend to do best when grown in coastal gardens in a sunny, sheltered position that is protected from the wind[11].

A fast growing but short-lived tree in cultivation[167]. It is sometimes cultivated for the tannin obtained from its bark[1, 171].

This tree is the floral emblem of Australia[167].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Medicinal Uses

Disclaimer

None known

Other Uses

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A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200]. It is often planted for this purpose on sandy banks[167].

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia pycnantha*

Subject:

Acacia pycnantha

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia pycnantha

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Acacia retinodes

Common name:	Swamp wattle	Family:	Leguminosae
Author:	Schldl.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Victoria, New South Wales, Tasmania. Locally naturalized in S. Europe[50].		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Water Wattle [P,B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 6m. It is hardy to zone 8. It is in leaf all year, in flower from February to August. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Seed[144, 157]. No more details are given. The seedpods can be up to 18cm long[219].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

Prefers a well-drained sandy loam and a very sunny position[1, 260], but it also stands drought and wet well[260]. Succeeds in any good garden soil, this species is said to be fairly lime tolerant[11, 166, 182, 200]. Succeeds in a hot dry position[166]. Plants are fairly tolerant of salt in the soil and salt-laden winds[260].

This species is said to be hardy from mid-Sussex southwards and westwards[1]. However, trees are not very hardy outdoors in most parts of Britain and even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

A very ornamental tree[1].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but

some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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A very good pocket guide.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

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[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
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Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Acacia+retinodes`

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Plants For A Future: Database Search Results

Acacia retinodes

Common name:	Swamp wattle	Family:	Leguminosae
Author:	Schldl.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Victoria, New South Wales, Tasmania. Locally naturalized in S. Europe[50].		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Water Wattle [P,B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 6m. It is hardy to zone 8. It is in leaf all year, in flower from February to August. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Seed[144, 157]. No more details are given. The seedpods can be up to 18cm long[219].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

Prefers a well-drained sandy loam and a very sunny position[1, 260], but it also stands drought and wet well[260]. Succeeds in any good garden soil, this species is said to be fairly lime tolerant[11, 166, 182, 200]. Succeeds in a hot dry position[166]. Plants are fairly tolerant of salt in the soil and salt-laden winds[260].

This species is said to be hardy from mid-Sussex southwards and westwards[1]. However, trees are not very hardy outdoors in most parts of Britain and even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

A very ornamental tree[1].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is

very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[157] **Wrigley. J. W. and Fagg. M.** *Australian Native Plants.* Collins. (Australia) 1988 ISBN 0-7322-0021-0
A lovely book, written in order to encourage Australian gardeners to grow their native plants. A little bit of information for the plant project.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Acacia retinodes

Common name:	Swamp wattle	Family:	Leguminosae
Author:	Schldl.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - Victoria, New South Wales, Tasmania. Locally naturalized in S. Europe[50].		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Water Wattle [P,B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen tree growing to 6m. It is hardy to zone 8. It is in leaf all year, in flower from February to August. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Seed[144, 157]. No more details are given. The seedpods can be up to 18cm long[219].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

Prefers a well-drained sandy loam and a very sunny position[1, 260], but it also stands drought and wet well[260]. Succeeds in any good garden soil, this species is said to be fairly lime tolerant[11, 166, 182, 200]. Succeeds in a hot dry position[166]. Plants are fairly tolerant of salt in the soil and salt-laden winds[260].

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A very ornamental tree[1].

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Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia retinodes*

Subject:

Acacia retinodes

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia retinodes

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Acacia saligna

Common name:	Blue-leaved wattle	Family:	Leguminosae
Author:	(Labill.) H. Wendl.	Botanical references:	200, 265
Synonyms:	Acacia cyanophylla (Lindl.)		
Known Hazards:	None known		
Range:	Australia - W. Australia.		
Habitat:	Sandy, coastal plains, but also in swampy sites and riverbanks to small, rocky hills (often granitic), on poor acid or calcareous sands, under the most dry and adverse soil conditions[269].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. acinacea[G] A. cyclophylla[G] A. obliqua[G] A. salicina[G] Mimosa saligna[G] Racosperma salicinum[G] Racosperma salignum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue-leaf Wattle [H], Creeping Wattle [L], Orange Wattle [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 6m by 6m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

The damaged bark exudes copious amounts of a very acidic gum that seems to show promise for use in pickles and other acidic foodstuffs[269].

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Hedge; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

On a 10% moisture basis, the bark contains 21.5% tannin[223].

A fast growing plant, it is used for reclaiming eroded hillsides and wastelands and for stabilizing drift sands as well as for fuel. This is one of the best woody species for binding moving sand. It is useful for windbreaks, amenity plantings, beautification projects, and roadside stabilization in semiarid regions[269].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1, 260], though it also succeeds in dry soils and is tolerant of wet conditions[260]. Succeeds in any good garden soil that is not excessively limey[11, 260]. Most species become chlorotic on limey soils[200]. Tolerates salt-laden winds and maritime exposure[200]. An extremely rugged tree, it grows rapidly, is adaptable to barren slopes, derelict land, and exceptionally arid conditions[269]. Reported from the Australian Centre of Diversity, orange wattle, or cvs thereof, is reported to tolerate alkalinity, drought, heavy soil, poor soil, salinity, salt spray, sand, shade, slope, waterlogging, and weeds[269].

Trees are not very hardy outdoors in Britain, they tolerate occasional temperatures down to between -5 and -10°c, but even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

Plants spread by means of suckers[200] and trees that have been killed in cold weather can sometimes regrow from the roots. Regrowth of established bushes is so good that Acacia saligna can be completely grazed off without harming the plants[269].

Because of its hardiness and profuse reproductive abilities, Acacia saligna has become a serious menace in parts of South Africa by invading and displacing indigenous vegetation[269]. It infests water courses (sometimes decreasing the water available for irrigation), and has proved difficult to eradicate[269].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. It also has a symbiotic relationship with ants[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acacia acinacea* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Acacia cyanophylla* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Acacia salicina* (a possible synonym).

- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Acacia saligna

Common name:	Blue-leaved wattle	Family:	Leguminosae
Author:	(Labill.) H. Wendl.	Botanical references:	200, 265
Synonyms:	Acacia cyanophylla (Lindl.)		
Known Hazards:	None known		
Range:	Australia - W. Australia.		
Habitat:	Sandy, coastal plains, but also in swampy sites and riverbanks to small, rocky hills (often granitic), on poor acid or calcareous sands, under the most dry and adverse soil conditions[269].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. acinacea[G] A. cyclophylla[G] A. obliqua[G] A. salicina[G] Mimosa saligna[G] Racosperma salicinum[G] Racosperma salignum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue-leaf Wattle [H], Creeping Wattle [L], Orange Wattle [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 6m by 6m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

The damaged bark exudes copious amounts of a very acidic gum that seems to show promise for use in pickles and other acidic foodstuffs[269].

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Hedge; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

On a 10% moisture basis, the bark contains 21.5% tannin[223].

A fast growing plant, it is used for reclaiming eroded hillsides and wastelands and for stabilizing drift sands as well as for fuel. This is one of the best woody species for binding moving sand. It is useful for windbreaks, amenity plantings, beautification projects, and roadside stabilization in semiarid regions[269].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1, 260], though it also succeeds in dry soils and is tolerant of wet conditions[260]. Succeeds in any good garden soil that is not excessively limey[11, 260]. Most species become chlorotic on limey soils[200]. Tolerates salt-laden winds and maritime exposure[200]. An extremely rugged tree, it grows rapidly, is adaptable to barren slopes, derelict land, and exceptionally arid conditions[269]. Reported from the Australian Centre of Diversity, orange wattle, or cvs thereof, is reported to tolerate alkalinity, drought, heavy soil, poor soil, salinity, salt spray, sand, shade, slope, waterlogging, and weeds[269].

Trees are not very hardy outdoors in Britain, they tolerate occasional temperatures down to between -5 and -10°c, but even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

Plants spread by means of suckers[200] and trees that have been killed in cold weather can sometimes regrow from the roots. Regrowth of established bushes is so good that Acacia saligna can be completely grazed off without harming the plants[269].

Because of its hardiness and profuse reproductive abilities, Acacia saligna has become a serious menace in parts of South Africa by invading and displacing indigenous vegetation[269]. It infests water courses (sometimes decreasing the water available for irrigation), and has proved difficult to eradicate[269].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. It also has a symbiotic relationship with ants[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acacia acinacea* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Acacia cyanophylla* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Acacia salicina* (a possible synonym).

- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4

A very good pocket guide.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Plants For A Future: Database Search Results

Acacia saligna

Common name:	Blue-leaved wattle	Family:	Leguminosae
Author:	(Labill.) H. Wendl.	Botanical references:	200, 265
Synonyms:	Acacia cyanophylla (Lindl.)		
Known Hazards:	None known		
Range:	Australia - W. Australia.		
Habitat:	Sandy, coastal plains, but also in swampy sites and riverbanks to small, rocky hills (often granitic), on poor acid or calcareous sands, under the most dry and adverse soil conditions[269].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. acinacea[G] A. cyclophylla[G] A. obliqua[G] A. salicina[G] Mimosa saligna[G] Racosperma salicinum[G] Racosperma salignum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue-leaf Wattle [H], Creeping Wattle [L], Orange Wattle [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 6m by 6m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Gum.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

The damaged bark exudes copious amounts of a very acidic gum that seems to show promise for use in pickles and other acidic foodstuffs[269].

Medicinal Uses

Disclaimer

None known

Other Uses

Fuel; Hedge; Soil stabilization; Tannin.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

On a 10% moisture basis, the bark contains 21.5% tannin[223].

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Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

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Trees are not very hardy outdoors in Britain, they tolerate occasional temperatures down to between -5 and -10°c, but even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

Plants spread by means of suckers[200] and trees that have been killed in cold weather can sometimes regrow from the roots. Regrowth of established bushes is so good that Acacia saligna can be completely grazed off without harming the plants[269].

Because of its hardiness and profuse reproductive abilities, Acacia saligna has become a serious menace in parts of South Africa by invading and displacing indigenous vegetation[269]. It infests water courses (sometimes decreasing the water available for irrigation), and has proved difficult to eradicate[269].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. It also has a symbiotic relationship with ants[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

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Acacia saligna

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Plant Information

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia saligna

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Acacia sophorae

Common name:	Coastal wattle	Family:	Leguminosae
Author:	(Labill.) R. Br.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria..		
Habitat:	Coastal dunes[193].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. longifolia var. sophorae[G] Mimosa sophorae[G] Racosperma sophorae[G]
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub. . It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Seed - cooked. The taste is rather like green peas[193]. Used when green and roasted in the pods, though the pods should not be eaten as these are irritating[193].

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic on limey soils[200]. Judging by the plants native habitat, it should tolerate maritime exposure[K].

Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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A very good pocket guide.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes* *falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Back to: Plant For A Future home page, Main Search Page Help Bibliography

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Acacia sophorae

Common name:	Coastal wattle	Family:	Leguminosae
Author:	(Labill.) R. Br.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria..		
Habitat:	Coastal dunes[193].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. longifolia var. sophorae[G] Mimosa sophorae[G] Racosperma sophorae[G]
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub. . It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Seed - cooked. The taste is rather like green peas[193]. Used when green and roasted in the pods, though the pods should not be eaten as these are irritating[193].

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic on limey soils[200]. Judging by the plants native habitat, it should tolerate maritime exposure[K].

Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough

to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987

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[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Acacia sophorae

Common name:	Coastal wattle	Family:	Leguminosae
Author:	(Labill.) R. Br.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania, Victoria..		
Habitat:	Coastal dunes[193].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. longifolia var. sophorae[G] Mimosa sophorae[G] Racosperma sophorae[G]
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub. . It is in leaf all year, in flower from February to May. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers; Seed.

Seed - cooked. The taste is rather like green peas[193]. Used when green and roasted in the pods, though the pods should not be eaten as these are irritating[193].

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Soil stabilization.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

The extensive root system of this plant helps to prevent soil erosion[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic on limey soils[200]. Judging by the plants native habitat, it should tolerate maritime exposure[K].

Trees are not very hardy outdoors in Britain, even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough

to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia sophorae*

Subject:

Acacia sophorae

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia sophorae

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Acacia verticillata

Common name:	Prickly Moses	Family:	Leguminosae
Author:	(L'Hérit.) Willd.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Mimosa verticillata[G] Racosperma verticillatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Prickly Moses [P], Prickly-moses [B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Another report says that it needs some shade[260]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic on limey soils[200].

Trees are not very hardy outdoors in Britain, they tolerate occasional temperatures down to between -5 and -10°c, but even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11]. A tree in Cornwall reached a height and width of 6 metres[11].

A fast-growing tree, frequently flowering in a few years from seed[200].

This species is notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but

some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Root: Crushed

The root smells like garlic[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal PayPal DONATE

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Details:

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Email Address:

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Range:	Australia - New South Wales, Tasmania.		
Habitat:	Not known		
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Prickly Moses [P], Prickly-moses [B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Another report says that it needs some shade[260]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic on limey soils[200].

Trees are not very hardy outdoors in Britain, they tolerate occasional temperatures down to between -5 and -10°c, but even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11]. A tree in Cornwall reached a height and width of 6 metres[11].

A fast-growing tree, frequently flowering in a few years from seed[200].

This species is notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Root: Crushed

The root smells like garlic[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Acacia verticillata

Common name:	Prickly Moses	Family:	Leguminosae
Author:	(L'Hérit.) Willd.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Mimosa verticillata[G] Racosperma verticillatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Prickly Moses [P], Prickly-moses [B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

An evergreen shrub growing to 6m. It is hardy to zone 8. It is in leaf all year, in flower from February to May. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Flowers.

Flowers - cooked[144]. Rich in pollen, they are often used in fritters.

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

A yellow dye is obtained from the flowers[168].

A green dye is obtained from the seed pods[168].

Plants are heavily armed with thorns and make a good screen or hedge in warm temperate areas[200].

Cultivation details

Prefers a sandy loam and a very sunny position[1]. Another report says that it needs some shade[260]. Succeeds in dry soils. Succeeds in any good garden soil that is not excessively limey[11]. Most members of this genus become chlorotic on limey soils[200].

Trees are not very hardy outdoors in Britain, they tolerate occasional temperatures down to between -5 and -10°c, but even in the mildest areas of the country they are likely to be killed in excessively harsh winters[11]. A tree in Cornwall reached a height and width of 6 metres[11].

A fast-growing tree, frequently flowering in a few years from seed[200].

This species is notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in a sunny position in a warm greenhouse[1]. Stored seed should be scarified, pre-soaked for 12 hours in warm water and then sown in a warm greenhouse in March. The seed germinates in 3 - 4 weeks at 25°c[133]. As soon as the seedlings are large enough to handle, prick them out into individual pots and grow them on in a sunny position in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of half-ripe wood with a heel, July/August in individual pots in a frame[78]. Overwinter in a greenhouse for the first winter and plant out in their permanent positions in late spring or early summer. Fair percentage[78].

Scent

Root: Crushed

> The root smells like garlic[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acacia verticillata*

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Acacia verticillata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acacia verticillata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:25:56 2004

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Arracacia xanthorrhiza

Common name:	Arracacha	Family:	Umbelliferae
Author:	Bancr.	Botanical references:	1
Synonyms:	Conium arracacia, Arracacia esculenta (DC.)		
Known Hazards:	None known		
Range:	Northern S. America		
Habitat:	Cool mountainous districts[2].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Conium arracacha[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Afio [E], Apio [E], Arracacha [P],
Systematics:	From a UDSA Plants Database Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database Dominican Republic; Haiti; Venezuela

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 9 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) soils and requires well-drained soil. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Root; Stem.

Tuber - cooked[22, 46, 61, 97, 171]. Very palatable and easily digested[1, 196], it is used as a staple food in some parts of S. America[2]. The root contains 10 - 25% starch, it is high in calcium and vitamin A[196]. It is used as a potato substitute, its flavour is between that of parsnips and sweet chestnuts with a hint of sweetness[2, 183]. The sweetness increases in storage[196]. The root is also used as the source of starch used in other foods[183]. The roots are harvested in the autumn and have a relatively short storage life[196].

Leaves. Used as a flavouring[177].

Young stems - raw or cooked as a vegetable[183, 196]. The stems are sometimes blanched and used like celery in salads[196].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loam. Grows best in a sandy loam with a pH in the range of 5 to 6, in areas with about 1000mm of rain a year, requiring a minimum rainfall of about 600mm[196]. Tolerates a pH in the range 6.3 to 6.8.

This species is not very hardy in Britain but it can be grown here as a half-hardy perennial, the roots being harvested in the autumn, stored overwinter in a cool frost-free place and planted out in the spring[1].

This species is often cultivated for its edible root in S. America, where there are many named varieties[2, 46, 61, 177]. Attempts in the 19th century to cultivate it as a commercial crop in Europe, however, were unsuccessful[2]. Plants take about 120 - 240 days from planting to produce a crop and 300 - 400 days to produce a crop of mature tubers[196]. At harvest time there can be as many as 10 tubers each the size of a carrot formed around the central root196]. One plant can yield 2 - 3 kg of edible roots, total yields of 40 tonnes per hectare are possible[196]. Preventing the plant from flowering can increase yields[196]. Plants might be sensitive to daylength, possibly requiring short days to initiate tuber production, and so may not be suitable for temperate climates. They also have a longer growing season than potatoes and are frost-tender so need a relatively long growing season[196].

Plants do not always produce viable seed in S. America[196].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed. Do not allow the compost to dry out. Germination is often poor, less than 50%[196]. Since this species is believed to be a hybrid it will probably not breed true from seed. When large enough to handle, prick the seedlings out into individual pots and grow them on for the first year in a greenhouse and plant out in late spring after the last expected frosts.

Division. Harvest the roots in the autumn, store overwinter and plant out in the spring. The plant forms a clump of tubers around a central root, each tuber can be used to grow a new plant. Traditionally the base of the tuber is repeatedly slashed to stimulate shoots to form and encourage a uniform arrangement of lateral roots. They are then left for a few days to heal before planting them out[196].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[97] **Towle. M. A.** *The Ethno-Botany of Pre-Columbian Peru.*
A very interesting book covering quite a lot of information on plant uses in S. America although many of the plants are not suitable for temperate areas..

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[196] **Popenoe. H. et al** *Lost Crops of the Incas* National Academy Press 1990 ISBN 0-309-04264-X
An excellent book. Very readable, with lots of information and good pictures of some lesser known food plants of S. America.

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Plants For A Future: Database Search Results

Arracacia xanthorrhiza

Common name:	Arracacha	Family:	Umbelliferae
Author:	Bancr.	Botanical references:	1
Synonyms:	Conium arracacia, Arracacia esculenta (DC.)		
Known Hazards:	None known		
Range:	Northern S. America		
Habitat:	Cool mountainous districts[2].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Conium arracacha[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Afio [E], Apio [E], Arracacha [P],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Haiti; Venezuela

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 9 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Root; Stem.

Tuber - cooked[22, 46, 61, 97, 171]. Very palatable and easily digested[1, 196], it is used as a staple food in some parts of S. America[2]. The root contains 10 - 25% starch, it is high in calcium and vitamin A[196]. It is used as a potato substitute, its flavour is between that of parsnips and sweet chestnuts with a hint of sweetness[2, 183]. The sweetness increases in storage[196]. The root is also used as the source of starch used in other foods[183]. The roots are harvested in the autumn and have a relatively short storage life[196].

Leaves. Used as a flavouring[177].

Young stems - raw or cooked as a vegetable[183, 196]. The stems are sometimes blanched and used like celery in salads[196].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loam. Grows best in a sandy loam with a pH in the range of 5 to 6, in areas with about 1000mm of rain a year, requiring a minimum rainfall of about 600mm[196]. Tolerates a pH in the range 6.3 to 6.8.

This species is not very hardy in Britain but it can be grown here as a half-hardy perennial, the roots being harvested in the autumn, stored overwinter in a cool frost-free place and planted out in the spring[1].

This species is often cultivated for its edible root in S. America, where there are many named varieties[2, 46, 61, 177]. Attempts in the 19th century to cultivate it as a commercial crop in Europe, however, were unsuccessful[2]. Plants take about 120 - 240 days from planting to produce a crop and 300 - 400 days to produce a crop of mature tubers[196]. At harvest time there can be as many as 10 tubers each the size of a carrot formed around the central root196]. One plant can yield 2 - 3 kg of edible roots, total yields of 40 tonnes per hectare are possible[196]. Preventing the plant from flowering can increase yields[196]. Plants might be sensitive to daylength, possibly requiring short days to initiate tuber production, and so may not be suitable for temperate climates. They also have a longer growing season than potatoes and are frost-tender so need a relatively long growing season[196].

Plants do not always produce viable seed in S. America[196].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed. Do not allow the compost to dry out. Germination is often poor, less than 50%[196]. Since this species is believed to be a hybrid it will probably not breed true from seed. When large enough to handle, prick the seedlings out into individual pots and grow them on for the first year in a greenhouse and plant out in late spring after the last expected frosts.

Division. Harvest the roots in the autumn, store overwinter and plant out in the spring. The plant forms a clump of tubers around a central root, each tuber can be used to grow a new plant. Traditionally the base of the tuber is repeatedly slashed to stimulate shoots to form and encourage a uniform arrangement of lateral roots. They are then left for a few days to heal before planting them out[196].

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[97] **Towle. M. A.** *The Ethno-Botany of Pre-Columbian Peru.*
A very interesting book covering quite a lot of information on plant uses in S. America although many of the plants are not suitable for temperate areas..

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[196] **Popenoe. H. et al** *Lost Crops of the Incas* National Academy Press 1990 ISBN 0-309-04264-X
An excellent book. Very readable, with lots of information and good pictures of some lesser

known food plants of S. America.

Readers Comments

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

Plant information taken from the Plants For A Future - Species Database. Copyright (c) 1997-2003.
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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Arracacia+xanthorrhiza`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Arracacia+xanthorrhiza`

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Plants For A Future: Database Search Results

Arracacia xanthorrhiza

Common name:	Arracacha	Family:	Umbelliferae
Author:	Bancr.	Botanical references:	1
Synonyms:	Conium arracacia, Arracacia esculenta (DC.)		
Known Hazards:	None known		
Range:	Northern S. America		
Habitat:	Cool mountainous districts[2].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Conium arracacha[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Afio [E], Apio [E], Arracacha [P],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Haiti; Venezuela

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 9 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Root; Stem.

Tuber - cooked[22, 46, 61, 97, 171]. Very palatable and easily digested[1, 196], it is used as a staple food in some parts of S. America[2]. The root contains 10 - 25% starch, it is high in calcium and vitamin A[196]. It is used as a potato substitute, its flavour is between that of parsnips and sweet chestnuts with a hint of sweetness[2, 183]. The sweetness increases in storage[196]. The root is also used as the source of starch used in other foods[183]. The roots are harvested in the autumn and have a relatively short storage life[196].

Leaves. Used as a flavouring[177].

Young stems - raw or cooked as a vegetable[183, 196]. The stems are sometimes blanched and used like celery in salads[196].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good loam. Grows best in a sandy loam with a pH in the range of 5 to 6, in areas with about 1000mm of rain a year, requiring a minimum rainfall of about 600mm[196]. Tolerates a pH in the range 6.3 to 6.8.

This species is not very hardy in Britain but it can be grown here as a half-hardy perennial, the roots being harvested in the autumn, stored overwinter in a cool frost-free place and planted out in the spring[1].

This species is often cultivated for its edible root in S. America, where there are many named varieties[2, 46, 61, 177]. Attempts in the 19th century to cultivate it as a commercial crop in Europe, however, were unsuccessful[2]. Plants take about 120 - 240 days from planting to produce a crop and 300 - 400 days to produce a crop of mature tubers[196]. At harvest time there can be as many as 10 tubers each the size of a carrot formed around the central root196]. One plant can yield 2 - 3 kg of edible roots, total yields of 40 tonnes per hectare are possible[196]. Preventing the plant from flowering can increase yields[196]. Plants might be sensitive to daylength, possibly requiring short days to initiate tuber production, and so may not be suitable for temperate climates. They also have a longer growing season than potatoes and are frost-tender so need a relatively long growing season[196].

Plants do not always produce viable seed in S. America[196].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed. Do not allow the compost to dry out. Germination is often poor, less than 50%[196]. Since this species is believed to be a hybrid it will probably not breed true from seed. When large enough to handle, prick the seedlings out into individual pots and grow them on for the first year in a greenhouse and plant out in late spring after the last expected frosts.

Division. Harvest the roots in the autumn, store overwinter and plant out in the spring. The plant forms a clump of tubers around a central root, each tuber can be used to grow a new plant. Traditionally the base of the tuber is repeatedly slashed to stimulate shoots to form and encourage a uniform arrangement of lateral roots. They are then left for a few days to heal before planting them out[196].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Arracacia xanthorrhiza*

Subject:

Arracacia xanthorrhiza

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Arracacia xanthorrhiza

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:26:07 2004

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Add Comment Reset

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Plants For A Future: Database Search Results

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Robinia pseudoacacia

Common name:	Black locust	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	All parts of the plant (except the flowers) and especially the bark, should be considered to be toxic[4, 65, 76]. The toxins are destroyed by heat[65].		
Range:	Eastern N. America - Appalachian and Ozark mountain ranges. Naturalized in Britain[17].		
Habitat:	Woods and thickets[43], especially in deep well-drained calcareous soils[149].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. pseudacacia[H,L] R. pseudo-acacia[E] R. pseudoacacia f. erecta[G] R. pseudoacacia f. inermis[G] R. pseudoacacia f. microphylla[G] R. pseudoacacia f. pyramidalis[G] R. pseudoacacia f. rehderi[G] R. pseudoacacia f. rozynskiana[G] R. pseudoacacia f. semperflorens[G] R. pseudoacacia var. microphylla[G] R. pseudoacacia var. pyramidalis[G] R. pseudoacacia var. rectissima[B,P] R. pseudoacacia var. rozynskiana[G] R. pseudoacacia var. semperflorens[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akasya [E], Al Sant Al Kathib [E], Black Locust [FEIS,P,DEN1,E,B,L,H], Common Locust [L], False Acacia [H,L], Locust Tree [H], Robinia [D], Salgim Chichekli Aghaji [E],

Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Iraq; Turkey; Us

Physical Characteristics

A decidious tree growing to 25m by 15m at a fast rate. It is hardy to zone 3. It is in flower in June, and the seeds ripen from November to March. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Drink; Flowers; Oil; Seed; Seedpod.

Seed - cooked[2, 55, 61]. Oily[161]. They are boiled and used like peas[183]. After boiling the seeds lose their acid taste[213]. The seed is about 4mm long and is produced in pods up to 10cm long that contain 4 - 8 seeds[82]. A nutritional analysis is available[218].

Young seedpods - cooked[105]. The pods contain a sweetish pulp that is safe to eat and is relished by small children[201].(This report is quite probably mistaken, having been confused with the honey locust, Gleditsia spp[K].)

A strong, narcotic and intoxicating drink is made from the skin of the fruit[13].

Piperonal is extracted from the plant, it is used as a vanilla substitute[105]. No further details.

All the above entries should be treated with some caution, see the notes at the top of the page regarding toxicity.

Flowers - cooked. A fragrant aroma, they are used in making jams and pancakes[7, 183]. They can also be made into a pleasant drink[183].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Protein: 21 Fat: 3 Fibre: 28 Ash: 6.8
In milligrammes per 100g weight of food:
Calcium: 1400 Phosphorus: 0.3
Source: [218]

Medicinal Uses

Disclaimer

Antispasmodic; Antiviral; Aromatic; Cholagogue; Diuretic; Emetic; Emollient; Febrifuge; Laxative; Narcotic; Purgative; Tonic.

Febrifuge[13, 46].

The flowers are antispasmodic, aromatic, diuretic, emollient and laxative[218]. They are cooked and eaten for the treatment of eye ailments[218].

The inner bark and the root bark are emetic, purgative and tonic[4, 7, 218, 257]. The root bark has been chewed to induce vomiting, or held in the mouth to allay toothache[222, 257], though it is rarely if ever prescribed as a therapeutic agent in Britain[4].

The fruit is narcotic[13]. This probably refers to the seedpod.

The leaves are cholagogue and emetic[7]. The leaf juice inhibits viruses[218].

Other Uses

Dye; Essential; Fibre; Fuel; Soil stabilization; Wood.

A drying oil is obtained from the seed[2, 7].

An essential oil is obtained from the flowers. Highly valued, it is used in perfumery[7, 57, 100].

A yellow dye is obtained from the bark[223]. The bark contains tannin, but not in sufficient quantity for utilization[223]. On a 10% moisture basis, the bark contains 7.2% tannin and the heartwood of young trees 5.7%[223].

The bark is used to make paper and is a substitute for silk and wool[13].

Trees sucker freely, especially if coppiced, and they can be used for stabilizing banks etc[200,

226].

Wood - close-grained, exceedingly hard, heavy, very strong, resists shock and is very durable in contact with the soil. It weighs 45lb per cubic foot and is used in shipbuilding and for making fence posts, treenails, floors etc[4, 7, 11, 13, 46, 61, 82, 149, 171, 227]. A very good fuel[82], but it should be used with caution because it flares up and projects sparks[226].

Cultivation details

Succeeds in any well-drained soil, preferring one that is not too rich[1, 200]. Succeeds in dry barren sites, tolerating drought and atmospheric pollution[60, 200]. Succeeds in a hot dry position.

A fast-growing tree[188], it can begin to flower when only 6 years old, though 10 - 12 years is more normal[229]. The flowers are a rich source of nectar and are very fragrant[82] with a vanilla-like scent[245].

The branches are brittle and very liable to wind damage[200]. When plants are grown in rich soils they produce coarse and rank growth which is even more liable to wind damage[11, 200].

The plants sucker freely and often form dense thickets, the suckers have vicious thorns[226]. There are some named varieties selected for their ornamental value[188], some of these are thornless[226].

Any pruning should be done in late summer in order to reduce the risk of bleeding[200].

The leaves are rich in tannin and other substances which inhibit the growth of other plants[13]. A very greedy tree, tending to impoverish the soil[13]. (Although a legume, I believe it does not fix atmospheric nitrogen[K])

A very good bee plant[7, 13, 20, 201].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - pre-soak for 48 hours in warm water and sow the seed in late winter in a cold frame[80]. A short stratification improves germination rates and time[80]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in the following summer. Other reports say that the seed can be sown in an outdoor seedbed in spring[78, 98]. The seed stores for over 10 years[113].

Suckers taken during the dormant season.

Scent

Flowers: Fresh

The flowers are very fragrant with a vanilla-like scent[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Robinia pseudoacacia* (Black Locust)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Robinia pseudacacia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Robinia pseudo-acacia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *robinia pseudoacacia* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951

Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394

Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952

Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Robinia pseudoacacia

Klaus Dichtel Tue Dec 25 17:22:37 2001

I wonder how Ken comes to believe it doesn`t fix atmospheric nitrogen. All other sources are telling the opposite, e.g. Martin Crawford/"Nitrogen-fixing Plants"

Robinia pseudoacacia

Klaus Dichtel Sat Jan 5 21:26:03 2002

In the german PC-mailinglist, Jürgen Wahl (j.orca@t-online.de) says that he saw nodulatet roots and N-loving plants nearby such as utrica ssp., galium aparine and sambucus nigra. Here his original message:"...Bis jetzt hatte jede Robinie der ich an die Wurzeln gegangen bin Knöllchen +die sind bei allenLeguminosen ort derSymbiose die N aus der Luft bindet. Fernerhabe ich bis heute in jedem Robiniengehölz eine N-liebende Begleitflora gefunden(Brennnessel,Klettenlabkraut,Hollunderetc.)..."

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Group:
Plant Information

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Olneya tesota

Group:
Plant Information

Comment:

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Grevillea robusta

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Add a comment on: *Alnus nepalensis*

Subject:

Alnus nepalensis

Group:
Plant Information

Comment:

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Alnus nepalensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

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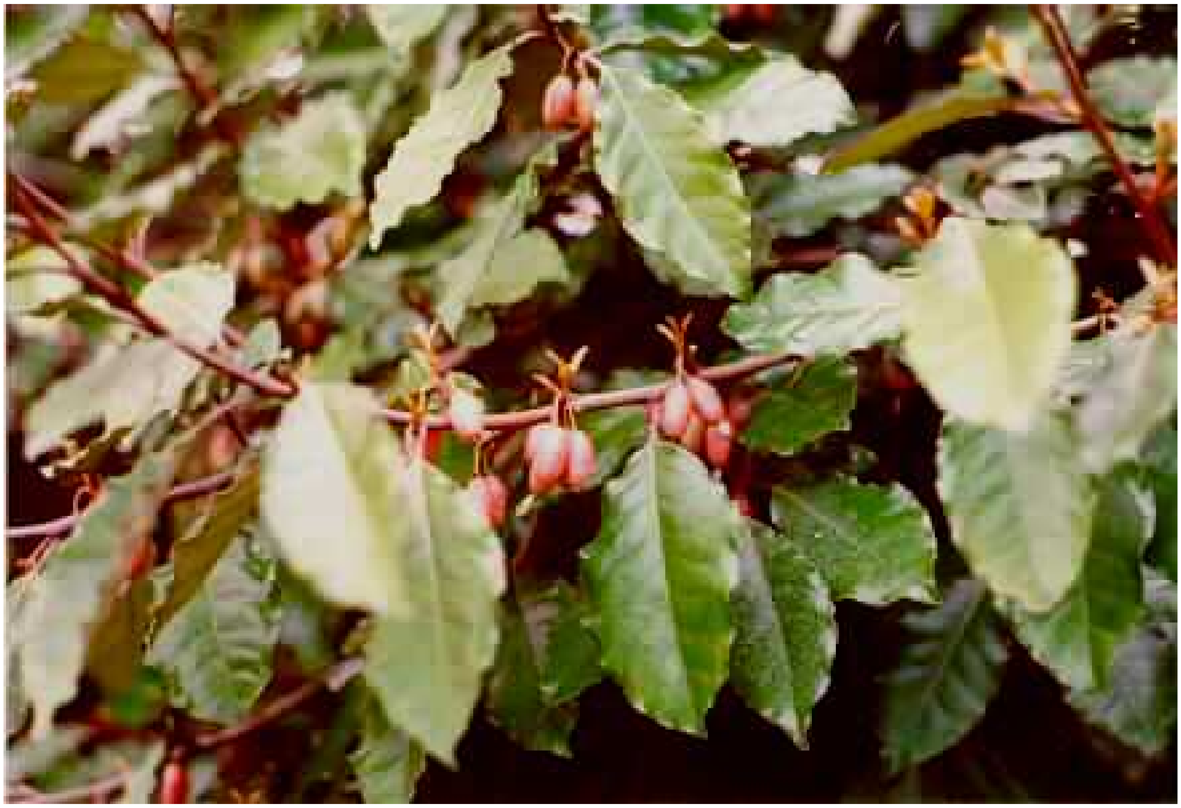
Plants For A Future: Database Search Results

Elaeagnus x ebbingei



Common name:	Elaeagnus	Family:	Elaeagnaceae
Author:	Boom.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	A garden hybrid, E. macrophylla x E. pungens or E. x. reflexa.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	5		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 5m by 5m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in leaf all year, in flower from October to January, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.

Cultivar **'The Hague'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Southern Seedling'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Salcombe Seedling'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Limelight'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Gilt Edge'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Aurea'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Coastal Gold'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. A reasonable size, it is about 20mm long and 13mm wide although it does have a large seed[K]. The fully ripe fruit has a very rich flavour and makes pleasant tasting with a slight acidity[K]. The fruit should be deep red in colour and very soft when it is fully ripe, otherwise it will be astringent[K]. The flavour improves further if the fruit is stored for a day or two after being picked. The fruit ripens intermittently over a period of about 6 weeks from early to mid April until May[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K]. The taste is vaguely like peanuts[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in very exposed positions, tolerating maritime exposure. The plants provide a very good protection from the wind, they are very resistant to damage by salt winds and are also tolerant of regular trimming[75]. They have a strong vigorous growth and are faster growing than E. macrophylla[75, 200]. Because they fix atmospheric nitrogen, they make good companion plants and improve the growth of neighbouring species[K]. They can be planted in the line of an old shelterbelt of trees that is becoming bare at the base and will in time fill up the empty spaces and climb into the bottom parts of the trees[K].

Cultivation details

A very easily grown plant, it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. A drought resistant plant once established, it can be grown on top of Cornish hedges (drystone walls with earth between two vertical layers of stones). It is very tolerant of shade and grows well under trees[200]. Plants are very tolerant of maritime exposure, growing well right by the coast[K].

Plants are hardy to about -20°c, but they can be deciduous in very cold winters[200].

Fruiting as it does in early April to May, this plant has excellent potential as a commercial fruit crop in Britain. The fruit is of a reasonable size and when fully ripe is very acceptable for dessert[K]. It should be fairly easy to selectively breed for improved fruit size and flavour[K].

Not all plants bear many fruits, though many specimens have been seen that produce very heavy crops on a regular basis[K]. Since this is a hybrid species, yields may be improved by growing a selection of cultivars or one of the parent plants nearby for cross pollination. E. pungens is perhaps the best candidate for this and its cultivar E. pungens 'Variegata' has been seen on a number of occasions with good crops of fruit next to E. x ebbingei plants that are also laden with fruit[K]. The cultivar E. x ebbingei 'Gilt Edge' is also probably a good pollinator[K]. Other cultivars worth looking at are 'Salcombe Seedling', which is said to flower more abundantly than the type[200] and 'Limelight', which has been seen with a good crop of fruits even on small bushes[K].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Plants produce very aromatic flowers in late autumn and early winter[182].

This species is notably resistant to honey fungus[88, 200].

Sometimes whole branches die out for no apparent reason. This happens most frequently when it is grafted onto E. multiflora[182]. These branches should be removed from the plant.

Propagation

Seed - this is a hybrid and it will not breed true from seed. If this is not a problem, then the seed is best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Rather slow, but you usually get a good percentage rooting[78]. June is the best time to take cuttings[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Cultivars

'The Hague'

'Southern Seedling'

'Salcombe Seedling'

'Limelight'

This cultivar has variegated foliage and is slower-growing than the type species. It also has larger fruits than the type, a one year cutting less than 25cm tall had 15 good sized almost ripe fruits on it in early March, it had probably spent at least some of the winter indoors[K]. A large shrub at Hilliers Arboretum was flowering very heavily in mid-September 1994[K]. Since this is a hybrid species yields may be improved by growing one of the parent plants nearby for cross pollination. E. pungens is perhaps the best candidate for this[K].

'Gilt Edge'

This cultivar has been seen on a number of occasions with good crops of fruit. On these occasions it has always been close to E. x ebbingei and has sometimes also had E. pungens 'Variegata' growing nearby with a reasonable set of fruit[K].

'Coastal Gold'

'Aurea'

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus x ebbingei*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)

`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+x+ebbingei`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

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Add a comment on: *Elaeagnus x ebbingei*

Subject:

Elaeagnus x ebbingei

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus x ebbingei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Elaeagnus umbellata*

Subject:

Elaeagnus umbellata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Your Name:

Your Email Address:

Date: Sun May 16 02:27:14 2004

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Add a comment on: *Elaeagnus commutata*

Subject:

Elaeagnus commutata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Elaeagnus commutata

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus cordifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Elaeagnaceae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	cordifolia = heart shaped leaves;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 4m by 4m at a medium rate. It is not frost tender. It is in leaf all year, in flower from October to November, and the seeds ripen in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked. The fruit must be fully ripe before it develops its full flavour, prior to that it is acid and somewhat astringent[K]. The oval fruit is up to 20mm long and 14mm wide, it contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. They form a good wind-break, though they are somewhat slow to reach an effective size[K]. They succeed when planted under trees that have become bare at the base, in time they will scramble up into the tree and fill out the bottom[29].

Cultivation details

We have very little specific information on this species and are not sure that this is the correct name for it. It is based on a name given to us by Probus gardens in Cornwall where a specimen is being grown. This plant, which is near to E. glabra, has a larger fruit than other members of the genus and ripens a week or two earlier, usually in mid April in Cornwall.

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a lime-free soil[219]. A very shade tolerant plant, it can be grown under other trees and will eventually climb up into them[29, 166].

Plants are not reliably hardy in the colder areas of the country[200].

This species has a superb potential as a commercial fruit crop in temperate areas. It ripens its fruit in mid spring, well before any other fruit crops, yields are usually good to excellent and the fruit is of a good size with a reasonable flavour[K]. Some research needs to be carried out to determine the best conditions for ensuring good yields every year and also the mechanism of fertilization[K].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (D-E)

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
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[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*

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[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and

silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name: ☐

Email Address: ☐

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+cordifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+cordifolia`

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Plants For A Future: Database Search Results

Elaeagnus cordifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Elaeagnaceae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	cordifolia = heart shaped leaves;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 4m by 4m at a medium rate. It is not frost tender. It is in leaf all year, in flower from October to November, and the seeds ripen in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked. The fruit must be fully ripe before it develops its full flavour, prior to that it is acid and somewhat astringent[K]. The oval fruit is up to 20mm long and 14mm wide, it contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. They form a good wind-break, though they are somewhat slow to reach an effective size[K]. They succeed when planted under trees that have become bare at the base, in time they will scramble up into the tree and fill out the bottom[29].

Cultivation details

We have very little specific information on this species and are not sure that this is the correct name for it. It is based on a name given to us by Probus gardens in Cornwall where a specimen is being grown. This plant, which is near to E. glabra, has a larger fruit than other members of the genus and ripens a week or two earlier, usually in mid April in Cornwall.

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a lime-free soil[219]. A very shade tolerant plant, it can be grown under other trees and will eventually climb up into them[29, 166].

Plants are not reliably hardy in the colder areas of the country[200].

This species has a superb potential as a commercial fruit crop in temperate areas. It ripens its fruit in mid spring, well before any other fruit crops, yields are usually good to excellent and the fruit is of a good size with a reasonable flavour[K]. Some research needs to be carried out to determine the best conditions for ensuring good yields every year and also the mechanism of fertilization[K].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (D-E)

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

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[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern

N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

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Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

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with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

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I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

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Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia*

albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+cordifolia`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Elaeagnus cordifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Elaeagnaceae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	cordifolia = heart shaped leaves;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 4m by 4m at a medium rate. It is not frost tender. It is in leaf all year, in flower from October to November, and the seeds ripen in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked. The fruit must be fully ripe before it develops its full flavour, prior to that it is acid and somewhat astringent[K]. The oval fruit is up to 20mm long and 14mm wide, it contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. They form a good wind-break, though they are somewhat slow to reach an effective size[K]. They succeed when planted under trees that have become bare at the base, in time they will scramble up into the tree and fill out the bottom[29].

Cultivation details

We have very little specific information on this species and are not sure that this is the correct name for it. It is based on a name given to us by Probus gardens in Cornwall where a specimen is being grown. This plant, which is near to E. glabra, has a larger fruit than other members of the genus and ripens a week or two earlier, usually in mid April in Cornwall.

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a lime-free soil[219]. A very shade tolerant plant, it can be grown under other trees and will eventually climb up into them[29, 166].

Plants are not reliably hardy in the colder areas of the country[200].

This species has a superb potential as a commercial fruit crop in temperate areas. It ripens its fruit in mid spring, well before any other fruit crops, yields are usually good to excellent and the fruit is of a good size with a reasonable flavour[K]. Some research needs to be carried out to determine the best conditions for ensuring good yields every year and also the mechanism of fertilization[K].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus cordifolia*

Subject:

Elaeagnus cordifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus cordifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:27:39 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus formosana

Common name:		Family:	Elaeagnaceae
Author:	Nak.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Taiwan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	formosa = beautiful;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[200]. Prefers a light sandy soil that is only moderately fertile, succeeding in poor and dry soils[11, 200]. Very drought and wind resistant[11, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants

that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Elaeagnus formosana

Common name:		Family:	Elaeagnaceae
Author:	Nak.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Taiwan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	formosa = beautiful;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[200]. Prefers a light sandy soil that is only moderately fertile, succeeding in poor and dry soils[11, 200]. Very drought and wind resistant[11, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking

more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern

N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt

with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia*

albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Plants For A Future: Database Search Results

Elaeagnus formosana

Common name:		Family:	Elaeagnaceae
Author:	Nak.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Taiwan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	formosa = beautiful;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[200]. Prefers a light sandy soil that is only moderately fertile, succeeding in poor and dry soils[11, 200]. Very drought and wind resistant[11, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking

more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus formosana*

Subject:

Elaeagnus formosana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus formosana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:27:50 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus fragrans

Common name:		Family:	Elaeagnaceae
Author:	Nak.	Botanical references:	58
Synonyms:	Elaeagnus umbellata rotundifolia (Makino.)		
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Near seashores[58].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	fragrans = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure.

Cultivation details

We have very little information on this species and do not know how hardy it will be in this country. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure[200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but

some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

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A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

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Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

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Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all*

Reasons..

Elaeagnus - Autumn Olive

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Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants: Elaeagnus x ebbingei. Genera: Elaeagnus. Web-pages: Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Elaeagnus fragrans

Common name:		Family:	Elaeagnaceae
Author:	Nak.	Botanical references:	58
Synonyms:	Elaeagnus umbellata rotundifolia (Makino.)		
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Near seashores[58].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	fragrans = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

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Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure.

Cultivation details

We have very little information on this species and do not know how hardy it will be in this country. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure[200].

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Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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Plants For A Future: Database Search Results

Elaeagnus fragrans

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Author:	Nak.	Botanical references:	58
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Other Uses

Hedge.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus fragrans*

Subject:

Elaeagnus fragrans

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus fragrans

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Plants For A Future: Database Search Results

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Elaeagnus glabra

Common name:		Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets in hills[58].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	glabra = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 6m at a medium rate. It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from October to November, and the seeds ripen in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 15mm long[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure[29, 166]. They form a good wind-break, though they are somewhat slow to reach an effective size[K]. They succeed when planted under trees that have become bare at the base, in time they will scramble up into the tree and fill out the bottom[29].

Cultivation details

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a lime-free soil[219]. A very shade tolerant plant, it can be grown under other trees and will eventually climb up into them[29, 166].

Plants are not reliably hardy in the colder areas of the country[200].

This species has some potential as a commercial crop in temperate areas. It does not always carry a good crop, and research needs to be carried out to find the reasons for it, but the fruit is of a reasonable size and, when fully ripe, of a reasonable flavour[K]. It seems to be the latest to ripen in spring of the evergreen Elaeagnus[K].

Closely related to E. pungens, differing in its unarmed branches and thinner more glossy leaves[200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
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[166] **Taylor. J.** *The Milder Garden.* Dent 1990
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
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[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative

smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red

berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+glabra`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+glabra`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Elaeagnus glabra

Common name:		Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets in hills[58].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	glabra = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 6m at a medium rate. It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from October to November, and the seeds ripen in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 15mm long[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure[29, 166]. They form a good wind-break, though they are somewhat slow to reach an effective size[K]. They succeed when planted under trees that have become bare at the base, in time they will scramble up into the tree and fill out the bottom[29].

Cultivation details

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a lime-free soil[219]. A very shade tolerant plant, it can be grown under other trees and will eventually climb up into them[29, 166].

Plants are not reliably hardy in the colder areas of the country[200].

This species has some potential as a commercial crop in temperate areas. It does not always carry a good crop, and research needs to be carried out to find the reasons for it, but the fruit is of a reasonable size and, when fully ripe, of a reasonable flavour[K]. It seems to be the latest to ripen in spring of the evergreen Elaeagnus[K].

Closely related to E. pungens, differing in its unarmed branches and thinner more glossy leaves[200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

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Matt Trahan Mon, 17 Nov 1997

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Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

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Regards, Matt Trahan

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Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

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I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

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Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

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Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Elaeagnus glabra

Common name:		Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets in hills[58].		
Plants For A Future Rating (1-5):	4		

Epithets:	From a Dictionary of Botanical Epithets
	glabra = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 6m at a medium rate. It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from October to November, and the seeds ripen in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 15mm long[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure[29, 166]. They form a good wind-break, though they are somewhat slow to reach an effective size[K]. They succeed when planted under trees that have become bare at the base, in time they will scramble up into the tree and fill out the bottom[29].

Cultivation details

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a lime-free soil[219]. A very shade tolerant plant, it can be grown under other trees and will eventually climb up into them[29, 166].

Plants are not reliably hardy in the colder areas of the country[200].

This species has some potential as a commercial crop in temperate areas. It does not always carry a good crop, and research needs to be carried out to find the reasons for it, but the fruit is of a reasonable size and, when fully ripe, of a reasonable flavour[K]. It seems to be the latest to ripen in spring of the evergreen Elaeagnus[K].

Closely related to E. pungens, differing in its unarmed branches and thinner more glossy leaves[200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus glabra*

Subject:

Elaeagnus glabra

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus glabra

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:28:12 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus gonuanthes

Common name:		Family:	Elaeagnaceae
Author:	Benth.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

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Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in this country. We are not even sure if it is evergreen or deciduous. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200] (but if it is an evergreen it should be shade tolerant). Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but

some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of

plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

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Readers Comments

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Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html

We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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URL for Site: http://

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Elaeagnus gonuanthes

Common name:		Family:	Elaeagnaceae
Author:	Benth.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in this country. We are not even sure if it is evergreen or deciduous. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200] (but if it is an evergreen it should be shade tolerant). Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern

N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt

with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia*

albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+gonuanthes`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+gonuanthes`

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Plants For A Future: Database Search Results

Elaeagnus gonuanthes

Common name:		Family:	Elaeagnaceae
Author:	Benth.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in this country. We are not even sure if it is evergreen or deciduous. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200] (but if it is an evergreen it should be shade tolerant). Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus gonuanthes*

Subject:

Elaeagnus gonuanthes

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus gonuanthes

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:28:23 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus latifolia

Common name:	Bastard oleaster	Family:	Elaeagnaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - India.		
Habitat:	Swamps, to elevations of 1500 metres in the Himalayas[146, 158].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India

Physical Characteristics

A decidious shrub at a medium rate. It is hardy to zone 9 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It

cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[146]. Acid and somewhat astringent[158, 183], it is mainly used in preserves, pies etc[183]. Another report describes it as acid and pleasantly refreshing[146]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac.

The flowers are astringent and cardiac[240, 243].

The fruit is astringent[240, 243].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Fuel.

The wood is a good fuel[146].

Cultivation details

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Requires a sunny position[11, 200].

This species is not very hardy in Britain and is unlikely to succeed outdoors even in the milder areas of the country[200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. (This information on stratification is probably not appropriate to this species since it does not experience much frost in its native habitat[K]). The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*,

Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Elaeagnus latifolia

Common name:	Bastard oleaster	Family:	Elaeagnaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - India.		
Habitat:	Swamps, to elevations of 1500 metres in the Himalayas[146, 158].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India

Physical Characteristics

A decidious shrub at a medium rate. It is hardy to zone 9 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[146]. Acid and somewhat astringent[158, 183], it is mainly used in preserves, pies etc[183]. Another report describes it as acid and pleasantly refreshing[146]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac.

The flowers are astringent and cardiac[240, 243].

The fruit is astringent[240, 243].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Fuel.

The wood is a good fuel[146].

Cultivation details

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Requires a sunny position[11, 200].

This species is not very hardy in Britain and is unlikely to succeed outdoors even in the milder areas of the country[200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. (This information on stratification is probably not appropriate to this species since it does not experience much frost in its native habitat[K]). The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants*

(Including the Supplement). Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

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Regards, Matt Trahan

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Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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Plants For A Future: Database Search Results

Elaeagnus latifolia

Common name:	Bastard oleaster	Family:	Elaeagnaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - India.		
Habitat:	Swamps, to elevations of 1500 metres in the Himalayas[146, 158].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub at a medium rate. It is hardy to zone 9 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[146]. Acid and somewhat astringent[158, 183], it is mainly used in preserves, pies etc[183]. Another report describes it as acid and pleasantly refreshing[146]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

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The flowers are astringent and cardiac[240, 243].

The fruit is astringent[240, 243].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

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Fuel.

The wood is a good fuel[146].

Cultivation details

Succeeds in most soils that are well-drained[200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Requires a sunny position[11, 200].

This species is not very hardy in Britain and is unlikely to succeed outdoors even in the milder areas of the country[200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

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Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. (This information on stratification is probably not appropriate to this species since it does not experience much frost in its native habitat[K]). The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus latifolia*

Subject:

Elaeagnus latifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus latifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:28:34 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

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Elaeagnus macrophylla

Common name:		Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea.		
Habitat:	Thickets in lowland, especially near the sea[58, 184].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	macrophylla = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 3m by 3m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. A very acceptable rich flavour when fully ripe, though it is somewhat astringent before then[K]. A potentially very valuable crop, ripening as it does in April and May[K]. We are not sure how reliable a crop it is though, some plants bear very heavy crops whilst others rarely bear fruit[K]. The fruit is up to 30mm long and contains a single large seed[K].

Seed - raw or cooked. A mild flavour, that has a hint of peanut, it can be eaten in quantity[K]. It can be eaten together with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, they are very tolerant of maritime exposure[75, 200]. Reasonably fast-growing and providing a dense cover, it gives a very good protection from the wind[K]. Plants are very tolerant of regular trimming, they can also be cut back almost to the ground and will resprout from the base[K].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Succeeds in sun or shade[11, 200]. Plants are very tolerant of maritime exposure[75].

This species is hardy to about -15°c[184], succeeding in the warmer counties of Britain.

This is a plant with a very big potential as a commercial fruit crop. The fruit ripens outdoors in Britain in April, a season where traditionally there is no fresh fruit available. The fruit is of a reasonable size, has a very nice flavour when fully ripe and also has a fairly large edible seed[K]. Some research needs to be carried out in order to find the conditions that are necessary to ensure good crops - some plants fruit very heavily whilst others have very light or no crops[K]. This is the second of the evergreen Elaeagnus species to ripen in the spring, about a week or 10 days later than E. cordifolia[K].

This species is notably resistant to honey fungus[88, 200].

Plants can succumb to wind-rock in very wet seasons[75]. Plants are sometimes damaged by voles[75].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Allied to E. pungens and E. glabra[11].

The flowers are very aromatic[184], their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF Catalogue: Checklist of plants
- Elaeagnus x ebbingei - A Plant for all Reasons.
- PFAF: Edible Trees and Shrubs Hardy in Britain
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- Checklist of plants suitable for hedging and windbreaks: D-F
- PFAF Plant Catalogue (D-E)
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965

The standard work. Brilliant, but not for the casual reader.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative

smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red

berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+macrophylla`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+macrophylla`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Elaeagnus macrophylla

Common name:		Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea.		
Habitat:	Thickets in lowland, especially near the sea[58, 184].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	macrophylla = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 3m by 3m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. A very acceptable rich flavour when fully ripe, though it is somewhat astringent before then[K]. A potentially very valuable crop, ripening as it does in April and May[K]. We are not sure how reliable a crop it is though, some plants bear very heavy crops whilst others rarely bear fruit[K]. The fruit is up to 30mm long and contains a single large seed[K].

Seed - raw or cooked. A mild flavour, that has a hint of peanut, it can be eaten in quantity[K]. It can be eaten together with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, they are very tolerant of maritime exposure[75, 200]. Reasonably fast-growing and providing a dense cover, it gives a very good protection from the wind[K]. Plants are very tolerant of regular trimming, they can also be cut back almost to the ground and will resprout from the base[K].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Succeeds in sun or shade[11, 200]. Plants are very tolerant of maritime exposure[75].

This species is hardy to about -15°c[184], succeeding in the warmer counties of Britain.

This is a plant with a very big potential as a commercial fruit crop. The fruit ripens outdoors in Britain in April, a season where traditionally there is no fresh fruit available. The fruit is of a reasonable size, has a very nice flavour when fully ripe and also has a fairly large edible seed[K].

Some research needs to be carried out in order to find the conditions that are necessary to ensure good crops - some plants fruit very heavily whilst others have very light or no crops[K]. This is the second of the evergreen Elaeagnus species to ripen in the spring, about a week or 10 days later than E. cordifolia[K].

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This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Allied to E. pungens and E. glabra[11].

The flowers are very aromatic[184], their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This plant is mentioned in the following web pages

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[K] **Ken Fern**
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

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I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* Elaeagnus. *Web-pages:* Elaeagnus x ebbingei - A Plant for all Reasons..

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

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Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Elaeagnus macrophylla

Common name:		Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea.		
Habitat:	Thickets in lowland, especially near the sea[58, 184].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	macrophylla = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 3m by 3m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. A very acceptable rich flavour when fully ripe, though it is somewhat astringent before then[K]. A potentially very valuable crop, ripening as it does in April and May[K]. We are not sure how reliable a crop it is though, some plants bear very heavy crops whilst others rarely bear fruit[K]. The fruit is up to 30mm long and contains a single large seed[K].

Seed - raw or cooked. A mild flavour, that has a hint of peanut, it can be eaten in quantity[K]. It can be eaten together with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, they are very tolerant of maritime exposure[75, 200]. Reasonably fast-growing and providing a dense cover, it gives a very good protection from the wind[K]. Plants are very tolerant of regular trimming, they can also be cut back almost to the ground and will resprout from the base[K].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Succeeds in sun or shade[11, 200]. Plants are very tolerant of maritime exposure[75].

This species is hardy to about -15°c[184], succeeding in the warmer counties of Britain.

This is a plant with a very big potential as a commercial fruit crop. The fruit ripens outdoors in Britain in April, a season where traditionally there is no fresh fruit available. The fruit is of a reasonable size, has a very nice flavour when fully ripe and also has a fairly large edible seed[K].

Some research needs to be carried out in order to find the conditions that are necessary to ensure good crops - some plants fruit very heavily whilst others have very light or no crops[K]. This is the second of the evergreen Elaeagnus species to ripen in the spring, about a week or 10 days later than E. cordifolia[K].

This species is notably resistant to honey fungus[88, 200].

Plants can succumb to wind-rock in very wet seasons[75]. Plants are sometimes damaged by voles[75].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Allied to E. pungens and E. glabra[11].

The flowers are very aromatic[184], their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus macrophylla*

Subject:

Elaeagnus macrophylla

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus macrophylla

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:28:46 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus maritima

Common name:		Family:	Elaeagnaceae
Author:	Koidz.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. It is probably a hybrid, E. glabra x E. macrophylla[58]. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Succeeds in sun or shade[11, 200]. Very tolerant of maritime exposure[58].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on

the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965

The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html

We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

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Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been

mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants For A Future: Database Search Results

Elaeagnus maritima

Common name:		Family:	Elaeagnaceae
Author:	Koidz.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. It is probably a hybrid, E. glabra x E. macrophylla[58]. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Succeeds in sun or shade[11, 200]. Very tolerant of maritime exposure[58].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can

the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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Plants For A Future: Database Search Results

Elaeagnus maritima

Common name:		Family:	Elaeagnaceae
Author:	Koidz.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. It is probably a hybrid, E. glabra x E. macrophylla[58]. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Succeeds in sun or shade[11, 200]. Very tolerant of maritime exposure[58].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus maritima*

Subject:

Elaeagnus maritima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus maritima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:28:58 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Elaeagnus montana

Common name:		Family:	Elaeagnaceae
Author:	Mak.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Mountains[58].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	montana = of mountains;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though based on its native range it should succeed outdoors in many parts of the country. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but

some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

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Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative

smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Larry Fri Oct 19 16:58:17 2001

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I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Elaeagnus montana

Common name:		Family:	Elaeagnaceae
Author:	Mak.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Mountains[58].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	montana = of mountains;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though based on its native range it should succeed outdoors in many parts of the country. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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Author:	Mak.	Botanical references:	58
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Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus montana*

Subject:

Elaeagnus montana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus montana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:29:09 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus multiflora

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Goumi	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Elaeagnus longipes (A.Gray.)		
Known Hazards:	None known		
Range:	E. Asia - China and Japan.		
Habitat:	Thickets and thin woods in hills and on lowland, at elevations of 600 - 1800 metres[58].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Iao Erh Su [E], Cherry Silver-berry [B], Cherry Silverberry [P], Hu T'Ui Tzu [E], Langstelige Olijfwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower from April to May, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Red Cherry'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 3, 11, 15, 46, 177]. Pleasantly acid when ripe, they make a very good dessert fruit[K] though they are usually made into pies, preserves etc[183]. Quite fiddly and difficult to pick without breaking the young shoots[200]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Antitussive; Astringent; Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

The leaves are used in the treatment of coughs[218].

The fruit is prescribed in the treatment of watery diarrhoea[218].

The root is astringent, a decoction is used to treat itch and foul sores[218].

Other Uses

Hedge; Rootstock.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. Reasonably fast growing and providing a good screen in the summer, though much more open in the winter. It is a good companion hedge to grow, the plants enriching the soil and improving the growth of neighbouring plants[K]. A hedge in a very exposed position at Rosewarne in N. Cornwall was 3.5 metres tall in 1989[K].

Often used as a rootstock for evergreen species that are hard to grow from cuttings. It frequently sprouts from the base and can out-compete the scion[182].

Cultivation details

An easily grown plant[184], it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position but succeeds in light shade[11, 200]. Very drought and wind resistant[1, 11, 200]. Tolerates atmospheric pollution[160].

Plants are hardy to about -20°c[184], but the roots are hardy to -30°c (although top growth will be killed at this temperature).

Cultivated for its edible fruit in Japan, there are some named varieties[3, 11, 183]. Plants can crop in 4 years from cuttings[160]. They bear heavily in Britain[11].

The fruit is well hidden in the shrub and is quite difficult to harvest without damaging the plant[K]. The ssp. E. multiflora ovata. (Maxim.)Servettaz. produces brown fruits on long stalks[200], would this be any easier to harvest?[K].

The synonym E. longipes is sometimes accepted as a distinct species, differing mainly in having very long peduncles about 2.5cm in length[214].

This species is notably resistant to honey fungus[88, 200]. Birds love the fruits[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented with a lilac-like smell, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Cultivars

'Variegated'

The plant has variegated leaves[183].

'Red Cherry'

A choice shrub with fragrant flowers and tasty red fruits[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain

- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elaeagnus longipes* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an

excellent article on Hippophae spp.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*,

Mimosa scabrella, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera: Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages: Edible Trees and Shrubs Hardy in Britain*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Derek McCall (derekspe@hotmail.com) Sun Jul 20 01:50:48 2003

Have you looked into Elaeagnus multiflora? It has the same qualities as E. x ebbingei yet doesn't germinate as easily as it's cousin plants. It is not considered an invasive here in the U.S. and is worth looking into if an easy way to propogate it can be found. Sincerely, DEREK McCALL

Details of Growing Condition: Boston, Mass. USA Zone 6. .

Cross references: *Web-pages: Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+multiflora`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+multiflora`

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Plants For A Future: Database Search Results

Elaeagnus multiflora

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Goumi	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Elaeagnus longipes (A.Gray.)		
Known Hazards:	None known		
Range:	E. Asia - China and Japan.		
Habitat:	Thickets and thin woods in hills and on lowland, at elevations of 600 - 1800 metres[58].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Iao Erh Su [E], Cherry Silver-berry [B], Cherry Silverberry [P], Hu T'Ui Tzu [E], Langstelige Olijfwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower from April to May, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate

drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Red Cherry'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 3, 11, 15, 46, 177]. Pleasantly acid when ripe, they make a very good dessert fruit[K] though they are usually made into pies, preserves etc[183]. Quite fiddly and difficult to pick without breaking the young shoots[200]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

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Disclaimer

Antitussive; Astringent; Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

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The root is astringent, a decoction is used to treat itch and foul sores[218].

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Hedge; Rootstock.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. Reasonably fast growing and providing a good screen in the summer, though much more open in the winter. It is a good companion hedge to grow, the plants enriching the soil and improving the growth of neighbouring plants[K]. A hedge in a very exposed position at Rosewarne in N. Cornwall was 3.5 metres tall in 1989[K].

Often used as a rootstock for evergreen species that are hard to grow from cuttings. It frequently sprouts from the base and can out-compete the scion[182].

Cultivation details

An easily grown plant[184], it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position but succeeds in light shade[11, 200]. Very drought and wind resistant[1, 11, 200]. Tolerates atmospheric pollution[160].

Plants are hardy to about -20°c[184], but the roots are hardy to -30°c (although top growth will be killed at this temperature).

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Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Cultivars

'Variegated'

The plant has variegated leaves[183].

'Red Cherry'

A choice shrub with fragrant flowers and tasty red fruits[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elaeagnus longipes* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of

plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief

cultivation details. There are no illustrations.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Derek McCall (derekspe@hotmail.com) Sun Jul 20 01:50:48 2003

Have you looked into Elaeagnus multiflora? It has the same qualities as E. x ebbingei yet doesn't germinate as easily as it's cousin plants. It is not considered an invasive here in the U.S. and is worth looking into if an easy way to propogate it can be found. Sincerely, DEREK McCALL

Details of Growing Condition: Boston, Mass. USA Zone 6. .

Cross references: *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Plants For A Future: Database Search Results

Elaeagnus multiflora

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Goumi	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Elaeagnus longipes (A.Gray.)		
Known Hazards:	None known		
Range:	E. Asia - China and Japan.		
Habitat:	Thickets and thin woods in hills and on lowland, at elevations of 600 - 1800 metres[58].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Iao Erh Su [E], Cherry Silver-berry [B], Cherry Silverberry [P], Hu T'Ui Tzu [E], Langstelige Olijfwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower from April to May, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate

drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Red Cherry'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 3, 11, 15, 46, 177]. Pleasantly acid when ripe, they make a very good dessert fruit[K] though they are usually made into pies, preserves etc[183]. Quite fiddly and difficult to pick without breaking the young shoots[200]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Antitussive; Astringent; Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

The leaves are used in the treatment of coughs[218].

The fruit is prescribed in the treatment of watery diarrhoea[218].

The root is astringent, a decoction is used to treat itch and foul sores[218].

Other Uses

Hedge; Rootstock.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. Reasonably fast growing and providing a good screen in the summer, though much more open in the winter. It is a good companion hedge to grow, the plants enriching the soil and improving the growth of neighbouring plants[K]. A hedge in a very exposed position at Rosewarne in N. Cornwall was 3.5 metres tall in 1989[K].

Often used as a rootstock for evergreen species that are hard to grow from cuttings. It frequently sprouts from the base and can out-compete the scion[182].

Cultivation details

An easily grown plant[184], it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position but succeeds in light shade[11, 200]. Very drought and wind resistant[1, 11, 200]. Tolerates atmospheric pollution[160].

Plants are hardy to about -20°c[184], but the roots are hardy to -30°c (although top growth will be killed at this temperature).

Cultivated for its edible fruit in Japan, there are some named varieties[3, 11, 183]. Plants can crop in 4 years from cuttings[160]. They bear heavily in Britain[11].

The fruit is well hidden in the shrub and is quite difficult to harvest without damaging the plant[K]. The ssp. E. multiflora ovata. (Maxim.)Servettaz. produces brown fruits on long stalks[200], would this be any easier to harvest?[K].

The synonym E. longipes is sometimes accepted as a distinct species, differing mainly in having very long peduncles about 2.5cm in length[214].

This species is notably resistant to honey fungus[88, 200]. Birds love the fruits[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented with a lilac-like smell, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Cultivars

'Variegated'

The plant has variegated leaves[183].

'Red Cherry'

A choice shrub with fragrant flowers and tasty red fruits[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus multiflora*

Subject:

Elaeagnus multiflora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus multiflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Elaeagnus multiflora ovata

Common name:	Goumi	Family:	Elaeagnaceae
Author:	(Maxim.) Servattaz.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China and Japan.		
Habitat:	Thickets and thin woods in hills and on lowland, at elevations of 600 - 1800 metres[58].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered; ovata = oval;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower from April to May, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 3, 11, 15, 46, 177]. Pleasantly acid when ripe, they are usually made into pies, preserves etc[183]. Quite fiddly and difficult to pick without breaking the young shoots[200], this sub-species carries the fruit on longer stalks than the species and might therefore be easier to pick[K]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K]

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge; Rootstock.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. A hedge in a very exposed position at Rosewarne in N. Cornwall was 3.5 metres tall in 1989[K].

Often used as a rootstock for evergreen species that are hard to grow from cuttings. It frequently sprouts from the base and can out-compete the scion[182].

Cultivation details

An easily grown plant[184], it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position but succeeds in light shade[11, 200]. Very drought and wind resistant[1, 11, 200]. Tolerates atmospheric pollution[160].

Plants are hardy to about -20°c[184], but the roots are hardy to -30°c (although top growth will be killed at this temperature).

Cultivated for its edible fruit in Japan, there are some named varieties[3, 11, 183]. Plants can crop in 4 years from cuttings[160]. They bear heavily in Britain[11].

The fruit is well hidden in the shrub and is quite difficult to harvest without damaging the plant[K]. This sub-species produces brown fruits on long stalks[200], would this be any easier to harvest?[K]

This species is notably resistant to honey fungus[88, 200]. Birds love the fruits[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Excellent photographs and a terse description of 1900 species and cultivars.

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Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal PayPal DONATE

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all*

Reasons..

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*,

Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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WEB search engine by Rich Morris - Home Page- Contact Info

Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+multiflora+ovata`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+multiflora+ovata`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Elaeagnus multiflora ovata

Common name:	Goumi	Family:	Elaeagnaceae
Author:	(Maxim.) Servattaz.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China and Japan.		
Habitat:	Thickets and thin woods in hills and on lowland, at elevations of 600 - 1800 metres[58].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered; ovata = oval;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower from April to May, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 3, 11, 15, 46, 177]. Pleasantly acid when ripe, they are usually made into pies, preserves etc[183]. Quite fiddly and difficult to pick without breaking the young shoots[200], this sub-species carries the fruit on longer stalks than the species and might therefore be easier to pick[K]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K]

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge; Rootstock.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. A hedge in a very exposed position at Rosewarne in N. Cornwall was 3.5 metres tall in 1989[K].

Often used as a rootstock for evergreen species that are hard to grow from cuttings. It frequently sprouts from the base and can out-compete the scion[182].

Cultivation details

An easily grown plant[184], it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position but succeeds in light shade[11, 200]. Very drought and wind resistant[1, 11, 200]. Tolerates atmospheric pollution[160].

Plants are hardy to about -20°c[184], but the roots are hardy to -30°c (although top growth will be killed at this temperature).

Cultivated for its edible fruit in Japan, there are some named varieties[3, 11, 183]. Plants can crop in 4 years from cuttings[160]. They bear heavily in Britain[11].

The fruit is well hidden in the shrub and is quite difficult to harvest without damaging the plant[K]. This sub-species produces brown fruits on long stalks[200], would this be any easier to harvest?[K]

This species is notably resistant to honey fungus[88, 200]. Birds love the fruits[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

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Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Plants For A Future: Database Search Results

Elaeagnus multiflora ovata

Common name:	Goumi	Family:	Elaeagnaceae
Author:	(Maxim.) Servattaz.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China and Japan.		
Habitat:	Thickets and thin woods in hills and on lowland, at elevations of 600 - 1800 metres[58].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; multiflora = many flowered; ovata = oval;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower from April to May, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[1, 3, 11, 15, 46, 177]. Pleasantly acid when ripe, they are usually made into pies, preserves etc[183]. Quite fiddly and difficult to pick without breaking the young shoots[200], this sub-species carries the fruit on longer stalks than the species and might therefore be easier to pick[K]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K]

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge; Rootstock.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure. A hedge in a very exposed position at Rosewarne in N. Cornwall was 3.5 metres tall in 1989[K].

Often used as a rootstock for evergreen species that are hard to grow from cuttings. It frequently sprouts from the base and can out-compete the scion[182].

Cultivation details

An easily grown plant[184], it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position but succeeds in light shade[11, 200]. Very drought and wind resistant[1, 11, 200]. Tolerates atmospheric pollution[160].

Plants are hardy to about -20°c[184], but the roots are hardy to -30°c (although top growth will be killed at this temperature).

Cultivated for its edible fruit in Japan, there are some named varieties[3, 11, 183]. Plants can crop in 4 years from cuttings[160]. They bear heavily in Britain[11].

The fruit is well hidden in the shrub and is quite difficult to harvest without damaging the plant[K]. This sub-species produces brown fruits on long stalks[200], would this be any easier to harvest?[K]

This species is notably resistant to honey fungus[88, 200]. Birds love the fruits[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The small flowers are deliciously scented, their aroma pervading the garden on calm days[K].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers are deliciously scented, their aroma pervading the garden on calm days.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus multiflora ovata*

Subject:

Elaeagnus multiflora ovata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus multiflora ovata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:29:33 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Elaeagnus oldhamii

Common name:		Family:	Elaeagnaceae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

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Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants

that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the

Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera*: Elaeagnus. *Web-pages*: *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera*: Elaeagnus. *Web-pages*: *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+oldhamii`
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Plants For A Future: Database Search Results

Elaeagnus oldhamii

Common name:		Family:	Elaeagnaceae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

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Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of

edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*,

Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+oldhamii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+oldhamii`

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Plants For A Future: Database Search Results

Elaeagnus oldhamii

Common name:		Family:	Elaeagnaceae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+oldhamii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+oldhamii`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus oldhamii*

Subject:

Elaeagnus oldhamii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus oldhamii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:29:43 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus orientalis

Common name:	Trebizond date	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 93, 200
Synonyms:	Elaeagnus angustifolia orientalis ((L.)Kuntze.)		
Known Hazards:	None known		
Range:	W. Asia.		
Habitat:	By streams and on river banks, to elevations of 3000 metres in Turkey[93].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. E. angustifolia[B,DUTCH,E,G,H,HORTIPLEX,P] E. angustifolia var. orientalis[G] E. hortensis[G] E. moorcroftii[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Oleaster [H], Oriental Olive [P], Russian Olive [H,P], Russian-olive [B,FEIS,DEN1], Smalle Olijfwilg [D],
Epithets:	From a Dictionary of Botanical Epithets orientalis = eastern;
Systematics:	From a UDSA Plants Database Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database Spain

Physical Characteristics

A decidious shrub growing to 12m by 6m at a medium rate. It is hardy to zone 4 and is not frost tender. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[3, 105]. Sweet and mealy but of better quality than the closely related E. angustifolia[183]. Eaten fresh or made into sherbet and preserves. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 10mm long and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure.

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Established plants are very drought resistant[1]. Prefers a light sandy loam and a sunny position[11, 200]. Dislikes shallow chalk soils[98].

Very closely related to E. angustifolia and often considered to be no more than a sub-species of it[183], it does not flower so freely in Britain as that species[11].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The flowers are very fragrant and are rich in nectar[183], they are much visited by bees.

Occasionally cultivated for its edible fruit, there are some named varieties[183]. The fruit used to be commonly sold in the markets of Iran and Turkey but is rarely found there nowadays[183].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Cultivars

'King Red'

Fruiting in the autumn, this is a vigorous form that grows 9 metres tall and is hardy to zone 4[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elaeagnus angustifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Elaeagnus angustifolia var. orientalis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[93] **Davis. P. H.** *Flora of Turkey.* Edinburgh University Press 1965
Not for the casual reader, this is an immense work in many volumes. Some details of plant uses and habitats.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all*

Reasons..

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera: Elaeagnus. Web-pages: Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*,

Mimosa scabrella, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+orientalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+orientalis`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Elaeagnus orientalis

Common name:	Trebizond date	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 93, 200
Synonyms:	Elaeagnus angustifolia orientalis ((L.)Kuntze.)		
Known Hazards:	None known		
Range:	W. Asia.		
Habitat:	By streams and on river banks, to elevations of 3000 metres in Turkey[93].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. angustifolia[B,DUTCH,E,G,H,HORTIPLEX,P] E. angustifolia var. orientalis[G] E. hortensis[G] E. moorcroftii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oleaster [H], Oriental Olive [P], Russian Olive [H,P], Russian-olive [B,FEIS,DEN1], Smalle Olijfwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	Spain

Physical Characteristics

A decidious shrub growing to 12m by 6m at a medium rate. It is hardy to zone 4 and is not frost tender. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[3, 105]. Sweet and mealy but of better quality than the closely related E. angustifolia[183]. Eaten fresh or made into sherbet and preserves. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 10mm long and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure.

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Established plants are very drought resistant[1]. Prefers a light sandy loam and a sunny position[11, 200]. Dislikes shallow chalk soils[98].

Very closely related to E. angustifolia and often considered to be no more than a sub-species of it[183], it does not flower so freely in Britain as that species[11].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

The flowers are very fragrant and are rich in nectar[183], they are much visited by bees.

Occasionally cultivated for its edible fruit, there are some named varieties[183]. The fruit used to be commonly sold in the markets of Iran and Turkey but is rarely found there nowadays[183].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Cultivars

'King Red'

> Fruiting in the autumn, this is a vigorous form that grows 9 metres tall and is hardy to zone 4[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elaeagnus angustifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Elaeagnus angustifolia var. orientalis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[93] **Davis. P. H.** *Flora of Turkey.* Edinburgh University Press 1965
Not for the casual reader, this is an immense work in many volumes. Some details of plant uses and habitats.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative

smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

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Elaeagnus x ebbingei - A Plant for all Reasons.

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Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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Elaeagnus orientalis

Common name:	Trebizond date	Family:	Elaeagnaceae
Author:	L.	Botanical references:	11, 93, 200
Synonyms:	Elaeagnus angustifolia orientalis ((L.)Kuntze.)		
Known Hazards:	None known		
Range:	W. Asia.		
Habitat:	By streams and on river banks, to elevations of 3000 metres in Turkey[93].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. angustifolia[B,DUTCH,E,G,H,HORTIPLEX,P] E. angustifolia var. orientalis[G] E. hortensis[G] E. moorcroftii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oleaster [H], Oriental Olive [P], Russian Olive [H,P], Russian-olive [B,FEIS,DEN1], Smalle Olijfwilg [D],
Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 12m by 6m at a medium rate. It is hardy to zone 4 and is not frost tender. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[3, 105]. Sweet and mealy but of better quality than the closely related E. angustifolia[183]. Eaten fresh or made into sherbet and preserves. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The oval fruit is about 10mm long and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

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Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure.

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Established plants are very drought resistant[1]. Prefers a light sandy loam and a sunny position[11, 200]. Dislikes shallow chalk soils[98].

Very closely related to E. angustifolia and often considered to be no more than a sub-species of it[183], it does not flower so freely in Britain as that species[11].

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Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

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'King Red'

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+orientalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+orientalis`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus orientalis*

Subject:

Elaeagnus orientalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus orientalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:29:56 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

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Elaeagnus parvifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Elaeagnaceae
Author:	Royle.	Botanical references:	11, 51, 200
Synonyms:	Elaeagnus umbellata parvifolia ((Royle.)Schneid.)		
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Shrubberies, 1500 - 3000 metres, from Afghanistan to S.W. China[51].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. umbellata var. parvifolia[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Autumn Olive [P],
Epithets:	From a Dictionary of Botanical Epithets
	parvifolia = small leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: West Virginia.

Physical Characteristics

A decidious shrub growing to 4.5m by 3m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw, cooked or added to curries[2, 105, 183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit is about 8mm in diameter[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Very tolerant of maritime exposure, it can be grown as an informal hedge in exposed positions[75].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position[11]. Dislikes shallow chalk soils[98]. Plants are very drought resistant[1] and very tolerant of maritime exposure[75].

A very hardy plant, tolerating temperatures down to at least -40°c[200].

Somewhat similar to E. multiflora, but flowering a few weeks later[182].

The flowers are rich in nectar and very aromatic, they are much visited by bees.

This species is notably resistant to honey fungus[88, 200].

Plants can fruit in 6 years from seed[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (D-E)

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elaeagnus umbellata var. parvifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981

A classic with a wealth of information on the plants, but poor on pictures.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an

excellent article on Hippophae spp.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8 An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* Elaeagnus. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*,

Sesbania sesban, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+parvifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+parvifolia`

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Plants For A Future: Database Search Results

Elaeagnus parvifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Elaeagnaceae
Author:	Royle.	Botanical references:	11, 51, 200
Synonyms:	Elaeagnus umbellata parvifolia ((Royle.)Schneid.)		
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Shrubberies, 1500 - 3000 metres, from Afghanistan to S.W. China[51].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. umbellata var. parvifolia[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Autumn Olive [P],
Epithets:	From a Dictionary of Botanical Epithets
	parvifolia = small leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: West Virginia.

Physical Characteristics

A deciduous shrub growing to 4.5m by 3m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees.

It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw, cooked or added to curries[2, 105, 183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit is about 8mm in diameter[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Very tolerant of maritime exposure, it can be grown as an informal hedge in exposed positions[75].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position[11]. Dislikes shallow chalk soils[98]. Plants are very drought resistant[1] and very tolerant of maritime exposure[75].

A very hardy plant, tolerating temperatures down to at least -40°c[200].

Somewhat similar to E. multiflora, but flowering a few weeks later[182].

The flowers are rich in nectar and very aromatic, they are much visited by bees.

This species is notably resistant to honey fungus[88, 200].

Plants can fruit in 6 years from seed[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (D-E)

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elaeagnus umbellata var. parvifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981

A classic with a wealth of information on the plants, but poor on pictures.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an

excellent article on Hippophae spp.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*, *Sesbania sesban*, *Ziziphus mauritiana*. *Genera:* *Acacia*, *Actinorhizal*, *Albizia*, *Casuarina*, *Elaeagnus*, *Gliricidia*, *Leucaena*, *Prosopis*, *Myroxylon*. *Web-pages:* *Edible Trees and Shrubs Hardy in Britain*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+parvifolia`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+parvifolia`

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Plants For A Future: Database Search Results

Elaeagnus parvifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Elaeagnaceae
Author:	Royle.	Botanical references:	11, 51, 200
Synonyms:	Elaeagnus umbellata parvifolia ((Royle.)Schneid.)		
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Shrubberies, 1500 - 3000 metres, from Afghanistan to S.W. China[51].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. umbellata var. parvifolia[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Autumn Olive [P],
Epithets:	From a Dictionary of Botanical Epithets
	parvifolia = small leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: West Virginia.

Physical Characteristics

A decidious shrub growing to 4.5m by 3m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees.

It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw, cooked or added to curries[2, 105, 183]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit is about 8mm in diameter[200] and contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Very tolerant of maritime exposure, it can be grown as an informal hedge in exposed positions[75].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position[11]. Dislikes shallow chalk soils[98]. Plants are very drought resistant[1] and very tolerant of maritime exposure[75].

A very hardy plant, tolerating temperatures down to at least -40°c[200].

Somewhat similar to E. multiflora, but flowering a few weeks later[182].

The flowers are rich in nectar and very aromatic, they are much visited by bees.

This species is notably resistant to honey fungus[88, 200].

Plants can fruit in 6 years from seed[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus parvifolia*

Subject:

Elaeagnus parvifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus parvifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus pungens

Common name:	Elaeagnus	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Thickets in lowland, especially by the sea[184].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Nawasiro-Gumi [E], Thorny Olive [P], Thorny-olive [B],
Epithets:	From a Dictionary of Botanical Epithets
	pungens = spiny, pungent;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen shrub growing to 4m by 4m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from November to February, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Cultivar **'Dicksonii'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Maculata'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Variegata'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Gold Rim'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Frederici'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. About the size of a large blackcurrant, though the seed is also quite large[K]. A nice sub-acid flavour when fully ripe but astringent if eaten before then[K]. Can be made into preserves, drinks etc[183]. The oval fruit is about 15mm long[200].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K]. A taste vaguely reminiscent of peanuts[K]. The seed contains 42.2% protein and 23.1% fat on a zero moisture basis[218].

Composition

Seed (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Protein: 42.2 Fat: 23.1
> Source: [218]

Medicinal Uses

Disclaimer

Antiasthmatic; Antitussive; Astringent; Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

The leaves and the stems are concocted and used in the treatment of asthma, cough, diarrhoea, haemorrhoids etc[147, 218].

The seed is used to treat watery diarrhoea[218].

The root is astringent and is applied to sores, itchy skin etc[147, 218].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure[75]. Succeeds when planted under trees that have become bare at the base, in time it will scramble up into the tree and fill out the bottom[75].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Dislikes very alkaline soils[202]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[[11, 200]. Grows well in heavy clay soils. Very drought and shade resistant[200]. Tolerates maritime exposure[75].

Plants are hardy to about -15°c[200]. The foliage can be damaged in severe wind-chill conditions[202].

This is a potentially valuable fruit crop, fruiting as it does in April and May[K]. There are a number of named varieties[200, 202] and so there is plenty of scope for improving size and quality of fruit by selective breeding. Most cultivars are variegated and therefore slower-growing than the species[K].

This species is notably resistant to honey fungus[88, 200].

The small flowers have a sweet but pungent aroma. They pervade the garden for some distance on sunny days[245].

Closely related to E. glabra[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers have a sweet but pungent aroma. They pervade the garden for some distance on sunny days.

Cultivars

'Variegata'

> This cultivar has been seen on a few occasons with reasonable crops of fruit, though the flesh has been somewhat sparse. It has usually been growing close to forms of E. x ebbingei and these are probably necessary for pollination[K].

'Maculata'

> A variegated form, it is slower-growing than the type species. This cultivar has been seen with good crops of fruit in the April of 1992 and 1993[K].

'Gold Rim'

'Frederici'

'Dicksonii'

> A variegated form, it is slower-growing than the type species. This cultivar has been seen with good crops of fruit in the April of 1992 and 1993[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Food Crops
- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- The Urban Garden
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can

the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

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I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

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I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+pungens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+pungens`

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Plants For A Future: Database Search Results

Elaeagnus pungens

Common name:	Elaeagnus	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Thickets in lowland, especially by the sea[184].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Nawasiro-Gumi [E], Thorny Olive [P], Thorny-olive [B],
Epithets:	From a Dictionary of Botanical Epithets
	pungens = spiny, pungent;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen shrub growing to 4m by 4m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from November to February, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Cultivar **'Dicksonii'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Maculata'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Variegata'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Gold Rim'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Frederici'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. About the size of a large blackcurrant, though the seed is also quite large[K]. A nice sub-acid flavour when fully ripe but astringent if eaten before then[K]. Can be made into preserves, drinks etc[183]. The oval fruit is about 15mm long[200].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K]. A taste vaguely reminiscent of peanuts[K]. The seed contains 42.2% protein and 23.1% fat on a zero moisture basis[218].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 42.2 Fat: 23.1
Source: [218]

Medicinal Uses

Disclaimer

Antiasthmatic; Antitussive; Astringent; Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

The leaves and the stems are concocted and used in the treatment of asthma, cough, diarrhoea, haemorrhoids etc[147, 218].

The seed is used to treat watery diarrhoea[218].

The root is astringent and is applied to sores, itchy skin etc[147, 218].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure[75]. Succeeds when planted under trees that have become bare at the base, in time it will scramble up into the tree and fill out the bottom[75].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Dislikes very alkaline soils[202]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[[11, 200]. Grows well in heavy clay soils. Very drought and shade resistant[200]. Tolerates maritime exposure[75].

Plants are hardy to about -15°c[200]. The foliage can be damaged in severe wind-chill conditions[202].

This is a potentially valuable fruit crop, fruiting as it does in April and May[K]. There are a number of named varieties[200, 202] and so there is plenty of scope for improving size and quality of fruit by selective breeding. Most cultivars are variegated and therefore slower-growing than the species[K].

This species is notably resistant to honey fungus[88, 200].

The small flowers have a sweet but pungent aroma. They pervade the garden for some distance on sunny days[245].

Closely related to E. glabra[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into

individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

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Cultivars

'Variegata'

> This cultivar has been seen on a few occasons with reasonable crops of fruit, though the flesh has been somewhat sparse. It has usually been growing close to forms of E. x ebbingei and these are probably necessary for pollination[K].

'Maculata'

> A variegated form, it is slower-growing than the type species. This cultivar has been seen with good crops of fruit in the April of 1992 and 1993[K].

'Gold Rim'

'Frederici'

'Dicksonii'

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Food Crops
- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- The Urban Garden
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
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Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Habitat:	Thickets in lowland, especially by the sea[184].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Nawasiro-Gumi [E], Thorny Olive [P], Thorny-olive [B],
Epithets:	From a Dictionary of Botanical Epithets
	pungens = spiny, pungent;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen shrub growing to 4m by 4m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from November to February, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Cultivar **'Dicksonii'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Maculata'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Variegata'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Gold Rim'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.
Cultivar **'Frederici'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. About the size of a large blackcurrant, though the seed is also quite large[K]. A nice sub-acid flavour when fully ripe but astringent if eaten before then[K]. Can be made into preserves, drinks etc[183]. The oval fruit is about 15mm long[200].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K]. A taste vaguely reminiscent of peanuts[K]. The seed contains 42.2% protein and 23.1% fat on a zero moisture basis[218].

Composition

Seed (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Protein: 42.2 Fat: 23.1
> Source: [218]

Medicinal Uses

Disclaimer

Antiasthmatic; Antitussive; Astringent; Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

The leaves and the stems are concocted and used in the treatment of asthma, cough, diarrhoea, haemorrhoids etc[147, 218].

The seed is used to treat watery diarrhoea[218].

The root is astringent and is applied to sores, itchy skin etc[147, 218].

Other Uses

Hedge.

Plants can be grown as a hedge in exposed positions, tolerating maritime exposure[75]. Succeeds when planted under trees that have become bare at the base, in time it will scramble up into the tree and fill out the bottom[75].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Dislikes very alkaline soils[202]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[[11, 200]. Grows well in heavy clay soils. Very drought and shade resistant[200]. Tolerates maritime exposure[75].

Plants are hardy to about -15°c[200]. The foliage can be damaged in severe wind-chill conditions[202].

This is a potentially valuable fruit crop, fruiting as it does in April and May[K]. There are a number of named varieties[200, 202] and so there is plenty of scope for improving size and quality of fruit by selective breeding. Most cultivars are variegated and therefore slower-growing than the species[K].

This species is notably resistant to honey fungus[88, 200].

The small flowers have a sweet but pungent aroma. They pervade the garden for some distance on sunny days[245].

Closely related to E. glabra[11].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into

individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78]. It is best to take the cuttings in June[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers have a sweet but pungent aroma. They pervade the garden for some distance on sunny days.

Cultivars

'Variegata'

> This cultivar has been seen on a few occasons with reasonable crops of fruit, though the flesh has been somewhat sparse. It has usually been growing close to forms of E. x ebbingei and these are probably necessary for pollination[K].

'Maculata'

> A variegated form, it is slower-growing than the type species. This cultivar has been seen with good crops of fruit in the April of 1992 and 1993[K].

'Gold Rim'

'Frederici'

'Dicksonii'

> A variegated form, it is slower-growing than the type species. This cultivar has been seen with good crops of fruit in the April of 1992 and 1993[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+pungens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+pungens`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus pungens*

Subject:

Elaeagnus pungens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus pungens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:30:20 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus pyriformis

Common name:		Family:	Elaeagnaceae
Author:	Hook. f.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas in Upper Assam.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when

grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

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Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[K] **Ken Fern**
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A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

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The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all*

Reasons..

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants: Elaeagnus x ebbingei. Genera: Elaeagnus. Web-pages: Elaeagnus x ebbingei - A Plant for all Reasons..*

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+pyriformis`
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Plants For A Future: Database Search Results

Elaeagnus pyriformis

Common name:		Family:	Elaeagnaceae
Author:	Hook. f.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas in Upper Assam.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

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Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

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Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

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References for the family Elaeagnaceae.

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A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Larry Fri Oct 19 16:58:17 2001

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I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

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Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

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I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

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Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*,

Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+pyriformis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+pyriformis`

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Plants For A Future: Database Search Results

Elaeagnus pyriformis

Common name:		Family:	Elaeagnaceae
Author:	Hook. f.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas in Upper Assam.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub at a medium rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[105, 177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain. The following details are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus pyriformis*

Subject:

Elaeagnus pyriformis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus pyriformis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:30:31 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus thunbergii

Common name:		Family:	Elaeagnaceae
Author:	Scru.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

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Woodland, Sunny Edge, Dappled Shade.

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Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain. There are some young plants at Kew (September 2000) that have survived four winters outdoors including one very cold winter, these plants were looking healthy and vigorous and were 1.3 metres tall after 4 years growth[K]. The following notes are based on the general information for this genus.

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
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Name of Site:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+thunbergii`
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Plants For A Future: Database Search Results

Elaeagnus thunbergii

Common name:		Family:	Elaeagnaceae
Author:	Scru.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain. There are some young plants at Kew (September 2000) that have survived four winters outdoors including one very cold winter, these plants were looking healthy and vigorous and were 1.3 metres tall after 4 years growth[K]. The following notes are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into

individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.*

Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*,

Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Plants For A Future: Database Search Results

Elaeagnus thunbergii

Common name:		Family:	Elaeagnaceae
Author:	Scru.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - S. China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous.

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain. There are some young plants at Kew (September 2000) that have survived four winters outdoors including one very cold winter, these plants were looking healthy and vigorous and were 1.3 metres tall after 4 years growth[K]. The following notes are based on the general information for this genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and dry soils[11, 200]. Requires a sunny position[11, 200]. Tolerates maritime exposure.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into

individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus thunbergii*

Subject:

Elaeagnus thunbergii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus thunbergii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:30:43 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Elaeagnus umbellata

Common name:	Autumn olive	Family:	Elaeagnaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Elaeagnus crispa (Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Thickets and thin woods in the lowland and hills[58].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Autumn Oleaster [H], Autumn Olive [P], Autumn-olive [FEIS,B,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	bella = pretty;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: West Virginia.

Physical Characteristics

A decidious shrub growing to 4.5m by 4m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Hidden Springs'**: Hedge, Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Jazbo'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[2, 46, 105]. Juicy and pleasantly acid, they are tasty raw and can also be made into jams, preserves etc[160, 183, 194]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains about 8.3% sugars, 4.5% protein, 1% ash[194]. The vitamin C content is about 12mg per 100g[194]. Mature bushes in the wild yield about 650g of fruit over 2 - 3 pickings[194]. The harvested fruit stores for about 15 days at room temperature[194]. The fruit is about 8mm in diameter[200] and contains a single large seed[K].

Seed - raw or cooked[194]. It can be eaten with the fruit though the seed case is rather fibrous[160].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiac; Pectoral; Stimulant.

The flowers are astringent, cardiac and stimulant[240].

The seeds are used as a stimulant in the treatment of coughs[240]. The expressed oil from the seeds is used in the treatment of pulmonary affections[240].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Fuel; Hedge.

Very tolerant of maritime exposure, it makes a good informal hedge, succeeding even in very exposed positions[75]. The plants make a reasonable wind-protecting screen, they are about as wide as they are tall. They make a good companion hedge, enriching the soil and fertilizing neighbouring plants[K].

The wood is a good fuel[146].

Cultivation details

Succeeds in most soils that are well-drained[11, 200], though it dislikes shallow chalk soils[98]. It prefers a soil that is only moderately fertile, succeeding in very poor soils and in dry soils[11, 200]. Prefers a light sandy loam and a sunny position[11]. Established plants are very drought resistant[1].

A very hardy plant, tolerating temperatures down to at least -40°c[200].

This species is somewhat similar to E. multiflora, but it flowers a few weeks later[182].

Sometimes cultivated for its edible fruit, there are some named varieties[183]. 'Cardinal' and 'Red Wing' are very good fruiting forms (developed for ornament and not for fruit quality)[182]. 'Jazbo' has been bred for its edible fruits which are said to be ripe when 'they drop into your hand'[214]. This makes them valuable in breeding programmes to develop easily harvested fruits[214].

Flowers are rich in nectar and very aromatic, they are much visited by bees.

Polymorphic[11]. This species is notably resistant to honey fungus[88, 200].

Plants can fruit in 6 years from seed[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[160, 200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Cultivars

'Red Wing'

> A very good fruiting form (though it was developed for ornament and not for fruit quality)[182].

'Jazbo'

> This cultivar has been bred for its edible fruits which are said to be ripe when 'they drop into your hand'[214]. This makes them valuable in breeding programmes to develop easily harvested fruits[214]. The fruit is sweet and tasty, if they are still astringent when harvested then this is because they are not fully ripe - storing them in a warm place for a day or so will complete the ripening process[183].

'Hidden Springs'

> Selected for its larger and better flavoured fruit[183].

'Cardinal'

> A very good fruiting form (though it was developed for ornament and not for fruit quality)[182].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus umbellata* (Autumn olive)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- PFAF Plant Catalogue (D-E)
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptaments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Elaeagnus crispa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of

Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[194] **Parmar. C. and Kaushal. M.K.** *Wild Fruits of the Sub-Himalayan Region.* Kalyani Publishers. New Delhi. 1982
Contains lots of information on about 25 species of fruit-bearing plants of the Himalayas, not all of them suitable for cool temperate zones.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN

1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera*: *Elaeagnus*. *Web-pages*: *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera*: *Elaeagnus*. *Web-pages*: *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* . *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*,

Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Your Name:

Email Address:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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WEB search engine by Rich Morris - Home Page- Contact Info
Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+umbellata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+umbellata`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

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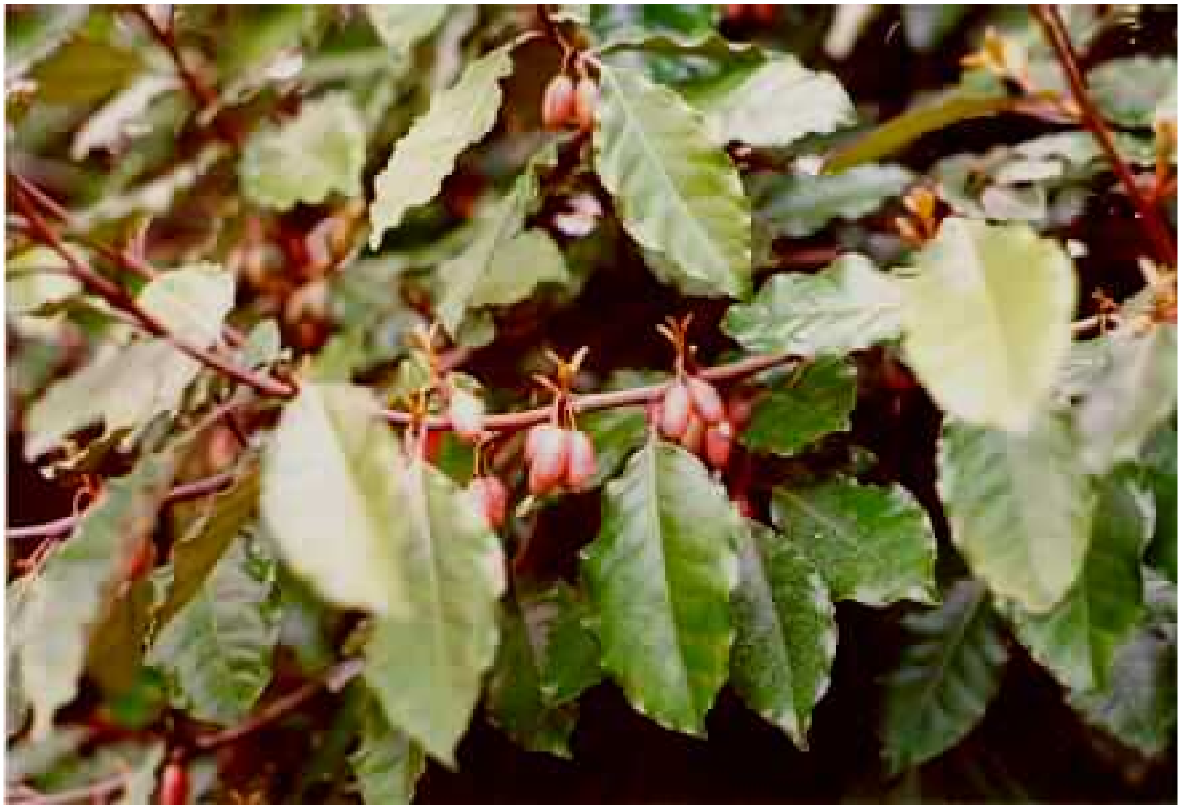
Elaeagnus x ebbingei



Common name:	Elaeagnus	Family:	Elaeagnaceae
Author:	Boom.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	A garden hybrid, E. macrophylla x E. pungens or E. x. reflexa.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	5		

	From a UDSA Plants Database

Systematics:	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 5m by 5m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in leaf all year, in flower from October to January, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.

Cultivar **'The Hague'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Southern Seedling'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Salcombe Seedling'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Limelight'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Gilt Edge'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Aurea'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.
Cultivar **'Coastal Gold'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, In Walls, In North Wall, In South Wall, In East Wall, In West Wall.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. A reasonable size, it is about 20mm long and 13mm wide although it does have a large seed[K]. The fully ripe fruit has a very rich flavour and makes pleasant tasting with a slight acidity[K]. The fruit should be deep red in colour and very soft when it is fully ripe, otherwise it will be astringent[K]. The flavour improves further if the fruit is stored for a day or two after being picked. The fruit ripens intermittently over a period of about 6 weeks from early to mid April until May[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K]. The taste is vaguely like peanuts[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Plants can be grown as a hedge in very exposed positions, tolerating maritime exposure. The plants provide a very good protection from the wind, they are very resistant to damage by salt winds and are also tolerant of regular trimming[75]. They have a strong vigorous growth and are faster growing than E. macrophylla[75, 200]. Because they fix atmospheric nitrogen, they make good companion plants and improve the growth of neighbouring species[K]. They can be planted in the line of an old shelterbelt of trees that is becoming bare at the base and will in time fill up the empty spaces and climb into the bottom parts of the trees[K].

Cultivation details

A very easily grown plant, it succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. A drought resistant plant once established, it can be grown on top of Cornish hedges (drystone walls with earth between two vertical layers of stones). It is very tolerant of shade and grows well under trees[200]. Plants are very tolerant of maritime exposure, growing well right by the coast[K].

Plants are hardy to about -20°c, but they can be deciduous in very cold winters[200].

Fruiting as it does in early April to May, this plant has excellent potential as a commercial fruit crop in Britain. The fruit is of a reasonable size and when fully ripe is very acceptable for dessert[K]. It should be fairly easy to selectively breed for improved fruit size and flavour[K].

Not all plants bear many fruits, though many specimens have been seen that produce very heavy crops on a regular basis[K]. Since this is a hybrid species, yields may be improved by growing a selection of cultivars or one of the parent plants nearby for cross pollination. E. pungens is perhaps the best candidate for this and its cultivar E. pungens 'Variegata' has been seen on a number of occasions with good crops of fruit next to E. x ebbingei plants that are also laden with fruit[K]. The cultivar E. x ebbingei 'Gilt Edge' is also probably a good pollinator[K]. Other cultivars worth looking at are 'Salcombe Seedling', which is said to flower more abundantly than the type[200] and 'Limelight', which has been seen with a good crop of fruits even on small bushes[K].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Plants produce very aromatic flowers in late autumn and early winter[182].

This species is notably resistant to honey fungus[88, 200].

Sometimes whole branches die out for no apparent reason. This happens most frequently when it is grafted onto E. multiflora[182]. These branches should be removed from the plant.

Propagation

Seed - this is a hybrid and it will not breed true from seed. If this is not a problem, then the seed is best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Rather slow, but you usually get a good percentage rooting[78]. June is the best time to take cuttings[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The flowers are sweetly and heavily scented.

Cultivars

'The Hague'

'Southern Seedling'

'Salcombe Seedling'

'Limelight'

> This cultivar has variegated foliage and is slower-growing than the type species. It also has larger fruits than the type, a one year cutting less than 25cm tall had 15 good sized almost ripe fruits on it in early March, it had probably spent at least some of the winter indoors[K]. A large shrub at Hilliers Arboretum was flowering very heavily in mid-September 1994[K]. Since this is a hybrid species yields may be improved by growing one of the parent plants nearby for cross pollination. E. pungens is perhaps the best candidate for this[K].

'Gilt Edge'

> This cultivar has been seen on a number of occasions with good crops of fruit. On these occasions it has always been close to E. x ebbingei and has sometimes also had E. pungens 'Variegata' growing nearby with a reasonable set of fruit[K].

'Coastal Gold'

'Aurea'

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Elaeagnus x ebbingei*

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative Food Crops
- Alternative fruits
- PFAF Catalogue 1996/97
- PFAF Catalogue: Checklist of plants
- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses
- Why Perennials
- Woodland Garden Plants
- PFAF: Fruit - Food of the Gods
- PFAF Plant Catalogue (D-E)

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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

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Elaeagnus x ebbingei

david nicholls Thu Oct 12 23:16:07 2000

I think this may the best performing plant so far on my ridiculously gale battered place, I've trialed about 150 reputedly coastal plants (it is still early days). This seems to be virtually the only species that actually makes progress during gales while virtually everything else gets cut back, including E. pungens. Only hail at around 100 k/hr made a dent, tore leaves more than on some things.

I think I have PFF mainly to thank for info on edibility, but would hate to admit that. I wonder if its' obsurity has anything to do with the awkward name it would never work in supermarkets (I suppose cafe society might think it is Italian or sophisticated) how about "Binge fruit",bingey, Bingy , bing, bingj ?

Haven't tasted it yet.

Details of Growing Condition: new zealand.

Cross references: *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei

Klaus Wed Jun 6 21:39:00 2001

After we planted 4 e.x ebbingei in spring `00, in autumn we planted another 4 e.x e."gilt edge". The latter all didn`t survive the winter with -10° to -15°C. So maybe this variety isn`t as hardy as the species.

Details of Growing Condition: The location is near the town Verden in Lowersachsony. 650mm average, sandy soil, 6,2pH. 1324 hours of sun during the vegetation period. Hardyness zone 7. Rather windy, open fields in the main wind-direction to the horizon..

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+x+ebbingei`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+x+ebbingei`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

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Elaeagnus x reflexa

Common name:		Family:	Elaeagnaceae
Author:	Morr. & Decne.	Botanical references:	11, 200
Synonyms:	Elaeagnus pungens reflexa ((C.Morren.&Decne.)Schneid.)		
Known Hazards:	None known		
Range:	A hybrid of garden origin, E. pungens x E. glabra.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. pungens var. reflexa[G]
Epithets:	From a Dictionary of Botanical Epithets
	reflexa = reflexed;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 4.5m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to December, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[K]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Can be grown as a hedge in exposed positions, tolerating maritime exposure[11]. It can also be planted in windy gaps under trees in shelterbelts and will in time fill in the gaps and climb into the trees[11, 29].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Established plants are drought resistant. Tolerates shade and can be grown under other trees[K].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on

the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Fruiting as it does in April and May, this plant has excellent potential as a fruit crop, it should be fairly easy to selectively breed for improved fruit size and flavour[K].

The small flowers have a strong, pleasant scent that pervades the garden on calm days[K].

Propagation

Seed - this is a hybrid and it will not breed true from seed. If this is not a problem, then the seed is best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Rather slow, but you usually get a good percentage rooting[78]. June is the best time to take cuttings[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers have a strong, pleasant scent that pervades the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Food Crops
- Alternative fruits

- Edible Shrubs
- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elaeagnus pungens var. reflexa* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

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Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

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In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

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Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

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Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*,

Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Elaeagnus x reflexa

Common name:		Family:	Elaeagnaceae
Author:	Morr. & Decne.	Botanical references:	11, 200
Synonyms:	Elaeagnus pungens reflexa ((C.Morren.&Decne.)Schneid.)		
Known Hazards:	None known		
Range:	A hybrid of garden origin, E. pungens x E. glabra.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. pungens var. reflexa[G]
Epithets:	From a Dictionary of Botanical Epithets
	reflexa = reflexed;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 4.5m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to December, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[K]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

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Hedge.

Can be grown as a hedge in exposed positions, tolerating maritime exposure[11]. It can also be planted in windy gaps under trees in shelterbelts and will in time fill in the gaps and climb into the trees[11, 29].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Established plants are drought resistant. Tolerates shade and can be grown under other trees[K].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when

grown in orchards it can increase yields from the fruit trees by up to 10%.

Fruiting as it does in April and May, this plant has excellent potential as a fruit crop, it should be fairly easy to selectively breed for improved fruit size and flavour[K].

The small flowers have a strong, pleasant scent that pervades the garden on calm days[K].

Propagation

Seed - this is a hybrid and it will not breed true from seed. If this is not a problem, then the seed is best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Rather slow, but you usually get a good percentage rooting[78]. June is the best time to take cuttings[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers have a strong, pleasant scent that pervades the garden on calm days.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Food Crops
- Alternative fruits
- Edible Shrubs

- Elaeagnus x ebbingei - A Plant for all Reasons.
- Hedges and their uses

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References for *Elaeagnus pungens var. reflexa* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

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Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*,

Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elaeagnus+x+reflexa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elaeagnus+x+reflexa`

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Plants For A Future: Database Search Results

Elaeagnus x reflexa

Common name:		Family:	Elaeagnaceae
Author:	Morr. & Decne.	Botanical references:	11, 200
Synonyms:	Elaeagnus pungens reflexa ((C.Morren.&Decne.)Schneid.)		
Known Hazards:	None known		
Range:	A hybrid of garden origin, E. pungens x E. glabra.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. pungens var. reflexa[G]
Epithets:	From a Dictionary of Botanical Epithets
	reflexa = reflexed;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

An evergreen shrub growing to 4.5m at a medium rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from October to December, and the seeds ripen from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[K]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Hedge.

Can be grown as a hedge in exposed positions, tolerating maritime exposure[11]. It can also be planted in windy gaps under trees in shelterbelts and will in time fill in the gaps and climb into the trees[11, 29].

Cultivation details

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Established plants are drought resistant. Tolerates shade and can be grown under other trees[K].

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when

grown in orchards it can increase yields from the fruit trees by up to 10%.

Fruiting as it does in April and May, this plant has excellent potential as a fruit crop, it should be fairly easy to selectively breed for improved fruit size and flavour[K].

The small flowers have a strong, pleasant scent that pervades the garden on calm days[K].

Propagation

Seed - this is a hybrid and it will not breed true from seed. If this is not a problem, then the seed is best sown as soon as it is ripe in a cold frame[78]. It should germinate freely within 4 weeks, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Rather slow, but you usually get a good percentage rooting[78]. June is the best time to take cuttings[202].

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, November in a frame. Leave for 12 months. Fair to good percentage[78].

Layering in September/October. Takes 12 months[78].

Scent

Flowers: Fresh

> The small flowers have a strong, pleasant scent that pervades the garden on calm days.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus x reflexa*

Subject:

Elaeagnus x reflexa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus x reflexa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:31:05 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Elaeagnus yoshinoi

Common name:		Family:	Elaeagnaceae
Author:	Mak.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

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Fruit; Seed.

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Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Established plants are drought resistant.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

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Elaeagnus x ebbingei - A Plant for all Reasons.

Mike Hardman Fri Nov 2 18:04:24 2001

I have seen thickets of a species of Elaeagnus growing in gently rolling hills west of Calgary, Canada. I do not know which species it was, but I thought I'd mention it since there has been mention here of doubts about hardiness of X ebbingei in the far north of the UK (I am thinking of my sister in Caithness). Maybe there is scope for crossing with this Canadian species - which must be darn hardy. Oh, the species I saw had plain silvery leaves and grew about 9ft tall, spreading by suckers.

Details of Growing Condition: Gravelly clays a few miles west of Calgary, Canada.

Cross references: *Plants:* *Elaeagnus x ebbingei*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gleditsia triacanthos, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.*

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Elaeagnus yoshinoi

Common name:		Family:	Elaeagnaceae
Author:	Mak.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Seed.

Fruit - raw or cooked[177]. The fruit must be fully ripe before it can be enjoyed raw, if even slightly under-ripe it will be quite astringent[K]. The fruit contains a single large seed[K].

Seed - raw or cooked. It can be eaten with the fruit though the seed case is rather fibrous[K].

Medicinal Uses

Disclaimer

Cancer.

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Established plants are drought resistant.

This species is notably resistant to honey fungus[88, 200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. An excellent companion plant, when grown in orchards it can increase yields from the fruit trees by up to 10%.

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Elaeagnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.*
Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

Readers Comments

Elaeagnus - Autumn Olive

Matt Trahan Mon, 17 Nov 1997

Just finished reading your very informative article at http://www.scs.leeds.ac.uk/pfaf/elaeagns.html We grow Eleagnus 'russian olive' (unsure of species) as an evergreen hedge in our back yard here in northeastern North Carolina, U.S.A. It is also a very common shrub out on the outer banks of N.C. In our hot and humid climate (USDA zone 8) it will do ok in swales/waterlogged areas. In fact it acts almost as happy as a willow on a streambank.

Autumn olive is very common here as a hedge or specimen shrub. With its beautiful perfume and silvery leaves, it's very attractive. Unfortunately, it is now classed as an invasive pest by the Virginia Native(?) plant society. This plant was discussed during a lecture on invasive plants at the Maymont Flower and Garden show in Richmond Va. last Spring. Slides were shown of entire hillsides being taken over. I have to admit that the russian olive will reseed almost as easily as the autumn olive. Still not sure about ripping out the hedge though. It is very attractive, does provide great privacy and a wonderful perfume in fall.

(sigh) Wonder if they said the same thing about purple loosestrife.

I appoligise for giving you such news, but I thought you might be interested in how well (too well) it does on this side of the Atlantic. I hope your findings are different in the UK.

Regards, Matt Trahan

Details of Growing Condition: USDA zone 8, Sunset zone 31, AHS heat zone 7, northeastern N.C..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Myra Bonhage-Hale Sat May 12 20:45:00 2001

I am very interested in Autumn Olive (Elaeagnus umbellata) - have been trying to distill the flowers for essential oil and hydrosol - the aroma is not the same as the oh, so sweet and evocative smell of the flowers on the bush. In West Virginia, USA, it is considered invasive and exotic and is abhorred by farmers, especially cattle farmers. I am interested in finding a good use for this plant which has so many good attributes: nitrogen fixing, habitat for blue birds - and full of lycopene which is knwn to be an antioxidant - and perhaps a preventive action for chronic diseases including certain cancers. Seen as an enemy by most farmers in West Virginia, finding it to be a friend and useful appeals to my sometimes quixotic attitude toward life. Any help, any research, any comments will be appreciated. Myra Bonhage-Hale, La Paix Herb Farm, Alum Bridge, West Virginia email: lapaix@iolinc.net. Web Site: www.lapaixherbaljourney.com

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Larry Fri Oct 19 16:58:17 2001

I have had an Elaeagnus - Autumn Olive hedge here in Va for about 15 years (just south of DC). Quite leggy just now and to be cut back soon. Surprised to find it now on the "Invasive" list (and to find its relative Russian Olive listed as a noxious weed in Utah) as I acquired this hedge in bare root form from the state of Va!

I also have an Ebbingei hedge across the front yard, a far superior hedge in my opinion, well knit togather but a B***h to trim due to the resinouus dust from the leaves in early autum and in this area it really needs trimming twice a year.

Questions:

The Autum hedge I can trim back almost to stumps and it returns with vengence, how far back can the Ebbingei be safely cut, and when is this best done?

In propagating the Ebbingei, I could use a bit more detail, for example, what is ment by "with heel" when taking clippings.

Thanks

Details of Growing Condition: Just south of DC (ZIP 22306), predominently low grade fill dirt with deposits of marine slip clay, water table about ten feet down, area known as "Death Valley" by the local plant shops..

Cross references: *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

Elaeagnus - Autumn Olive

Fri Oct 19 17:22:06 2001

I am confuzzeled here. I understand that Autum Olive is Elaeagnus angustifolia (oringe/red berries), common in the Virginias while Umbellata is the Russian Olive (Yellow berries) rare her but common in the West.

Cross references: *Plants:* *Elaeagnus angustifolia* , *Elaeagnus umbellata*. *Genera:* *Elaeagnus*. *Web-pages:* *Elaeagnus x ebbingei - A Plant for all Reasons.*.

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Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

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Cross references: *Plants:* *Adenanthera pavonina*, *Alnus acuminata*, *Alnus nepalensis*, *Andira inermis*, *Azadirachta indica*, *Cajanus cajan*, *Calliandra calothyrsus*, *Chamaecytisus palmensis*, *Dalbergia latifolia*, *Dalbergia melanoxylon*, *Dalbergia sissoo*, *Enterolobium cyclocarpum*, *Erythrina edulis*, *Erythrina poeppigiana*, *Erythrina sandwicensis*, *Erythrina variegata*, *Faidherbia albida*, *Flemingia macrophyla*, *Gleditsia triacanthos*, *Gmelina arborea*, *Grevillea robusta*, *Guazuma ulmifolia*, *Hippophae rhamnoides*, *Hymenaea courbaril*, *Inga edulis*, *Juliflorae acacias*, *Mimosa scabrella*, *Moringa oleifera*, *Olneya tesota*, *Ougeinia dalbergioides*, *Paraserianthes falcataria*, *Pentaclethra macrophylla*, *Pithecellobium dulce*, *Pongamia pinnata*, *Pterocarpus erinaceus*, *Pterocarpus indicus*, *Robinia pseudoacacia*, *Senna siamea*, *Sesbania grandiflora*,

Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain.

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Elaeagnus yoshinoi

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Author:	Mak.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

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Other Uses

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Succeeds in most soils that are well-drained[11, 200]. Prefers a soil that is only moderately fertile, succeeding in poor soils and in dry soils[11, 200]. Established plants are drought resistant.

This species is notably resistant to honey fungus[88, 200].

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Propagation

Seed - best sown as soon as it is ripe in a cold frame[78]. It should germinate in late winter or early spring, though it may take 18 months[K]. Stored seed can be very slow to germinate, often taking more than 18 months. A warm stratification for 4 weeks followed by 12 weeks cold stratification can help[98]. The seed usually (eventually) germinates quite well[78]. Prick out the seedlings into individual pot as soon as they are large enough to handle and plant out when they are at least 15cm tall.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame.

Cuttings of mature wood of the current year's growth, 10 - 12cm with a heel, October/November in a frame[200]. The cuttings are rather slow and difficult to root, leave them for 12 months[113].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elaeagnus yoshinoi*

Subject:

Elaeagnus yoshinoi

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus yoshinoi

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Shepherdia argentea

Common name:	Buffalo berry	Family:	Elaeagnaceae
Author:	(Pursh.) Nutt.	Botanical references:	11, 43, 200
Synonyms:	Hippophae argentea (Pursh.)		
Known Hazards:	The fruit contains low concentrations of saponins[101]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by thorough cooking. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is advisable not to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Central N. America - Manitoba to New Mexico.		
Habitat:	Banks of streams[43] and open wooded areas, often on limestone[101] and on sandy soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Elaeagnus utilis[B,P] Lepargyrea argentea[B,G,P] Shephardia argentea[Sn5]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buffalo Berry [L], Silver Buffalo Berry [S], Silver Buffalo-berry [B], Silver Buffaloberry [P,FEIS],
Epithets:	From a Dictionary of Botanical Epithets

	argentea = silvery;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 4m by 4m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in March, and the seeds ripen from July to December. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Sakakaweja'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[1, 2, 11, 61, 161, 257]. It can also be dried and used like currants[3, 46]. A tart but pleasant flavour even before a frost[85, 183], it becomes sweeter after frosts[3, 62, 95]. The fruit is also used for making preserves, pies etc[183]. The fruit should be used in moderation due to the saponin content[101]. The fruit is produced singly or in clusters, it is up to 9mm long and contains a single seed[229].

Medicinal Uses

Disclaimer

Febrifuge; Laxative; Stomachic.

The berries are febrifuge, laxative and stomachic[257]. They have been eaten in the treatment of stomach complaints, constipation and fevers[257].

Other Uses

Dye; Hedge; Soil stabilization.

The plants can be grown as a hedge[160] and windbreak[229].

A red dye is obtained from the fruit[57, 106, 257].

Because it has a wide-ranging root system, forms thickets and is wind tolerant, it is sometimes planted for erosion control[229].

Cultivation details

Succeeds in an ordinary well-drained moisture retentive soil[1, 3, 11]. Tolerates poor dry soils[200] and maritime exposure[182]. Established plants are drought resistant[182].

A very cold-tolerant plant[229].

Plants rarely produce fruit in Britain[11].

Occasionally cultivated for its edible fruit, there are some named varieties[183]. 'Xanthocarpa' has yellow fruits[200].

The fruit is difficult to harvest because the shrub is very thorny[3].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if fruit and seed are required.

Propagation

Seed - it must not be allowed to dry out[113]. It is best harvested in the autumn and sown immediately in a cold frame. Stored seed requires 2 - 3 months cold stratification[113]. Prick out the seedlings into individual pots once they are large enough to handle. If sufficient growth is made it will be possible to plant them out in the summer, otherwise grow them on in a cold frame for their first winter and plant them out in the following spring or early summer.

Cuttings of half-ripe wood, July/August in a frame sometimes work[113].

Cultivars

'Sakakaweja'

An improved selection with better flavour and larger fruits[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: S
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Shephardia argentea* (a possible synonym).

- [S] PFAF Links Pages for other sources

  Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Lots of entries, quite a lot of information in most entries and references.

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Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

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[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

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Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Shepherdia argentea

Common name:	Buffalo berry	Family:	Elaeagnaceae
Author:	(Pursh.) Nutt.	Botanical references:	11, 43, 200
Synonyms:	Hippophae argentea (Pursh.)		
Known Hazards:	The fruit contains low concentrations of saponins[101]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by thorough cooking. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is advisable not to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Central N. America - Manitoba to New Mexico.		
Habitat:	Banks of streams[43] and open wooded areas, often on limestone[101] and on sandy soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Elaeagnus utilis[B,P] Lepargyrea argentea[B,G,P] Shephardia argentea[Sn5]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buffalo Berry [L], Silver Buffalo Berry [S], Silver Buffalo-berry [B], Silver Buffaloberry [P,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	argentea = silvery;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 4m by 4m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in March, and the seeds ripen from July to December. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Sakakaweja'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[1, 2, 11, 61, 161, 257]. It can also be dried and used like currants[3, 46]. A tart but pleasant flavour even before a frost[85, 183], it becomes sweeter after frosts[3, 62, 95]. The fruit is also used for making preserves, pies etc[183]. The fruit should be used in moderation due to the saponin content[101]. The fruit is produced singly or in clusters, it is up to 9mm long and contains a single seed[229].

Medicinal Uses

Disclaimer

Febrifuge; Laxative; Stomachic.

The berries are febrifuge, laxative and stomachic[257]. They have been eaten in the treatment of stomach complaints, constipation and fevers[257].

Other Uses

Dye; Hedge; Soil stabilization.

The plants can be grown as a hedge[160] and windbreak[229].

A red dye is obtained from the fruit[57, 106, 257].

Because it has a wide-ranging root system, forms thickets and is wind tolerant, it is sometimes planted for erosion control[229].

Cultivation details

Succeeds in an ordinary well-drained moisture retentive soil[1, 3, 11]. Tolerates poor dry soils[200] and maritime exposure[182]. Established plants are drought resistant[182].

A very cold-tolerant plant[229].

Plants rarely produce fruit in Britain[11].

Occasionally cultivated for its edible fruit, there are some named varieties[183]. 'Xanthocarpa' has yellow fruits[200].

The fruit is difficult to harvest because the shrub is very thorny[3].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if fruit and seed are required.

Propagation

Seed - it must not be allowed to dry out[113]. It is best harvested in the autumn and sown immediately in a cold frame. Stored seed requires 2 - 3 months cold stratification[113]. Prick out the seedlings into individual pots once they are large enough to handle. If sufficient growth is made it will be possible to plant them out in the summer, otherwise grow them on in a cold frame for their first winter and plant them out in the following spring or early summer.

Cuttings of half-ripe wood, July/August in a frame sometimes work[113].

Cultivars

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An improved selection with better flavour and larger fruits[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This plant is mentioned in the following web pages

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References for *Shephardia argentea* (a possible synonym).

- [S] PFAF Links Pages for other sources

  Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Readers Comments

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Plants For A Future: Database Search Results

Shepherdia argentea

Common name:	Buffalo berry	Family:	Elaeagnaceae
Author:	(Pursh.) Nutt.	Botanical references:	11, 43, 200
Synonyms:	Hippophae argentea (Pursh.)		
Known Hazards:	The fruit contains low concentrations of saponins[101]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by thorough cooking. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is advisable not to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Central N. America - Manitoba to New Mexico.		
Habitat:	Banks of streams[43] and open wooded areas, often on limestone[101] and on sandy soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Elaeagnus utilis[B,P] Lepargyrea argentea[B,G,P] Shephardia argentea[Sn5]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buffalo Berry [L], Silver Buffalo Berry [S], Silver Buffalo-berry [B], Silver Buffaloberry [P,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	argentea = silvery;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 4m by 4m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in March, and the seeds ripen from July to December. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Sakakaweja'**: Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[1, 2, 11, 61, 161, 257]. It can also be dried and used like currants[3, 46]. A tart but pleasant flavour even before a frost[85, 183], it becomes sweeter after frosts[3, 62, 95]. The fruit is also used for making preserves, pies etc[183]. The fruit should be used in moderation due to the saponin content[101]. The fruit is produced singly or in clusters, it is up to 9mm long and contains a single seed[229].

Medicinal Uses

Disclaimer

Febrifuge; Laxative; Stomachic.

The berries are febrifuge, laxative and stomachic[257]. They have been eaten in the treatment of stomach complaints, constipation and fevers[257].

Other Uses

Dye; Hedge; Soil stabilization.

The plants can be grown as a hedge[160] and windbreak[229].

A red dye is obtained from the fruit[57, 106, 257].

Because it has a wide-ranging root system, forms thickets and is wind tolerant, it is sometimes planted for erosion control[229].

Cultivation details

Succeeds in an ordinary well-drained moisture retentive soil[1, 3, 11]. Tolerates poor dry soils[200] and maritime exposure[182]. Established plants are drought resistant[182].

A very cold-tolerant plant[229].

Plants rarely produce fruit in Britain[11].

Occasionally cultivated for its edible fruit, there are some named varieties[183]. 'Xanthocarpa' has yellow fruits[200].

The fruit is difficult to harvest because the shrub is very thorny[3].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if fruit and seed are required.

Propagation

Seed - it must not be allowed to dry out[113]. It is best harvested in the autumn and sown immediately in a cold frame. Stored seed requires 2 - 3 months cold stratification[113]. Prick out the seedlings into individual pots once they are large enough to handle. If sufficient growth is made it will be possible to plant them out in the summer, otherwise grow them on in a cold frame for their first winter and plant them out in the following spring or early summer.

Cuttings of half-ripe wood, July/August in a frame sometimes work[113].

Cultivars

'Sakakaweja'

An improved selection with better flavour and larger fruits[183].

Suppliers

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Shepherdia argentea

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Shepherdia canadensis

Common name:	Buffalo berry	Family:	Elaeagnaceae
Author:	(L.) Nutt.	Botanical references:	11, 200, 235
Synonyms:	Hippophae canadensis (L.)		
Known Hazards:	The fruit contains low concentrations of saponins[101]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by thorough cooking. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is advisable not to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	N. America - Newfoundland to Alaska, south to British Columbia, New York and New Mexico.		
Habitat:	Calcareous rocks, banks and sandy shores[43], usually in partial shade[85].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Elaeagnus canadensis[B,P] Lepargyrea canadensis[B,G,P] Shephardia canadensis[Swal]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Russet Buffalo-berry [B], Russet Buffaloberry [FEIS,P],
Epithets:	From a Dictionary of Botanical Epithets

	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 2.5m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in April, and the seeds ripen from July to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[2, 3, 22, 46, 85, 101]. The fruit can also be dried and used like currants. A tart but pleasant flavour even before a frost, it becomes sweeter after frosts[62]. Another report says that the fruit is bitter and is dried, smoked or pressed into cakes[183]. The fruit was a favourite treat of the North American Indians, they would beat it in an equal quantity of water until a foam with a consistency of beaten eggs was formed. It was important that the berries were not allowed to come into contact with anything greasy since this would prevent it becoming foamy[256]. The foam would then be flavoured with a sweet food such as cooked quamash bulbs or other fruits and then served as a special treat in feasts etc. The taste is bitter sweet and is not always enjoyed the first time it is eaten, though it normally grows on one. Nowadays sugar is used to sweeten it and the confection is called 'Indian ice cream'[183, 256]. The fruit should be used in moderation due to the saponin content[101]. The fruit is about 5mm in diameter[200].

Medicinal Uses

Disclaimer

Birthing aid; Cathartic; Haemostatic; Hypotensive; Laxative; Ophthalmic; Poultice; Skin; Stomachic; TB; VD.

Buffalo berry was commonly employed medicinally by several native North American Indian tribes, who used it in the treatment of a range of complaints[257]. It is little, if at all, used in modern herbalism.

A poultice of the bark, softened by hot water and mixed with pin cherry bark (Prunus pensylvanica), has been used to make a plaster or bandage for wrapping broken limbs[257]. An infusion of the bark has been used as a wash for sore eyes[257].

The roots are antihaemorrhagic and cathartic[257]. An infusion of the roots has been used as an aid to childbirth and in the treatment of tuberculosis and the coughing up of blood[257].

A decoction of the stems has been used as a stomach tonic (it was also used to treat stomach cancer) and also in the treatment of constipation, high blood pressure and venereal disease[257]. A decoction of the stems and leaves has been used as a wash in the treatment of sores, cuts and swellings[257].

A decoction of the plant has been used externally as a wash and rub for aching limbs, arthritic joints, head and face sores[257].

The inner bark is laxative[257]. An infusion has been used in the treatment of constipation[257].

The berries have been eaten as a treatment for high blood pressure[257]. The fruit juice has been drunk in the treatment of digestive disorders[257]. It has also been applied externally in the treatment of acne and boils[257].

Other Uses

Hair; Repellent; Soap.

Because of its saponin content, the fruit is a potential soap substitute. It is macerated in water to extract the saponins[172].

A decoction of the branches has been used as a hair tonic for dyeing and curling the hair[257]. The branches were harvested in mid summer, broken up and boiled for 2 - 3 hours in water, until the liquid looked like brown coffee. The liquid was decanted off and bottled without further treatment - it would store for a long time without deterioration. To use, the decoction was rubbed into the hair which was simultaneously curled and dyed a brownish colour[257].

The berries, the froth made from them, or a jelly of the fruit, have been eaten as an insect repellent[257]. It was said that mosquitoes were far less likely to bite a person who had eaten the fruit[257].

Cultivation details

Succeeds in an ordinary well-drained moisture retentive soil[1, 3, 11]. Tolerates poor dry soils[200] and maritime exposure[182]. Established plants are drought resistant[182].

Plants can accumulate mercury when they are grown in polluted soils[172].

Rarely produces fruits in Britain[182]. Some named varieties have been developed for their ornamental value[200]. 'Xanthocarpa' has yellow fruits, 'Rubra' has red fruits[200].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if fruit and seed is required.

Propagation

Seed - it must not be allowed to dry out[113]. It is best harvested in the autumn and sown immediately in a cold frame. Stored seed requires 2 - 3 months cold stratification[113]. Prick out the seedlings into individual pots once they are large enough to handle. If sufficient growth is made it will be possible to plant them out in the summer, otherwise grow them on in a cold frame for their first winter and plant them out in the following spring or early summer.

Cuttings of half-ripe wood, July/August in a frame sometimes work[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Shephardia canadensis* (a possible synonym).

- [S] PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
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[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
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Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Shepherdia+canadensis`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Shepherdia+canadensis`

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Plants For A Future: Database Search Results

Shepherdia canadensis

Common name:	Buffalo berry	Family:	Elaeagnaceae
Author:	(L.) Nutt.	Botanical references:	11, 200, 235
Synonyms:	Hippophae canadensis (L.)		
Known Hazards:	The fruit contains low concentrations of saponins[101]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by thorough cooking. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is advisable not to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	N. America - Newfoundland to Alaska, south to British Columbia, New York and New Mexico.		
Habitat:	Calcareous rocks, banks and sandy shores[43], usually in partial shade[85].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Elaeagnus canadensis[B,P] Lepargyrea canadensis[B,G,P] Shephardia canadensis[Swal]
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Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family

Physical Characteristics

A decidious shrub growing to 2.5m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower in April, and the seeds ripen from July to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[2, 3, 22, 46, 85, 101]. The fruit can also be dried and used like currants. A tart but pleasant flavour even before a frost, it becomes sweeter after frosts[62]. Another report says that the fruit is bitter and is dried, smoked or pressed into cakes[183]. The fruit was a favourite treat of the North American Indians, they would beat it in an equal quantity of water until a foam with a consistency of beaten eggs was formed. It was important that the berries were not allowed to come into contact with anything greasy since this would prevent it becoming foamy[256]. The foam would then be flavoured with a sweet food such as cooked quamash bulbs or other fruits and then served as a special treat in feasts etc. The taste is bitter sweet and is not always enjoyed the first time it is eaten, though it normally grows on one. Nowadays sugar is used to sweeten it and the confection is called 'Indian ice cream'[183, 256]. The fruit should be used in moderation due to the saponin content[101]. The fruit is about 5mm in diameter[200].

Medicinal Uses

Disclaimer

Birthing aid; Cathartic; Haemostatic; Hypotensive; Laxative; Ophthalmic; Poultice; Skin; Stomachic; TB; VD.

Buffalo berry was commonly employed medicinally by several native North American Indian tribes, who used it in the treatment of a range of complaints[257]. It is little, if at all, used in modern herbalism.

A poultice of the bark, softened by hot water and mixed with pin cherry bark (Prunus pensylvanica), has been used to make a plaster or bandage for wrapping broken limbs[257]. An infusion of the bark has been used as a wash for sore eyes[257].

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Other Uses

Hair; Repellent; Soap.

Because of its saponin content, the fruit is a potential soap substitute. It is macerated in water to extract the saponins[172].

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The berries, the froth made from them, or a jelly of the fruit, have been eaten as an insect repellent[257]. It was said that mosquitoes were far less likely to bite a person who had eaten the fruit[257].

Cultivation details

Succeeds in an ordinary well-drained moisture retentive soil[1, 3, 11]. Tolerates poor dry soils[200] and maritime exposure[182]. Established plants are drought resistant[182].

Plants can accumulate mercury when they are grown in polluted soils[172].

Rarely produces fruits in Britain[182]. Some named varieties have been developed for their ornamental value[200]. 'Xanthocarpa' has yellow fruits, 'Rubra' has red fruits[200].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if fruit and seed is required.

Propagation

Seed - it must not be allowed to dry out[113]. It is best harvested in the autumn and sown immediately in a cold frame. Stored seed requires 2 - 3 months cold stratification[113]. Prick out the seedlings into individual pots once they are large enough to handle. If sufficient growth is made it will be possible to plant them out in the summer, otherwise grow them on in a cold frame for their first winter and plant them out in the following spring or early summer.

Cuttings of half-ripe wood, July/August in a frame sometimes work[113].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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References for *Shephardia canadensis* (a possible synonym).

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Shepherdia+canadensis`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Shepherdia+canadensis`

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Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit.

Fruit - raw or cooked[2, 3, 22, 46, 85, 101]. The fruit can also be dried and used like currants. A tart but pleasant flavour even before a frost, it becomes sweeter after frosts[62]. Another report says that the fruit is bitter and is dried, smoked or pressed into cakes[183]. The fruit was a favourite treat of the North American Indians, they would beat it in an equal quantity of water until a foam with a consistency of beaten eggs was formed. It was important that the berries were not allowed to come into contact with anything greasy since this would prevent it becoming foamy[256]. The foam would then be flavoured with a sweet food such as cooked quamash bulbs or other fruits and then served as a special treat in feasts etc. The taste is bitter sweet and is not always enjoyed the first time it is eaten, though it normally grows on one. Nowadays sugar is used to sweeten it and the confection is called 'Indian ice cream'[183, 256]. The fruit should be used in moderation due to the saponin content[101]. The fruit is about 5mm in diameter[200].

Medicinal Uses

Disclaimer

Birthing aid; Cathartic; Haemostatic; Hypotensive; Laxative; Ophthalmic; Poultice; Skin; Stomachic; TB; VD.

Buffalo berry was commonly employed medicinally by several native North American Indian tribes, who used it in the treatment of a range of complaints[257]. It is little, if at all, used in modern herbalism.

A poultice of the bark, softened by hot water and mixed with pin cherry bark (Prunus pensylvanica), has been used to make a plaster or bandage for wrapping broken limbs[257]. An infusion of the bark has been used as a wash for sore eyes[257].

The roots are antihaemorrhagic and cathartic[257]. An infusion of the roots has been used as an aid to childbirth and in the treatment of tuberculosis and the coughing up of blood[257].

A decoction of the stems has been used as a stomach tonic (it was also used to treat stomach cancer) and also in the treatment of constipation, high blood pressure and venereal disease[257]. A decoction of the stems and leaves has been used as a wash in the treatment of sores, cuts and swellings[257].

A decoction of the plant has been used externally as a wash and rub for aching limbs, arthritic joints, head and face sores[257].

The inner bark is laxative[257]. An infusion has been used in the treatment of constipation[257].

The berries have been eaten as a treatment for high blood pressure[257]. The fruit juice has been drunk in the treatment of digestive disorders[257]. It has also been applied externally in the treatment of acne and boils[257].

Other Uses

Hair; Repellent; Soap.

Because of its saponin content, the fruit is a potential soap substitute. It is macerated in water to extract the saponins[172].

A decoction of the branches has been used as a hair tonic for dyeing and curling the hair[257]. The branches were harvested in mid summer, broken up and boiled for 2 - 3 hours in water, until the liquid looked like brown coffee. The liquid was decanted off and bottled without further treatment - it would store for a long time without deterioration. To use, the decoction was rubbed into the hair which was simultaneously curled and dyed a brownish colour[257].

The berries, the froth made from them, or a jelly of the fruit, have been eaten as an insect repellent[257]. It was said that mosquitoes were far less likely to bite a person who had eaten the fruit[257].

Cultivation details

Succeeds in an ordinary well-drained moisture retentive soil[1, 3, 11]. Tolerates poor dry soils[200] and maritime exposure[182]. Established plants are drought resistant[182].

Plants can accumulate mercury when they are grown in polluted soils[172].

Rarely produces fruits in Britain[182]. Some named varieties have been developed for their ornamental value[200]. 'Xanthocarpa' has yellow fruits, 'Rubra' has red fruits[200].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if fruit and seed is required.

Propagation

Seed - it must not be allowed to dry out[113]. It is best harvested in the autumn and sown immediately in a cold frame. Stored seed requires 2 - 3 months cold stratification[113]. Prick out the seedlings into individual pots once they are large enough to handle. If sufficient growth is made it will be possible to plant them out in the summer, otherwise grow them on in a cold frame for their first winter and plant them out in the following spring or early summer.

Cuttings of half-ripe wood, July/August in a frame sometimes work[113].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Shepherdia+canadensis`
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Add a comment on: *Shepherdia canadensis*

Subject:

Shepherdia canadensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Shepherdia canadensis

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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email webmaster@pfaf.org to report bugs.

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Add a comment on: *Elaeagnus angustifolia*

Subject:

Elaeagnus angustifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus angustifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Add a comment on: *Elaeagnus - Autumn Olive*

Subject:

Elaeagnus - Autumn Olive

Group:

Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Elaeagnus

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

elaeagns.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Elaeagnus multiflora*

Subject:

Elaeagnus multiflora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus multiflora Elaeagnus umbellata
Elaeagnus angustifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Add a comment on: *Elaeagnus x ebbingei*

Subject:

Elaeagnus x ebbingei

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus x ebbingei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Add a comment on: *Elaeagnus angustifolia*

Subject:

Elaeagnus angustifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus angustifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

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Add a comment on: *Elaeagnus - Autumn Olive*

Subject:

Elaeagnus - Autumn Olive

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus angustifolia Elaeagnus umbellata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Elaeagnus

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

elaeagns.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Elaeagnus x ebbingei - A Plant for all Reasons.*

Subject:

Elaeagnus x ebbingei - A Plant for all Reasons.

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site:	http://
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elaeagnus x ebbingei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Elaeagnus

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add a comment on: *Elaeagnus x ebbingei - A Plant for all Reasons.*

Subject:

Elaeagnus x ebbingei - A Plant for all Reasons.

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Hippophae salicifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Willow-leaved sea buckthorn	Family:	Elaeagnaceae
Author:	D. Don.	Botanical references:	11, 51, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Alluvial gravel, wet landslips and riversides to 3500 metres[51].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	salicifolia = Salix leaved;
Systematics:	From a UDSA Plants Database
	Order: Rhamnales . Oleaster family
Other Range Info:	From the Ethnobotany Database
	India

Physical Characteristics

A decidious tree growing to 15m at a fast rate. It is hardy to zone 8 and is not frost tender. It is in flower in April, and the seeds ripen from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge.

Edible Uses

Fruit.

Fruit - raw or cooked[2, 46]. A very nutritious food, and possibly the most nutritious fruit that can be grown in temperate climates. It is very rich in vitamins, especially vitamin C, plus minerals and bioflavonoids, and is also a source of essential fatty acids[214]. It comes ripe in late summer, though it can be eaten for about a month before this, and will hang on the tree until mid-winter, by which time the flavour has become much milder, though it has also become very soft and difficult to pick[K]. We and many of our visitors really like this fruit, however the flavour is somewhat like a sharp lemon and a lot people find this too acid for them[K]. It also makes a good salad dressing[K]. The fruits of some species and cultivars (not specified) contain up to 9.2% oil[214]. The fruit is used for making preserves[105, 183]. It is being increasingly used in making fruit juices, especially when mixed with other fruits, because of its reputed health benefits[214]. The fruit becomes less acid after a frost or if cooked[74].

Medicinal Uses

Disclaimer

Cancer; Cardiac; Poultice.

The tender branches and leaves contain bio-active substances which are used to produce an oil that is quite distinct from the oil produced from the fruit. This oil is used as an ointment for treating burns[214].

A high-quality medicinal oil is made from the fruit and used in the treatment of cardiac disorders, it is also said to be particularly effective when applied to the skin to heal burns, eczema and radiation injury, and is taken internally in the treatment of stomach and intestinal diseases[214].

The fruit is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

Other Uses

Fuel; Pioneer; Soil stabilization; Wood.

The plant is very fast growing, even in areas exposed to maritime winds, and it makes an excellent pioneer species for providing shelter and helping to establish woodland conditions. The plant is very light-demanding and so will eventually be shaded out by the woodland trees, thus it will never out-stay its welcome[K].

The trees have an extensive and vigorous root system and sucker freely once established. They are thus excellent for stabilising the soil, especially on slopes, and are often planted in the Himalayas to prevent land slips on the mountain slopes and create conditions for the re-establishment of woodlands[K].

The wood is very tough and hard - it can be used for many purposes including wheel hubs and other applications where toughness is essential[K]. It is also used for fuel[146].

Cultivation details

Succeeds in most soils so long as they are not too dry[200]. Grows well by water[1, 11]. A fast-growing and very wind-resistant tree, it is an excellent pioneer species for re-establishing woodlands[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

Members of this genus are attracting considerable interest from breeding institutes for their nutrient-rich fruits that can promote the general health of the body (see edible and medicinal uses below)[214].

The deeply cleft bark favours the growth of epiphytes[146].

Plants in this genus are notably resistant to honey fungus[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a sunny position in a cold frame[78]. Germination is usually quick and good although 3 months cold stratification may improve the germination rate. Alternatively the seed can be sown in a cold frame as soon as it is ripe in the autumn. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a greenhouse for their first winter. Plant out in late spring into their permanent positions. Male seedlings, in spring, have very prominent axillary buds whilst females are clear and smooth at this time[78].

Cuttings of half-ripe wood, June/July in a frame[200]. Difficult[113]. This is the easiest method of vegetative propagation[214].

Cuttings of mature wood in autumn[200]. Difficult[113]. The cuttings should be taken at the end of autumn or very early in the spring before the buds burst. Store them in sand and peat until April, cut into 7 - 9cm lengths and plant them in a plastic tent with bottom heat[214]. Rooting should take place within 2 months and they can be put in their permanent positions in the autumn[214].

Division of suckers in the winter. They can be planted out direct into their permanent positions and usually establish well and quickly[K].

Layering in autumn[200].

Suppliers

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Subject:

Hippophae salicifolia

Group:
Plant Information

Comment:

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Plant portrait - Hippophae salicifolia

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Comments on Web-Pages

Comment:

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Hippophae salicifolia

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Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

hippo.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Sorbus domestica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Service tree	Family:	Rosaceae
Author:	L.	Botanical references:	11, 45, 200
Synonyms:	Pyrus sorbus (Gaertn.), Cormus domestica ((L.)Spach.)		
Known Hazards:	The seeds probably contain hydrogen cyanide. This is the ingredient that gives almonds their characteristic flavour. Unless the seed is very bitter it should be perfectly safe in reasonable quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	Europe.		
Habitat:	Woods and bushy places[45].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pyrus domestica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Service Tree [E], Service-tree [H], Servicetree [P],
Epithets:	From a Dictionary of Botanical Epithets
	domestica = cultivated; orbus = orphan;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Eurasia
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m at a medium rate. It is hardy to zone 6 and is not frost tender. It is in flower in May, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Fruit.

Fruit - raw or cooked. The fruit is usually bletted if it is going to be eaten raw[1, 2, 3, 11, 115, 183]. This involves storing the fruit in a cool dry place until it is almost but not quite going rotten. At this stage the fruit has a delicious taste, somewhat like a luscious tropical fruit[K]. The fruit will often begin its bletting process whilst still on the tree and we have eaten delicious fruits straight from the tree in mid-September[K]. The fruit can also be dried and used like prunes. The fruit is up to 3cm across[200].

Medicinal Uses

Disclaimer

None known

Other Uses

Tannin; Wood.

The bark is a source of tannin[61].

Wood - fine grained, very heavy, hard to split. Used for furniture, screws, wine presses etc[11, 46, 61, 74, 115].

Cultivation details

Succeeds in most reasonably good soils in an open sunny position[11]. Tolerates light shade[188], though it fruits better in a sunny position[K].

The service tree is occasionally cultivated for its edible fruit[3, 45, 132]. There are 2 distinct forms, S. domestica pomifera. (Hayne.)Rehd. with apple shaped fruits (which ripen from September) and S. domestica pyriformis. (Hayne.)Rehd. with pear shaped fruits which ripen from October[11, 132].

Plants are susceptible to fireblight[188] and to canker (which is especially prevalent in areas with high rainfall)[K]. They grow best in the drier areas of Britain, which in general means the eastern half of the country[121].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78, 80]. If you have sufficient seed it can be sown in an outdoor seedbed[78, 80]. Stored seed germinates better if given 2 weeks warm then 14 - 16 weeks cold stratification[98], so sow it as early in the year as possible. Prick out the seedlings into individual pots when they are large enough to handle. Seedlings are very slow to put on top-growth for their first year or two[11], but they are busy building up a good root system. It is best to keep them in pots in a cold frame for their first winter and then plant them out into their permanent positions in late spring.

Cultivars

'Pyriformis'

> The fruits are pear-shaped. This form fruits very freely and regularly at Kew, the fruit is of very good quality.

'Maliformis'

> The fruits are apple-shaped.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Sorbus domestica

Group:
Plant Information

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Plants For A Future: Database Search Results

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Viburnum japonicum

Common name:		Family:	Caprifoliaceae
Author:	(Thunb.) Spreng.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Formosa.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cornus japonica[G] V. fusiforme[G]
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

An evergreen shrub growing to 1.8m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Leaves.

Fruit - raw or cooked[105, 177]. The ovoid fruit is about 8mm long and contains a single large seed[200].

Leaves - cooked. A famine food, they are only used when all else fails[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils but is ill-adapted for poor soils and for dry situations[1]. It prefers a deep rich loamy soil in sun or semi-shade[11, 200]. Requires woodland conditions but without competition from other plants. Best if given shade from the early morning sun in spring[200].

This species is hardy at Kew Botanical Gardens but it prefers a warmer climate[11]. Plants are slow-growing in Britain[219], they probably do best if given a warm position against a sunny wall[219].

Plants are self-incompatible and need to grow close to a genetically distinct plant in the same species in order to produce fruit and fertile seed[11, 200].

A foetid smelling plant[58], but the flowers are very fragrant with a jonquil-like scent[219, 245].

This species is closely related to V. odoratissimum[1].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Germination can be slow, sometimes taking more than 18 months. If the seed is harvested 'green' (when it has fully developed but before it has fully ripened) and sown immediately in a cold frame, it should germinate in the spring[80]. Stored seed will require 2 months warm then 3 months cold stratification and can still take 18 months to germinate[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame or greenhouse. Plant out into their permanent positions in late spring or early summer of the following year.

Cuttings of soft-wood, early summer in a frame[200]. Pot up into individual pots once they start to root and plant them out in late spring or early summer of the following year.

Cuttings of half-ripe wood, 5 - 8 cm long with a heel if possible, July/August in a frame[78, 113]. Plant them into individual pots as soon as they start to root. These cuttings can be difficult to overwinter, it is best to keep them in a greenhouse or cold frame until the following spring before planting them out[113].

Cuttings of mature wood, winter in a frame. They should root in early spring - pot them up when large enough to handle and plant them out in the summer if sufficient new growth is made, otherwise keep them in a cold frame for the next winter and then plant them out in the spring.

Layering of current seasons growth in July/August. Takes 15 months[78].

Scent

Flowers: Fresh

The flowers are very fragrant with a jonquil-like scent[245].

Leaves: Crushed

The plant has a foetid smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *viburnum japonicum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Viburnum japonicum

Common name:		Family:	Caprifoliaceae
Author:	(Thunb.) Spreng.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Formosa.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cornus japonica[G] V. fusiforme[G]
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

An evergreen shrub growing to 1.8m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Leaves.

Fruit - raw or cooked[105, 177]. The ovoid fruit is about 8mm long and contains a single large seed[200].

Leaves - cooked. A famine food, they are only used when all else fails[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils but is ill-adapted for poor soils and for dry situations[1]. It prefers a deep rich loamy soil in sun or semi-shade[11, 200]. Requires woodland conditions but without competition from other plants. Best if given shade from the early morning sun in spring[200].

This species is hardy at Kew Botanical Gardens but it prefers a warmer climate[11]. Plants are slow-growing in Britain[219], they probably do best if given a warm position against a sunny wall[219].

Plants are self-incompatible and need to grow close to a genetically distinct plant in the same species in order to produce fruit and fertile seed[11, 200].

A foetid smelling plant[58], but the flowers are very fragrant with a jonquil-like scent[219, 245].

This species is closely related to V. odoratissimum[1].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Germination can be slow, sometimes taking more than 18 months. If the seed is harvested 'green' (when it has fully developed but before it has fully ripened) and sown immediately in a cold frame, it should germinate in the spring[80]. Stored seed will require 2 months warm then 3 months cold stratification and can still take 18 months to germinate[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame or greenhouse. Plant out into their permanent positions in late spring or early summer of the following year.

Cuttings of soft-wood, early summer in a frame[200]. Pot up into individual pots once they start to root and plant them out in late spring or early summer of the following year.

Cuttings of half-ripe wood, 5 - 8 cm long with a heel if possible, July/August in a frame[78, 113]. Plant them into individual pots as soon as they start to root. These cuttings can be difficult to overwinter, it is best to keep them in a greenhouse or cold frame until the following spring before planting them out[113].

Cuttings of mature wood, winter in a frame. They should root in early spring - pot them up when large enough to handle and plant them out in the summer if sufficient new growth is made, otherwise keep them in a cold frame for the next winter and then plant them out in the spring.

Layering of current seasons growth in July/August. Takes 15 months[78].

Scent

Flowers: Fresh

The flowers are very fragrant with a jonquil-like scent[245].

Leaves: Crushed

The plant has a foetid smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *viburnum japonicum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Readers Comments

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Plants For A Future: Database Search Results

Viburnum japonicum

Common name:		Family:	Caprifoliaceae
Author:	(Thunb.) Spreng.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Japan, Formosa.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cornus japonica[G] V. fusiforme[G]
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family

Physical Characteristics

An evergreen shrub growing to 1.8m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower in June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Fruit; Leaves.

Fruit - raw or cooked[105, 177]. The ovoid fruit is about 8mm long and contains a single large seed[200].

Leaves - cooked. A famine food, they are only used when all else fails[179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils but is ill-adapted for poor soils and for dry situations[1]. It prefers a deep rich loamy soil in sun or semi-shade[11, 200]. Requires woodland conditions but without competition from other plants. Best if given shade from the early morning sun in spring[200].

This species is hardy at Kew Botanical Gardens but it prefers a warmer climate[11]. Plants are slow-growing in Britain[219], they probably do best if given a warm position against a sunny wall[219].

Plants are self-incompatible and need to grow close to a genetically distinct plant in the same species in order to produce fruit and fertile seed[11, 200].

A foetid smelling plant[58], but the flowers are very fragrant with a jonquil-like scent[219, 245].

This species is closely related to V. odoratissimum[1].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Germination can be slow, sometimes taking more than 18 months. If the seed is harvested 'green' (when it has fully developed but before it has fully ripened) and sown immediately in a cold frame, it should germinate in the spring[80]. Stored seed will require 2 months warm then 3 months cold stratification and can still take 18 months to germinate[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame or greenhouse. Plant out into their permanent positions in late spring or early summer of the following year.

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Layering of current seasons growth in July/August. Takes 15 months[78].

Scent

Flowers: Fresh

The flowers are very fragrant with a jonquil-like scent[245].

Leaves: Crushed

The plant has a foetid smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Viburnum japonicum*

Subject:

Viburnum japonicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Viburnum japonicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Crataegus laevigata

Common name:	Midland hawthorn	Family:	Rosaceae
Author:	(Poir.) DC.	Botanical references:	11, 17, 200
Synonyms:	Crataegus oxyacanthoides (Thuillier.), Crataegus oxyacantha (L. emend Jacq.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, hedges, thickets etc on clays and heavy loams, especially in E. Britain[17, 186]. Where found in hedges it is often as a relict of ancient woodland[186].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. curvisepala[B,P] C. oxyacantha auct. non[P] C. oxyacantha var. paulii[B,P] C. rhipidophylla[G] Mespilus laevigata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alic [E], Bread And Cheese Tree [H], Common Hawthorn [H], English Hawthorn [P,L,B], Gazels [H], Hagthorn [H], Halves [H], Haw [H], Hawthorn [H,P], Hazels [H], Ladies's Meat [H], May [H], Mayblossom [H], Midland Hawthorn [H,L], Quick [H], Seiyo-Sanzasi [E], Thorn [H], Tweestijlige Meidoorn [D], Whitethorn [H],

Epithets:	From a Dictionary of Botanical Epithets laevigata = smooth;
Systematics:	From a UDSA Plants Database Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database Turkey; Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 6m by 6m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from April to May, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade, Deep Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 9, 12, 183]. A dry and mealy texture, they are not very appetizing[K]. The fruit can be used for jams and preserves[9]. The fruit pulp can be dried, ground into a meal and mixed with flour in making bread etc[46, 183]. The fruit is about 1cm in diameter[200]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Young leaves and young shoots - raw[5, 177]. A tasty nibble, they are nice in a salad[K].

Young leaves are a tea substitute[21, 46, 177, 183].

The roasted seed is a coffee substitute[12, 21, 183].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Cardiotonic; Diuretic; Hypotensive; Sedative; Tonic; Vasodilator.

Hawthorn is an extremely valuable medicinal herb. It is used mainly for treating disorders of the heart and circulation system, especially angina[254]. Western herbalists consider it a 'food for the heart', it increases the blood flow to the heart muscles and restores normal heart beat[254]. This effect is brought about by the presence of bioflavonoids in the fruit, these bioflavonoids are also strongly antioxidant, helping to prevent or reduce degeneration of the blood vessels[254].

The fruit is antispasmodic, cardiac, diuretic, sedative, tonic and vasodilator[4, 9, 21, 46, 165]. Both the fruits and flowers of hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222], they are also used to treat a heart muscle weakened by age, for inflammation of the heart muscle, arteriosclerosis and for nervous heart problems[21]. Prolonged use is necessary for the treatment to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Hawthorn is combined with ginkgo (Ginkgo biloba) to enhance poor memory, working by improving the blood supply to the brain[254].

The bark is astringent and has been used in the treatment of malaria and other fevers[7].

The roots are said to stimulate the arteries of the heart[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Charcoal; Fuel; Hedge; Rootstock; Wood.

A good hedge plant, it is very tolerant of neglect and is able to regenerate if cut back severely, it makes a good thorny stock-proof barrier[186] and resists very strong winds. It can be used in layered hedges[11, 29].

The plant is often used as a rootstock for several species of garden fruit such as the medlar (Mespilus germanica) and the pear (Pyrus communis sativa)[4].

Wood - very hard and tough but difficult to work[7, 46, 61]. It has a fine grain and takes a beautiful polish but is seldom large enough to be of great value[4]. It is used for tool handles and making small wooden articles etc[4, 7, 46, 61]. The wood is valued in turning and makes an excellent fuel, giving out a lot of heat, more so even than oak wood[4]. Charcoal made from the wood is said to be able to melt pig iron without the aid of a blast[4].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].. A true woodland species, it grows well in quite dense shade[17, 186].

A very hardy plant, tolerating temperatures down to at least -18°c[202].

Hybridizes freely with other members of this genus[200]. Closely allied to C. monogyna, it often hybridizes with that species in the wild when growing in its proximity[186].

There are many named forms selected for their ornamental value[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

An important food plant for the larvae of many lepidoptera species[30].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Crataegus curvisepala* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Crataegus oxyacantha* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Crataegus oxyacanthoides* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Crataegus rhipidophylla* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World*. Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

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Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera:* *Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants:* *Crataegus marshallii*. *Genera:* *Crataegus*. *Web-pages:* *Crataegus Species - The Hawthorns.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Crataegus laevigata

Common name:	Midland hawthorn	Family:	Rosaceae
Author:	(Poir.) DC.	Botanical references:	11, 17, 200
Synonyms:	Crataegus oxyacanthoides (Thuillier.), Crataegus oxyacantha (L. emend Jacq.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, hedges, thickets etc on clays and heavy loams, especially in E. Britain[17, 186]. Where found in hedges it is often as a relict of ancient woodland[186].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. curvisepala[B,P] C. oxyacantha auct. non[P] C. oxyacantha var. paulii[B,P] C. rhipidophylla[G] Mespilus laevigata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alic [E], Bread And Cheese Tree [H], Common Hawthorn [H], English Hawthorn [P,L,B], Gazels [H], Hagthorn [H], Halves [H], Haw [H], Hawthorn [H,P], Hazels [H], Ladies's Meat [H], May [H], Mayblossom [H], Midland Hawthorn [H,L], Quick [H], Seiyo-Sanzasi [E], Thorn [H], Tweestijlige Meidoorn [D], Whitethorn [H],
Epithets:	From a Dictionary of Botanical Epithets
	laevigata = smooth;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database

	Turkey; Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 6m by 6m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from April to May, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade, Deep Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 9, 12, 183]. A dry and mealy texture, they are not very appetizing[K]. The fruit can be used for jams and preserves[9]. The fruit pulp can be dried, ground into a meal and mixed with flour in making bread etc[46, 183]. The fruit is about 1cm in diameter[200]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Young leaves and young shoots - raw[5, 177]. A tasty nibble, they are nice in a salad[K].

Young leaves are a tea substitute[21, 46, 177, 183].

The roasted seed is a coffee substitute[12, 21, 183].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Cardiotonic; Diuretic; Hypotensive; Sedative; Tonic; Vasodilator.

Hawthorn is an extremely valuable medicinal herb. It is used mainly for treating disorders of the heart and circulation system, especially angina[254]. Western herbalists consider it a 'food for the heart', it increases the blood flow to the heart muscles and restores normal heart beat[254]. This effect is brought about by the presence of bioflavonoids in the fruit, these bioflavonoids are also strongly antioxidant, helping to prevent or reduce degeneration of the blood vessels[254].

The fruit is antispasmodic, cardiac, diuretic, sedative, tonic and vasodilator[4, 9, 21, 46, 165]. Both the fruits and flowers of hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222], they are also used to treat a heart muscle weakened by age, for inflammation of the heart muscle, arteriosclerosis and for nervous heart problems[21]. Prolonged use is necessary for the treatment to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Hawthorn is combined with ginkgo (Ginkgo biloba) to enhance poor memory, working by improving the blood supply to the brain[254].

The bark is astringent and has been used in the treatment of malaria and other fevers[7].

The roots are said to stimulate the arteries of the heart[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Charcoal; Fuel; Hedge; Rootstock; Wood.

A good hedge plant, it is very tolerant of neglect and is able to regenerate if cut back severely, it makes a good thorny stock-proof barrier[186] and resists very strong winds. It can be used in layered hedges[11, 29].

The plant is often used as a rootstock for several species of garden fruit such as the medlar (Mespilus germanica) and the pear (Pyrus communis sativa)[4].

Wood - very hard and tough but difficult to work[7, 46, 61]. It has a fine grain and takes a beautiful polish but is seldom large enough to be of great value[4]. It is used for tool handles and making small wooden articles etc[4, 7, 46, 61]. The wood is valued in turning and makes an excellent fuel, giving out a lot of heat, more so even than oak wood[4]. Charcoal made from the wood is said to be able to melt pig iron without the aid of a blast[4].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].. A true woodland species, it grows well in quite dense shade[17, 186].

A very hardy plant, tolerating temperatures down to at least -18°c[202].

Hybridizes freely with other members of this genus[200]. Closely allied to C. monogyna, it often hybridizes with that species in the wild when growing in its proximity[186].

There are many named forms selected for their ornamental value[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

An important food plant for the larvae of many lepidoptera species[30].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Crataegus curvisepala* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Crataegus oxyacantha* (a possible synonym).

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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	Turkey; Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 6m by 6m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from April to May, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade, Deep Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 9, 12, 183]. A dry and mealy texture, they are not very appetizing[K]. The fruit can be used for jams and preserves[9]. The fruit pulp can be dried, ground into a meal and mixed with flour in making bread etc[46, 183]. The fruit is about 1cm in diameter[200]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Young leaves and young shoots - raw[5, 177]. A tasty nibble, they are nice in a salad[K].

Young leaves are a tea substitute[21, 46, 177, 183].

The roasted seed is a coffee substitute[12, 21, 183].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Cardiotonic; Diuretic; Hypotensive; Sedative; Tonic; Vasodilator.

Hawthorn is an extremely valuable medicinal herb. It is used mainly for treating disorders of the heart and circulation system, especially angina[254]. Western herbalists consider it a 'food for the heart', it increases the blood flow to the heart muscles and restores normal heart beat[254]. This effect is brought about by the presence of bioflavonoids in the fruit, these bioflavonoids are also strongly antioxidant, helping to prevent or reduce degeneration of the blood vessels[254].

The fruit is antispasmodic, cardiac, diuretic, sedative, tonic and vasodilator[4, 9, 21, 46, 165]. Both the fruits and flowers of hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222], they are also used to treat a heart muscle weakened by age, for inflammation of the heart muscle, arteriosclerosis and for nervous heart problems[21]. Prolonged use is necessary for the treatment to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Hawthorn is combined with ginkgo (Ginkgo biloba) to enhance poor memory, working by improving the blood supply to the brain[254].

The bark is astringent and has been used in the treatment of malaria and other fevers[7].

The roots are said to stimulate the arteries of the heart[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Charcoal; Fuel; Hedge; Rootstock; Wood.

A good hedge plant, it is very tolerant of neglect and is able to regenerate if cut back severely, it makes a good thorny stock-proof barrier[186] and resists very strong winds. It can be used in layered hedges[11, 29].

The plant is often used as a rootstock for several species of garden fruit such as the medlar (Mespilus germanica) and the pear (Pyrus communis sativa)[4].

Wood - very hard and tough but difficult to work[7, 46, 61]. It has a fine grain and takes a beautiful polish but is seldom large enough to be of great value[4]. It is used for tool handles and making small wooden articles etc[4, 7, 46, 61]. The wood is valued in turning and makes an excellent fuel, giving out a lot of heat, more so even than oak wood[4]. Charcoal made from the wood is said to be able to melt pig iron without the aid of a blast[4].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].. A true woodland species, it grows well in quite dense shade[17, 186].

A very hardy plant, tolerating temperatures down to at least -18°c[202].

Hybridizes freely with other members of this genus[200]. Closely allied to C. monogyna, it often hybridizes with that species in the wild when growing in its proximity[186].

There are many named forms selected for their ornamental value[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11].

An important food plant for the larvae of many lepidoptera species[30].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Crataegus+laevigata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Crataegus+laevigata`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Crataegus laevigata*

Subject:

Crataegus laevigata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Crataegus laevigata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:34:37 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Crataegus monogyna

Common name:	Hawthorn	Family:	Rosaceae
Author:	Jacq.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, hedges, thickets etc, on most soils except wet peat and poor acid sands[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. oxyacantha var. praecox[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Hawthorn [H], Eenstijlige Meidoorn [D], Espino Albar [E], Haw [H], Hawthorn [H,L], One-seed Hawthorn [B], Oneseed Hawthorn [P],
Epithets:	From a Dictionary of Botanical Epithets
	monogyna = one ovary;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Spain

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Victoria, South Australia, Western Australia.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 6m by 6m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Flowers; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 12]. Not very appetizing raw[9, K], it is normally used for making jams and preserves[9, 183]. The fruit can be dried, ground, mixed with flour and used for making bread etc[46]. The fruit is about 1cm in diameter[200]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Young shoots - raw[5, 177]. A pleasant nutty flavour[144], they are a good addition to the salad bowl[183].

A tea is made from the dried leaves[21, 46, 177, 183], it is a china tea substitute.

The roasted seeds are a coffee substitute[12, 21, 46, 177].

The flowers are used in syrups and sweet puddings[183].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Cardiotonic; Diuretic; Hypotensive; Sedative; Tonic; Vasodilator.

Hawthorn is an extremely valuable medicinal herb. It is used mainly for treating disorders of the heart and circulation system, especially angina[254]. Western herbalists consider it a 'food for the heart', it increases the blood flow to the heart muscles and restores normal heart beat[254]. This effect is brought about by the presence of bioflavonoids in the fruit, these bioflavonoids are also strongly antioxidant, helping to prevent or reduce degeneration of the blood vessels[254].

The fruit is antispasmodic, cardiac, diuretic, sedative, tonic and vasodilator[4, 9, 21, 46, 165]. Both the fruits and flowers of hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222], they are also used to treat a heart muscle weakened by age, for inflammation of the heart muscle, arteriosclerosis and for nervous heart problems[21]. Prolonged use is necessary for the treatment to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Hawthorn is combined with ginkgo (Ginkgo biloba) to enhance poor memory, working by improving the blood supply to the brain[254].

The bark is astringent and has been used in the treatment of malaria and other fevers[7].

The roots are said to stimulate the arteries of the heart[218].

Other Uses

Fuel; Hedge; Wood.

A good hedge plant, it is very tolerant of being cut and of neglect and is able to regenerate if cut back severely, it makes a good thorny stock-proof barrier[186] and resists very strong winds. It is often used in layered hedges[11, 29]. The cultivar 'Stricta' has made a very good hedge 3.5 metres tall in an exposed maritime position at Rosewarne in N. Cornwall[K].

Wood - very hard and tough, difficult to work. Used for tool handles etc. Valued in turning[7, 46, 61]. A good fuel, giving out a lot of heat[4].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Succeeds in all but the very poorest acid soils[186]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

A very hardy plant, tolerating temperatures down to at least -18°c[202].

Hybridizes freely with other members of this genus and with C. laevigata in the wild[186, 200].

There are many named forms selected for their ornamental value[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11]. In heavier shade they quickly become drawn and leggy, eventually dying[186].

An important food plant for the caterpillars of many lepidoptera species[30], there are 149 insect species associated with this tree[24].

Plants are susceptible to fireblight[200].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

'Stricta'

This cultivar has a very erect habit of growth[11]. It has made a very good hedge in an area exposed to strong maritime winds[K].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Crataegus biflora* (Hawthorn)
Varities: Glastonbury Thorn **Item: *Crataegus monogyna* (Hawthorn)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Checklist of plants suitable for hedging and windbreaks.

- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2

Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera: Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants: Crataegus marshallii. Genera: Crataegus. Web-pages: Crataegus Species - The Hawthorns.*.

Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Crataegus+monogyna`

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Plants For A Future: Database Search Results

Crataegus monogyna

Common name:	Hawthorn	Family:	Rosaceae
Author:	Jacq.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, hedges, thickets etc, on most soils except wet peat and poor acid sands[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. oxyacantha var. praecox[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Hawthorn [H], Eenstijlige Meidoorn [D], Espino Albar [E], Haw [H], Hawthorn [H,L], One-seed Hawthorn [B], Oneseed Hawthorn [P],
Epithets:	From a Dictionary of Botanical Epithets
	monogyna = one ovary;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Victoria, South Australia, Western Australia.
Plant Passport required for Trade in	From DEFRA Plant passporting.

UK/EU	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 6m by 6m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from May to June, and the seeds ripen from September to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Midges. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Flowers; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 12]. Not very appetizing raw[9, K], it is normally used for making jams and preserves[9, 183]. The fruit can be dried, ground, mixed with flour and used for making bread etc[46]. The fruit is about 1cm in diameter[200]. There are up to five fairly large seeds in the centre of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed[K].

Young shoots - raw[5, 177]. A pleasant nutty flavour[144], they are a good addition to the salad bowl[183].

A tea is made from the dried leaves[21, 46, 177, 183], it is a china tea substitute.

The roasted seeds are a coffee substitute[12, 21, 46, 177].

The flowers are used in syrups and sweet puddings[183].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Cardiotonic; Diuretic; Hypotensive; Sedative; Tonic; Vasodilator.

Hawthorn is an extremely valuable medicinal herb. It is used mainly for treating disorders of the heart and circulation system, especially angina[254]. Western herbalists consider it a 'food for the heart', it increases the blood flow to the heart muscles and restores normal heart beat[254]. This effect is brought about by the presence of bioflavonoids in the fruit, these bioflavonoids are also strongly antioxidant, helping to prevent or reduce degeneration of the blood vessels[254].

The fruit is antispasmodic, cardiac, diuretic, sedative, tonic and vasodilator[4, 9, 21, 46, 165]. Both the fruits and flowers of hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic[222]. They are especially indicated in the treatment of weak heart combined with high blood pressure[222], they are also used to treat a heart muscle weakened by age, for inflammation of the heart muscle, arteriosclerosis and for nervous heart problems[21]. Prolonged use is necessary for the treatment to be efficacious[222]. It is normally used either as a tea or a tincture[222].

Hawthorn is combined with ginkgo (Ginkgo biloba) to enhance poor memory, working by improving the blood supply to the brain[254].

The bark is astringent and has been used in the treatment of malaria and other fevers[7].

The roots are said to stimulate the arteries of the heart[218].

Other Uses

Fuel; Hedge; Wood.

A good hedge plant, it is very tolerant of being cut and of neglect and is able to regenerate if cut back severely, it makes a good thorny stock-proof barrier[186] and resists very strong winds. It is often used in layered hedges[11, 29]. The cultivar 'Stricta' has made a very good hedge 3.5 metres tall in an exposed maritime position at Rosewarne in N. Cornwall[K].

Wood - very hard and tough, difficult to work. Used for tool handles etc. Valued in turning[7, 46, 61]. A good fuel, giving out a lot of heat[4].

Cultivation details

A very easily grown plant, it prefers a well-drained moisture retentive loamy soil but is not at all fussy[11, 200]. Succeeds in all but the very poorest acid soils[186]. Once established, it succeeds in excessively moist soils and also tolerates drought[200]. It grows well on a chalk soil and also in heavy clay soils[200]. A position in full sun is best when plants are being grown for their fruit, they also succeed in semi-shade though fruit yields and quality will be lower in such a position[11, 200]. Most members of this genus succeed in exposed positions, they also tolerate atmospheric pollution[200].

A very hardy plant, tolerating temperatures down to at least -18°c[202].

Hybridizes freely with other members of this genus and with C. laevigata in the wild[186, 200].

There are many named forms selected for their ornamental value[200].

Seedling trees take from 5 - 8 years before they start bearing fruit, though grafted trees will often flower heavily in their third year[K].

The flowers have a foetid smell somewhat like decaying fish. This attracts midges which are the main means of fertilization. When freshly open, the flowers have more pleasant scent with balsamic undertones[245].

Seedlings should not be left in a seedbed for more than 2 years without being transplanted[11]. In heavier shade they quickly become drawn and leggy, eventually dying[186].

An important food plant for the caterpillars of many lepidoptera species[30], there are 149 insect species associated with this tree[24].

Plants are susceptible to fireblight[200].

Propagation

Seed - this is best sown as soon as it is ripe in the autumn in a cold frame, some of the seed will germinate in the spring, though most will probably take another year. Stored seed can be very slow and erratic to germinate, it should be warm stratified for 3 months at 15°c and then cold stratified for another 3 months at 4°c[164]. It may still take another 18 months to germinate[78]. Scarifying the seed before stratifying it might reduce this time[80]. Fermenting the seed for a few days in its own pulp may also speed up the germination process[K]. Another possibility is to harvest the seed 'green' (as soon as the embryo has fully developed but before the seedcoat hardens) and sow it immediately in a cold frame. If timed well, it can germinate in the spring[80]. If you are only growing small quantities of plants, it is best to pot up the seedlings as soon as they are large enough to handle and grow them on in individual pots for their first year, planting them out in late spring into nursery beds or their final positions. When growing larger quantities, it might be best to sow them directly outdoors in a seedbed, but with protection from mice and other seed-eating creatures. Grow them on in the seedbed until large enough to plant out, but undercut the roots if they are to be left undisturbed for more than two years.

Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

'Stricta'

This cultivar has a very erect habit of growth[11]. It has made a very good hedge in an area exposed to strong maritime winds[K].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Crataegus biflora* (Hawthorn)
Varities: Glastonbury Thorn **Item: *Crataegus monogyna* (Hawthorn)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: C
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2

A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Crataegus Species - The Hawthorns.

Carlos A. Nuñez Thu Nov 8 20:56:39 2001

hi i am a mexican student and i studied in Chapingo University, my tesis was in propagation for cuttings of Crataegus and i obtain 30% of rooting. how i will do to publisher this test? and i want information above to other test for finish my tesis. how i obtain this information? thanks for you cooperation atte Carlos A. Nuñez

Details of Growing Condition: universidad autonoma Chapingo.

Cross references: *Genera:* *Crataegus*.

Crataegus Species - The Hawthorns.

Ray Scheel Thu Mar 27 16:43:15 2003

I have had great success germinating the seeds of Crataegus marshallii (Parsley haw) with a simple operation of separating the ripe seeds from the pulp in the fall (late October), stratifying in the refridgerator until the seeds showed signs of germinating (mid-February), and planting into plugs. I had a germination rate of almost 100% and by late March (5 months after collecting seed). I have a tray of seedlings putting out true leaves and about ready to pot up into larger containers, with a couple of seedling lost to neglect replaced by seeds sprouting in the bag still in the fridge.

Details of Growing Condition: East Texas, USDA 8b, Sunset 31, mixed woodlands, understory tree.

Cross references: *Plants:* *Crataegus marshallii*. *Genera:* *Crataegus*. *Web-pages:* *Crataegus Species - The Hawthorns.*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Crataegus+monogyna`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Crataegus+monogyna`

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Plants For A Future Rating (1-5):	3		

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Scent

Flowers: Fresh

> The flowers have an unpleasant smell like decaying fish, though when freshly open they also have a pleasant balsamic undertone.

Cultivars

'Stricta'

This cultivar has a very erect habit of growth[11]. It has made a very good hedge in an area exposed to strong maritime winds[K].

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Crataegus biflora* (Hawthorn)
Varities: Glastonbury Thorn **Item: *Crataegus monogyna* (Hawthorn)**

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Crataegus+monogyna`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Crataegus monogyna*

Subject:

Crataegus monogyna

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

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Please use the exact Latin Names of the plants as specified in this database, one per line.

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Cyperus esculentus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Tiger nut	Family:	Cyperaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Original range is obscure, the plant is a widespread weed from the Tropics to the Temperate zone.		
Habitat:	Muddy soil and shallow water, also as a weed of cultivated ground in southern Europe[50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. esculentus var. angustispicatus[B] C. esculentus var. leptostachyus[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chufa [H,B], Chufa Flatsedge [P], Hsiang Fu [E], Hsiang Fu Tzu [E], Juncia Avellanada [E], Knolcyperus [D], Nut-grass [H], Rumput Haliya Hitam [E], Teki [E], Tiger Nut [H],
Epithets:	From a Dictionary of Botanical Epithets
	esculentus = edible; lentus = pliable;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Sedge family

Other Range Info:	From the Ethnobotany Database
	China; Egypt; Java; Lesotho; Malaya; Mexico; Nigeria; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Colorado, Hawaii, Minnesota, Oregon, Washington.

Physical Characteristics

Perennial growing to 0.9m at a fast rate. It is hardy to zone 8. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Coffee; Leaves; Oil; Root.

Tuber - raw, cooked or dried and ground into a powder[2, 4, 55, 62, 85, 95, 183].They are also used in confectionery[183]. A delicious nut-like flavour[1, 61, 183] but rather chewy and with a tough skin[K]. They taste best when dried[27]. They can be cooked in barley water to give them a sweet flavour and then be used as a dessert nut[183]. A refreshing beverage is made by mixing the ground tubers with water, cinnamon, sugar, vanilla and ice[183]. The ground up tuber can also be made into a plant milk with water, wheat and sugar[183].

An edible oil is obtained from the tuber. It is considered to be a superior oil that compares favourably with olive oil[183].

The roasted tubers are a coffee substitute[2, 62, 183].

The base of the plant can be used in salads[183]. (This probably means the base of the leaf stems[K])

Medicinal Uses

Disclaimer

Aphrodisiac; Carminative; Digestive; Diuretic; Emmenagogue; Stimulant; Tonic.

Tiger nuts are regarded as a digestive tonic, having a heating and drying effect on the digestive system and alleviating flatulence[254]. They also promote urine production and menstruation[254].

The tubers are said to be aphrodisiac, carminative, diuretic, emmenagogue, stimulant and tonic[240, 254]. In Ayurvedic medicine they are used in the treatment of flatulence, indigestion, colic, diarrhoea, dysentery, debility and excessive thirst[254].

Other Uses

Oil; Weaving.

The tubers contain up to 30% of a non-drying oil, it is used in cooking and in making soap[57, 74, 117, 141]. It does not solidify at 0°c and stores well without going rancid[74].

The leaves can be used for weaving hats and matting etc[178].

Cultivation details

Prefers a moist sandy loam[95, 117].

Plants are hardy to about -15°c[200].

The chufa, or tiger nut, is often cultivated for its edible tuber in warm temperate and tropical zones, there is a cultivated variety, var. sativus, that produces larger tubers[50]. We have had lots of problems with growing this cultivated form. Once the tubers come into growth then they normally grow vigorously, but the difficulty is getting them to come into growth. We harvest the tubers in the autumn and store them in moist sand, replanting them in the spring. However, they rarely come into new growth until mid to late summer which gives them too short a growing season to produce much of a crop[K]. We need to find a satisfactory way of storing the tubers and exciting them back into growth[K].

In warmer climates this plant is a serious weed of cultivation. It is much hardier than was once imagined and is becoming a weed in N. America where it is found as far north as Alaska[95].

The tubers are often formed a metre or more away from the plant, especially if it is growing in a heavy clay soil[159].

The tubers are extremely attractive to mice and require protection from them in the winter[K].

Propagation

Seed - surface sow in the spring and keep the compost moist[164]. The seed usually germinates in 2 - 6 weeks at 18°c[164]. Prick out the seedlings into individual pots as soon as they are large enough to handle. Grow on for their first winter in a greenhouse and plant them out in late spring after the last expected frosts.

Division in spring or autumn. This is more a matter of harvesting the tubers and replanting them. If this is done in the autumn, then it is best to store the tubers in a cool frost-free place overwinter and plant them out in the spring.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Food Crops
- Alternative Root Crops.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cyperus esculentus var. leptostachyus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

References for the family Cyperaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Lots of entries, quite a lot of information in most entries and references.

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[117] **Rosengarten. jnr. F.** *The Book of Edible Nuts.* Walker & Co. 1984 ISBN 0802707699
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148

An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Cyperus esculentus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Tiger nut	Family:	Cyperaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Original range is obscure, the plant is a widespread weed from the Tropics to the Temperate zone.		
Habitat:	Muddy soil and shallow water, also as a weed of cultivated ground in southern Europe[50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	China; Egypt; Java; Lesotho; Malaya; Mexico; Nigeria; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

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Physical Characteristics

Perennial growing to 0.9m at a fast rate. It is hardy to zone 8. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Coffee; Leaves; Oil; Root.

Tuber - raw, cooked or dried and ground into a powder[2, 4, 55, 62, 85, 95, 183].They are also used in confectionery[183]. A delicious nut-like flavour[1, 61, 183] but rather chewy and with a tough skin[K]. They taste best when dried[27]. They can be cooked in barley water to give them a sweet flavour and then be used as a dessert nut[183]. A refreshing beverage is made by mixing the ground tubers with water, cinnamon, sugar, vanilla and ice[183]. The ground up tuber can also be made into a plant milk with water, wheat and sugar[183].

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The leaves can be used for weaving hats and matting etc[178].

Cultivation details

Prefers a moist sandy loam[95, 117].

Plants are hardy to about -15°c[200].

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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This plant is mentioned in the following web pages

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- Alternative Root Crops.

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Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants for a Future
A resource centre for edible and other useful plants

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Alternative Root Crops.

Although this leaflet is titled Alternative Root Crops, I am not going to stick strictly to the botanists definition of a root, but am instead being much more lax and will be discussing all types of underground storage organs including tubers, bulbs and corms.

The traditional root crops grown in Britain are potatoes, parsnips, carrots, beetroot, onions, turnips and swede with lesser known plants such as Jerusalem artichokes, celeriac, Chinese artichokes, radishes and winter radishes (mooli) playing a minor role. Of these, potatoes are by far the most important. They are very high yielding and, because they have a mild flavour that goes well with many other foods, they are widely used as a staple crop. They do have many disadvantages though, especially in their high susceptability to disease and in particular to blight (for which there is no acceptable organic treatment as yet).

Most of these traditional crops have been selectively bred, sometimes over thousands of years, for improved flavour and yields. Potatoes, for example, were extremely low-yielding when first introduced from S. America. The wild carrot has a thin woody root that bears little comparison to the cultivated plant. This selective breeding, however, has not been an unconditional success. Potatoes must be one of our most disease-prone crops - you only have to look at them and they go down with blight. Carrots suffer from root fly and violet root rot, assuming you can get them past the seedling stage without them being eaten by slugs or overtaken by weeds.

Many of the plants mentioned in this leaflet, on the other hand, have never been bred as a food crop so yields will often be rather lower. They are, however, usually much less prone to pests and diseases and so are often easier to grow. They are also in general much more robust plants and can often be grown in a semi-wild setting and just harvested as required. There is an added bonus to this, since with many of the plants, such as Erythronium species, it is possible to grow them amongst other plants and so their yield is an extra bonus from the land. For more information on this method of growing please see our leaflet Why Perennials.

The plants detailed in the list below are rather a diverse bunch and as a result they have a variety of cultivation needs. Unless the text says otherwise you can assume that the plant will succeed in full sun or light shade in most well- drained soils and will yield much better if the soil is fairly rich in organic matter. Unlike most of the information leaflets we issue, there are some species in this list that we have not as yet grown but wish to obtain. This is clearly marked in the text - if by any chance you are growing any of these plants then we certainly won't object if you send a root or three in our direction.

Apios americana. The GROUND NUT is a herbaceous climbing plant, reaching about 4ft tall. It belongs to the pea and bean family and, like many other members of that family, it helps to enrich the soil with nitrogen by means of bacteria which live on the roots and fix atmospheric nitrogen. The root, which is unusually high in protein, has a very pleasant sweet taste when baked and is one of our favourite roots. It can be cooked in many other ways and can also be eaten raw, though it is rather a tough chew. Yields from the wild plant are fairly low, though they are much better if the plant is left in the ground for 2 years before harvesting, There are a number of cultivated forms being developed, however, that have much higher yields and the plant has been recommended for commercial cultivation. This species can be grown along the sunny edges of a woodland garden and either allowed to twine its way into small shrubs or given some supports to climb into. *One correspondant says that this plant has some "anti nutritional factors, such as trypsin inhibitors ... so it should be cooked before being eaten"*

Camassia quamash. QUAMASH is a beautiful bulbous plant that grows about 2ft tall and flowers in early summer. It belongs to the onion family (though it does not taste like it) and the flowers look a little bit like a bluebell. Plants can succeed in short grass, so long as this is not to vigorous, and can therefore be grown in the light shade of a tree in the lawn. Do not cut the grass during the time when the bulbs come into growth until they die down in mid summer. Quamash bulbs are about the size of a small onion, they are rich in starch and develop a very nice sweet flavour when slowly baked. They can also be eaten raw but their texture is not then to my liking, being somewhat gummy. Quamash was a staple food of the N. American Indians. Local tribes would move to the quamash fields in the early autumn and, whilst some people harvested the bulbs, others would dig a pit, line it with boulders then fill it with wood and set fire to it. The fire would heat the boulders and the harvested bulbs would then be placed in the pit and the whole thing covered with earth and the bulbs left to cook slowly for 2 days. The pit would then be opened and the Indians would feast on the bulbs until they could no longer fit any more in their stomachs. Whatever was left would be dried and stored for winter use. We are intending to experiment with growing quamash in an orchard - the plants will have died down before the first apples are harvested and so will not get in the way. The bulbs should increase of their own accord and then we can harvest them in much the same way as the Indians, though we might not eat them in quite the same way!

Cyperus esculentus. TIGER NUTS are a noxious weed in the tropics, but are also a cultivated crop and can sometimes be found on sale in Britain. Plants grow about 2ft tall and prefer a sunny position in a soil that is on the wet side. Plants that I have grown have seemed to be quite hardy (forms of the plant have become naturalised as far north as Alaska) but yields have been disappointing so far. This is at least partly because I have been having problems getting the tubers to come into new growth in the spring. I normally harvest them after the first frosts have cut back top growth and then store them in moist sand in a cool frost-free place. In late March I pot them up and put them into a polytunnel, but they can take months before coming into growth and consequently do not manage to get in a full growing season. I am probably making some elementary mistake with the plant. but have yet to work out what it is. The tubers are small and rather fiddly but they have a delicious sweet flavour. They can be eaten raw but are very chewy unless soaked beforehand. Tiger nuts are unusual amongst roots in that they contain a relatively high level of oil and this is sometimes extracted and used as a high-grade food oil.

Dioscorea batatas. This hardy YAM is cultivated in Japan as a root crop but, although it grows very well here, it has never been grown much in this country. A climbing plant reaching 8ft or more in height, it requires a sunny position in a fertile well-drained soil and should be given some support on which to twine. If you have a deep rich soil then the root can be up to 3ft long and weigh 4lbs or more. Rich in starch, it is best baked but can also be boiled, added to stews etc. There is no strong flavour, but the overall taste is very acceptable and it can be eaten in quantity as a staple crop. It reminds me of a floury potato. You can propagate the plant by cutting off the top few inches of root and replanting this. An easier method is to harvest the small tubercles (baby tubers that look a little like small bulbs) that are formed in the leaf axils along the stems. Collect them in late summer, once they are easily detached from the plant, and pot them up immediately in a cold greenhouse. They will remain dormant in the winter and then come into growth in the spring. Plant them out in the summer when they are in active growth.

Erythronium species. DOG'S TOOTH VIOLETS are dainty woodland bulbs. They grow about 1ft tall and flower in early spring, disappearing completely by early summer. Grow them in light shade and consider also growing them under trees in the orchard or on a lawn. Suitable varieties increase very freely when well sited and the bulb, which can be 3 inches long and about an inch wide, has a pleasant sweet taste. It can be eaten raw or cooked. Any of the species can be used, though these are quite expensive to obtain and many people would consider the plant too beautiful to eat. The cultivars White Beauty and Pagoda are easily grown forms that are relatively cheap to buy and usually divide freely in the garden.

Helianthus tuberosus. JERUSALEM ARTICHOKES are a fairly well-known root crop that is occasionally cultivated. The plants are very vigorous, growing up to 10ft tall, and some people have been growing them successfully as part of a woodland garden, planting them on the sunnier side of the woodland. Slugs absolutely adore the young shoots in spring, so give the plants some protection at this time of the year. We find that a mulch of oak leafmould works well. The main drawback of this root is that over half of the carbohydrate it contains is in the form of inulin and this cannot be absorbed by the body. It does mean that you can eat quite a lot of it without putting on weight, but it does also mean that many people will find the inulin fermenting in their gut causing quite a bit of wind! The tubers can be eaten raw or cooked and the flavour improves if they are left in the ground until frosted.

Lathyrus tuberosus. The TUBEROUS PEA has one of the nicest tubers I have ever eaten, a view shared by many of the people who have eaten it. Unfortunately the plant is rather low yielding and so unless improved cultivars are developed it will never become more than an occasional delicacy. Grow the plant on the sunny side of a woodland, or perhaps in a cultivated bed amongst shrubs. It grows about 3ft tall and twines around available supports. It is quite a weak climber, however, and is more likely to sprawl across the ground. A member of the pea and bean family, the plant will enrich the soil with nitrogen.

Lilium lancifolium. The TIGER LILY is often grown in the flower garden but in the Orient it is cultivated for its edible bulb. In fact when grown as a root crop the Chinese actually pick off the flower buds to stimulate the production of larger bulbs. All other members of this genus also produce edible bulbs, though these can often have a bitter flavour. When baked, lily bulbs taste rather like potatoes. One word of warning with this particular species - although tolerant of virus disease, it can often act as a carrier of these diseases and so becomes a vector infecting other species. It is therefore wise to either grow this species well away from your other lilies, or to avoid growing the other species if you grow this one. The plant is easily propagated by means of bulbils that form in the leaf axils. Simply pot these up in the summer when they part easily from the plant and then plant them out in the spring 18 months later. Allow some of the bulbils to fall to the ground to see of the plant will maintain itself without your help.

Lomatium cous. This is a plant that I have not as yet grown but would like to obtain, It comes from western N. America and grows on dry often open rocky slopes and flats. It is often found with sagebrush, is most common in foothills and lowland areas but is occasionally found above the treeline. The root is eaten cooked, it can also be dried and ground into a flour and can then be mixed with cereal flours or added to soups etc. When dug up in the spring, it is said to have a parsnip-like flavour. I would also be interested in obtaining any other members of this genus, in particular L. geyeri and L. macrocarpum. Known as BISCUIT ROOTS, they have celery-flavoured roots that can be eaten raw or cooked. The N. American Indians dried and ground them into a flour and then either mixed it with cereal flours or added it to soups etc. They also mixed the flour with water, flattened it into cakes then sun-dried or baked them for use on journeys, the taste is said to be somewhat like stale biscuits.

Orogenia linearifolia. INDIAN POTATO is another plant that I would like to obtain. It grows about 15cm tall on open mountain sides and ridges, often in sandy or gravelly soils, and especially near vernal snowbanks where it blooms as soon as the snow melts. It is found in much of western N. America. The root is said to have a pleasant crisp taste, though the outer skin has a slightly bitter taste. Available at almost any time of the year, its only drawback is that it is a bit small and fiddly to harvest in quantity.

Oxalis tuberosa. OCA has had a long history of cultivation in S. America where it is one of the three most popular root crops. The tuber can be 3 inches long and about an inch wide - yields per plant are often not much below that from potatoes. The plants are about as hardy as potatoes, tolerating light frosts but dying down in harder frosts. In mild areas the tubers can be left in the ground and harvested as required (so long as the ground does not get too wet in the winter), but in colder areas it is best to harvest them when the plant dies down and store them in a cool frost-free place. The tubers have a lemon flavour when first harvested but if you leave them out in the sun for a week or so they become quite sweet. Some cultivars, in fact, become so sweet that they are eaten rather like a fruit in S. America. The main disadvantage of this plant is that it does not start to form tubers until around the autumn equinox and so, if there is an early heavy frost, yields will be very low.

Perideridia gairdneri. YAMPA is a plant that I have not as yet grown but would dearly love to get my hands on. The root can be eaten raw or cooked and is said to have a pleasant sweet and nutty taste that can be eaten in quantity. The flavour is said to be somewhat like a superior parsnip and the dried root is said to be so nice that it is an almost irresistable nibble. The root is best harvested when the plant is dormant and can also be dried for later use or ground into a flour and used in porridges, cakes etc. Yampa grows in woodland and wet meadows in its native range, which stretches from California along the west of N. America to Saskatchewan in Canada and so it should be perfectly hardy here.

Polymnia edulis. YACON is often cultivated for its edible root in S. America, where yields of 15 tons per acre have been achieved. This frost-tender plant grows about 3ft tall and can be cultivated like potatoes, it requires a 6 - 7 month growing season so would probably not succeed in the colder parts of the country. It is best started off in pots even in the warmer areas. A fast-growing and tolerant plant, it succeeds in poor soils though it yields better in soils of at least reasonable quality and requires a sunny position. The large root is crisp and juicy and in some cultivars is also incredibly sweet, though the skin is often bitter. In S. America it is eaten more like a fruit than a root. The nutritional value is low, however, because much of the carbohydrate in the root is in the form of inulin. The human gut is unable to assimilate inulin and so it passes straight through the digestive system. This makes it an ideal food if you are on a diet to lose weight and want to eat enough to fill yourself up! A gentle warning, however. Inulin causes fermentation in the gut of some people, leading to the expulsion of gases through the rear passage (I'm trying to be delicate here!) Inulin can be easily converted to fructose, a sugar that is safe for diabetics to use, and so it is sometimes used to make a sweetener.

Psoralea esculenta. BREADROOT is a famous N. American Indian food, though we have yet to grow it. Perfectly hardy in this country, it requires a sunny position and like many members of the pea and bean family it helps to enrich the soil with nitrogen. The root can be eaten raw, cooked or be dried for later use. The dried root can also be ground into a flour and used in cakes, porridges etc. Starchy and glutinous, the raw root is said to have a sweetish turnip-like taste. The plant has in the past been recommended for commercial cultivation and has the potential to be high yielding.

Sagittaria species. Most if not all members of this genus produce edible tubers and a number of them are cultivated for this, especially in the Orient. They succeed in wet soils but are best in water 1 - 2ft deep. S. sagittifolia, the ARROWHEAD, is a native species and this is the plant that is most frequently cultivated. Its tubers can often be purchased in Chinese shops in this country and this is one of the best ways of obtaining plants, though the tubers need to be fresh if they are to grow away before rotting. The tubers are starchy with a distinct flavour that people have likened to potatoes, though I'm not sure that I agree. There is a slight bitterness, but this is mainly in the skin which is best removed after cooking. They make a very acceptable stodge part of the meal. The tubers can also be dried and ground into a flour, this flour can then be used as a gruel etc or can be added to cereal flours and used in making bread, biscuits or cakes. The tubers, which can be produced up to 1 metre from the plant, are best harvested in the late summer as the leaves die down, they should not be eaten raw. Other species to try include:- S. cuneata, the WAPATO, S. graminea; and S. latifolia, the DUCK POTATO.

Sium sisarum. SKIRRET grows about 4ft tall and used to be cultivated for its edible root. This can be eaten raw or cooked and is firm, sweet and floury but with a woody core. The plant is very pest and disease-resistant. It requires plenty of moisture in the growing season otherwise its root will tend to be very fibrous. Make sure that you do not grow the sub-species S. sisarum lancifolium since this is very unlikely to produce good quality roots.

Stachys affinis. CHINESE ARTICHOKES grow about 1ft tall and dislike dry soils or shade. Their roots are rather small and fiddly, though overall yields are quite good and they have a pleasant flavour with a nice crisp juicy texture. They can be eaten raw or cooked, I prefer them chopped up and added to a mixed salad. Incidently, there is an easy way of cleaning small and fiddly roots. You half fill a bucket with water, add a good quantity of dirt so that you have a nice muddy mixture. You then add all the roots that you want to wash and stir the mixture for a few minutes.

Then tip out the roots and rinse them - they will be lovely and clean, ready for use.

Tropaeolum tuberosum. This beautiful climbing plant is only hardy in the milder areas of the country, where it can reach a height of 6 ft or more. It flowers freely in late summer and then dies down with the first hard frosts in the autumn. It produces a number of edible tubers near the soil surface and can be quite heavy-yielding. In mild winter areas the tubers can be left in the ground (though it would be a good idea to mulch them), in colder areas they should be harvested and stored in much the same way as dahlias. The tubers are quite popular in S. America, but they are probably best described as an acquired taste. The rather peppery flavour is improved considerably if the tubers are cooked and then frozen before eating them. (You can warm them up again if you like!) We have also found that if the tubers are left in the ground and then harvested after being frosted the flavour is much nicer. The tuber is considered by people in the Andes to lower the sex-drive and many men refuse to eat it, whilst recommending it for women! Clinical trials have indicated a reduction of up to 45% in some male hormones when the tuber forms a considerable part of the diet, but no loss in fertility has been observed. The growing plant is very resistant to diseases and insects, it contains nematocidal, bactericidal and insecticidal compounds. The main problem with growing this plant in Britain is that the tubers are not formed until the shorter days of autumn and if you get an early frost then yields can be very low. The cultivar Ken Aslett is probably the best form available in this country, it comes into flower earlier and produces larger tubers than the species type.

Typha latifolia. Our native REEDMACE is potentially one of the most productive rootcrops that can be grown. Not only that, its native habitat is marshy ground and shallow water where it makes a superb wild-life habitat. Thus instead of destroying valuable habitats by draining our wetlands in order to grow more wheat that is then used to build the huge grain mountains in Europe, we could be growing this plant with a lot less work and getting higher yields into the bargain. The root can be eaten raw or cooked. It can be boiled and eaten like potatoes or macerated and boiled to yield a sweet syrup. The root can also be dried, ground into a flour and then used as a thickener in soups etc or added to cereal flours. Rich in protein, this flour is used to make biscuits etc. Yields of 3 tonnes of flour per acre are possible, which compares very favourably with wheat. The plant also has many other edible and non-edible uses which I will not enumerate here - ask us for a fact-sheet on these species if you would like more details. T. angustifolia is a closely related native plant with the same uses.

More comprehensive information can be supplied on any of the above species if it is required, we can also often supply these plant - please ask us for our latest catalogue. All information is supplied on a donations basis that should at least cover our costs (10p per species plus postage) whilst there is a fixed charge for plants.

Plants For A Future is a non-profit making resource centre supplying information on useful plants and where possible supplying the plants themselves. All plants are grown without the use of artificial fertilizers, sprays or animal products (vegan-organic).

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For more information contact: Plants For A Future, The Field, Penpol, Lostwithiel, Cornwall, PL22 ONG. Tel. Bodmin (01208) 873554

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Readers Comments:

Alternative Root Crops.

Unknown Mon Jan 24 17:49:33 2000

Do you know of any really good future foods websites??? I need to know them right now! I am doing research on them. Thanks

Add a Follow up to this comment

Alternative Root Crops.

Nathan Phillips (slrr1@cc.usu.edu) Wed Jun 27 22:55:02 2001

I am currently doing research with Yampah (Perideridia gairdneri), and Indian Potato. I would love to talk about these plants with anyone interested. email me at slrr1@cc.usu.edu

This comment has also been added to: Perideridia gairdneri.

Add a Follow up to this comment

Alternative Root Crops.

() Mon Jul 23 02:05:33 2001

Do you sell tubers of apios americana (american groundnuts)? I am interested in this wild plant. Please contact me at Ivycyy@eden.rutgers.edu Thank you.

Add a Follow up to this comment

American groundnuts (apios americana)

ivy Mon Jul 23 02:41:52 2001

I am interested in a herb named American groundnuts (apios americana). It also called wild patato or wild bean. The tubers of this plant has a very delicious taste. Do you have tubers of this plant for sale. Please contact me at tuantuanchu@usa.net. Thank you!

This comment has also been added to: Apios americana.

Add a Follow up to this comment

Alternative Root Crops.

Steve Bell (sbell@resbalosa.com) Tue Aug 28 17:58:51 2001

I'm doing research on tropical root crops. Please send me interesting links. Including but not limited to, Colacasias, Alocasias,Manihot.

Details of Growing Condition: Tropical.

This comment has also been added to the genera: Colacasias , Alocasias , Manihot.

Add a Follow up to this comment

Alternative Root Crops.

() Tue Nov 20 15:25:42 2001

You can order apios from Future Foods, www.futurefoods.com. This is a marvellous little company, I have bought from them for years. their catalogs are a little work of art, in my opinion. the apios is the nicest tasting of the various alternative roots I grow (yacon, mashua, oca, Jer. arti) and I can't wait till I have more of them next year. Love, success, Annemieke Wigmore amjwigmore@yahoo.com

This comment has also been added to: Apios americana.

Add a Follow up to this comment

Alternative Root Crops.

Sue (whitekayak2002@yahoo.com) Mon Feb 11 00:35:19 2002

Has anyone tried to cultivate oca, mashua or yacon in a hot climate? I live on the coast of S. Carolina, USA, where it is often 90-98F (32C) or above during the day, and 75F (24C) at night. Will oca, mashua or yacon grow here? Thanks in advance for your comments.

This comment has also been added to: Oca, mashua, yacon.

Add a Follow up to this comment

Alternative Root Crops.

Ivan Viehoff (iviehoff@hotmail.com) Wed May 15 09:31:13 2002

Do you know what this vegetable is? In southern Bolivia around May/June time I regularly purchased a large root vegetable the locals called AKHIPA or similar. Because of its sweetness, it is classified a fruit, and eaten raw. The root is gently pointed, varying from as long as a fat parsnip to almost ball-shaped, often with some vertical indentations, typically around 150g to 400g in weight. The flesh is radish-white, shot with purple fibres, and bleeds a white starchy liquid when cut. The skin is grey and easily pulled off by hand. I found it sweet, tasty, and it helped settle a dodgy stomach. It had all been harvested when I was there, so I did not see the plant. The only field I identified was at about 3500m. There was plenty of it in Potosi, Uyuni and Tupiza. I found it with difficulty in Oruro. Stallholders claimed it is sometimes delivered to La Paz, but is not grown locally. They had never heard of it in Sucre or Cochabamba. Do you know what this is? Is it confined to Southern Bolivia, or is it found elsewhere, perhaps under a different name?

Add a Follow up to this comment

Alternative Root Crops.

Ioane Malaki (malaki__i@samoa.usp.ac.fj) Fri Jun 21 22:11:58 2002

Colocasia, Alocasia and Manihot are important staples in the South Pacific region as potato and rice are important in other regions of the world. Add Dioscorea to that list. Colocasia, Alocasia and Dioscorea are of particular importance in Samoa, Fiji, Tonga, Vanuatu, Solomon Is, Cook Is and Niue. Manihot is not a staple in Samoa, Cook Is and Niue.

Link: www.usp.ac.fj University of the South Pacific

Details of Growing Condition: South Pacific region, Pacific Ocean, Tropical, Volcanic Soils (Loamy), Wet and Dry Seasons.

This comment has also been added to the genera: Colocasia , Alocasia , Manihot , Dioscorea , Xanthosoma , Cyrtosperma .

Add a Follow up to this comment

Brenner's Experience on Growing Yacons

Brenner (webmaster@pfaf.org) Wed Oct 23 17:56:13 2002

This article originally appeared in the Jan 1998 edition of the Friends of PFAF newsletter.

What can I say about this plant? I grew some last year in tubs in the garden (because of an impending move) and I was constantly asked if they were Triffids!

The Yacon, I believe, comes from South America. It is a tuberous plant topped by enormous leaves (in fact, although the leaves have a different shape the span is similar to rhubarb), the stems etc. are quite hairy. The tubers, when harvested, weighed in at 14lbs (6.3 kilos) and that from just 3 plants. Had I been able to grow them in the ground then I am sure that the yields would have been even higher! The overall yields were very good, better than I have ever done with potatoes. I did make sure the plants were kept well watered and once a week gave them a liquid feed of either comfrey or diluted urine.

The top growth was cut down by the first heavy frosts of the autumn, and this would have been the best time to harvest the tubers. However, at this time I was busy moving home and so the plants were left in the tubs until January. Most of the tubers were a very good size and in good condition. They have stored well and I am still eating them now (late March). In fact, I felt that they kept better by being left in the pots and certainly the small top tubers (the ones that are used to grow the following year’s plants) were already sprouting when the plants were dug up. In the previous year all my top tubers had rotted away whilst in store.

I am planting these small tubers in pots at the moment and have managed to get 10 - 12 plants from each plant I grew last year.

Yacons are delicious to eat either raw or cooked. They are crisp and juicy with a lovely sweetness, in fact they are much more like a fruit than a root crop. I like to peel them thinly (this peel is rather aromatic and I am not too keen on it) and then cut them into thin slices and add them to salads just before serving. The tubers tend to pick up the flavours of foods they are cooked with and I find their crunchy texture goes very well in a stir fry. They go well with avocado pears and a squeeze of lemon and I like adding them to a tomato and basil salad where they add a nice crunch.

I could go on about ways to eat it, but you must suit yourselves. I’m told that you can boil and bake them, though I have never tried them this way. Stir-frying with ginger, garlic, onions and mushrooms, plus some mustard and stock with a nut crumble topping is gorgeous.

I must stop now or I’ll get totally carried away and there won’t be room for anything else in this newsletter. Next time I write it will be a diary on my almost virgin garden and my plans, along with a recipe using PFAF perennial plants. Until next time.

Brenner

This comment has also been added to: Polymnia edulis.

Add a Follow up to this comment

Alternative Root Crops.

bobkemp (bobkemp@hydro-cleansing.com) Tue May 13 09:25:33 2003

Do you know where I can buy Typha Latifolia (or any of the larger Bullrush's) rhyzomes?

Add a Follow up to this comment

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All Comments on web pages and plants.

Back to Plants For A Future home page.

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Last modified: Sep 8, 1995

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Alternative Root Crops.*

Subject:

Alternative Root Crops.

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

altroots.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:35:02 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Perideridia gairdneri

Common name:	Yampa	Family:	Umbelliferae
Author:	(Hook. & Arn.) Mathias.	Botanical references:	60
Synonyms:	Carum gairdneri ((Hook. & Arn.) Gray.)		
Known Hazards:	None known		
Range:	Western N. America - Saskatchewan to California.		
Habitat:	Woodland, dry and wet meadows and mountains[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Atenia gairdneri[G] P. gairdneri ssp. gairdneri[B,SANDIEGO,C,CAL,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Yampah [B], Gairdner's Yampah [P], Yampa [P], Yampah [S],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Us(Blackfoot)

Physical Characteristics

Perennial growing to 1.2m. . It is in flower from April to May, and the seeds ripen from May to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves; Root.

Root - raw or cooked[60, 61]. A pleasant sweet and nutty taste[2, 46, 95, 161], it can be eaten in quantity as a staple food[183]. It is best used when the plant is dormant[85]. The root can also be dried for later use or ground into a powder and used with cereals when making porridges, cakes etc[183].

The seed is used as a caraway-like seasoning, or can be parched and eaten in porridge or used as piñole[85, 177, 183, 257].

Young leaves - raw or cooked[257].

Medicinal Uses

Disclaimer

Carminative; Diuretic; Laxative; Ophthalmic; Pectoral; Salve.

The root is carminative, diuretic, mildly laxative and ophthalmic[94, 257]. An infusion of the roots has been taken to counter the cathartic and emetic effects of another infusion[257]. An infusion of the roots has been applied as a wash to sores and wounds and also used as a nasal wash to get rid of catarrh[257]. A poultice of the roots has been used to draw inflammation from swellings[257].

The juice of the slowly chewed root is said to be beneficial in the treatment of sore throats and coughs[213, 257].

Other Uses

None known

Cultivation details

We have very little information on the cultivation needs of this plant and do not know if it will be hardy in Britain. Judging by its native range it is likely to succeed outdoors in most parts of the country. From its native habitat it is assumed that the plant is fairly tolerant of soil conditions and of sun or shade.

Yampa is a marvellous food plant that has been widely used as a staple wild food by native N. American Indians. It is just asking for cultivation in order to improve the root size[85].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe. Alternatively, sow it in early spring in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter, planting out in late spring of the following year.

Division may be possible in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Root Crops.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Perideridia gairdneri ssp. gairdneri* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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See the PFAF Links Pages for other sources

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References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
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Readers Comments

Alternative Root Crops.

Nathan Phillips Wed Jun 27 22:55:02 2001

I am currently doing research with Yampah (Perideridia gairdneri), and Indian Potato. I would love to talk about these plants with anyone interested. email me at slrr1@cc.usu.edu

Cross references: *Web-pages: Alternative Root Crops.*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Perideridia+gairdneri`
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Plants For A Future: Database Search Results

Perideridia gairdneri

Common name:	Yampa	Family:	Umbelliferae
Author:	(Hook. & Arn.) Mathias.	Botanical references:	60
Synonyms:	Carum gairdneri ((Hook. & Arn.) Gray.)		
Known Hazards:	None known		
Range:	Western N. America - Saskatchewan to California.		
Habitat:	Woodland, dry and wet meadows and mountains[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Atenia gairdneri[G] P. gairdneri ssp. gairdneri[B,SANDIEGO,C,CAL,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Yampah [B], Gairdner's Yampah [P], Yampa [P], Yampah [S],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Us(Blackfoot)

Physical Characteristics

Perennial growing to 1.2m. . It is in flower from April to May, and the seeds ripen from May to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves; Root.

Root - raw or cooked[60, 61]. A pleasant sweet and nutty taste[2, 46, 95, 161], it can be eaten in quantity as a staple food[183]. It is best used when the plant is dormant[85]. The root can also be dried for later use or ground into a powder and used with cereals when making porridges, cakes etc[183].

The seed is used as a caraway-like seasoning, or can be parched and eaten in porridge or used as piñole[85, 177, 183, 257].

Young leaves - raw or cooked[257].

Medicinal Uses

Disclaimer

Carminative; Diuretic; Laxative; Ophthalmic; Pectoral; Salve.

The root is carminative, diuretic, mildly laxative and ophthalmic[94, 257]. An infusion of the roots has been taken to counter the cathartic and emetic effects of another infusion[257]. An infusion of the roots has been applied as a wash to sores and wounds and also used as a nasal wash to get rid of catarrh[257]. A poultice of the roots has been used to draw inflammation from swellings[257].

The juice of the slowly chewed root is said to be beneficial in the treatment of sore throats and coughs[213, 257].

Other Uses

None known

Cultivation details

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Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe. Alternatively, sow it in early spring in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter, planting out in late spring of the following year.

Division may be possible in spring or autumn.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Cross references: *Web-pages: Alternative Root Crops.*.

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Plants For A Future: Database Search Results

Perideridia gairdneri

Common name:	Yampa	Family:	Umbelliferae
Author:	(Hook. & Arn.) Mathias.	Botanical references:	60
Synonyms:	Carum gairdneri ((Hook. & Arn.) Gray.)		
Known Hazards:	None known		
Range:	Western N. America - Saskatchewan to California.		
Habitat:	Woodland, dry and wet meadows and mountains[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Atenia gairdneri[G] P. gairdneri ssp. gairdneri[B,SANDIEGO,C,CAL,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Yampah [B], Gairdner's Yampah [P], Yampa [P], Yampah [S],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Us(Blackfoot)

Physical Characteristics

Perennial growing to 1.2m. . It is in flower from April to May, and the seeds ripen from May to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves; Root.

Root - raw or cooked[60, 61]. A pleasant sweet and nutty taste[2, 46, 95, 161], it can be eaten in quantity as a staple food[183]. It is best used when the plant is dormant[85]. The root can also be dried for later use or ground into a powder and used with cereals when making porridges, cakes etc[183].

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The juice of the slowly chewed root is said to be beneficial in the treatment of sore throats and coughs[213, 257].

Other Uses

None known

Cultivation details

We have very little information on the cultivation needs of this plant and do not know if it will be hardy in Britain. Judging by its native range it is likely to succeed outdoors in most parts of the country. From its native habitat it is assumed that the plant is fairly tolerant of soil conditions and of sun or shade.

Yampa is a marvellous food plant that has been widely used as a staple wild food by native N. American Indians. It is just asking for cultivation in order to improve the root size[85].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe. Alternatively, sow it in early spring in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter, planting out in late spring of the following year.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Perideridia gairdneri*

Subject:

Perideridia gairdneri

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Perideridia gairdneri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Add a comment on: *Alternative Root Crops.*

Subject:

Alternative Root Crops.

Group:

Comments on Web-Pages

Comment:

Enter your comment about this plant here.

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Name of Site:

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Perideridia gairdneri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

altroots.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Apios americana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Ground nut	Family:	Leguminosae
Author:	Medik.	Botanical references:	43, 200
Synonyms:	Apios tuberosa (Moench.)		
Known Hazards:	None known		
Range:	N. America - Pennsylvania. Occasionally naturalized in S. Europe[50].		
Habitat:	Usually found in low damp bottomland or riparian woods and thickets, it is also often found round ancient Indian campsites[43, 62, 269].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. americana var. turrigera[B,P] Glycine apios[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Earthnut [E], Groundnut [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 1.2m. It is hardy to zone 3. It is in leaf from April to November, in flower from June to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Cultivar **'LA85 Series'**: Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root; Seed; Seedpod.

Tuber - raw or cooked[1, 2, 27, 55, 62, 63]. A delicious flavour somewhat like roasted sweet potatoes, it always receives very high marks in taste trials with us[K]. The tuber can also be dried and ground into a powder then used as a thickening in soups etc or can be added to cereal flours when making bread[132, 257]. Tubers contain 17% crude protein, this is more than 3 times that found in potatoes[183]. The tubers can be harvested in their first year but they take 2 - 3 years to become a sizeable crop[160]. They can be harvested at any time of the year but are at their best in the autumn[160]. The tubers can also be harvested in the autumn and will store until at least the spring[K]. Yields of 2.3 kilos of tubers per plant have been achieved[222].

Seed - cooked[62]. Rather small and not produced very freely[K], they are used like peas and beans[183, 213]. A good source of protein, they can be ground into a powder and added to cereals when making bread etc[257].

Young seedpods[55, 62, 95, 177].

Composition

Root (Fresh weight)

In grammes per 100g weight of food:
Protein: 17

Medicinal Uses

Disclaimer

The tubers were used in folk remedies for that cancerous condition known as "Proud Flesh" in New England. Nuts were boiled and made into a plaster, "For to eat out the proud flesh they (the Indians) take a kind of earth nut boyled and stamped"[269].

Other Uses

Latex.

There is one report that the plant contains a latex which could be used in the production of rubber[269].

Cultivation details

Prefers a light rich soil and a sunny position[1, 27]. When grown in a warm dry situation in a well-drained sandy soil, the plants will be long lived with the tuberous roots increasing in size and number each year[245]. Another report says that the plant prefers light dappled shade[200]. It tolerates acid soils[160]. Dislikes windy situations[K].

Groundnut is reported to tolerate an annual precipitation in the range of 97 to 117cm, an average annual temperature range of 9.9 to 20.3°C and a pH in the range of 4.5 to 7.0[269]. It tolerates a range of climatic conditions and produces well in cool temperate zones as well as the subtropical conditions of South Florida[269].

Whilst most reports suggest that this species should be cold hardy in all parts of Britain, one report says that the plants may require protection in severe winters[134].

The groundnut has occasionally been cultivated for its edible root and has the potential to become a commercial crop[95, 183]. Cultivars have been selected in the past for higher yields and larger tubers, it is said that the yields from some of these cultivars can rival potato crops[95, 183]. Some of these cultivars are gradually becoming available in Britain[K]. The best yields are obtained when the plant is left in the ground for at least two growing seasons. Yields of 30 tonnes per hectare have been achieved from weed crops growing in a field of cranberries[269].

This species has been grown in the past in S. Europe[46, 50] and has been suggested as a nitrogen-fixing edible ornamental for permaculturalists[222]. The plant forms long thin roots which enlarge at intervals along their length to form the tubers, the effect is somewhat like a necklace[K].

Plants can be invasive once they are established[200] and have become a weed of cultivated cranberry crops in N. America[269].

A climbing plant, twining around the thin branches of other plants for support[K]. The flowers have a scent of violets[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak for 3 hours in tepid water and sow February/March in a cold frame. The seed usually germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for their first winter, planting them out in late spring or early summer.

Division can be carried out at almost any time of the year, though spring is probably the best time. Simply dig up the roots, harvest the tubers and replant them where you want the plants to grow. It is also possible to harvest the tuber in winter, store them in a cool fairly dry but frost-free place over the winter and then plant them out in the spring. The tubers lose moisture rapidly once they have been harvested, so make sure that you store them in a damp medium such as leafmold.

Scent

Flowers: Fresh

> The flowers have a scent of violets.

Cultivars

'LA85 Series'

> There has been considerable research at Louisiana State University into the potential of this plant as a commercial root crop. There are several cultivars that might be released for trial soon (this entry is dated 1990)[183].

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Readers Comments

American groundnuts (apios americana)

ivy Mon Jul 23 02:41:52 2001

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Cross references: *Web-pages: Alternative Root Crops.*.

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Tue Nov 20 15:25:42 2001

You can order apios from Future Foods, www.futurefoods.com. This is a marvellous little company, I have bought from them for years. their catalogs are a little work of art, in my opinion. the apios is the nicest tasting of the various alternative roots I grow (yacon, mashua, oca, Jer. arti) and I can't wait till I have more of them next year. Love, success, Annemieke Wigmore amjwigmore@yahoo.com

Cross references: *Web-pages:* *Alternative Root Crops.*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Apios americana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Ground nut	Family:	Leguminosae
Author:	Medik.	Botanical references:	43, 200
Synonyms:	Apios tuberosa (Moench.)		
Known Hazards:	None known		
Range:	N. America - Pennsylvania. Occasionally naturalized in S. Europe[50].		
Habitat:	Usually found in low damp bottomland or riparian woods and thickets, it is also often found round ancient Indian campsites[43, 62, 269].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. americana var. turrigera[B,P] Glycine apios[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Perennial growing to 1.2m. It is hardy to zone 3. It is in leaf from April to November, in flower from June to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in

semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Cultivar **'LA85 Series'**: Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root; Seed; Seedpod.

Tuber - raw or cooked[1, 2, 27, 55, 62, 63]. A delicious flavour somewhat like roasted sweet potatoes, it always receives very high marks in taste trials with us[K]. The tuber can also be dried and ground into a powder then used as a thickening in soups etc or can be added to cereal flours when making bread[132, 257]. Tubers contain 17% crude protein, this is more than 3 times that found in potatoes[183]. The tubers can be harvested in their first year but they take 2 - 3 years to become a sizeable crop[160]. They can be harvested at any time of the year but are at their best in the autumn[160]. The tubers can also be harvested in the autumn and will store until at least the spring[K]. Yields of 2.3 kilos of tubers per plant have been achieved[222].

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In grammes per 100g weight of food:
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Disclaimer

The tubers were used in folk remedies for that cancerous condition known as "Proud Flesh" in New England. Nuts were boiled and made into a plaster, "For to eat out the proud flesh they (the Indians) take a kind of earth nut boyled and stamped"[269].

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Scent

Flowers: Fresh

> The flowers have a scent of violets.

Cultivars

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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A photo of this plant will appear in the forthcoming CD-ROM.

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Author:	Medik.	Botanical references:	43, 200
Synonyms:	Apios tuberosa (Moench.)		
Known Hazards:	None known		
Range:	N. America - Pennsylvania. Occasionally naturalized in S. Europe[50].		
Habitat:	Usually found in low damp bottomland or riparian woods and thickets, it is also often found round ancient Indian campsites[43, 62, 269].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
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Physical Characteristics

Perennial growing to 1.2m. It is hardy to zone 3. It is in leaf from April to November, in flower from June to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in

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Cultivar **'LA85 Series'**: Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root; Seed; Seedpod.

Tuber - raw or cooked[1, 2, 27, 55, 62, 63]. A delicious flavour somewhat like roasted sweet potatoes, it always receives very high marks in taste trials with us[K]. The tuber can also be dried and ground into a powder then used as a thickening in soups etc or can be added to cereal flours when making bread[132, 257]. Tubers contain 17% crude protein, this is more than 3 times that found in potatoes[183]. The tubers can be harvested in their first year but they take 2 - 3 years to become a sizeable crop[160]. They can be harvested at any time of the year but are at their best in the autumn[160]. The tubers can also be harvested in the autumn and will store until at least the spring[K]. Yields of 2.3 kilos of tubers per plant have been achieved[222].

Seed - cooked[62]. Rather small and not produced very freely[K], they are used like peas and beans[183, 213]. A good source of protein, they can be ground into a powder and added to cereals when making bread etc[257].

Young seedpods[55, 62, 95, 177].

Composition

Root (Fresh weight)

In grammes per 100g weight of food:
Protein: 17

Medicinal Uses

Disclaimer

The tubers were used in folk remedies for that cancerous condition known as "Proud Flesh" in New England. Nuts were boiled and made into a plaster, "For to eat out the proud flesh they (the Indians) take a kind of earth nut boyled and stamped"[269].

Other Uses

Latex.

There is one report that the plant contains a latex which could be used in the production of rubber[269].

Cultivation details

Prefers a light rich soil and a sunny position[1, 27]. When grown in a warm dry situation in a well-drained sandy soil, the plants will be long lived with the tuberous roots increasing in size and number each year[245]. Another report says that the plant prefers light dappled shade[200]. It tolerates acid soils[160]. Dislikes windy situations[K].

Groundnut is reported to tolerate an annual precipitation in the range of 97 to 117cm, an average annual temperature range of 9.9 to 20.3°C and a pH in the range of 4.5 to 7.0[269]. It tolerates a range of climatic conditions and produces well in cool temperate zones as well as the subtropical conditions of South Florida[269].

Whilst most reports suggest that this species should be cold hardy in all parts of Britain, one report says that the plants may require protection in severe winters[134].

The groundnut has occasionally been cultivated for its edible root and has the potential to become a commercial crop[95, 183]. Cultivars have been selected in the past for higher yields and larger tubers, it is said that the yields from some of these cultivars can rival potato crops[95, 183]. Some of these cultivars are gradually becoming available in Britain[K]. The best yields are obtained when the plant is left in the ground for at least two growing seasons. Yields of 30 tonnes per hectare have been achieved from weed crops growing in a field of cranberries[269].

This species has been grown in the past in S. Europe[46, 50] and has been suggested as a nitrogen-fixing edible ornamental for permaculturalists[222]. The plant forms long thin roots which enlarge at intervals along their length to form the tubers, the effect is somewhat like a necklace[K].

Plants can be invasive once they are established[200] and have become a weed of cultivated cranberry crops in N. America[269].

A climbing plant, twining around the thin branches of other plants for support[K]. The flowers have a scent of violets[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak for 3 hours in tepid water and sow February/March in a cold frame. The seed usually germinates in 1 - 3 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for their first winter, planting them out in late spring or early summer.

Division can be carried out at almost any time of the year, though spring is probably the best time. Simply dig up the roots, harvest the tubers and replant them where you want the plants to grow. It is also possible to harvest the tuber in winter, store them in a cool fairly dry but frost-free place over the winter and then plant them out in the spring. The tubers lose moisture rapidly once they have been harvested, so make sure that you store them in a damp medium such as leafmold.

Scent

Flowers: Fresh

> The flowers have a scent of violets.

Cultivars

'LA85 Series'

> There has been considerable research at Louisiana State University into the potential of this plant as a commercial root crop. There are several cultivars that might be released for trial soon (this entry is dated 1990)[183].

Suppliers

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Apios americana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Apios americana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Subject:

American groundnuts (apios americana)

Group:
Comments on Web-Pages

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Search for Latin Name: Colacasias

New Search: Colacasias Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Colacasias

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Colacasias	
Common Name		
Family		
Rating	1	5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Alocasias

New Search: Alocasias Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Alocasias

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Alocasias	
Common Name		
Family		
Rating	1	5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Manihot

New Search: Manihot Search

Latin Name	**Common Name**	**Family**	**Synonyms**	**Rating**
Abelmoschus manihot	Aibika	Malvaceae	Hibiscus manihot.; Hibiscus manihot	2

New Search

Latin Name	Manihot
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Abelmoschus manihot

Common name:	Aibika	Family:	Malvaceae
Author:	(L.) Medik.	Botanical references:	200
Synonyms:	Hibiscus manihot (L.)		
Known Hazards:	None known		
Range:	E. Asia - South-eastern Asia to Northern Australia.		
Habitat:	Wasteland and humid rocky hillsides[260].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Huang Shu K'Uei Ken [E], Kastuli [E], Sunset Muskmallow [P], Tororo-Aoi [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	China; India; Japan; Philippines; Philippines(Tagalog)

Physical Characteristics

Perennial growing to 2m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It

requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Leaves.

Young leaves - raw or cooked[183, 200]. Sweet and mucilaginous[183].

Flower buds - raw or cooked[183].

Medicinal Uses

Disclaimer

Emmenagogue.

The bark is said to be emmenagogue[240].

Other Uses

None known

Cultivation details

Easily grown in any well-drained soil in a sunny position[200].

Plants will tolerate occasional short-lived lows down to about -5°c so long as they are in a very well-drained soil[260].

A perennial plant, it is generally tender in the temperate zone but can be grown outdoors as an annual, flowering well in its first year and setting seed[200, K]. Plants will occasionally overwinter in a cold greenhouse[K]. It grows well in an ornamental vegetable garden[200].

Propagation

Seed - sow March in a warm greenhouse. The seed should germinate with two weeks, when it is large enough to handle prick it out into individual pots and plant out after the last expected frosts.

The seed can also be sown in situ in late April in areas with warm summers.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Hibiscus manihot* (a possible synonym).

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Malvaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Plants For A Future: Database Search Results

Abelmoschus manihot

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Author:	(L.) Medik.	Botanical references:	200
Synonyms:	Hibiscus manihot (L.)		
Known Hazards:	None known		
Range:	E. Asia - South-eastern Asia to Northern Australia.		
Habitat:	Wasteland and humid rocky hillsides[260].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Huang Shu K'Uei Ken [E], Kastuli [E], Sunset Muskmallow [P], Tororo-Aoi [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	China; India; Japan; Philippines; Philippines(Tagalog)

Physical Characteristics

Perennial growing to 2m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

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Perennial growing to 2m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Leaves.

Young leaves - raw or cooked[183, 200]. Sweet and mucilaginous[183].

Flower buds - raw or cooked[183].

Medicinal Uses

Disclaimer

Emmenagogue.

The bark is said to be emmenagogue[240].

Other Uses

None known

Cultivation details

Easily grown in any well-drained soil in a sunny position[200].

Plants will tolerate occasional short-lived lows down to about -5°c so long as they are in a very well-drained soil[260].

A perennial plant, it is generally tender in the temperate zone but can be grown outdoors as an annual, flowering well in its first year and setting seed[200, K]. Plants will occasionally overwinter in a cold greenhouse[K]. It grows well in an ornamental vegetable garden[200].

Propagation

Seed - sow March in a warm greenhouse. The seed should germinate with two weeks, when it is large enough to handle prick it out into individual pots and plant out after the last expected frosts.

The seed can also be sown in situ in late April in areas with warm summers.

Suppliers

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Subject:

Abelmoschus manihot

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Plant Genera you would like this comment to be added to:

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Subject:

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Group:
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Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Colacasias Alocasias Manihot

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

altroots.html

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Subject:

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Group:
Comments on Web-Pages

Comment:

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Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Apios americana

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Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

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Could not find Oca, mashua, yacon
email webmaster@pfaf.org to report bugs.

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Alternative Root Crops.

Group:
Comments on Web-Pages

Comment:

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Plant names you would like this comment to be added to:

Oca, mashua, yacon

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Plant Genera you would like this comment to be added to:

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Pages in the PFAF site you would like this comment to be added to:

altroots.html

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Search for Latin Name: Colocasia

New Search: Colocasia Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Colocasia

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Colocasia	
Common Name		
Family		
Rating	1	5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Alocasia

New Search: Alocasia Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Alocasia

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Alocasia
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Dioscorea

New Search: Dioscorea Search

Latin Name	**Common Name**	**Family**	**Synonyms**	**Rating**
Dioscorea batatas	Chinese yam	Dioscoreaceae	D. divaricata. D. opposita. Thunb.; Dioscorea opposita; Dioscorea polystachya; D. oppositifolia	5
Dioscorea deltoidea		Dioscoreaceae		2
Dioscorea japonica	Glutinous yam	Dioscoreaceae		4
Dioscorea kamoonensis		Dioscoreaceae	Dioscorea fargesii	2
Dioscorea tokoro		Dioscoreaceae	D. tokora	2
Dioscorea villosa	Wild yam	Dioscoreaceae	D. hirticaulis; D. villosa var. hirticaulis	2

New Search

Latin Name	Dioscorea
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Dioscorea batatas

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Chinese yam	Family:	Dioscoreaceae
Author:	Decne.	Botanical references:	200, 266
Synonyms:	Dioscorea opposita (Thunb.), Dioscorea polystachya (Turcz.)		
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174].		
Range:	Temperate E. Asia, though the exact range is not known.		
Habitat:	Found in an apparently wild situation in valleys and on the slopes of hills in China[147]. Prefers sunny slopes in the wild[254].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. oppositifolia[B,E,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Yam [B,P], Cinnamon Yam [H], Naga-Imo [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	China; India; India(Santal); Japan

Physical Characteristics

Perennial growing to 3m by 1.5m . It is hardy to zone 5. It is in flower from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Fruit; Root.

Tuber - cooked[1, 46, 61, 105]. A floury texture[27] with a very pleasant flavour that is rather like a potato[K]. The tubers can be boiled, baked, fried, mashed, grated and added to soups[183]. They store well and for a long time[27, 37] and can also be left in the ground and harvested as required in the winter[K]. This is a top quality root crop, very suitable for use as a staple food[K]. An arrowroot can be extracted from the root[46], though this is not as good at binding other foods as the starch from D. japonica[183]. The root contains about 20% starch. 75% water, 0.1% vitamin B1, 10 - 15 mg% vitamin C[174].

Fruit. A starchy flavour, it is said to be very good for the health[206]. We wonder if this report is referring to the tubercles[K].

Medicinal Uses

Disclaimer

Anthelmintic; Antidote; Contraceptive; Digestive; Miscellany.

The Chinese yam, called Shan Yao in Chinese herbalism, is a sweet soothing herb that stimulates the stomach and spleen and has a tonic effect on the lungs and kidneys[238]. The tuber contains allantoin, a cell-proliferant that speeds the healing process[238]. The root is an ingredient of "The herb of eight ingredients", traditionally prescribed in Chinese herbalism to treat hyperthyroidism, nephritis and diabetes[254].

The tuber is anthelmintic, digestive and gently tonic[116, 147, 218, 254]. It is used internally in the treatment of tiredness, weight loss, poor appetite, poor digestion, chronic diarrhoea, asthma, dry coughs, frequent or uncontrollable urination, diabetes and emotional instability[238]. It is applied externally to ulcers, boils and abscesses[218, 238]. The tubers are harvested in the autumn and can be used raw or baked[238].

The leaf juice is used to treat snakebites and scorpion stings[218].

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in a fertile well-drained soil in a sunny position or light shade[27, 37, 200], though it is best in full sun[160].

Plants are hardy to at least -18°c[160].

This species of yam is much cultivated in China for its edible root which can be up to 1 metre long[1]. It has a great potential to be a commercial crop in Britain, though a satisfactory method of harvesting the root needs to be found[K]. Plants take 3 - 4 years to reach full maturity[160], though one year roots of well grown plants can weigh more than 500g. There are many cultivated forms with different root shapes in China and Japan[174].

The yam is a climbing plant that supports itself by twining around the branches of other plants[219]. It can be grown successfully into small bushes or, perhaps simpler when being grown as a root crop, it can be grown up a frame in a similar manner to growing runner beans[K].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

The small white flowers have a pleasant scent of cinnamon[219].

There is some confusion over the correct name for this species. One report says that D. batatas is an invalid name that is often erroneously applied to two distinct species D. opposita and D. japonica[218]. The Flora of China accepts D. batatas as a synonym for D. polystachya[266].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in an unheated greenhouse or cold frame, covering them with about 10mm of soil. Protect them from mice etc and keep the soil moist but not wet. They should come into growth in the spring, plant them out in early summer when in active growth[K].

Scent

Flowers: Fresh

> The small white flowers have a pleasant scent of cinnamon.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative Food Crops
- Alternative Root Crops.
- PFAF Catalogue: Checklist of plants
- PFAF - Dioscorea batatas, The Hardy Yam
- PFAF Plant Catalogue (D-E)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Dioscorea divaricata* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Dioscorea oppositifolia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Dioscoreaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[175] **Bird. R. (Editor)** *Focus on Plants. Volume 5. (formerly 'Growing from seed')* Thompson and Morgan. 1991
Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

Plants

Roderick Rugg Thu Jun 14 19:52:23 2001

Thanks for the site about plants. Plants are nice. What you call leaflets, I call leaves, and I think they are the prettiest part of the plant. One time I fell down three flights of stairs. I rubbed the hardy yam all over my back and ankles and it really did the trick. Then I ate the yams for a double dose of energy. It was amazing. I was walking again in a matter of months.

Dioscorea batatas

Maarten Warndorff Thu Dec 5 04:52:25 2002

I attach a site which contains a number of links to good sources of information on Chinese Yam. Having looked at many sites, it appears there is quite some confusion about the names. I am not sure if D.esculenta is a synonym for D. batatas. Nor is it clear to me whether the D batatas or D opposita which is the one used for medicinal purposes in China is also the same as the variety used for culinary purposes in China. Thank you for your excellent website and thorough information (though I did not yet find the answer to my question...).

Link: the Plant Sciences Group of Central Queensland Universit

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Dioscorea+batatas`

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Plants For A Future: Database Search Results

Dioscorea batatas

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Chinese yam	Family:	Dioscoreaceae
Author:	Decne.	Botanical references:	200, 266
Synonyms:	Dioscorea opposita (Thunb.), Dioscorea polystachya (Turcz.)		
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174].		
Range:	Temperate E. Asia, though the exact range is not known.		
Habitat:	Found in an apparently wild situation in valleys and on the slopes of hills in China[147]. Prefers sunny slopes in the wild[254].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. oppositifolia[B,E,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Yam [B,P], Cinnamon Yam [H], Naga-Imo [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	China; India; India(Santal); Japan

Physical Characteristics

Perennial growing to 3m by 1.5m . It is hardy to zone 5. It is in flower from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Fruit; Root.

Tuber - cooked[1, 46, 61, 105]. A floury texture[27] with a very pleasant flavour that is rather like a potato[K]. The tubers can be boiled, baked, fried, mashed, grated and added to soups[183]. They store well and for a long time[27, 37] and can also be left in the ground and harvested as required in the winter[K]. This is a top quality root crop, very suitable for use as a staple food[K]. An arrowroot can be extracted from the root[46], though this is not as good at binding other foods as the starch from D. japonica[183]. The root contains about 20% starch. 75% water, 0.1% vitamin B1, 10 - 15 mg% vitamin C[174].

Fruit. A starchy flavour, it is said to be very good for the health[206]. We wonder if this report is referring to the tubercles[K].

Medicinal Uses

Disclaimer

Anthelmintic; Antidote; Contraceptive; Digestive; Miscellany.

The Chinese yam, called Shan Yao in Chinese herbalism, is a sweet soothing herb that stimulates the stomach and spleen and has a tonic effect on the lungs and kidneys[238]. The tuber contains allantoin, a cell-proliferant that speeds the healing process[238]. The root is an ingredient of "The herb of eight ingredients", traditionally prescribed in Chinese herbalism to treat hyperthyroidism, nephritis and diabetes[254].

The tuber is anthelmintic, digestive and gently tonic[116, 147, 218, 254]. It is used internally in the treatment of tiredness, weight loss, poor appetite, poor digestion, chronic diarrhoea, asthma, dry coughs, frequent or uncontrollable urination, diabetes and emotional instability[238]. It is applied externally to ulcers, boils and abscesses[218, 238]. The tubers are harvested in the autumn and can be used raw or baked[238].

The leaf juice is used to treat snakebites and scorpion stings[218].

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in a fertile well-drained soil in a sunny position or light shade[27, 37, 200], though it is best in full sun[160].

Plants are hardy to at least -18°c[160].

This species of yam is much cultivated in China for its edible root which can be up to 1 metre long[1]. It has a great potential to be a commercial crop in Britain, though a satisfactory method of harvesting the root needs to be found[K]. Plants take 3 - 4 years to reach full maturity[160], though one year roots of well grown plants can weigh more than 500g. There are many cultivated forms with different root shapes in China and Japan[174].

The yam is a climbing plant that supports itself by twining around the branches of other plants[219]. It can be grown successfully into small bushes or, perhaps simpler when being grown as a root crop, it can be grown up a frame in a similar manner to growing runner beans[K].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

The small white flowers have a pleasant scent of cinnamon[219].

There is some confusion over the correct name for this species. One report says that D. batatas is an invalid name that is often erroneously applied to two distinct species D. opposita and D. japonica[218]. The Flora of China accepts D. batatas as a synonym for D. polystachya[266].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in an unheated greenhouse or cold frame, covering them with about 10mm of soil. Protect them from mice etc and keep the soil moist but not wet. They should come into growth in the spring, plant them out in early summer when in active growth[K].

Scent

Flowers: Fresh

> The small white flowers have a pleasant scent of cinnamon.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Plant For A Future - Home Page
- Alternative Food Crops
- Alternative Root Crops.
- PFAF Catalogue: Checklist of plants
- PFAF - Dioscorea batatas, The Hardy Yam
- PFAF Plant Catalogue (D-E)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Dioscorea divaricata* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Dioscorea oppositifolia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Dioscoreaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959

An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[175] **Bird. R. (Editor)** *Focus on Plants. Volume 5. (formerly 'Growing from seed')* Thompson and Morgan. 1991
Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
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[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
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[266] *Flora of China* 1994
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Readers Comments

Plants

Roderick Rugg Thu Jun 14 19:52:23 2001

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Link: the Plant Sciences Group of Central Queensland Universit

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A resource centre for edible and other useful plants

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Plant Portrait - *Dioscorea batatas*

The Hardy Yam

This article originally appeared in the January 1997 issue of the Friends of PFAF newsletter.

Most people think of yams as being tropical plants, and therefore unsuitable for cultivation in this country. However, there are a very few species that come from temperate zones and will thrive here. This particular species comes from the mountains of northern Japan and can tolerate temperatures down to about -20°c - it can, therefore, be grown outdoors in most parts of the country.

The plant is a vigorous twining herbaceous climber. It can send out shoots up to 3 metres long each year and these will need supporting. You can grow it like runner beans up a frame or bamboo sticks. It is also possible that this plant will do well on a sunny woodland edge, allowing its shoots to scramble into the branches of shrubs. The main problem here is that harvesting the root is going to cause a lot of disturbance to the other plant roots.

This is a very easily grown plant that succeeds in most fertile well-drained soils. It prefers a position in full sun, though it will also succeed in semi-shade.

The edible root can be up to 1 metre long and weigh 2 kilos or more if it is grown in a good deep soil. It is the shape of a club, about as thick as an adult's finger at its top it thickens to be the size of their arm at its base. The main problem with this plant is harvesting it, you have to dig deep! Once you get it out, the root has a very nice flavour with a floury texture when baked, it is not as tasty as a sweet potato but is better than most yams and superior to potatoes. It makes an excellent staple food and, since yams are now becoming a more common food in Britain, it has a very good potential as a commercial crop here. What is needed is a simple method of harvesting the root.

The tubers can be boiled, baked, fried, mashed, grated and added to soups. They store well and for a long time, and can also be left in the ground and harvested as required in the winter. They contain about 20% starch. 75% water, 0.1% vitamin B1, 10 - 15 mg % vitamin C.

Because yams produce a very vertical root, it is possible to grow a number of plants very close to each other, perhaps at 20 - 30cm spacing. You also get a better overall yield if you leave the plants in the ground for two years. Exceedingly high yields are possible, certainly quite a bit higher than potatoes and with none of the disease problems associated with that plant.

Yam tubers are used medicinally in China and Japan. They are seen as a sweet soothing herb that stimulates the stomach and spleen and has a tonic effect on the lungs and kidneys. The tuber contains allantoin, a cell-proliferant that speeds the healing process. It is used internally in the treatment of poor appetite, chronic diarrhoea, asthma, dry coughs, frequent or uncontrollable urination, diabetes and emotional instability. It is applied externally to ulcers, boils and abscesses. The tubers are harvested in the autumn and can be used raw or baked.

Propagation is a simple matter. Cut off the top 15cm of the root (this is the thin bit, so it is less useful for eating), store it cool and dry for the winter and then replant it in early spring. Do not remove this top portion until you want to eat the yam, though, because it will store much better in one piece.

Yams also form tubercles in late summer and early autumn. These are pea-size swellings in the leaf axils and they fall off the plant when they are ripe. These tubercles are actually baby tubers and are an excellent way of propagating a quantity of the plants. Try and harvest them just before they are ready to fall from the plant and store them in a cool, frost-free place over the winter. Make sure they do not dry out. Pot them up into individual pots in early spring and plant them out when in active growth. They will form tubers about 500 grams in weight their first year, if left in the ground this can increase to 2 kilos or more in their second year.

We have been growing yams for a number of years and thoroughly enjoy eating the roots. The plants have not been entirely happy with us, however, because they do not like our windy site. However, as the tree shelter has increased over the past couple of years we have at last been able to increase our stocks and will be offering this plant in our catalogue in the spring of 1997. Quantities are strictly limited this year, though they should be much more widely available from the autumn. There are many named varieties in China and Japan, though these are not yet available in this country.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Dioscorea batatas, The Hardy Yam*

Subject:

Dioscorea batatas, The Hardy Yam

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

yam.html

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Plants For A Future: Database Search Results

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Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Fruit; Root.

Tuber - cooked[1, 46, 61, 105]. A floury texture[27] with a very pleasant flavour that is rather like a potato[K]. The tubers can be boiled, baked, fried, mashed, grated and added to soups[183]. They store well and for a long time[27, 37] and can also be left in the ground and harvested as required in the winter[K]. This is a top quality root crop, very suitable for use as a staple food[K]. An arrowroot can be extracted from the root[46], though this is not as good at binding other foods as the starch from D. japonica[183]. The root contains about 20% starch. 75% water, 0.1% vitamin B1, 10 - 15 mg% vitamin C[174].

Fruit. A starchy flavour, it is said to be very good for the health[206]. We wonder if this report is referring to the tubercles[K].

Medicinal Uses

Disclaimer

Anthelmintic; Antidote; Contraceptive; Digestive; Miscellany.

The Chinese yam, called Shan Yao in Chinese herbalism, is a sweet soothing herb that stimulates the stomach and spleen and has a tonic effect on the lungs and kidneys[238]. The tuber contains allantoin, a cell-proliferant that speeds the healing process[238]. The root is an ingredient of "The herb of eight ingredients", traditionally prescribed in Chinese herbalism to treat hyperthyroidism, nephritis and diabetes[254].

The tuber is anthelmintic, digestive and gently tonic[116, 147, 218, 254]. It is used internally in the treatment of tiredness, weight loss, poor appetite, poor digestion, chronic diarrhoea, asthma, dry coughs, frequent or uncontrollable urination, diabetes and emotional instability[238]. It is applied externally to ulcers, boils and abscesses[218, 238]. The tubers are harvested in the autumn and can be used raw or baked[238].

The leaf juice is used to treat snakebites and scorpion stings[218].

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in a fertile well-drained soil in a sunny position or light shade[27, 37, 200], though it is best in full sun[160].

Plants are hardy to at least -18°c[160].

This species of yam is much cultivated in China for its edible root which can be up to 1 metre long[1]. It has a great potential to be a commercial crop in Britain, though a satisfactory method of harvesting the root needs to be found[K]. Plants take 3 - 4 years to reach full maturity[160], though one year roots of well grown plants can weigh more than 500g. There are many cultivated forms with different root shapes in China and Japan[174].

The yam is a climbing plant that supports itself by twining around the branches of other plants[219]. It can be grown successfully into small bushes or, perhaps simpler when being grown as a root crop, it can be grown up a frame in a similar manner to growing runner beans[K].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

The small white flowers have a pleasant scent of cinnamon[219].

There is some confusion over the correct name for this species. One report says that D. batatas is an invalid name that is often erroneously applied to two distinct species D. opposita and D. japonica[218]. The Flora of China accepts D. batatas as a synonym for D. polystachya[266].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in an unheated greenhouse or cold frame, covering them with about 10mm of soil. Protect them from mice etc and keep the soil moist but not wet. They should come into growth in the spring, plant them out in early summer when in active growth[K].

Scent

Flowers: Fresh

> The small white flowers have a pleasant scent of cinnamon.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Dioscorea+batatas`
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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Dioscorea batatas*

Subject:

Dioscorea batatas

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dioscorea batatas

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Dioscorea deltoidea

Common name:		Family:	Dioscoreaceae
Author:	Wallich.	Botanical references:	266
Synonyms:			
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174].		
Range:	E. Asia - Himalayas from Kashmir and Punjab eastwards to Nepal and China.		
Habitat:	Forests and humus-rich soils, 1700 - 2800 metres in Kashmir[145]. Broad-leaved forests and scrub forests at elevations of 2000 - 3100 metres in western China[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	deltoidea = like Greek letter ,;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	India; Nepal

Physical Characteristics

Perennial Climber growing to 3m. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[2, 177]. Some caution is advised. See notes below on other uses of the root and above on toxicity.

Medicinal Uses

Disclaimer

Contraceptive; Miscellany.

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222]. The roots of this species contain an average of 4.8% diosgenin[240].

Other Uses

Parasiticide; Soap.

A soap is obtained from the tuber[145]. This soap is due to the presence of poisonous saponins in the root[240, K]. The soap is also used as a body wash to kill lice[145, 240].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. It is unlikely to succeed in any but the mildest areas. It is cultivated for its edible root in India[2]. The following notes are based on the general needs of the genus.

Easily grown in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

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Suppliers

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Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Dioscoreaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Dioscorea deltoidea

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Synonyms:			
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Range:	E. Asia - Himalayas from Kashmir and Punjab eastwards to Nepal and China.		
Habitat:	Forests and humus-rich soils, 1700 - 2800 metres in Kashmir[145]. Broad-leaved forests and scrub forests at elevations of 2000 - 3100 metres in western China[266].		
Plants For A Future Rating (1-5):	2		

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	deltoidea = like Greek letter ,;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	India; Nepal

Physical Characteristics

Perennial Climber growing to 3m. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[2, 177]. Some caution is advised. See notes below on other uses of the root and above on toxicity.

Medicinal Uses

Disclaimer

Contraceptive; Miscellany.

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Other Uses

Parasiticide; Soap.

A soap is obtained from the tuber[145]. This soap is due to the presence of poisonous saponins in the root[240, K]. The soap is also used as a body wash to kill lice[145, 240].

Cultivation details

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A climbing plant that supports itself by twining around the branches of other plants[219].

Dioecious. Male and female plants must be grown if seed is required.

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Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

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Root.

Tuber - cooked[2, 177]. Some caution is advised. See notes below on other uses of the root and above on toxicity.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Dioscorea deltoidea*

Subject:

Dioscorea deltoidea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dioscorea deltoidea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Dioscorea japonica

Common name:	Glutinous yam	Family:	Dioscoreaceae
Author:	Thunb.	Botanical references:	58, 266
Synonyms:			
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174].		
Range:	E. Asia - China, C. and S. Japan.		
Habitat:	Wooded foothills[58]. Mixed forests and margins, scrub forests, herb communities, mountain slopes, valleys, along rivers and streams, roadsides; 100 - 1200 metres[266].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Yam [H], Huang Tu [E], Japanese Yam [P], Shan Yao [E], T'U Yu [E], Yama-No-Imo [E], Yeh Shan Yao [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

Perennial Climber. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We

rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Leaves; Root.

Tuber - cooked[174, 177, 179]. A very pleasant mild flavour with a floury texture, the roots can be eaten as a potato substitute[2]. The starch can be used as a binding agent for other foods[183]. Roots contain about 1.9% protein, 20% carbohydrate, 0.1% fat and 1% ash[179].

Leaf tips - cooked[183].

Tubercles - cooked[183].

Medicinal Uses

Disclaimer

Contraceptive; Miscellany; Tonic.

The tubers are prescribed in the treatment of diarrhoea, enteritis, enuresis and spermatorrhoea[218]. They are also dried and cut into shavings then used as a tonic[218].

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the mildest areas of this country. The following notes are based on the general needs of the genus.

Easily grown in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in a greenhouse or cold frame. Plant out in early summer when in active growth[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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References for the family Dioscoreaceae.

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References

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Dioscorea japonica

Common name:	Glutinous yam	Family:	Dioscoreaceae
Author:	Thunb.	Botanical references:	58, 266
Synonyms:			
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174].		
Range:	E. Asia - China, C. and S. Japan.		
Habitat:	Wooded foothills[58]. Mixed forests and margins, scrub forests, herb communities, mountain slopes, valleys, along rivers and streams, roadsides; 100 - 1200 metres[266].		
Plants For A Future Rating (1-5):	4		

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Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Perennial Climber. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

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Leaves; Root.

Tuber - cooked[174, 177, 179]. A very pleasant mild flavour with a floury texture, the roots can be eaten as a potato substitute[2]. The starch can be used as a binding agent for other foods[183]. Roots contain about 1.9% protein, 20% carbohydrate, 0.1% fat and 1% ash[179].

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Other Uses

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Add a comment on: *Dioscorea japonica*

Subject:

Dioscorea japonica

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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dioscorea japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Dioscorea kamoonensis

Common name:		Family:	Dioscoreaceae
Author:	Kunth.	Botanical references:	1, 266
Synonyms:	Dioscorea fargesii (Franch.)		
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174].		
Range:	E. Asia - W. China.		
Habitat:	Secondary scrub forests, forest margins and valleys at elevations of 500 - 2900 metres[266].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family

Physical Characteristics

Perennial Climber growing to 2.5m. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[1, 105, 177]. Plants produce a number of small and globular tubers[219].

Medicinal Uses

Disclaimer

Contraceptive; Miscellany.

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. It is unlikely to succeed in any but the mildest areas. The following notes are based on the general needs of the genus.

Easily grown in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in a greenhouse or cold frame. Plant out in early summer when in active growth[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for the family Dioscoreaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
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Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Plants For A Future: Database Search Results

Dioscorea kamoonensis

Common name:		Family:	Dioscoreaceae
Author:	Kunth.	Botanical references:	1, 266
Synonyms:	Dioscorea fargesii (Franch.)		
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174].		
Range:	E. Asia - W. China.		
Habitat:	Secondary scrub forests, forest margins and valleys at elevations of 500 - 2900 metres[266].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family

Physical Characteristics

Perennial Climber growing to 2.5m. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[1, 105, 177]. Plants produce a number of small and globular tubers[219].

Medicinal Uses

Disclaimer

Contraceptive; Miscellany.

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. It is unlikely to succeed in any but the mildest areas. The following notes are based on the general needs of the genus.

Easily grown in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in a greenhouse or cold frame. Plant out in early summer when in active growth[K].

Suppliers

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Web References

References for the family Dioscoreaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future: Database Search Results

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Range:	E. Asia - W. China.		
Habitat:	Secondary scrub forests, forest margins and valleys at elevations of 500 - 2900 metres[266].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family

Physical Characteristics

Perennial Climber growing to 2.5m. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[1, 105, 177]. Plants produce a number of small and globular tubers[219].

Medicinal Uses

Disclaimer

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The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. It is unlikely to succeed in any but the mildest areas. The following notes are based on the general needs of the genus.

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Dioscorea kamoonensis*

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Dioscorea kamoonensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dioscorea kamoonensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Dioscorea tokoro

Common name:		Family:	Dioscoreaceae
Author:	Mak.	Botanical references:	58, 266
Synonyms:			
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174]. The root of this species is said to be poisonous raw.		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets in lowland and foothills all over Japan[58]. Mixed forests, bamboo forests, usually along ravine sides from near sea level to 1,000 metres in China[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. tokora[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oni-Dokoro [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial Climber. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[174, 177]. It should be soaked or boiled in lye before use since it is said to be poisonous raw[174].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Antitussive; Contraceptive; Miscellany; Resolvent.

The roots are antirheumatic, antiseptic, antitussive and contraceptive[176]. They are also used for desensitization. A decoction of the root is used in the treatment of arthritis, rheumatism and prostatitis[218]. It is also a resolvent for blood clots[218].

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can possibly be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in a greenhouse or cold frame. Plant out in early summer when in active growth[K].

Suppliers

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Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Dioscorea tokora* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Dioscoreaceae.

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[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future: Database Search Results

Dioscorea tokoro

Common name:		Family:	Dioscoreaceae
Author:	Mak.	Botanical references:	58, 266
Synonyms:			
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174]. The root of this species is said to be poisonous raw.		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets in lowland and foothills all over Japan[58]. Mixed forests, bamboo forests, usually along ravine sides from near sea level to 1,000 metres in China[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. tokora[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oni-Dokoro [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial Climber. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[174, 177]. It should be soaked or boiled in lye before use since it is said to be poisonous raw[174].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Antitussive; Contraceptive; Miscellany; Resolvent.

The roots are antirheumatic, antiseptic, antitussive and contraceptive[176]. They are also used for desensitization. A decoction of the root is used in the treatment of arthritis, rheumatism and prostatitis[218]. It is also a resolvent for blood clots[218].

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can possibly be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in a greenhouse or cold frame. Plant out in early summer when in active growth[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Dioscorea tokora* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Dioscoreaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[175] **Bird. R. (Editor)** *Focus on Plants. Volume 5. (formerly 'Growing from seed')* Thompson and Morgan. 1991
Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future: Database Search Results

Dioscorea tokoro

Common name:		Family:	Dioscoreaceae
Author:	Mak.	Botanical references:	58, 266
Synonyms:			
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174]. The root of this species is said to be poisonous raw.		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets in lowland and foothills all over Japan[58]. Mixed forests, bamboo forests, usually along ravine sides from near sea level to 1,000 metres in China[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. tokora[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oni-Dokoro [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial Climber. . It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[174, 177]. It should be soaked or boiled in lye before use since it is said to be poisonous raw[174].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Antitussive; Contraceptive; Miscellany; Resolvent.

The roots are antirheumatic, antiseptic, antitussive and contraceptive[176]. They are also used for desensitization. A decoction of the root is used in the treatment of arthritis, rheumatism and prostatitis[218]. It is also a resolvent for blood clots[218].

The roots of most, if not all, members of this genus, contains diosgenin[222, 240]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can possibly be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in a greenhouse or cold frame. Plant out in early summer when in active growth[K].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Dioscorea tokoro*

Subject:

Dioscorea tokoro

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dioscorea tokoro

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Dioscorea villosa

Common name:	Wild yam	Family:	Dioscoreaceae
Author:	L.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174]. Use of the fresh plant can cause vomiting and other side effects[222].		
Range:	Eastern N. America - New England to Minnesota and Ontario, south to Virginia and Texas.		
Habitat:	Wet woods and swamps, thickets and hedges[43, 165].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. hirticaulis[B,P] D. villosa var. hirticaulis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Colic-root [H], Wild Yam [H,B,S,P], Yabani Hindelmasi [E], Yam, Wild [S],
Epithets:	From a Dictionary of Botanical Epithets
	villosa = hairy;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Slaves)

Physical Characteristics

Perennial Climber growing to 3m. It is hardy to zone 6. It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[177]. Some caution should be exercised with this plant. See 'Medicinal Uses' for more information.

Medicinal Uses

Disclaimer

Antiinflammatory; Antispasmodic; Cholagogue; Contraceptive; Diaphoretic; Homeopathy; Vasodilator.

Wild yam roots, and the roots of many other members of the genus, contains diosgenin[222]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222, 254].

The roots are anti-inflammatory, antispasmodic, cholagogue, diaphoretic and vasodilator[165, 238]. They are also a visceral relaxant[165]. This plant affords one of the best and fastest cures for bilious colic, it is especially helpful in treating the nausea of pregnant women[4] and has been used to ease the pain of childbirth[257]. It is also taken internally in the treatment of arthritis, irritable bowel syndrome, gastritis, gall bladder complaints, painful menstruation etc[238]. The root is harvested in the autumn and dried for later use[238]. The root should not be stored for longer than 1 year, since it is likely to lose its medicinal virtues[4]. Caution is advised in the use of the this plant, when taken fresh it can cause vomiting and other side effects[222].

The root, harvested in September, is used to make a homeopathic remedy[232]. Its main use is in the treatment of infant colic[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants are hardy to at least -15°c[238].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

This is a polymorphic species, some botanists dividing it up into several species[235].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can possibly be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in a greenhouse or cold frame. Plant out in early summer when in active growth[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Dioscoreaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878

Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[175] **Bird. R. (Editor)** *Focus on Plants. Volume 5. (formerly 'Growing from seed')* Thompson and Morgan. 1991
Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Dioscorea+villosa`
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Plants For A Future: Database Search Results

Dioscorea villosa

Common name:	Wild yam	Family:	Dioscoreaceae
Author:	L.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	Edible species of Dioscorea have opposite leaves whilst poisonous species have alternate leaves[174]. Use of the fresh plant can cause vomiting and other side effects[222].		
Range:	Eastern N. America - New England to Minnesota and Ontario, south to Virginia and Texas.		
Habitat:	Wet woods and swamps, thickets and hedges[43, 165].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. hirticaulis[B,P] D. villosa var. hirticaulis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Colic-root [H], Wild Yam [H,B,S,P], Yabani Hindelmasi [E], Yam, Wild [S],
Epithets:	From a Dictionary of Botanical Epithets
	villosa = hairy;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Yam family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Slaves)

Physical Characteristics

Perennial Climber growing to 3m. It is hardy to zone 6. It is in flower from September to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Root.

Tuber - cooked[177]. Some caution should be exercised with this plant. See 'Medicinal Uses' for more information.

Medicinal Uses

Disclaimer

Antiinflammatory; Antispasmodic; Cholagogue; Contraceptive; Diaphoretic; Homeopathy; Vasodilator.

Wild yam roots, and the roots of many other members of the genus, contains diosgenin[222]. This is widely used in modern medicine in order to manufacture progesterone and other steroid drugs. These are used as contraceptives and in the treatment of various disorders of the genitary organs as well as in a host of other diseases such as asthma and arthritis[222, 254].

The roots are anti-inflammatory, antispasmodic, cholagogue, diaphoretic and vasodilator[165, 238]. They are also a visceral relaxant[165]. This plant affords one of the best and fastest cures for bilious colic, it is especially helpful in treating the nausea of pregnant women[4] and has been used to ease the pain of childbirth[257]. It is also taken internally in the treatment of arthritis, irritable bowel syndrome, gastritis, gall bladder complaints, painful menstruation etc[238]. The root is harvested in the autumn and dried for later use[238]. The root should not be stored for longer than 1 year, since it is likely to lose its medicinal virtues[4]. Caution is advised in the use of the this plant, when taken fresh it can cause vomiting and other side effects[222].

The root, harvested in September, is used to make a homeopathic remedy[232]. Its main use is in the treatment of infant colic[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

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Other Uses

None known

Cultivation details

An easily grown plant, succeeding in a fertile well-drained soil in a sunny position or light shade[200]. Prefers a rich light soil[1].

Plants are hardy to at least -15°c[238].

Plants produce tubercles (small tubers that are formed in the leaf axils of the stems), and can be propagated by this means[K].

A climbing plant that supports itself by twining around the branches of other plants[219].

This is a polymorphic species, some botanists dividing it up into several species[235].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow March to April in a sunny position in a warm greenhouse and only just cover. It germinates in 1 - 3 weeks at 20°c[175]. Prick out the seedlings as soon as they are large enough to handle and grow on in a greenhouse for their first year. Plant out in late spring as the plant comes into new growth.

Basal stem cuttings in the summer[37].

Division in the dormant season, never when in growth[1]. The plant will often produce a number of shoots, the top 5 - 10 cm of the root below each shoot can be potted up to form a new plant whilst the lower part of the root can possibly be eaten[K].

Tubercles (baby tubers) are formed in the leaf axils. These are harvested in late summer and early autumn when about the size of a pea and coming away easily from the plant. They should be potted up immediately in individual pots in a greenhouse or cold frame. Plant out in early summer when in active growth[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Dioscoreaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[175] **Bird. R. (Editor)** *Focus on Plants. Volume 5. (formerly 'Growing from seed')* Thompson and Morgan. 1991
Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148

An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

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Woodland, Cultivated Beds, Sunny Edge.

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Other Uses

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Cultivation details

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Subject:

Dioscorea villosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Dioscorea villosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Search for Latin Name: Xanthosoma

New Search: Xanthosoma Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Xanthosoma

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Xanthosoma
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Plants For A Future: Database Search

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Search for Latin Name: Cyrtosperma

New Search: Cyrtosperma Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Cyrtosperma

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Cyrtosperma
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Add a comment on: *Alternative Root Crops.*

Subject:

Alternative Root Crops.

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Colocasia Alocasia Manihot Dioscorea
Xanthosoma Cyrtosperma

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Polymnia edulis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yacon strawberry	Family:	Compositae
Author:	Wedd.	Botanical references:	1
Synonyms:	Smallanthus sonchifolius ((Poepp.&Endl.)H.Rob.), Polymnia sonchifolia (Poepp.&Endl.)		
Known Hazards:	None known		
Range:	S. America - Colombia, Ecuador, Peru in the Andes.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Yacon [P],
Epithets:	From a Dictionary of Botanical Epithets
	edulis = edible;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m by 0.6m at a fast rate. It is hardy to zone 8 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Drink; Leaves; Root; Sweetener.

Root - raw or cooked[1, 22, 46, 61]. When first harvested, the root can taste somewhat starchy[K], but it soon becomes sweet, crisp and juicy and is delicious eaten raw[196, K]. The flavour is further improved by exposure to the sun although some of the crispness will be lost[97, 183, K]. The root can be eaten like a fruit or diced and added to salads[183]. The skin has a somewhat resinous taste so it is usually removed[196]. The cooked root retains is sweetness and crispness[196]. Individual roots can weigh up to 500g[196]. The nutritional value is low because the root contains a high quantity of inulin, a carbohydrate that the human body cannot utilize[196].

The grated pulp of the root is squeezed through a cloth to yield a sweet refreshing drink[183]. This juice can be concentrated to form dark brown blocks of sugar called 'chancaca' in S. America[183, 196].

Leaves and stems - cooked as a vegetable[183, 196]. They contain 11 - 17% protein, dry weight[196].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

For best results, this plant requires a warm position in a deep rich soil[1], though it survives even when growing in poor soils[196]. Plants are fast-growing[196]. In S. America, they succeed in areas with annual rainfall varying from 900 - 3500mm[196], though are likely to succeed with less rain in temperate zones.

The yacon is cultivated for its edible tuber in the Andes, and is sometimes used in sub-tropical summer bedding schemes in Britain, though it is not very hardy[1]. The top growth is killed back by frost but the tubers can tolerate at least light frosts[196]. Plants are unaffected by day-length and so can produce good yields of roots in temperate zones[196]. One report says that plants take 6 - 7 months to produce a crop from planting out[196], though on our Cornwall trial ground they have cropped quite well with a 5 month growing period[K]. The roots are brittle and must be harvested with care to avoid damage[196]. Yields of 38 tonnes per hectare have been recorded in South America[196], whilst yields of over 2 kilos per plant have been achieved outdoors in Cornwall[K]. The harvested roots can be stored for several months[196]. Plants have not been selected for flavour or yield, some roots can be exceedingly sweet whilst others are fairly bland[196].

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- PFAF Catalogue: Checklist of plants
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Readers Comments

Brenner's Experience on Growing Yacons

Brenner Wed Oct 23 17:56:13 2002

This article originally appeared in the Jan 1998 edition of the Friends of PFAF newsletter.

What can I say about this plant? I grew some last year in tubs in the garden (because of an impending move) and I was constantly asked if they were Triffids!

The Yacon, I believe, comes from South America. It is a tuberous plant topped by enormous leaves (in fact, although the leaves have a different shape the span is similar to rhubarb), the stems etc. are quite hairy. The tubers, when harvested, weighed in at 14lbs (6.3 kilos) and that from just 3 plants. Had I been able to grow them in the ground then I am sure that the yields would have been even higher! The overall yields were very good, better than I have ever done with potatoes. I did make sure the plants were kept well watered and once a week gave them a liquid feed of either comfrey or diluted urine.

The top growth was cut down by the first heavy frosts of the autumn, and this would have been the best time to harvest the tubers. However, at this time I was busy moving home and so the plants were left in the tubs until January. Most of the tubers were a very good size and in good condition. They have stored well and I am still eating them now (late March). In fact, I felt that they kept better by being left in the pots and certainly the small top tubers (the ones that are used to grow the following year's plants) were already sprouting when the plants were dug up. In the previous year all my top tubers had rotted away whilst in store.

I am planting these small tubers in pots at the moment and have managed to get 10 - 12 plants from each plant I grew last year.

Yacons are delicious to eat either raw or cooked. They are crisp and juicy with a lovely sweetness, in fact they are much more like a fruit than a root crop. I like to peel them thinly (this peel is rather aromatic and I am not too keen on it) and then cut them into thin slices and add them to salads just before serving. The tubers tend to pick up the flavours of foods they are cooked with and I find their crunchy texture goes very well in a stir fry. They go well with avocado pears and a squeeze of lemon and I like adding them to a tomato and basil salad where they add a nice crunch.

I could go on about ways to eat it, but you must suit yourselves. I'm told that you can boil and bake them, though I have never tried them this way. Stir-frying with ginger, garlic, onions and mushrooms, plus some mustard and stock with a nut crumble topping is gorgeous.

I must stop now or I'll get totally carried away and there won't be room for anything else in this newsletter. Next time I write it will be a diary on my almost virgin garden and my plans, along with a recipe using PFAF perennial plants. Until next time.

Brenner

Cross references: *Web-pages: Alternative Root Crops.*.

Polymnia edulis

Robert P. Nederpelt Fri Nov 29 12:29:30 2002

Link: IPGRI Andean roots and tubers: Ahipa, arracacha, maca and yacon PDF file available

---

Polymnia edulis

Carol (caroldotkellyatkiskidotorg) Tue Nov 11 15:33:50 2003

I was intrigued by the description that I saw for this plant in the Nichols Farm Nursery catalog (Washington state, U.S.)and decided to try it. I live in SW Pennsylvania, USDA zone 5. The 6-8" tall potted plant arrived safely (I was impressed with the excellent packing job!), but too early for planting out in my area, so I kept it under lights with my other seedlings until I could harden it off and get it into open ground. We had an unusually cool and quite rainy growing season this year, and the plant got off to rather a slow start. Once established, however (on the west side of my red brick house, which gave it the tropical heat I felt it would appreciate when the sun did shine!) it quite quickly grew to about 4 feet before a severe wind/rainstorm broke off the top foot or so. The side shoots took over and continued to grow enthusiastically, however, and withstood several light frosts (the first about 2 weeks early for my area, on Oct. 1) with only minor blackening of the more exposed leaves, which were quite exotic-looking and drew comments from visitors over the summer. I left it to enjoy a long, mild Indian summer period until truly severe cold was imminent (28F, on Nov.7) and chopped the ,woody stalk off with a machete.(!) Digging the tubers was quite an eye-opening experience, as I found large, somewhat intertwined tubers the size of large yams, but with the smooth skin the texture and color of white potatoes. I found they had the taste and texture, however, of Jerusalem artichokes, and the smaller tubers immediately beneath the stalk were much smaller & knobby exactly like the J. artichokes. After washing & weighing the harvest, I found that my solitary plant yielded about 4 1/2 pounds of edible tubers, with enough of the small "planting tubers" to give me at least 2-3 dozen new plants next year if I wanted that many (I don't have room!). Thanks to the info in the entry above, I will plant some out in pots in my cold frame, but I also will leave some in my refrigerator, just to see if they will remain in good condition for planting, and also pot some tubers and keep them in the fridge until late winter. They already look ready, willing, and able to grow, had I the proper climate! Since I find them so similar to J. artichokes, I have enjoyed them raw & added at the end to a stir-fry, but have no intention of cooking them otherwise, as I never cared for cooked J. artichokes. Seems to me that this relatively unknown plant would be a valuable addition to any temperate climate garden. Its yields would make excellent nutritious and inexpensive livestock feed for some animals as well, I should think.

Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Polymnia+edulis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Polymnia+edulis`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Polymnia edulis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yacon strawberry	Family:	Compositae
Author:	Wedd.	Botanical references:	1
Synonyms:	Smallanthus sonchifolius ((Poepp.&Endl.)H.Rob.), Polymnia sonchifolia (Poepp.&Endl.)		
Known Hazards:	None known		
Range:	S. America - Colombia, Ecuador, Peru in the Andes.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Yacon [P],
Epithets:	From a Dictionary of Botanical Epithets
	edulis = edible;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m by 0.6m at a fast rate. It is hardy to zone 8 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Drink; Leaves; Root; Sweetener.

Root - raw or cooked[1, 22, 46, 61]. When first harvested, the root can taste somewhat starchy[K], but it soon becomes sweet, crisp and juicy and is delicious eaten raw[196, K]. The flavour is further improved by exposure to the sun although some of the crispness will be lost[97, 183, K]. The root can be eaten like a fruit or diced and added to salads[183]. The skin has a somewhat resinous taste so it is usually removed[196]. The cooked root retains is sweetness and crispness[196]. Individual roots can weigh up to 500g[196]. The nutritional value is low because the root contains a high quantity of inulin, a carbohydrate that the human body cannot utilize[196].

The grated pulp of the root is squeezed through a cloth to yield a sweet refreshing drink[183]. This juice can be concentrated to form dark brown blocks of sugar called 'chancaca' in S. America[183, 196].

Leaves and stems - cooked as a vegetable[183, 196]. They contain 11 - 17% protein, dry weight[196].

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Disclaimer

None known

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For best results, this plant requires a warm position in a deep rich soil[1], though it survives even when growing in poor soils[196]. Plants are fast-growing[196]. In S. America, they succeed in areas with annual rainfall varying from 900 - 3500mm[196], though are likely to succeed with less rain in temperate zones.

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Polymnia edulis

Robert P. Nederpelt Fri Nov 29 12:29:30 2002

Link: IPGRI Andean roots and tubers: Ahipa, arracacha, maca and yacon PDF file available

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Carol (caroldotkellyatkiskidotorg) Tue Nov 11 15:33:50 2003

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Polymnia edulis

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Medicinal Uses

Disclaimer

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Other Uses

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Cultivation details

For best results, this plant requires a warm position in a deep rich soil[1], though it survives even when growing in poor soils[196]. Plants are fast-growing[196]. In S. America, they succeed in areas with annual rainfall varying from 900 - 3500mm[196], though are likely to succeed with less rain in temperate zones.

The yacon is cultivated for its edible tuber in the Andes, and is sometimes used in sub-tropical summer bedding schemes in Britain, though it is not very hardy[1]. The top growth is killed back by frost but the tubers can tolerate at least light frosts[196]. Plants are unaffected by day-length and so can produce good yields of roots in temperate zones[196]. One report says that plants take 6 - 7 months to produce a crop from planting out[196], though on our Cornwall trial ground they have cropped quite well with a 5 month growing period[K]. The roots are brittle and must be harvested with care to avoid damage[196]. Yields of 38 tonnes per hectare have been recorded in South America[196], whilst yields of over 2 kilos per plant have been achieved outdoors in Cornwall[K]. The harvested roots can be stored for several months[196]. Plants have not been selected for flavour or yield, some roots can be exceedingly sweet whilst others are fairly bland[196].

Plants might be useful in agroforestry because they succeed under trees[196], though in the relatively sunless climes of Britain the plants are not likely to do well in the shade of trees[K].

Propagation

Seed - sow mid winter in a warm greenhouse and only just cover the seed[1]. Prick out the seedlings into individual pots as soon as they are large enough to handle and plant them out after the last expected frosts. Consider giving them some protection such as a cloche until they are growing away well. Plants do not usually produce flowers in Britain and therefore seed has to be obtained from other countries[K].

Division in autumn. The plant forms 2 distinct types of tuber. Large tubers, usually on thin roots 2 - 5cm long, are used as storage organs and do not have the capacity to form new shoots. These are the tubers that are usually eaten. Smaller tubers are formed in a cluster around the stem. These form the shoots for the following year's growth and so are the ones that should be stored. Dig up the plants in the autumn once the top growth has been cut down by frost. Remove the large tubers for food, cut the main stems back to about 10cm long and store these stems with their cluster of small tubers in a cool frost-free place. Do not let them dry out. Pot them up in early spring in a greenhouse. When they come into active growth divide each cluster into individual shoots with their tubers attached and repot these. Plant them out in late spring after the last expected frosts[K].

Cuttings of basal shoots in early spring in a warm greenhouse[1]. Harvest the shoots with plenty of underground stem when they are about 8 - 10cm above the ground. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Polymnia+edulis`

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Plants For A Future: Database Search Results

Cyperus esculentus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Tiger nut	Family:	Cyperaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Original range is obscure, the plant is a widespread weed from the Tropics to the Temperate zone.		
Habitat:	Muddy soil and shallow water, also as a weed of cultivated ground in southern Europe[50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. esculentus var. angustispicatus[B] C. esculentus var. leptostachyus[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chufa [H,B], Chufa Flatsedge [P], Hsiang Fu [E], Hsiang Fu Tzu [E], Juncia Avellanada [E], Knolcyperus [D], Nut-grass [H], Rumput Haliya Hitam [E], Teki [E], Tiger Nut [H],
Epithets:	From a Dictionary of Botanical Epithets
	esculentus = edible; lentus = pliable;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Sedge family
Other Range Info:	From the Ethnobotany Database
	China; Egypt; Java; Lesotho; Malaya; Mexico; Nigeria; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: California, Colorado, Hawaii, Minnesota, Oregon, Washington.

Physical Characteristics

Perennial growing to 0.9m at a fast rate. It is hardy to zone 8. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Coffee; Leaves; Oil; Root.

Tuber - raw, cooked or dried and ground into a powder[2, 4, 55, 62, 85, 95, 183].They are also used in confectionery[183]. A delicious nut-like flavour[1, 61, 183] but rather chewy and with a tough skin[K]. They taste best when dried[27]. They can be cooked in barley water to give them a sweet flavour and then be used as a dessert nut[183]. A refreshing beverage is made by mixing the ground tubers with water, cinnamon, sugar, vanilla and ice[183]. The ground up tuber can also be made into a plant milk with water, wheat and sugar[183].

An edible oil is obtained from the tuber. It is considered to be a superior oil that compares favourably with olive oil[183].

The roasted tubers are a coffee substitute[2, 62, 183].

The base of the plant can be used in salads[183]. (This probably means the base of the leaf stems[K])

Medicinal Uses

Disclaimer

Aphrodisiac; Carminative; Digestive; Diuretic; Emmenagogue; Stimulant; Tonic.

Tiger nuts are regarded as a digestive tonic, having a heating and drying effect on the digestive system and alleviating flatulence[254]. They also promote urine production and menstruation[254].

The tubers are said to be aphrodisiac, carminative, diuretic, emmenagogue, stimulant and tonic[240, 254]. In Ayurvedic medicine they are used in the treatment of flatulence, indigestion, colic, diarrhoea, dysentery, debility and excessive thirst[254].

Other Uses

Oil; Weaving.

The tubers contain up to 30% of a non-drying oil, it is used in cooking and in making soap[57, 74, 117, 141]. It does not solidify at 0°c and stores well without going rancid[74].

The leaves can be used for weaving hats and matting etc[178].

Cultivation details

Prefers a moist sandy loam[95, 117].

Plants are hardy to about -15°c[200].

The chufa, or tiger nut, is often cultivated for its edible tuber in warm temperate and tropical zones, there is a cultivated variety, var. sativus, that produces larger tubers[50]. We have had lots of problems with growing this cultivated form. Once the tubers come into growth then they normally grow vigorously, but the difficulty is getting them to come into growth. We harvest the tubers in the autumn and store them in moist sand, replanting them in the spring. However, they rarely come into new growth until mid to late summer which gives them too short a growing season to produce much of a crop[K]. We need to find a satisfactory way of storing the tubers and exciting them back into growth[K].

In warmer climates this plant is a serious weed of cultivation. It is much hardier than was once imagined and is becoming a weed in N. America where it is found as far north as Alaska[95].

The tubers are often formed a metre or more away from the plant, especially if it is growing in a heavy clay soil[159].

The tubers are extremely attractive to mice and require protection from them in the winter[K].

Propagation

Seed - surface sow in the spring and keep the compost moist[164]. The seed usually germinates in 2 - 6 weeks at 18°c[164]. Prick out the seedlings into individual pots as soon as they are large enough to handle. Grow on for their first winter in a greenhouse and plant them out in late spring after the last expected frosts.

Division in spring or autumn. This is more a matter of harvesting the tubers and replanting them. If this is done in the autumn, then it is best to store the tubers in a cool frost-free place overwinter and plant them out in the spring.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Name of Site:	
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cytisus scoparius

Common name:	Broom	Family:	Leguminosae
Author:	(L.) Link.	Botanical references:	11, 17, 200
Synonyms:	Spartium scoparium (L.), Sarothamnus scoparius ((L.)K.Koch.)		
Known Hazards:	Poisonous[10, 19, 65]. The plant is of extremely low or zero toxicity[76].		
Range:	Britain.		
Habitat:	Sandy pastures and heaths, occasionally in open woodland, and often near the coast[4, 17]. Strongly calcifuge[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. scoparius f. sulphureus[G] C. scoparius var. andreanus[G] C. scoparius var. prostratus[G] C. scoparius var. sulphureus[G] Genista andreana[G] Genista scoparia[H] Genista scoparius[H] Sarothamnus scoparius var. prostratus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basam [H], Bisom [H], Bizzom [H], Breeam [H], Brem [D], Broom [E,H,MS], Broom Tops [H], Broome [E], Browme [H], Brum [H], Chin Ch'Iao [E], Common Broom [L], Enisida [E], Ginst [E], Green Broom [H], Irish Tops [H], Retama Negra [E], Scotch Broom [H,E,B,L], Scotchbroom [P], Supurge Kecitirfili [E], Yellow Broom [H],

Epithets:	From a Dictionary of Botanical Epithets scopa = broom twig; scoparius = broom like;
Systematics:	From a UDSA Plants Database Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database China; Europe; Spain; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: California, Hawaii, Idaho, Oregon, Washington, Victoria, New South Wales, South Australia, Western Australia.

Physical Characteristics

A decidious shrub growing to 2.4m by 1m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in flower from May to June, and the seeds ripen from August to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Condiment; Flowers.

The flower buds are pickled and used as a substitute for capers[4, 46, 183, 244]. They can also be added to salads[183]. Some caution is advised, see the notes above on toxicity.

The tender green tops of the plant have been used like hops to give a bitter flavour to beer and to render it more intoxicating[4, 183].

The roasted seed is a coffee substitute[2, 4, 115, 183].

Medicinal Uses

Disclaimer

Cardiotonic; Cathartic; Diuretic; Emetic; Vasoconstrictor.

Broom is a bitter narcotic herb that depresses the respiration and regulates heart action[238]. It acts upon the electrical conductivity of the heart, slowing and regulating the transmission of the impulses[254].

The young herbaceous tips of flowering shoots are cardiotonic, cathartic, diuretic, emetic and vasoconstrictor[4, 13, 21, 46, 165]. The seeds can also be used[4]. The plant is used internally in the treatment of heart complaints, and is especially used in conjunction with Convallaria majalis[238]. The plant is also strongly diuretic, stimulating urine production and thus countering fluid retention[254]. Since broom causes the muscles of the uterus to contract, it has been used to prevent blood loss after childbirth[254]. Use this herb with caution since large doses are likely to upset the stomach[4, 21]. The composition of active ingredients in the plant is very changeable, this makes it rather unreliable medicinally and it is therefore rarely used[9]. This herb should not be prescribed to pregnant women or patients with high blood pressure[238]. Any treatment with this plant should only be carried out under expert supervision[9]. See also the notes above on toxicity.

The young herbaceous tips of flowering shoots are harvested in spring, generally in May[4]. They can be used fresh or dried[4, 238]. They should not be stored for more than 12 months since the medicinally active ingredients break down[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Basketry; Broom; Dye; Essential; Fibre; Ground cover; Paper; Repellent; Soil stabilization; Tannin; Wood.

An excellent fibre is obtained from the bark, it is used in the manufacture of paper, cloth and nets[4, 100, 115]. It is not as strong as the fibre from the Spanish broom (Spartium junceum)[4]. The fibre is obtained from the root according to other reports[13, 46]. The bark fibre is used to make paper, it is 2 - 9mm long[189]. The branches are harvested in late summer or autumn, the leaves removed and the stems steamed until the fibres can be stripped. The fibres are cooked for 3 hours in lye then put in a ball mill for 3 hours. The paper is pale tan in colour[189].

The bark is a good source of tannin[4].

A yellow and a brown dye are obtained from the bark[46].

A yellow dye is obtained from the flowering stem[169].

A green dye is obtained from the leaves and young tops[4].

The branches are used to make baskets, brushes, brooms and besoms[4, 6, 13, 46, 55, 115]. They are also sometimes used for thatching roofs and as substitutes for reeds in making fences or screens[4].

An essential oil from the flowers is used in perfumery[57].

Growing well on dry banks and on steep slopes, it is an effective sand binder and soil stabiliser[4, 11, 46]. Broom is one of the first plant to colonize sand dunes by the coast[4].

The plant attracts insects away from nearby plants[14].

The var. prostratus (= C. scoparius maritimus?[208]) makes a good fast growing ground cover plant to 30cm tall, though it needs weeding in its first year[197]. The cultivar 'Andreanus Prostratus' can also be used[208].

Wood - very hard, beautifully veined[4]. The plant seldom reaches sufficient size for its wood to be of much value, but larger specimens are valued by cabinet makers and for veneer[4].

Cultivation details

Succeeds in most soils, preferring a fairly good but not rich soil[11]. Prefers a poor well-drained soil[14]. Succeeds in slightly acid, neutral and limy soils but dislikes shallow soils over chalk[200]. Plants are strongly calcifuge according to other reports and intolerant of a pH much above 6.5[17, 186]. Prefers a sunny position but tolerates some shade[11, 14, 17]. Plants succeed in exposed conditions, and are very tolerant of maritime exposure[4, K]. Plants have a deep root system, they are very drought tolerant once established and grow well on dry banks[4, 11]. Tolerates a smoky atmosphere, growing well in polluted areas[186].

Plants are hardy to about -20°c[184].

A number of named forms have been developed for their ornamental value[182].

New leaves are formed in April but these soon drop off the plant, photosynthesis being carried out by means of the green stems[186].

Very tolerant of cutting, it regenerates quickly from the base[186]. Plants are usually killed by fire but the seeds quickly germinate after the fire and rapidly become established[186].

A good bee plant and food plant for many caterpillars[24, 30, 46], it provides the food for the larvae of the green hairstreak butterfly[186]. Ants are attracted to the seeds, feeding on the juicy attachment that holds them to the pods and thus distributing the seed[186].

Dislikes root disturbance, especially when more than 20cm tall[11]. It is best to plant out into their permanent positions as early as possible.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame[80]. Pre-soak stored seed for 24 hours in warm water then cold stratify for 1 month and sow in a cold frame[80]. The seed usually germinates in 4 weeks at 20°c[98, 113]. Seedlings should be potted up as soon as possible since plants quickly become intolerant of root disturbance[186]. Plant them out into their permanent positions in late summer if they have made sufficient growth, otherwise in late spring of the following year[K]. The seed has a long viability[186].

Seed can also be sown in situ as soon as it is ripe in the late summer and autumn[4].

Cuttings of half-ripe wood, 4 - 7 cm with a heel, August in a frame[11]. Produces roots in the spring[11]. Pot up as soon as possible[11].

Cuttings of mature wood, October/November in a frame.

Layering.

Scent

> No details on scent.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Sarothamnus scoparius* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Spartium scoparium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *cytisus scoparius* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

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[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
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Readers Comments

Cytisus scoparius

Van Perdue Wed, 18 Sep 1996

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I have found one weakness, though. Some plants (*Cytisus scoparius*, in particular) which may be benign in their native UK ecosystem are great pests elsewhere. I have full-time employment trying to help the U. S. Army control the population on Fort Lewis, Washington, where the species is wrecking a native prairie ecosystem. Now, to me, the plant is a boon as it provides me employment. However, it is a serious threat to continued existence of the prairie ecosystem in the Puget Sound basin of western Washington.

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Ulex europaeus

Klaus Dichtel Tue Dec 25 16:16:31 2001

I wonder how the description of the propagation (book 80) with its demand for a cold frame fits to the quotation of book 186 (which is from Britain)about cultivation details, that says numerous seedlings spring up and replace burnt plants

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Enter your details here:

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cytisus+scoparius`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cytisus+scoparius`

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Plants For A Future: Database Search Results

Cytisus scoparius

Common name:	Broom	Family:	Leguminosae
Author:	(L.) Link.	Botanical references:	11, 17, 200
Synonyms:	Spartium scoparium (L.), Sarothamnus scoparius ((L.)K.Koch.)		
Known Hazards:	Poisonous[10, 19, 65]. The plant is of extremely low or zero toxicity[76].		
Range:	Britain.		
Habitat:	Sandy pastures and heaths, occasionally in open woodland, and often near the coast[4, 17]. Strongly calcifuge[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. scoparius f. sulphureus[G] C. scoparius var. andreanus[G] C. scoparius var. prostratus[G] C. scoparius var. sulphureus[G] Genista andreana[G] Genista scoparia[H] Genista scoparius[H] Sarothamnus scoparius var. prostratus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basam [H], Bisom [H], Bizzom [H], Breeam [H], Brem [D], Broom [E,H,MS], Broom Tops [H], Broome [E], Browme [H], Brum [H], Chin Ch'Iao [E], Common Broom [L], Enisida [E], Ginst [E], Green Broom [H], Irish Tops [H], Retama Negra [E], Scotch Broom [H,E,B,L], Scotchbroom [P], Supurge Kecitirfili [E], Yellow Broom [H],
Epithets:	From a Dictionary of Botanical Epithets
	scopa = broom twig; scoparius = broom like;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Other Range Info:	From the Ethnobotany Database
	China; Europe; Spain; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Hawaii, Idaho, Oregon, Washington, Victoria, New South Wales, South Australia, Western Australia.

Physical Characteristics

A decidious shrub growing to 2.4m by 1m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in flower from May to June, and the seeds ripen from August to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Condiment; Flowers.

The flower buds are pickled and used as a substitute for capers[4, 46, 183, 244]. They can also be added to salads[183]. Some caution is advised, see the notes above on toxicity.

The tender green tops of the plant have been used like hops to give a bitter flavour to beer and to render it more intoxicating[4, 183].

The roasted seed is a coffee substitute[2, 4, 115, 183].

Medicinal Uses

Disclaimer

Cardiotonic; Cathartic; Diuretic; Emetic; Vasoconstrictor.

Broom is a bitter narcotic herb that depresses the respiration and regulates heart action[238]. It acts upon the electrical conductivity of the heart, slowing and regulating the transmission of the impulses[254].

The young herbaceous tips of flowering shoots are cardiotonic, cathartic, diuretic, emetic and vasoconstrictor[4, 13, 21, 46, 165]. The seeds can also be used[4]. The plant is used internally in the treatment of heart complaints, and is especially used in conjunction with Convallaria majalis[238]. The plant is also strongly diuretic, stimulating urine production and thus countering fluid retention[254]. Since broom causes the muscles of the uterus to contract, it has been used to prevent blood loss after childbirth[254]. Use this herb with caution since large doses are likely to upset the stomach[4, 21]. The composition of active ingredients in the plant is very changeable, this makes it rather unreliable medicinally and it is therefore rarely used[9]. This herb should not be prescribed to pregnant women or patients with high blood pressure[238]. Any treatment with this plant should only be carried out under expert supervision[9]. See also the notes above on toxicity.

The young herbaceous tips of flowering shoots are harvested in spring, generally in May[4]. They can be used fresh or dried[4, 238]. They should not be stored for more than 12 months since the medicinally active ingredients break down[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Basketry; Broom; Dye; Essential; Fibre; Ground cover; Paper; Repellent; Soil stabilization; Tannin; Wood.

An excellent fibre is obtained from the bark, it is used in the manufacture of paper, cloth and nets[4, 100, 115]. It is not as strong as the fibre from the Spanish broom (Spartium junceum)[4]. The fibre is obtained from the root according to other reports[13, 46]. The bark fibre is used to make paper, it is 2 - 9mm long[189]. The branches are harvested in late summer or autumn, the leaves removed and the stems steamed until the fibres can be stripped. The fibres are cooked for 3 hours in lye then put in a ball mill for 3 hours. The paper is pale tan in colour[189].

The bark is a good source of tannin[4].

A yellow and a brown dye are obtained from the bark[46].

A yellow dye is obtained from the flowering stem[169].

A green dye is obtained from the leaves and young tops[4].

The branches are used to make baskets, brushes, brooms and besoms[4, 6, 13, 46, 55, 115]. They are also sometimes used for thatching roofs and as substitutes for reeds in making fences or screens[4].

An essential oil from the flowers is used in perfumery[57].

Growing well on dry banks and on steep slopes, it is an effective sand binder and soil stabiliser[4, 11, 46]. Broom is one of the first plant to colonize sand dunes by the coast[4].

The plant attracts insects away from nearby plants[14].

The var. prostratus (= C. scoparius maritimus?[208]) makes a good fast growing ground cover plant to 30cm tall, though it needs weeding in its first year[197]. The cultivar 'Andreanus Prostratus' can also be used[208].

Wood - very hard, beautifully veined[4]. The plant seldom reaches sufficient size for its wood to be of much value, but larger specimens are valued by cabinet makers and for veneer[4].

Cultivation details

Succeeds in most soils, preferring a fairly good but not rich soil[11]. Prefers a poor well-drained soil[14]. Succeeds in slightly acid, neutral and limy soils but dislikes shallow soils over chalk[200]. Plants are strongly calcifuge according to other reports and intolerant of a pH much above 6.5[17, 186]. Prefers a sunny position but tolerates some shade[11, 14, 17]. Plants succeed in exposed conditions, and are very tolerant of maritime exposure[4, K]. Plants have a deep root system, they are very drought tolerant once established and grow well on dry banks[4, 11]. Tolerates a smoky atmosphere, growing well in polluted areas[186].

Plants are hardy to about -20°c[184].

A number of named forms have been developed for their ornamental value[182].

New leaves are formed in April but these soon drop off the plant, photosynthesis being carried out by means of the green stems[186].

Very tolerant of cutting, it regenerates quickly from the base[186]. Plants are usually killed by fire but the seeds quickly germinate after the fire and rapidly become established[186].

A good bee plant and food plant for many caterpillars[24, 30, 46], it provides the food for the larvae of the green hairstreak butterfly[186]. Ants are attracted to the seeds, feeding on the juicy attachment that holds them to the pods and thus distributing the seed[186].

Dislikes root disturbance, especially when more than 20cm tall[11]. It is best to plant out into their permanent positions as early as possible.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame[80]. Pre-soak stored seed for 24 hours in warm water then cold stratify for 1 month and sow in a cold frame[80]. The seed usually germinates in 4 weeks at 20°c[98, 113]. Seedlings should be potted up as soon as possible since plants quickly become intolerant of root disturbance[186]. Plant them out into their permanent positions in late summer if they have made sufficient growth, otherwise in late spring of the following year[K]. The seed has a long viability[186].

Seed can also be sown in situ as soon as it is ripe in the late summer and autumn[4].

Cuttings of half-ripe wood, 4 - 7 cm with a heel, August in a frame[11]. Produces roots in the spring[11]. Pot up as soon as possible[11].

Cuttings of mature wood, October/November in a frame.

Layering.

Scent

> No details on scent.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Sarothamnus scoparius* (a possible synonym).

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- [HP] PhotoFrom Henriette's plant pictures

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

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I wonder how the description of the propagation (book 80) with its demand for a cold frame fits to the quotation of book 186 (which is from Britain)about cultivation details, that says numerous seedlings spring up and replace burnt plants

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Plants For A Future: Database Search Results

Cytisus scoparius

Common name:	Broom	Family:	Leguminosae
Author:	(L.) Link.	Botanical references:	11, 17, 200
Synonyms:	Spartium scoparium (L.), Sarothamnus scoparius ((L.)K.Koch.)		
Known Hazards:	Poisonous[10, 19, 65]. The plant is of extremely low or zero toxicity[76].		
Range:	Britain.		
Habitat:	Sandy pastures and heaths, occasionally in open woodland, and often near the coast[4, 17]. Strongly calcifuge[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. scoparius f. sulphureus[G] C. scoparius var. andreanus[G] C. scoparius var. prostratus[G] C. scoparius var. sulphureus[G] Genista andreana[G] Genista scoparia[H] Genista scoparius[H] Sarothamnus scoparius var. prostratus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basam [H], Bisom [H], Bizzom [H], Breeam [H], Brem [D], Broom [E,H,MS], Broom Tops [H], Broome [E], Browme [H], Brum [H], Chin Ch'Iao [E], Common Broom [L], Enisida [E], Ginst [E], Green Broom [H], Irish Tops [H], Retama Negra [E], Scotch Broom [H,E,B,L], Scotchbroom [P], Supurge Kecitirfili [E], Yellow Broom [H],
Epithets:	From a Dictionary of Botanical Epithets
	scopa = broom twig; scoparius = broom like;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Other Range Info:	From the Ethnobotany Database
	China; Europe; Spain; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Hawaii, Idaho, Oregon, Washington, Victoria, New South Wales, South Australia, Western Australia.

Physical Characteristics

A decidious shrub growing to 2.4m by 1m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in flower from May to June, and the seeds ripen from August to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Condiment; Flowers.

The flower buds are pickled and used as a substitute for capers[4, 46, 183, 244]. They can also be added to salads[183]. Some caution is advised, see the notes above on toxicity.

The tender green tops of the plant have been used like hops to give a bitter flavour to beer and to render it more intoxicating[4, 183].

The roasted seed is a coffee substitute[2, 4, 115, 183].

Medicinal Uses

Disclaimer

Cardiotonic; Cathartic; Diuretic; Emetic; Vasoconstrictor.

Broom is a bitter narcotic herb that depresses the respiration and regulates heart action[238]. It acts upon the electrical conductivity of the heart, slowing and regulating the transmission of the impulses[254].

The young herbaceous tips of flowering shoots are cardiotonic, cathartic, diuretic, emetic and vasoconstrictor[4, 13, 21, 46, 165]. The seeds can also be used[4]. The plant is used internally in the treatment of heart complaints, and is especially used in conjunction with Convallaria majalis[238]. The plant is also strongly diuretic, stimulating urine production and thus countering fluid retention[254]. Since broom causes the muscles of the uterus to contract, it has been used to prevent blood loss after childbirth[254]. Use this herb with caution since large doses are likely to upset the stomach[4, 21]. The composition of active ingredients in the plant is very changeable, this makes it rather unreliable medicinally and it is therefore rarely used[9]. This herb should not be prescribed to pregnant women or patients with high blood pressure[238]. Any treatment with this plant should only be carried out under expert supervision[9]. See also the notes above on toxicity.

The young herbaceous tips of flowering shoots are harvested in spring, generally in May[4]. They can be used fresh or dried[4, 238]. They should not be stored for more than 12 months since the medicinally active ingredients break down[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Basketry; Broom; Dye; Essential; Fibre; Ground cover; Paper; Repellent; Soil stabilization; Tannin; Wood.

An excellent fibre is obtained from the bark, it is used in the manufacture of paper, cloth and nets[4, 100, 115]. It is not as strong as the fibre from the Spanish broom (Spartium junceum)[4]. The fibre is obtained from the root according to other reports[13, 46]. The bark fibre is used to make paper, it is 2 - 9mm long[189]. The branches are harvested in late summer or autumn, the leaves removed and the stems steamed until the fibres can be stripped. The fibres are cooked for 3 hours in lye then put in a ball mill for 3 hours. The paper is pale tan in colour[189].

The bark is a good source of tannin[4].

A yellow and a brown dye are obtained from the bark[46].

A yellow dye is obtained from the flowering stem[169].

A green dye is obtained from the leaves and young tops[4].

The branches are used to make baskets, brushes, brooms and besoms[4, 6, 13, 46, 55, 115]. They are also sometimes used for thatching roofs and as substitutes for reeds in making fences or screens[4].

An essential oil from the flowers is used in perfumery[57].

Growing well on dry banks and on steep slopes, it is an effective sand binder and soil stabiliser[4, 11, 46]. Broom is one of the first plant to colonize sand dunes by the coast[4].

The plant attracts insects away from nearby plants[14].

The var. prostratus (= C. scoparius maritimus?[208]) makes a good fast growing ground cover plant to 30cm tall, though it needs weeding in its first year[197]. The cultivar 'Andreanus Prostratus' can also be used[208].

Wood - very hard, beautifully veined[4]. The plant seldom reaches sufficient size for its wood to be of much value, but larger specimens are valued by cabinet makers and for veneer[4].

Cultivation details

Succeeds in most soils, preferring a fairly good but not rich soil[11]. Prefers a poor well-drained soil[14]. Succeeds in slightly acid, neutral and limy soils but dislikes shallow soils over chalk[200]. Plants are strongly calcifuge according to other reports and intolerant of a pH much above 6.5[17, 186]. Prefers a sunny position but tolerates some shade[11, 14, 17]. Plants succeed in exposed conditions, and are very tolerant of maritime exposure[4, K]. Plants have a deep root system, they are very drought tolerant once established and grow well on dry banks[4, 11]. Tolerates a smoky atmosphere, growing well in polluted areas[186].

Plants are hardy to about -20°c[184].

A number of named forms have been developed for their ornamental value[182].

New leaves are formed in April but these soon drop off the plant, photosynthesis being carried out by means of the green stems[186].

Very tolerant of cutting, it regenerates quickly from the base[186]. Plants are usually killed by fire but the seeds quickly germinate after the fire and rapidly become established[186].

A good bee plant and food plant for many caterpillars[24, 30, 46], it provides the food for the larvae of the green hairstreak butterfly[186]. Ants are attracted to the seeds, feeding on the juicy attachment that holds them to the pods and thus distributing the seed[186].

Dislikes root disturbance, especially when more than 20cm tall[11]. It is best to plant out into their permanent positions as early as possible.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame[80]. Pre-soak stored seed for 24 hours in warm water then cold stratify for 1 month and sow in a cold frame[80]. The seed usually germinates in 4 weeks at 20°c[98, 113]. Seedlings should be potted up as soon as possible since plants quickly become intolerant of root disturbance[186]. Plant them out into their permanent positions in late summer if they have made sufficient growth, otherwise in late spring of the following year[K]. The seed has a long viability[186].

Seed can also be sown in situ as soon as it is ripe in the late summer and autumn[4].

Cuttings of half-ripe wood, 4 - 7 cm with a heel, August in a frame[11]. Produces roots in the spring[11]. Pot up as soon as possible[11].

Cuttings of mature wood, October/November in a frame.

Layering.

Scent

> No details on scent.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Cytisus scoparius*

Subject:

Cytisus scoparius

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cytisus scoparius

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Daucus carota

Common name:	Wild carrot	Family:	Umbelliferae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Carrots sometimes cause allergic reactions in some people[46]. Skin contact with the sap is said to cause photo-sensitivity and/or dermatitis in some people[218]. Daucus has been reported to contain acetone, asarone, choline, ethanol, formic acid, HCN, isobutyric acid, limonene, malic acid, maltose, oxalic acid, palmitic acid, pyrrolidine, and quinic acid. Reviewing research on myristicin, which occurs in nutmeg, mace, black pepper, carrot seed, celery seed, and parsley, Buchanan (J. Food Safety 1: 275, 1979) noted that the psychoactive and hallucinogenic properties of mace, nutmeg, and purified myristicin have been studied. It has been hypothesized that myristicin and elemicin can be readily modified in the body to amphetamines. Handling carrot foliage, especially wet foliage, can cause irritation and vesication. Sensitized photosensitive persons may get an exact reproduction of the leaf on the skin by placing the leaf on the skin for awhile, followed by exposure to sunshine[269].		
Range:	Britain.		
Habitat:	Cultivated and waste land, amongst grass, especially by the sea and on chalk[4, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.

	D. gingidium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bees' Nest [H], Bird's Nest [H], Carot [E], Carotte [E], Carrot [E,H], Djane Racene [E], Gaizar [E], Havuc [E], Hawuch [E], Hu Lo Po [E], Huang Lo Po [E], Hung Lo Po [E], Jezar [E], Mohrrube [E], Peen [D], Philtron [H], Queen Anne's Lace [S,P,H], Queen Anne's-lace [B], Wild Carrot [L,S,H], Yarkuki [E], Zanahoria [E],
Epithets:	From a Dictionary of Botanical Epithets
	carota = carrot;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Belgium; Britain; Chile; China; Dominican Republic; Europe; Germany; Haiti; Iraq; Kurdistan; Mexico; Spain; Turkey; Us; Us(Amerindian); Us(Ca); Ussr
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota, Ohio, Washington, South Australia.

Physical Characteristics

Biennial growing to 0.6m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Coffee; Condiment; Flowers; Root.

Root - cooked[55]. Thin and stringy[K].

The flower clusters can be french-fried to produce a carrot-flavoured gourmet's delight[183].

The aromatic seed is used as a flavouring in stews etc[55, 183].

The dried roasted roots are ground into a powder and are used for making coffee[183].

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Contraceptive; Deobstruent; Diuretic; Emmenagogue; Galactogogue; Ophthalmic; Stimulant.

The wild carrot is an aromatic herb that acts as a diuretic, soothes the digestive tract and stimulates the uterus[238]. A wonderfully cleansing medicine, it supports the liver, stimulates the flow of urine and the removal of waste by the kidneys[254].

The whole plant is anthelmintic, carminative, deobstruent, diuretic, galactogogue, ophthalmic, stimulant[4, 7, 9, 13, 21, 165]. An infusion is used in the treatment of various complaints including digestive disorders, kidney and bladder diseases and in the treatment of dropsy[4, 238]. An infusion of the leaves has been used to counter cystitis and kidney stone formation, and to diminish stones that have already formed[254]. Carrot leaves contain significant amounts of porphyrins, which stimulate the pituitary gland and lead to the release of increased levels of sex hormones[254]. The plant is harvested in July and dried for later use.

A warm water infusion of the flowers has been used in the treatment of diabetes[213].

The grated raw root, especially of the cultivated forms, is used as a remedy for threadworms[213, 222, 254]. The root is also used to encourage delayed menstruation[213]. The root of the wild plant can induce uterine contractions and so should not be used by pregnant women[213]. A tea made from the roots is diuretic and has been used in the treatment of urinary stones[222].

The seeds are diuretic[213, 218], carminative, emmenagogue and anthelmintic[4, 218]. An infusion is used in the treatment of oedema, flatulent indigestion and menstrual problems[238]. The seed is a traditional 'morning after' contraceptive and there is some evidence to uphold this belief. It requires further investigation[222]. Carrot seeds can be abortifacient and so should not be used by pregnant women[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal

factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Essential.

An essential oil obtained from the seed has an orris-like scent[238]. It is used in perfumery and as a food flavouring[46, 238]. The oil has also been used cosmetically in anti-wrinkle creams[238].

Cultivation details

Prefers a sunny position and a well-drained neutral to alkaline soil[24, 238].

A good plant for the summer meadow[24], it is a food plant for caterpillars of the Swallow-tail Butterfly[200].

This species is the parent of the cultivated carrot[200]. It can act as an alternative host for pests and diseases of the cultivated carrots.

The whole plant, when bruised, gives off an aniseed-like scent[245].

Propagation

Seed - sow August/September or April in situ. The seed germinates better if it is given a period of cold stratification.

Scent

Plant: Crushed

The whole plant, when bruised, gives off an aniseed-like scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *daucus carota* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4

Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Add a longer comment

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Plants For A Future: Database Search Results

Daucus carota

Common name:	Wild carrot	Family:	Umbelliferae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Carrots sometimes cause allergic reactions in some people[46]. Skin contact with the sap is said to cause photo-sensitivity and/or dermatitis in some people[218]. Daucus has been reported to contain acetone, asarone, choline, ethanol, formic acid, HCN, isobutyric acid, limonene, malic acid, maltose, oxalic acid, palmitic acid, pyrrolidine, and quinic acid. Reviewing research on myristicin, which occurs in nutmeg, mace, black pepper, carrot seed, celery seed, and parsley, Buchanan (J. Food Safety 1: 275, 1979) noted that the psychoactive and hallucinogenic properties of mace, nutmeg, and purified myristicin have been studied. It has been hypothesized that myristicin and elemicin can be readily modified in the body to amphetamines. Handling carrot foliage, especially wet foliage, can cause irritation and vesication. Sensitized photosensitive persons may get an exact reproduction of the leaf on the skin by placing the leaf on the skin for awhile, followed by exposure to sunshine[269].		
Range:	Britain.		
Habitat:	Cultivated and waste land, amongst grass, especially by the sea and on chalk[4, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. gingidium[G]
	From various places around the Web, may not be correct. See below.

Other Common Names:	Bees' Nest [H], Bird's Nest [H], Carot [E], Carotte [E], Carrot [E,H], Djane Racene [E], Gaizar [E], Havuc [E], Hawuch [E], Hu Lo Po [E], Huang Lo Po [E], Hung Lo Po [E], Jezar [E], Mohrrube [E], Peen [D], Philtron [H], Queen Anne's Lace [S,P,H], Queen Anne's-lace [B], Wild Carrot [L,S,H], Yarkuki [E], Zanahoria [E],
Epithets:	From a Dictionary of Botanical Epithets
	carota = carrot;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Belgium; Britain; Chile; China; Dominican Republic; Europe; Germany; Haiti; Iraq; Kurdistan; Mexico; Spain; Turkey; Us; Us(Amerindian); Us(Ca); Ussr
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota, Ohio, Washington, South Australia.

Physical Characteristics

Biennial growing to 0.6m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Coffee; Condiment; Flowers; Root.

Root - cooked[55]. Thin and stringy[K].

The flower clusters can be french-fried to produce a carrot-flavoured gourmet's delight[183].

The aromatic seed is used as a flavouring in stews etc[55, 183].

The dried roasted roots are ground into a powder and are used for making coffee[183].

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Contraceptive; Deobstruent; Diuretic; Emmenagogue; Galactogogue; Ophthalmic; Stimulant.

The wild carrot is an aromatic herb that acts as a diuretic, soothes the digestive tract and stimulates the uterus[238]. A wonderfully cleansing medicine, it supports the liver, stimulates the flow of urine and the removal of waste by the kidneys[254].

The whole plant is anthelmintic, carminative, deobstruent, diuretic, galactogogue, ophthalmic, stimulant[4, 7, 9, 13, 21, 165]. An infusion is used in the treatment of various complaints including digestive disorders, kidney and bladder diseases and in the treatment of dropsy[4, 238]. An infusion of the leaves has been used to counter cystitis and kidney stone formation, and to diminish stones that have already formed[254]. Carrot leaves contain significant amounts of porphyrins, which stimulate the pituitary gland and lead to the release of increased levels of sex hormones[254]. The plant is harvested in July and dried for later use.

A warm water infusion of the flowers has been used in the treatment of diabetes[213].

The grated raw root, especially of the cultivated forms, is used as a remedy for threadworms[213, 222, 254]. The root is also used to encourage delayed menstruation[213]. The root of the wild plant can induce uterine contractions and so should not be used by pregnant women[213]. A tea made from the roots is diuretic and has been used in the treatment of urinary stones[222].

The seeds are diuretic[213, 218], carminative, emmenagogue and anthelmintic[4, 218]. An infusion is used in the treatment of oedema, flatulent indigestion and menstrual problems[238]. The seed is a traditional 'morning after' contraceptive and there is some evidence to uphold this belief. It requires further investigation[222]. Carrot seeds can be abortifacient and so should not be used by pregnant women[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Essential.

An essential oil obtained from the seed has an orris-like scent[238]. It is used in perfumery and as a food flavouring[46, 238]. The oil has also been used cosmetically in anti-wrinkle creams[238].

Cultivation details

Prefers a sunny position and a well-drained neutral to alkaline soil[24, 238].

A good plant for the summer meadow[24], it is a food plant for caterpillars of the Swallow-tail Butterfly[200].

This species is the parent of the cultivated carrot[200]. It can act as an alternative host for pests and diseases of the cultivated carrots.

The whole plant, when bruised, gives off an aniseed-like scent[245].

Propagation

Seed - sow August/September or April in situ. The seed germinates better if it is given a period of cold stratification.

Scent

Plant: Crushed

> The whole plant, when bruised, gives off an aniseed-like scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *daucus carota* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN

0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Daucus+carota`

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Plants For A Future: Database Search Results

Daucus carota

Common name:	Wild carrot	Family:	Umbelliferae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Carrots sometimes cause allergic reactions in some people[46]. Skin contact with the sap is said to cause photo-sensitivity and/or dermatitis in some people[218]. Daucus has been reported to contain acetone, asarone, choline, ethanol, formic acid, HCN, isobutyric acid, limonene, malic acid, maltose, oxalic acid, palmitic acid, pyrrolidine, and quinic acid. Reviewing research on myristicin, which occurs in nutmeg, mace, black pepper, carrot seed, celery seed, and parsley, Buchanan (J. Food Safety 1: 275, 1979) noted that the psychoactive and hallucinogenic properties of mace, nutmeg, and purified myristicin have been studied. It has been hypothesized that myristicin and elemicin can be readily modified in the body to amphetamines. Handling carrot foliage, especially wet foliage, can cause irritation and vesication. Sensitized photosensitive persons may get an exact reproduction of the leaf on the skin by placing the leaf on the skin for awhile, followed by exposure to sunshine[269].		
Range:	Britain.		
Habitat:	Cultivated and waste land, amongst grass, especially by the sea and on chalk[4, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. D. gingidium[G]
	From various places around the Web, may not be correct. See below.

Other Common Names:	Bees' Nest [H], Bird's Nest [H], Carot [E], Carotte [E], Carrot [E,H], Djane Racene [E], Gaizar [E], Havuc [E], Hawuch [E], Hu Lo Po [E], Huang Lo Po [E], Hung Lo Po [E], Jezar [E], Mohrrube [E], Peen [D], Philtron [H], Queen Anne's Lace [S,P,H], Queen Anne's-lace [B], Wild Carrot [L,S,H], Yarkuki [E], Zanahoria [E],
Epithets:	From a Dictionary of Botanical Epithets carota = carrot;
Systematics:	From a UDSA Plants Database Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database Belgium; Britain; Chile; China; Dominican Republic; Europe; Germany; Haiti; Iraq; Kurdistan; Mexico; Spain; Turkey; Us; Us(Amerindian); Us(Ca); Ussr
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Iowa, Minnesota, Ohio, Washington, South Australia.

Physical Characteristics

Biennial growing to 0.6m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Coffee; Condiment; Flowers; Root.

Root - cooked[55]. Thin and stringy[K].

The flower clusters can be french-fried to produce a carrot-flavoured gourmet's delight[183].

The aromatic seed is used as a flavouring in stews etc[55, 183].

The dried roasted roots are ground into a powder and are used for making coffee[183].

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Contraceptive; Deobstruent; Diuretic; Emmenagogue; Galactogogue; Ophthalmic; Stimulant.

The wild carrot is an aromatic herb that acts as a diuretic, soothes the digestive tract and stimulates the uterus[238]. A wonderfully cleansing medicine, it supports the liver, stimulates the flow of urine and the removal of waste by the kidneys[254].

The whole plant is anthelmintic, carminative, deobstruent, diuretic, galactogogue, ophthalmic, stimulant[4, 7, 9, 13, 21, 165]. An infusion is used in the treatment of various complaints including digestive disorders, kidney and bladder diseases and in the treatment of dropsy[4, 238]. An infusion of the leaves has been used to counter cystitis and kidney stone formation, and to diminish stones that have already formed[254]. Carrot leaves contain significant amounts of porphyrins, which stimulate the pituitary gland and lead to the release of increased levels of sex hormones[254]. The plant is harvested in July and dried for later use.

A warm water infusion of the flowers has been used in the treatment of diabetes[213].

The grated raw root, especially of the cultivated forms, is used as a remedy for threadworms[213, 222, 254]. The root is also used to encourage delayed menstruation[213]. The root of the wild plant can induce uterine contractions and so should not be used by pregnant women[213]. A tea made from the roots is diuretic and has been used in the treatment of urinary stones[222].

The seeds are diuretic[213, 218], carminative, emmenagogue and anthelmintic[4, 218]. An infusion is used in the treatment of oedema, flatulent indigestion and menstrual problems[238]. The seed is a traditional 'morning after' contraceptive and there is some evidence to uphold this belief. It requires further investigation[222]. Carrot seeds can be abortifacient and so should not be used by pregnant women[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Essential.

An essential oil obtained from the seed has an orris-like scent[238]. It is used in perfumery and as a food flavouring[46, 238]. The oil has also been used cosmetically in anti-wrinkle creams[238].

Cultivation details

Prefers a sunny position and a well-drained neutral to alkaline soil[24, 238].

A good plant for the summer meadow[24], it is a food plant for caterpillars of the Swallow-tail Butterfly[200].

This species is the parent of the cultivated carrot[200]. It can act as an alternative host for pests and diseases of the cultivated carrots.

The whole plant, when bruised, gives off an aniseed-like scent[245].

Propagation

Seed - sow August/September or April in situ. The seed germinates better if it is given a period of cold stratification.

Scent

Plant: Crushed

The whole plant, when bruised, gives off an aniseed-like scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Daucus carota*

Subject:

Daucus carota

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Daucus carota

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Daucus carota sativus

Common name:	Carrot	Family:	Umbelliferae
Author:	(Hoffm.)Arcang.	Botanical references:	200
Synonyms:			
Known Hazards:	Carrots sometimes cause allergic reactions in some people[46]. Skin contact with the sap is said to cause photo-sensitivity and/or dermatitis in some people[218].		
Range:	A cultivated form of D. carota.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. carota sativa[HORTIPLEX] D. carota ssp. sativus[P] D. carota subsp. sativus[G,H] D. carota var. sativus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carrot [H,L,P], Wortel [D],
Epithets:	From a Dictionary of Botanical Epithets
	carota = carrot; sativus = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Biennial growing to 1.2m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Colouring; Condiment; Leaves; Root.

Root - raw or cooked[2, 7, 27]. The roots of well-grown plants are crisp, sweet and juicy, they are very nice raw and are also cooked as a vegetable or added to soups, stews etc[K]. The grated root is a tasty addition to the salad bowl[K]. The juice can be extracted from the root and used as a health-promoting drink[46]. The root is very rich in carotene, which is transformed by the body into vitamin A when it is eaten[7]. The root is sometimes ground into a powder and used in making cakes, bread etc[7, K].

The roasted root is a coffee substitute[21, 46].

Carotin, extracted from the roots, is used as an orange-yellow food dye[171].

Leaves - raw or cooked. A very strong flavour, they can be added in small quantities to mixed salads[K]. The leaves contain an oil that is rich in vitamin E, they are sometimes used as a flavouring in soups[7].

An essential oil from the seed is used as a food flavouring.

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Deobstruent; Diuretic; Galactogogue; Ophthalmic; Stimulant.

Cultivated carrot roots are a rich source of beta-carotene, which is converted to vitamin A by the liver[254]. When used as a regular item in the diet the roots improve eyesight and skin health, and also have anti-cancer effects[238]. A wonderful cleansing medicine, it supports the liver and stimulates urine flow and the removal of waste by the kidneys[254].

The root is diuretic and ophthalmic[7]. The juice of organic carrots is a delicious drink and a valuable detoxifier[254]. The raw root, grated or mashed, is a safe treatment for threadworms, especially in children[254].

The seed is carminative, galactogogue, lithontripic and stimulant[7, 240]. They are useful in the treatment of kidney diseases, dropsy and to settle the digestive system[240, 254]. They stimulate menstruation and have been used in folk medicine as a treatment for hangovers[254].

Other Uses

Alcohol; Dye; Essential.

The roots are fermented in order to produce alcohol[7].

An orange dye is obtained from the root[171].

An essential oil from the seed has a distinctive fragrance and is used in perfumery[7, 46].

Cultivation details

Prefers a good light warm well-drained soil and plenty of moisture[16, 27, 37, 200]. Prefers a sandy or calcareous loam[132]. Plants are extremely sensitive to soil conditions, good roots can only be produced in a soil that permits easy penetration of the root[200]. Carrots are reported to tolerate an annual precipitation in the range of 31 to 410cm, an annual temperature range of 3.6 to 28.5°C and a pH of 4.2 to 8.7[269]. They prefer a pH in the range 6.5 to 7.5[200].

Carrots are widely cultivated in most areas of the world for their edible root, which can be available all year round from successional sowings[46]. There are many named varieties, with roots varying in size and shape from short and round to long and tapering[183, 200]. World-wide, the yields of roots averages about 24 tonnes per hectare, the world low production yield was 3,125 kg/ha in Zaire, whilst the world high production yield was 62,889 kg/ha in Belgium-Luxembourg[269].

Plants grow best at a mean temperature of 16 - 18°c. At temperatures above 28°c top growth is reduced and the roots become very strongly flavoured. At temperatures below 16°c the roots become long and tapered and are pale in colour[200]. The leaves are moderately susceptible to frost but the roots are much hardier and can safely be left in the ground in the winter in most areas[200], so long as pests such as slugs or root fly are not a problem[K]. If dug up for storage, the roots can be kept for up to six months at 0 - 1°c and high relative humidity[200].

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Seed:

> No details on scent.

Cultivars

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Plants For A Future: Database Search Results

Daucus carota sativus

Common name:	Carrot	Family:	Umbelliferae
Author:	(Hoffm.)Arcang.	Botanical references:	200
Synonyms:			
Known Hazards:	Carrots sometimes cause allergic reactions in some people[46]. Skin contact with the sap is said to cause photo-sensitivity and/or dermatitis in some people[218].		
Range:	A cultivated form of D. carota.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. carota sativa[HORTIPLEX] D. carota ssp. sativus[P] D. carota subsp. sativus[G,H] D. carota var. sativus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carrot [H,L,P], Wortel [D],
Epithets:	From a Dictionary of Botanical Epithets
	carota = carrot; sativus = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Biennial growing to 1.2m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Colouring; Condiment; Leaves; Root.

Root - raw or cooked[2, 7, 27]. The roots of well-grown plants are crisp, sweet and juicy, they are very nice raw and are also cooked as a vegetable or added to soups, stews etc[K]. The grated root is a tasty addition to the salad bowl[K]. The juice can be extracted from the root and used as a health-promoting drink[46]. The root is very rich in carotene, which is transformed by the body into vitamin A when it is eaten[7]. The root is sometimes ground into a powder and used in making cakes, bread etc[7, K].

The roasted root is a coffee substitute[21, 46].

Carotin, extracted from the roots, is used as an orange-yellow food dye[171].

Leaves - raw or cooked. A very strong flavour, they can be added in small quantities to mixed salads[K]. The leaves contain an oil that is rich in vitamin E, they are sometimes used as a flavouring in soups[7].

An essential oil from the seed is used as a food flavouring.

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Deobstruent; Diuretic; Galactogogue; Ophthalmic; Stimulant.

Cultivated carrot roots are a rich source of beta-carotene, which is converted to vitamin A by the liver[254]. When used as a regular item in the diet the roots improve eyesight and skin health, and also have anti-cancer effects[238]. A wonderful cleansing medicine, it supports the liver and stimulates urine flow and the removal of waste by the kidneys[254].

The root is diuretic and ophthalmic[7]. The juice of organic carrots is a delicious drink and a valuable detoxifier[254]. The raw root, grated or mashed, is a safe treatment for threadworms, especially in children[254].

The seed is carminative, galactogogue, lithontripic and stimulant[7, 240]. They are useful in the treatment of kidney diseases, dropsy and to settle the digestive system[240, 254]. They stimulate menstruation and have been used in folk medicine as a treatment for hangovers[254].

Other Uses

Alcohol; Dye; Essential.

The roots are fermented in order to produce alcohol[7].

An orange dye is obtained from the root[171].

An essential oil from the seed has a distinctive fragrance and is used in perfumery[7, 46].

Cultivation details

Prefers a good light warm well-drained soil and plenty of moisture[16, 27, 37, 200]. Prefers a sandy or calcareous loam[132]. Plants are extremely sensitive to soil conditions, good roots can only be produced in a soil that permits easy penetration of the root[200]. Carrots are reported to tolerate an annual precipitation in the range of 31 to 410cm, an annual temperature range of 3.6 to 28.5°C and a pH of 4.2 to 8.7[269]. They prefer a pH in the range 6.5 to 7.5[200].

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Cultivated Beds.

Edible Uses

Coffee; Colouring; Condiment; Leaves; Root.

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Prefers a good light warm well-drained soil and plenty of moisture[16, 27, 37, 200]. Prefers a sandy or calcareous loam[132]. Plants are extremely sensitive to soil conditions, good roots can only be produced in a soil that permits easy penetration of the root[200]. Carrots are reported to tolerate an annual precipitation in the range of 31 to 410cm, an annual temperature range of 3.6 to 28.5°C and a pH of 4.2 to 8.7[269]. They prefer a pH in the range 6.5 to 7.5[200].

Carrots are widely cultivated in most areas of the world for their edible root, which can be available all year round from successional sowings[46]. There are many named varieties, with roots varying in size and shape from short and round to long and tapering[183, 200]. World-wide, the yields of roots averages about 24 tonnes per hectare, the world low production yield was 3,125 kg/ha in Zaire, whilst the world high production yield was 62,889 kg/ha in Belgium-Luxembourg[269].

Plants grow best at a mean temperature of 16 - 18°c. At temperatures above 28°c top growth is reduced and the roots become very strongly flavoured. At temperatures below 16°c the roots become long and tapered and are pale in colour[200]. The leaves are moderately susceptible to frost but the roots are much hardier and can safely be left in the ground in the winter in most areas[200], so long as pests such as slugs or root fly are not a problem[K]. If dug up for storage, the roots can be kept for up to six months at 0 - 1°c and high relative humidity[200].

Carrots are very susceptible to a number of pests and diseases. The young seedlings are adored by slugs and so will generally need some protection. Carrot root fly is also a major problem. This creature lays its eggs near the young carrots. When they hatch, the larvae burrow into the soil and then eat their way into the root. In bad seasons almost all the crop can be heavily damaged. It is possible to reduce this damage by timing seed sowing to try and avoid the worst times of infestation, a June sowing of a fast-maturing cultivar will often be successful. There are also various companion plants that can help to reduce infestation. In general, these are strong-smelling plants such as garlic, onions and various aromatic plants such as wormwood. The idea is that these plants will mask the smell of the carrots and therefore the fly, which mainly uses scent to find the plants, will not be able to detect the smell of the carrots This method is most likely to fail when the fly comes close enough to the plants to see them and then no longer relies on scent. The most successful organic solution to date has been to erect barriers of clear polythene about 1 metre tall all around the bed of carrots. Since the fly generally flies below this height, it has proved to be quite effective, although any fly that does get in will then tend to stay inside the barrier and lay all of its eggs there.

About 95% of carrot flowers are pollinated by insects, with the remaining 5% self-pollinating[269].

Carrots grow well with lettuce and chives[18] but dislike dill[20]. They also grow badly with potatoes, kohl rabi, fennel and cabbages[201].

Propagation

Seed - sow in situ in succession from early spring to early summer. Do not transplant the seedlings, since this will usually cause damage to the roots and a good crop will not be obtained. Carrot seed needs a well-made seed bed with a fine tilth if good germination is to be achieved. The earliest sowings can be made of an early maturing variety in a cold frame or greenhouse in January or February, this will provide edible roots in late spring. The first outdoor sowings are made as the soil warms up in the spring. Successional sowings can be made until early summer if required. A September sowing in mild areas can provide an early spring supply of young roots, though the plants will often require some protection.

Scent

Seed:

> No details on scent.

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Daucus+carota+sativus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Daucus+carota+sativus`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Daucus carota sativus*

Subject:

Daucus carota sativus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Daucus carota sativus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:38:06 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Diospyros kaki

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Persimmon	Family:	Ebenaceae
Author:	L.	Botanical references:	11, 74, 200
Synonyms:	Diospyros chinensis (Blume.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Not known in a truly wild situation, it is found in broad leafed woodland but probably as an escape from cultivation[74, 200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diospyrus kaki[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Hung Shih [E], Japanese Persimmon [P], Juan Tsao [E], Kaki [E], Kaki, Chinese Persimmon [MS], Kasemek [E], Pai Shih [E], Persimmon [H], Shih [E],
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Ebony family
Other Range Info:	From the Ethnobotany Database
	China; India; Malaya

Physical Characteristics

A decidious tree growing to 12m by 7m . It is hardy to zone 8 and is frost tender. It is in flower from July to August, and the seeds ripen in November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Cultivar **'Saijo'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Great Wall'**: Woodland, Secondary, Sunny Edge.

Edible Uses

Coffee; Condiment; Fruit; Sweetener.

Fruit - raw or cooked[1, 2, 3, 7, 46, 61]. The fruit has an exquisitely rich flavour when it is very soft and fully ripe (almost at the point of going bad), but the fruit of many cultivars is very harsh and astringent before then[K]. In Britain, the fruit needs to be harvested whilst it is still very hard. This is done very late in the season (in December or even January if possible), it is then stored in a cool but frost-free place until very soft and fully ripe[K]. The fruit can also be used in pies, cakes, bread, desserts etc[183]. It contains 25% sugars[74]. A fuller nutritional analysis is available[218]. The fruit can also be dried for later use[183]. The fruit is about 7.5cm in diameter[200].

The peel of the fruit can be powdered and used as a sweetener[183].

The leaves are used to improve the flavour of pickled radishes[183].

The roasted seeds are a coffee substitute[183, 240].

Composition

Fruit (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Calories: 350 Protein: 3.6 Fat: 1.5 Carbohydrate: 91 Fibre: 7.7 Ash: 4
> In milligrammes per 100g weight of food:
> Calcium: 80 Phosphorus: 100 Iron: 8 Sodium: 20 Potassium: 950 VitaminA: 5600

Thiamine: 0.2 Riboflavin: 0.15 Niacin: 0.9 VitaminC: 75
Source: [218]

Medicinal Uses

Disclaimer

Anthelmintic; Antitussive; Antivinous; Appetizer; Astringent; Demulcent; Expectorant; Febrifuge; Hypotensive; Laxative; Sialagogue; Stomachic; Styptic.

Appetizer, sialagogue[116, 176, 178].

The stem bark is astringent and styptic[218].

The fruit is said to have different properties depending on its stage of ripeness, though it is generally antitussive, astringent, laxative, nutritive and stomachic[218, 238].

The fresh fully ripe fruit is used raw in the treatment of constipation and haemorrhoids[238] and when cooked is used to treat diarrhoea[238]..

The dried ripe fruit is used in the treatment of bronchial complaints[238], whilst when ground into a powder it is used to treat dry coughs[238].

Juice from the unripe fruit is used in the treatment of hypertension[218, 238].

The fruits, picked green and ripened in containers with the leaves, become very sweet and are considered to be antifebrile, antivinous and demulcent[218].

The fruits are also peeled and then exposed to sunlight by day and dew by night. They become encrusted with a white powder and are then considered to be anthelmintic, antihaemorrhagic, antivinous, expectorant, febrifuge and restorative[218].

The peduncle is used to treat coughs and hiccups[218].

The calyx is used to treat hiccups[176].

Other Uses

Cosmetic; Wood.

The pulp of unripe fruits is used in cosmetics to make face-packs because of its firming qualities[7].

Wood - hard and durable with a beautiful grain. Used for making fine furniture[266].

Cultivation details

Prefers a good deep loamy soil in sun or light shade but succeeds in most soils[11, 132, 200]. Dislikes very acid or wet and poorly drained soils[200]. Requires a sheltered position[200].

Dormant plants are quite hardy in Britain, tolerating temperatures down to about -14°c[74], but they require warmer summers than are normally experienced in Britain in order to ripen their fruit and wood[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. A warm sunny wall improves the chance of producing ripe fruit[3] and trees fruit freely when grown under glass[1]. Fruits are frequently produced outdoors at Kew[11, K]. A tree seen in a open position with afternoon shade at Kew in November 1993 (after a cool summer) had about 200 almost ripe fruits around 8cm in diameter[K]. The same tree, after a fairly warm summer in 1996, had a large quantity of fruit just about ready for harvesting in the middle of December[K].

Trees produce a long taproot and should be planted out into their permanent positions as soon as possible[200]. The young trees require some winter protection for their first winter or two[K].

The persimmon is widely cultivated for its edible fruit in warm temperate areas of the world, especially in Japan and China, there are many named varieties[183]. Some cultivars, such as 'Fuyu', lack the usual astringency and can be eaten whilst still firm, though they develop a richer flavour if allowed to become soft[183, 200]. These non-astringent forms require a warmer climate and do not ripen in cooler areas[183]. The astringent cultivars are somewhat hardier and ripen well in cooler climates than the non-astringent forms[183]. The fruit colours better and is sweeter in warmer areas but in hot conditions has a poor texture and deep black spots develop[183]. If allowed to become very ripe (almost to the point of going rotten), they develop a better flavour than non-astringent forms[183].

Dioecious, but the female tree can produce seedless fruits in the absence of a pollinator. However, unfertilized fruit tends to be smaller and more astringent[200]. This astringency is due to the high content of tannin but once the fruit is fully ripe it loses this astringency and becomes sweet[132]. If fertilized fruit is required, then growing one male for every 8 - 10 females is usually adequate[238].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[113, 200]. Stored seed requires a period of cold-stratification and should be sown as early in the year as possible[78]. It usually germinates in 1 - 6 months at 15°c[175]. Pot up the young seedlings as soon as they are large enough to handle into fairly deep pots and plant them out into their permanent positions in early summer. Give them some protection from winter cold for their first year or two outdoors.

Cuttings of half-ripe wood, July/August in a frame[200].

Layering in spring[200].

Cultivars

'Saijo'

A small, elongated fruit, astringent when not fully ripe, but becomes sweet with an excellent flavour if allowed to ripen fully[183]. The fruits are usually seedless and store well[183]. The dried fruit is very attractive[183]. A medium-size tree, it bears consistently and tolerates temperatures down to at least -23°c[183].

'Great Wall' 'Atoma'

The small to medium size fruit is up to 6cm in diameter, the flesh is dry and very sweet, but astringent if not fully ripe[183]. The fruit ripens in mid-Autumn[183]. A relatively slow-growing, upright tree, it is very cold hardy and bears heavy crops every second year[183]. It is recommended for colder areas, though it also does well in Florida[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Diospyrus kaki* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Ebenaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of

plants.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[175] **Bird. R. (Editor)** *Focus on Plants. Volume 5. (formerly 'Growing from seed')* Thompson and Morgan. 1991
Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Diospyros+kaki`

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Plants For A Future: Database Search Results

Diospyros kaki

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Persimmon	Family:	Ebenaceae
Author:	L.	Botanical references:	11, 74, 200
Synonyms:	Diospyros chinensis (Blume.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Not known in a truly wild situation, it is found in broad leafed woodland but probably as an escape from cultivation[74, 200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diospyrus kaki[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Hung Shih [E], Japanese Persimmon [P], Juan Tsao [E], Kaki [E], Kaki, Chinese Persimmon [MS], Kasemek [E], Pai Shih [E], Persimmon [H], Shih [E],
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Ebony family
Other Range Info:	From the Ethnobotany Database
	China; India; Malaya

Physical Characteristics

A decidious tree growing to 12m by 7m . It is hardy to zone 8 and is frost tender. It is in flower from July to August, and the seeds ripen in November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Cultivar **'Saijo'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Great Wall'**: Woodland, Secondary, Sunny Edge.

Edible Uses

Coffee; Condiment; Fruit; Sweetener.

Fruit - raw or cooked[1, 2, 3, 7, 46, 61]. The fruit has an exquisitely rich flavour when it is very soft and fully ripe (almost at the point of going bad), but the fruit of many cultivars is very harsh and astringent before then[K]. In Britain, the fruit needs to be harvested whilst it is still very hard. This is done very late in the season (in December or even January if possible), it is then stored in a cool but frost-free place until very soft and fully ripe[K]. The fruit can also be used in pies, cakes, bread, desserts etc[183]. It contains 25% sugars[74]. A fuller nutritional analysis is available[218]. The fruit can also be dried for later use[183]. The fruit is about 7.5cm in diameter[200].

The peel of the fruit can be powdered and used as a sweetener[183].

The leaves are used to improve the flavour of pickled radishes[183].

The roasted seeds are a coffee substitute[183, 240].

Composition

Fruit (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 350 Protein: 3.6 Fat: 1.5 Carbohydrate: 91 Fibre: 7.7 Ash: 4
In milligrammes per 100g weight of food:
Calcium: 80 Phosphorus: 100 Iron: 8 Sodium: 20 Potassium: 950 VitaminA: 5600
Thiamine: 0.2 Riboflavin: 0.15 Niacin: 0.9 VitaminC: 75
Source: [218]

Medicinal Uses

Disclaimer

Anthelmintic; Antitussive; Antivinous; Appetizer; Astringent; Demulcent; Expectorant; Febrifuge;

Hypotensive; Laxative; Sialagogue; Stomachic; Styptic.

Appetizer, sialagogue[116, 176, 178].

The stem bark is astringent and styptic[218].

The fruit is said to have different properties depending on its stage of ripeness, though it is generally antitussive, astringent, laxative, nutritive and stomachic[218, 238].

The fresh fully ripe fruit is used raw in the treatment of constipation and haemorrhoids[238] and when cooked is used to treat diarrhoea[238]..

The dried ripe fruit is used in the treatment of bronchial complaints[238], whilst when ground into a powder it is used to treat dry coughs[238].

Juice from the unripe fruit is used in the treatment of hypertension[218, 238].

The fruits, picked green and ripened in containers with the leaves, become very sweet and are considered to be antifebrile, antivinous and demulcent[218].

The fruits are also peeled and then exposed to sunlight by day and dew by night. They become encrusted with a white powder and are then considered to be anthelmintic, antihaemorrhagic, antivinous, expectorant, febrifuge and restorative[218].

The peduncle is used to treat coughs and hiccups[218].

The calyx is used to treat hiccups[176].

Other Uses

Cosmetic; Wood.

The pulp of unripe fruits is used in cosmetics to make face-packs because of its firming qualities[7].

Wood - hard and durable with a beautiful grain. Used for making fine furniture[266].

Cultivation details

Prefers a good deep loamy soil in sun or light shade but succeeds in most soils[11, 132, 200]. Dislikes very acid or wet and poorly drained soils[200]. Requires a sheltered position[200].

Dormant plants are quite hardy in Britain, tolerating temperatures down to about -14°c[74], but they require warmer summers than are normally experienced in Britain in order to ripen their fruit and wood[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. A warm sunny wall improves the chance of producing ripe fruit[3] and trees fruit freely when grown under glass[1]. Fruits are frequently produced outdoors at Kew[11, K]. A tree seen in a open position with afternoon shade at Kew in November 1993 (after a cool summer) had about 200 almost ripe fruits around 8cm in diameter[K]. The same tree, after a fairly warm summer in 1996, had a large quantity of fruit just about ready for harvesting in the middle of December[K].

Trees produce a long taproot and should be planted out into their permanent positions as soon as possible[200]. The young trees require some winter protection for their first winter or two[K].

The persimmon is widely cultivated for its edible fruit in warm temperate areas of the world, especially in Japan and China, there are many named varieties[183]. Some cultivars, such as 'Fuyu', lack the usual astringency and can be eaten whilst still firm, though they develop a richer flavour if allowed to become soft[183, 200]. These non-astringent forms require a warmer climate and do not ripen in cooler areas[183]. The astringent cultivars are somewhat hardier and ripen well in cooler climates than the non-astringent forms[183]. The fruit colours better and is sweeter in warmer areas but in hot conditions has a poor texture and deep black spots develop[183]. If allowed to become very ripe (almost to the point of going rotten), they develop a better flavour than non-astringent forms[183].

Dioecious, but the female tree can produce seedless fruits in the absence of a pollinator. However, unfertilized fruit tends to be smaller and more astringent[200]. This astringency is due to the high content of tannin but once the fruit is fully ripe it loses this astringency and becomes sweet[132]. If fertilized fruit is required, then growing one male for every 8 - 10 females is usually adequate[238].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[113, 200]. Stored seed requires a period of cold-stratification and should be sown as early in the year as possible[78]. It usually germinates in 1 - 6 months at 15°c[175]. Pot up the young seedlings as soon as they are large enough to handle into fairly deep pots and plant them out into their permanent positions in early summer. Give them some protection from winter cold for their first year or two outdoors.

Cuttings of half-ripe wood, July/August in a frame[200].

Layering in spring[200].

Cultivars

'Saijo'

> A small, elongated fruit, astringent when not fully ripe, but becomes sweet with an excellent flavour if allowed to ripen fully[183]. The fruits are usually seedless and store well[183]. The dried fruit is very attractive[183]. A medium-size tree, it bears consistently and tolerates

temperatures down to at least -23°c[183].

'Great Wall' 'Atoma'

The small to medium size fruit is up to 6cm in diameter, the flesh is dry and very sweet, but astringent if not fully ripe[183]. The fruit ripens in mid-Autumn[183]. A relatively slow-growing, upright tree, it is very cold hardy and bears heavy crops every second year[183]. It is recommended for colder areas, though it also does well in Florida[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Diospyrus kaki* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Ebenaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[175] **Bird. R. (Editor)** *Focus on Plants. Volume 5. (formerly 'Growing from seed')* Thompson and Morgan. 1991
Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

Readers Comments

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Plants For A Future: Database Search Results

Diospyros kaki

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Persimmon	Family:	Ebenaceae
Author:	L.	Botanical references:	11, 74, 200
Synonyms:	Diospyros chinensis (Blume.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Not known in a truly wild situation, it is found in broad leafed woodland but probably as an escape from cultivation[74, 200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Diospyrus kaki[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Hung Shih [E], Japanese Persimmon [P], Juan Tsao [E], Kaki [E], Kaki, Chinese Persimmon [MS], Kasemek [E], Pai Shih [E], Persimmon [H], Shih [E],
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Ebony family
Other Range Info:	From the Ethnobotany Database
	China; India; Malaya

Physical Characteristics

A decidious tree growing to 12m by 7m . It is hardy to zone 8 and is frost tender. It is in flower from July to August, and the seeds ripen in November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Cultivar **'Saijo'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Great Wall'**: Woodland, Secondary, Sunny Edge.

Edible Uses

Coffee; Condiment; Fruit; Sweetener.

Fruit - raw or cooked[1, 2, 3, 7, 46, 61]. The fruit has an exquisitely rich flavour when it is very soft and fully ripe (almost at the point of going bad), but the fruit of many cultivars is very harsh and astringent before then[K]. In Britain, the fruit needs to be harvested whilst it is still very hard. This is done very late in the season (in December or even January if possible), it is then stored in a cool but frost-free place until very soft and fully ripe[K]. The fruit can also be used in pies, cakes, bread, desserts etc[183]. It contains 25% sugars[74]. A fuller nutritional analysis is available[218]. The fruit can also be dried for later use[183]. The fruit is about 7.5cm in diameter[200].

The peel of the fruit can be powdered and used as a sweetener[183].

The leaves are used to improve the flavour of pickled radishes[183].

The roasted seeds are a coffee substitute[183, 240].

Composition

Fruit (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Calories: 350 Protein: 3.6 Fat: 1.5 Carbohydrate: 91 Fibre: 7.7 Ash: 4
> In milligrammes per 100g weight of food:
> Calcium: 80 Phosphorus: 100 Iron: 8 Sodium: 20 Potassium: 950 VitaminA: 5600
> Thiamine: 0.2 Riboflavin: 0.15 Niacin: 0.9 VitaminC: 75
> Source: [218]

Medicinal Uses

Disclaimer

Anthelmintic; Antitussive; Antivinous; Appetizer; Astringent; Demulcent; Expectorant; Febrifuge;

Hypotensive; Laxative; Sialagogue; Stomachic; Styptic.

Appetizer, sialagogue[116, 176, 178].

The stem bark is astringent and styptic[218].

The fruit is said to have different properties depending on its stage of ripeness, though it is generally antitussive, astringent, laxative, nutritive and stomachic[218, 238].

The fresh fully ripe fruit is used raw in the treatment of constipation and haemorrhoids[238] and when cooked is used to treat diarrhoea[238]..

The dried ripe fruit is used in the treatment of bronchial complaints[238], whilst when ground into a powder it is used to treat dry coughs[238].

Juice from the unripe fruit is used in the treatment of hypertension[218, 238].

The fruits, picked green and ripened in containers with the leaves, become very sweet and are considered to be antifebrile, antivinous and demulcent[218].

The fruits are also peeled and then exposed to sunlight by day and dew by night. They become encrusted with a white powder and are then considered to be anthelmintic, antihaemorrhagic, antivinous, expectorant, febrifuge and restorative[218].

The peduncle is used to treat coughs and hiccups[218].

The calyx is used to treat hiccups[176].

Other Uses

Cosmetic; Wood.

The pulp of unripe fruits is used in cosmetics to make face-packs because of its firming qualities[7].

Wood - hard and durable with a beautiful grain. Used for making fine furniture[266].

Cultivation details

Prefers a good deep loamy soil in sun or light shade but succeeds in most soils[11, 132, 200]. Dislikes very acid or wet and poorly drained soils[200]. Requires a sheltered position[200].

Dormant plants are quite hardy in Britain, tolerating temperatures down to about -14°c[74], but they require warmer summers than are normally experienced in Britain in order to ripen their fruit and wood[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. A warm sunny wall improves the chance of producing ripe fruit[3] and trees fruit freely when grown under glass[1]. Fruits are frequently produced outdoors at Kew[11, K]. A tree seen in a open position with afternoon shade at Kew in November 1993 (after a cool summer) had about 200 almost ripe fruits around 8cm in diameter[K]. The same tree, after a fairly warm summer in 1996, had a large quantity of fruit just about ready for harvesting in the middle of December[K].

Trees produce a long taproot and should be planted out into their permanent positions as soon as possible[200]. The young trees require some winter protection for their first winter or two[K].

The persimmon is widely cultivated for its edible fruit in warm temperate areas of the world, especially in Japan and China, there are many named varieties[183]. Some cultivars, such as 'Fuyu', lack the usual astringency and can be eaten whilst still firm, though they develop a richer flavour if allowed to become soft[183, 200]. These non-astringent forms require a warmer climate and do not ripen in cooler areas[183]. The astringent cultivars are somewhat hardier and ripen well in cooler climates than the non-astringent forms[183]. The fruit colours better and is sweeter in warmer areas but in hot conditions has a poor texture and deep black spots develop[183]. If allowed to become very ripe (almost to the point of going rotten), they develop a better flavour than non-astringent forms[183].

Dioecious, but the female tree can produce seedless fruits in the absence of a pollinator. However, unfertilized fruit tends to be smaller and more astringent[200]. This astringency is due to the high content of tannin but once the fruit is fully ripe it loses this astringency and becomes sweet[132]. If fertilized fruit is required, then growing one male for every 8 - 10 females is usually adequate[238].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[113, 200]. Stored seed requires a period of cold-stratification and should be sown as early in the year as possible[78]. It usually germinates in 1 - 6 months at 15°c[175]. Pot up the young seedlings as soon as they are large enough to handle into fairly deep pots and plant them out into their permanent positions in early summer. Give them some protection from winter cold for their first year or two outdoors.

Cuttings of half-ripe wood, July/August in a frame[200].

Layering in spring[200].

Cultivars

'Saijo'

> A small, elongated fruit, astringent when not fully ripe, but becomes sweet with an excellent flavour if allowed to ripen fully[183]. The fruits are usually seedless and store well[183]. The dried fruit is very attractive[183]. A medium-size tree, it bears consistently and tolerates

temperatures down to at least -23°c[183].

'Great Wall' 'Atoma'

The small to medium size fruit is up to 6cm in diameter, the flesh is dry and very sweet, but astringent if not fully ripe[183]. The fruit ripens in mid-Autumn[183]. A relatively slow-growing, upright tree, it is very cold hardy and bears heavy crops every second year[183]. It is recommended for colder areas, though it also does well in Florida[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Diospyros kaki*

Subject:

Diospyros kaki

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Diospyros kaki

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Diospyros virginiana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	American persimmon	Family:	Ebenaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New England to Florida, west to Texas and Kansas.		
Habitat:	Dry woods, old fields and clearings[43], on light well-drained sandy soils[82]. Found on most soil types from sands to shales and mud bottomlands[149].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. mosieri[B,G,P] D. virginiana var. mosieri[B,P] D. virginiana var. platycarpa[B,P] D. virginiana var. pubescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Persimmon [FEIS,B,P], Persimmon [DEN1,E], Persimmon,Indian [E],
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Ebony family
Other Range Info:	From the Ethnobotany Database
	India; Us; Us(Amerindian); Us(Appalachia); Usa

Physical Characteristics

A decidious tree growing to 20m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower in June, and the seeds ripen from October to November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects and wind. The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge.

Cultivar **'Dooley'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Geneva Red'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Meader'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Wabash'**: Woodland, Secondary, Sunny Edge.

Edible Uses

Coffee; Fruit; Oil; Sweetener; Tea.

Fruit - raw, cooked or dried and used in breads, cakes, pies, puddings etc[46, 183]. About the size of a plum, the fruit has an exquisitely rich flavour when it is fully ripe (and almost at the point of going bad) but it is very harsh and astringent before then[2, 3, 171, K]. The fruit may not ripen properly in a cool summer, though if it is frosted it normally develops a very good flavour[K]. The fruit can also be harvested in the autumn, preferably after a frost, and bletted. (This is a process where the fruit is kept in a cool place and only eaten when it is very soft and almost at the point of going rotten). Much of the fruit on trees in a relatively sunny position at Kew after a relatively warm summer in 1996 was still not fully ripe, though it was very nearly so and ripened well off the tree[K]. The fruit can also be dried and used in bread, cakes etc. The fruit is up to 4.5cm in diameter[200].

Molasses can be made from the fruit pulp[183].

An oil obtained from the seeds is said to taste like peanut oil[222].

A tea is made from the dried leaves[102]. It is high in vitamin C and has a pleasant flavour somewhat like sassafras[21, 183].

The roasted seed is used as a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Antiscorbutic; Astringent; Warts.

A decoction of the boiled fruit was used to treat bloody stools[213]. (This probably refers to the unripe fruit, which is very astringent[K]).

The leaves are rich in vitamin C and are used as an antiscorbutic[213].

A decoction of the inner-bark is highly astringent[149, 222]. It has been used as a mouth rinse in the treatment of thrush and sore throats[213, 222]. Used externally as a wash for warts or cancers[222].

Other Uses

Soil stabilization; Wood.

Can be used as a rootstock for D. kaki[46].

Wood - strong, hard, heavy, fine-grained, elastic, resistant to wear. A valuable wood, it is used for making wooden ware, turnery etc[46, 82, 149, 171]. It is used especially for making handles for golf clubs[149].

Cultivation details

Requires a good deep loamy soil in sun or light shade[200]. If being grown for its fruit, the tree requires a warm, sunny, sheltered position[K]. It dislikes very acid or wet and poorly drained soils[200].

Plants are somewhat tender when young[11], though dormant mature trees are hardy to about -35°c[160]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Dioecious, but the female tree can produce seedless fruits in the absence of a pollinator[1]. It is likely that unfertilized fruits are more astringent than fertilized fruits since this is the case with D. kaki[K].

Trees can start producing fruit when only a few years old, a specimen seen at Kew Botanical gardens in autumn 1996 was only 1.5 metres tall and was bearing a very large crop of fruit[K].

This species is occasionally cultivated for its edible fruit, there are several named varieties[82, 183].

'Dooley' grows well near the northern limits of persimmon culture[183].

'Geneva Red' also grows well at the northern limits of persimmon culture. The fruit is medium to large[183].

'Meader' grows well in cooler areas, it is self-fertile[183].

Plants have a long tap root and are difficult to transplant[149, 200], it is best to plant them out in their permanent position as soon as possible and to give protection overwinter for the first year or two[K].

The ssp. D. virginiana platycarpa has sweet succulent flesh, it grows wild from Missouri to Arkansas[82].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[113, 200]. Stored seed requires cold-stratification and should be sown as early in the year as possible[78]. It usually germinates in 1 - 6 months at 15°c[175]. Pot up the young seedlings as soon as they are large enough to handle into fairly deep pots and plant them out in early summer. Give the plants some protection from winter cold for their first winter or two outdoors.

Cuttings of half-ripe wood, July/August in a frame[200].

Layering in spring[200].

Cultivars

'Yates'

The very large, yellow fruit is up to 5cm in diameter, it has a fine apricot flavour and is of excellent quality[183]. Seedless if grown without a pollinator, it ripens very early in the season - mid-August in southern Indiana[183]. A prolific bearing tree[183].

'Wabash'

A high quality, fragrant, early persimmon with parthenocarpic tendencies[183]. The fruit is rather small, the flavour distinctive and aromatic, the seeds small when present[183]. This cultivar originated in Pinkstaff, Illinois and is hardy in Urbana, Illinois where the earliest fruits ripen in mid-August[183].

'Meader'

The medium-size, orange fruit has a sweet flesh[183]. The tree produces seedless fruit if it is not pollinated, the fruit ripening in early October[183]. A very hardy, productive, self-fertile cultivar, it is early bearing and grows well in cooler areas[183].

'Geneva Red'

A medium to large fruit, blushed with red on the side exposed to the sun[183]. It has a bright apricot-like flavour and ripens in early October[183]. This cultivar grows well near the northern limits of persimmon culture[183].

'Dooley'

A medium-size yellow fruit with a bright apricot-like flavour[183]. It ripens in early October and quickly dries to a date-like fruit[183]. This cultivar grows well near the northern limits of persimmon culture[183].

Suppliers

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PFAF Web Pages

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- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
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References

[K] **Ken Fern**
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Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

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Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

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A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Diospyros+virginiana`

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Plants For A Future: Database Search Results

Diospyros virginiana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	American persimmon	Family:	Ebenaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New England to Florida, west to Texas and Kansas.		
Habitat:	Dry woods, old fields and clearings[43], on light well-drained sandy soils[82]. Found on most soil types from sands to shales and mud bottomlands[149].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. mosieri[B,G,P] D. virginiana var. mosieri[B,P] D. virginiana var. platycarpa[B,P] D. virginiana var. pubescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Persimmon [FEIS,B,P], Persimmon [DEN1,E], Persimmon,Indian [E],
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Ebony family
Other Range Info:	From the Ethnobotany Database
	India; Us; Us(Amerindian); Us(Appalachia); Usa

Physical Characteristics

A decidious tree growing to 20m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower in June, and the seeds ripen from October to November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects and wind. The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge.

Cultivar **'Dooley'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Geneva Red'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Meader'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Wabash'**: Woodland, Secondary, Sunny Edge.

Edible Uses

Coffee; Fruit; Oil; Sweetener; Tea.

Fruit - raw, cooked or dried and used in breads, cakes, pies, puddings etc[46, 183]. About the size of a plum, the fruit has an exquisitely rich flavour when it is fully ripe (and almost at the point of going bad) but it is very harsh and astringent before then[2, 3, 171, K]. The fruit may not ripen properly in a cool summer, though if it is frosted it normally develops a very good flavour[K]. The fruit can also be harvested in the autumn, preferably after a frost, and bletted. (This is a process where the fruit is kept in a cool place and only eaten when it is very soft and almost at the point of going rotten). Much of the fruit on trees in a relatively sunny position at Kew after a relatively warm summer in 1996 was still not fully ripe, though it was very nearly so and ripened well off the tree[K]. The fruit can also be dried and used in bread, cakes etc. The fruit is up to 4.5cm in diameter[200].

Molasses can be made from the fruit pulp[183].

An oil obtained from the seeds is said to taste like peanut oil[222].

A tea is made from the dried leaves[102]. It is high in vitamin C and has a pleasant flavour somewhat like sassafras[21, 183].

The roasted seed is used as a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Antiscorbutic; Astringent; Warts.

A decoction of the boiled fruit was used to treat bloody stools[213]. (This probably refers to the unripe fruit, which is very astringent[K]).

The leaves are rich in vitamin C and are used as an antiscorbutic[213].

A decoction of the inner-bark is highly astringent[149, 222]. It has been used as a mouth rinse in the treatment of thrush and sore throats[213, 222]. Used externally as a wash for warts or cancers[222].

Other Uses

Soil stabilization; Wood.

Can be used as a rootstock for D. kaki[46].

Wood - strong, hard, heavy, fine-grained, elastic, resistant to wear. A valuable wood, it is used for making wooden ware, turnery etc[46, 82, 149, 171]. It is used especially for making handles for golf clubs[149].

Cultivation details

Requires a good deep loamy soil in sun or light shade[200]. If being grown for its fruit, the tree requires a warm, sunny, sheltered position[K]. It dislikes very acid or wet and poorly drained soils[200].

Plants are somewhat tender when young[11], though dormant mature trees are hardy to about -35°c[160]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Dioecious, but the female tree can produce seedless fruits in the absence of a pollinator[1]. It is likely that unfertilized fruits are more astringent than fertilized fruits since this is the case with D. kaki[K].

Trees can start producing fruit when only a few years old, a specimen seen at Kew Botanical gardens in autumn 1996 was only 1.5 metres tall and was bearing a very large crop of fruit[K].

This species is occasionally cultivated for its edible fruit, there are several named varieties[82, 183].

'Dooley' grows well near the northern limits of persimmon culture[183].

'Geneva Red' also grows well at the northern limits of persimmon culture. The fruit is medium to large[183].

'Meader' grows well in cooler areas, it is self-fertile[183].

Plants have a long tap root and are difficult to transplant[149, 200], it is best to plant them out in their permanent position as soon as possible and to give protection overwinter for the first year or two[K].

The ssp. D. virginiana platycarpa has sweet succulent flesh, it grows wild from Missouri to Arkansas[82].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[113, 200]. Stored seed requires cold-stratification and should be sown as early in the year as possible[78]. It usually germinates in 1 - 6 months at 15°c[175]. Pot up the young seedlings as soon as they are large enough to handle into fairly deep pots and plant them out in early summer. Give the plants some protection from winter cold for their first winter or two outdoors.

Cuttings of half-ripe wood, July/August in a frame[200].

Layering in spring[200].

Cultivars

'Yates'

> The very large, yellow fruit is up to 5cm in diameter, it has a fine apricot flavour and is of excellent quality[183]. Seedless if grown without a pollinator, it ripens very early in the season - mid-August in southern Indiana[183]. A prolific bearing tree[183].

'Wabash'

> A high quality, fragrant, early persimmon with parthenocarpic tendencies[183]. The fruit is rather small, the flavour distinctive and aromatic, the seeds small when present[183]. This cultivar originated in Pinkstaff, Illinois and is hardy in Urbana, Illinois where the earliest fruits ripen in mid-August[183].

'Meader'

> The medium-size, orange fruit has a sweet flesh[183]. The tree produces seedless fruit if it is not pollinated, the fruit ripening in early October[183]. A very hardy, productive, self-fertile cultivar, it is early bearing and grows well in cooler areas[183].

'Geneva Red'

> A medium to large fruit, blushed with red on the side exposed to the sun[183]. It has a bright apricot-like flavour and ripens in early October[183]. This cultivar grows well near the northern limits of persimmon culture[183].

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> A medium-size yellow fruit with a bright apricot-like flavour[183]. It ripens in early October and quickly dries to a date-like fruit[183]. This cultivar grows well near the

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Suppliers

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This plant is mentioned in the following web pages

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- Edible Shrubs
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Plants For A Future: Database Search Results

Diospyros virginiana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	American persimmon	Family:	Ebenaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New England to Florida, west to Texas and Kansas.		
Habitat:	Dry woods, old fields and clearings[43], on light well-drained sandy soils[82]. Found on most soil types from sands to shales and mud bottomlands[149].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. mosieri[B,G,P] D. virginiana var. mosieri[B,P] D. virginiana var. platycarpa[B,P] D. virginiana var. pubescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Persimmon [FEIS,B,P], Persimmon [DEN1,E], Persimmon,Indian [E],
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Ebony family
Other Range Info:	From the Ethnobotany Database
	India; Us; Us(Amerindian); Us(Appalachia); Usa

Physical Characteristics

A decidious tree growing to 20m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower in June, and the seeds ripen from October to November. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects and wind. The plant not is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary, Sunny Edge.

Cultivar **'Dooley'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Geneva Red'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Meader'**: Woodland, Secondary, Sunny Edge.
Cultivar **'Wabash'**: Woodland, Secondary, Sunny Edge.

Edible Uses

Coffee; Fruit; Oil; Sweetener; Tea.

Fruit - raw, cooked or dried and used in breads, cakes, pies, puddings etc[46, 183]. About the size of a plum, the fruit has an exquisitely rich flavour when it is fully ripe (and almost at the point of going bad) but it is very harsh and astringent before then[2, 3, 171, K]. The fruit may not ripen properly in a cool summer, though if it is frosted it normally develops a very good flavour[K]. The fruit can also be harvested in the autumn, preferably after a frost, and bletted. (This is a process where the fruit is kept in a cool place and only eaten when it is very soft and almost at the point of going rotten). Much of the fruit on trees in a relatively sunny position at Kew after a relatively warm summer in 1996 was still not fully ripe, though it was very nearly so and ripened well off the tree[K]. The fruit can also be dried and used in bread, cakes etc. The fruit is up to 4.5cm in diameter[200].

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The roasted seed is used as a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Antiscorbutic; Astringent; Warts.

A decoction of the boiled fruit was used to treat bloody stools[213]. (This probably refers to the unripe fruit, which is very astringent[K]).

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Other Uses

Soil stabilization; Wood.

Can be used as a rootstock for D. kaki[46].

Wood - strong, hard, heavy, fine-grained, elastic, resistant to wear. A valuable wood, it is used for making wooden ware, turnery etc[46, 82, 149, 171]. It is used especially for making handles for golf clubs[149].

Cultivation details

Requires a good deep loamy soil in sun or light shade[200]. If being grown for its fruit, the tree requires a warm, sunny, sheltered position[K]. It dislikes very acid or wet and poorly drained soils[200].

Plants are somewhat tender when young[11], though dormant mature trees are hardy to about -35°c[160]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Dioecious, but the female tree can produce seedless fruits in the absence of a pollinator[1]. It is likely that unfertilized fruits are more astringent than fertilized fruits since this is the case with D. kaki[K].

Trees can start producing fruit when only a few years old, a specimen seen at Kew Botanical gardens in autumn 1996 was only 1.5 metres tall and was bearing a very large crop of fruit[K].

This species is occasionally cultivated for its edible fruit, there are several named varieties[82, 183].

'Dooley' grows well near the northern limits of persimmon culture[183].

'Geneva Red' also grows well at the northern limits of persimmon culture. The fruit is medium to large[183].

'Meader' grows well in cooler areas, it is self-fertile[183].

Plants have a long tap root and are difficult to transplant[149, 200], it is best to plant them out in their permanent position as soon as possible and to give protection overwinter for the first year or two[K].

The ssp. D. virginiana platycarpa has sweet succulent flesh, it grows wild from Missouri to Arkansas[82].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[113, 200]. Stored seed requires cold-stratification and should be sown as early in the year as possible[78]. It usually germinates in 1 - 6 months at 15°c[175]. Pot up the young seedlings as soon as they are large enough to handle into fairly deep pots and plant them out in early summer. Give the plants some protection from winter cold for their first winter or two outdoors.

Cuttings of half-ripe wood, July/August in a frame[200].

Layering in spring[200].

Cultivars

'Yates'

> The very large, yellow fruit is up to 5cm in diameter, it has a fine apricot flavour and is of excellent quality[183]. Seedless if grown without a pollinator, it ripens very early in the season - mid-August in southern Indiana[183]. A prolific bearing tree[183].

'Wabash'

> A high quality, fragrant, early persimmon with parthenocarpic tendencies[183]. The fruit is rather small, the flavour distinctive and aromatic, the seeds small when present[183]. This cultivar originated in Pinkstaff, Illinois and is hardy in Urbana, Illinois where the earliest fruits ripen in mid-August[183].

'Meader'

> The medium-size, orange fruit has a sweet flesh[183]. The tree produces seedless fruit if it is not pollinated, the fruit ripening in early October[183]. A very hardy, productive, self-fertile cultivar, it is early bearing and grows well in cooler areas[183].

'Geneva Red'

> A medium to large fruit, blushed with red on the side exposed to the sun[183]. It has a bright apricot-like flavour and ripens in early October[183]. This cultivar grows well near the northern limits of persimmon culture[183].

'Dooley'

> A medium-size yellow fruit with a bright apricot-like flavour[183]. It ripens in early October and quickly dries to a date-like fruit[183]. This cultivar grows well near the

northern limits of persimmon culture[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Diospyros virginiana*

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Diospyros virginiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Diospyros virginiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Echinochloa crus-galli

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Barnyard millet	Family:	Gramineae
Author:	(L.) Palib.	Botanical references:	50, 200, 236
Synonyms:	Panicum crus-galli (L.)		
Known Hazards:	This grass has been reported to accumulate levels of nitrate in its tissues high enough to be toxic to farm animals[269]. This problem is most likely to occur when plants are fed with inorganic fertilizers[K].		
Range:	Native habitat is unknown but it is widespread in warmer regions occasionally introduced in Britain.		
Habitat:	Ditches roadsides and waste places in S. Europe[50]. Wet places and rich soils in India[240].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. E. crus-galli ssp. edulis[B,P] E. crus-galli subsp. spiralis[G] E. crus-galli var. crus-galli[P] E. crus-galli var. edulis[G] E. crus-galli var. frumentacea[B,G,P] E. crus-galli var. mitis[G] E. crusgalli[ENERGY,E,] E. frumentacea[B,E,G,HORTIPLEX,L,P] E. pungens var. coarctata[P] E. spiralis[G] Oplismenus frumentaceus[G] Panicum crus-galli var. mite[G] Panicum frumentaceum[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Attorlothe [E], Barnyard Grass [FEIS,L], Barnyardgrass [P], Billion-Dollar Grass [L], Cockspur Grass [L], Darojan [E], Dnan [E], Dukhain [E], Han Pai [E], Hanenpoot [D], Japanese Millet [P], Japanese-millet [B], Japanesse Barnyard Millet [L], Large Barnyard Grass [B], Large Barnyardgrass [P], Lung Chao Su [E], Pai [E], Shui Pai [E], Wu Ho [E], Ya Chao Pai [E],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); China; India; India(Santal); Iraq; Kurdistan

Physical Characteristics

Annual growing to 1.2m by 0.15m . It is hardy to zone 6. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Seed.

Seed - cooked[35, 55, 105, 171]. Used as a millet, it can be cooked whole or be ground into a flour before use[183, 257]. It has a good flavour[85] and can be used in porridges, macaroni, dumplings etc[183]. The seed is rather small[159], though fairly easy to harvest. It has a somewhat bitter flavour[178].

Young shoots, stem tips and the heart of the culm - raw or cooked[144, 177]. A nutritional analysis is available[218].

The roasted seed is a coffee substitute[177].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 7.4 Fat: 2.9 Carbohydrate: 81.1 Fibre: 31.3 Ash: 8.6
Source: [218]

Medicinal Uses

Disclaimer

Styptic; Tonic.

Reported to be preventative and tonic, barnyard grass is a folk remedy for treating carbuncles, haemorrhages, sores, spleen trouble, cancer and wounds[269].

The shoots and/or the roots are applied as a styptic to wounds[218, 240].

The plant is a tonic, acting on the spleen[218, 240].

Other Uses

Soil reclamation.

The plant is sometimes used, especially in Egypt, for the reclamation of saline and alkaline areas[269].

Cultivation details

An easily grown plant, it is adapted to nearly all types of wet places, and is often a common weed in paddy fields, roadsides, cultivated areas, and fallow fields[269]. It succeeds on a variety of wet sites such as ditches, low areas in fertile croplands and wet wastes, often growing in water[269]. It succeeds in cool regions, but is better adapted to areas where the average annual temperature is 14-16°C[269]. Tolerant of most soil types, including saline conditions, plants are not restricted by soil pH[269]. Prefers a rich moist soil[85] but succeeds in ordinary garden soil[1]. The sub-species E. crus-galli zelayensis (HBK)Hitchc. is often found growing wild in alkaline soils[236]. The plant is reported to tolerate an annual precipitation in the range of 31 to 250cm, an annual temperature range of 5.7 to 27.8°C and a pH in the range of 4.8 to 8.2[269].

Barnyard millet is sometimes cultivated for its edible seed in India[171]. It has a relatively long growing season and does not always ripen its seed in Britain, though it should do better in the eastern half of the country[K].

The plant is considered to be a very serious weed of many cultivated crops[269].

Propagation

Seed - sow early spring in a greenhouse and only just cover the seed. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in early summer.

A sowing in situ in late spring might also succeed but is unlikely to ripen a crop of seed if the summer is cool and wet.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Web References

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[35] **The Herb Society** *Herbal Review. Vol.11. 4.* The Herb Society 1986 ISBN 0264-9853

[50] **?** *Flora Europaea* Cambridge University Press 1964
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[236] **Hitchcock. A. S.** *Manual of the Grasses of the United States* Dover Publications. New York. 1971 ISBN 0-486-22717-0
A nice and comprehensive flora, though a bit dated. Good line drawings of each plant, plus a brief idea of the habitat and a few notes on plant uses. Not for the casual reader.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Plants For A Future: Database Search Results

Echinochloa crus-galli

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Barnyard millet	Family:	Gramineae
Author:	(L.) Palib.	Botanical references:	50, 200, 236
Synonyms:	Panicum crus-galli (L.)		
Known Hazards:	This grass has been reported to accumulate levels of nitrate in its tissues high enough to be toxic to farm animals[269]. This problem is most likely to occur when plants are fed with inorganic fertilizers[K].		
Range:	Native habitat is unknown but it is widespread in warmer regions occasionally introduced in Britain.		
Habitat:	Ditches roadsides and waste places in S. Europe[50]. Wet places and rich soils in India[240].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database

	Britain(Wales); China; India; India(Santal); Iraq; Kurdistan

Physical Characteristics

Annual growing to 1.2m by 0.15m . It is hardy to zone 6. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Seed.

Seed - cooked[35, 55, 105, 171]. Used as a millet, it can be cooked whole or be ground into a flour before use[183, 257]. It has a good flavour[85] and can be used in porridges, macaroni, dumplings etc[183]. The seed is rather small[159], though fairly easy to harvest. It has a somewhat bitter flavour[178].

Young shoots, stem tips and the heart of the culm - raw or cooked[144, 177]. A nutritional analysis is available[218].

The roasted seed is a coffee substitute[177].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 7.4 Fat: 2.9 Carbohydrate: 81.1 Fibre: 31.3 Ash: 8.6
Source: [218]

Medicinal Uses

Disclaimer

Styptic; Tonic.

Reported to be preventative and tonic, barnyard grass is a folk remedy for treating carbuncles, haemorrhages, sores, spleen trouble, cancer and wounds[269].

The shoots and/or the roots are applied as a styptic to wounds[218, 240].

The plant is a tonic, acting on the spleen[218, 240].

Other Uses

Soil reclamation.

The plant is sometimes used, especially in Egypt, for the reclamation of saline and alkaline areas[269].

Cultivation details

An easily grown plant, it is adapted to nearly all types of wet places, and is often a common weed in paddy fields, roadsides, cultivated areas, and fallow fields[269]. It succeeds on a variety of wet sites such as ditches, low areas in fertile croplands and wet wastes, often growing in water[269]. It succeeds in cool regions, but is better adapted to areas where the average annual temperature is 14-16°C[269]. Tolerant of most soil types, including saline conditions, plants are not restricted by soil pH[269]. Prefers a rich moist soil[85] but succeeds in ordinary garden soil[1]. The sub-species E. crus-galli zelayensis (HBK)Hitchc. is often found growing wild in alkaline soils[236]. The plant is reported to tolerate an annual precipitation in the range of 31 to 250cm, an annual temperature range of 5.7 to 27.8°C and a pH in the range of 4.8 to 8.2[269].

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The plant is considered to be a very serious weed of many cultivated crops[269].

Propagation

Seed - sow early spring in a greenhouse and only just cover the seed. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in early summer.

A sowing in situ in late spring might also succeed but is unlikely to ripen a crop of seed if the summer is cool and wet.

Cultivars

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No entries have been made for this species as yet.

Suppliers

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[236] **Hitchcock. A. S.** *Manual of the Grasses of the United States* Dover Publications. New York. 1971 ISBN 0-486-22717-0
A nice and comprehensive flora, though a bit dated. Good line drawings of each plant, plus a brief idea of the habitat and a few notes on plant uses. Not for the casual reader.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

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Plants For A Future: Database Search Results

Echinochloa crus-galli

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Barnyard millet	Family:	Gramineae
Author:	(L.) Palib.	Botanical references:	50, 200, 236
Synonyms:	Panicum crus-galli (L.)		
Known Hazards:	This grass has been reported to accumulate levels of nitrate in its tissues high enough to be toxic to farm animals[269]. This problem is most likely to occur when plants are fed with inorganic fertilizers[K].		
Range:	Native habitat is unknown but it is widespread in warmer regions occasionally introduced in Britain.		
Habitat:	Ditches roadsides and waste places in S. Europe[50]. Wet places and rich soils in India[240].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. E. crus-galli ssp. edulis[B,P] E. crus-galli subsp. spiralis[G] E. crus-galli var. crus-galli[P] E. crus-galli var. edulis[G] E. crus-galli var. frumentacea[B,G,P] E. crus-galli var. mitis[G] E. crusgalli[ENERGY,E,] E. frumentacea[B,E,G,HORTIPLEX,L,P] E. pungens var. coarctata[P] E. spiralis[G] Oplismenus frumentaceus[G] Panicum crus-galli var. mite[G] Panicum frumentaceum[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Attorlothe [E], Barnyard Grass [FEIS,L], Barnyardgrass [P], Billion-Dollar Grass [L], Cockspur Grass [L], Darojan [E], Dnan [E], Dukhain [E], Han Pai [E], Hanenpoot [D], Japanese Millet [P], Japanese-millet [B], Japanesse Barnyard Millet [L], Large Barnyard Grass [B], Large Barnyardgrass [P], Lung Chao Su [E], Pai [E], Shui Pai [E], Wu Ho [E], Ya Chao Pai [E],
Systematics:	From a UDSA Plants Database Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database

	Britain(Wales); China; India; India(Santal); Iraq; Kurdistan

Physical Characteristics

Annual growing to 1.2m by 0.15m . It is hardy to zone 6. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Seed.

Seed - cooked[35, 55, 105, 171]. Used as a millet, it can be cooked whole or be ground into a flour before use[183, 257]. It has a good flavour[85] and can be used in porridges, macaroni, dumplings etc[183]. The seed is rather small[159], though fairly easy to harvest. It has a somewhat bitter flavour[178].

Young shoots, stem tips and the heart of the culm - raw or cooked[144, 177]. A nutritional analysis is available[218].

The roasted seed is a coffee substitute[177].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 7.4 Fat: 2.9 Carbohydrate: 81.1 Fibre: 31.3 Ash: 8.6
Source: [218]

Medicinal Uses

Disclaimer

Styptic; Tonic.

Reported to be preventative and tonic, barnyard grass is a folk remedy for treating carbuncles, haemorrhages, sores, spleen trouble, cancer and wounds[269].

The shoots and/or the roots are applied as a styptic to wounds[218, 240].

The plant is a tonic, acting on the spleen[218, 240].

Other Uses

Soil reclamation.

The plant is sometimes used, especially in Egypt, for the reclamation of saline and alkaline areas[269].

Cultivation details

An easily grown plant, it is adapted to nearly all types of wet places, and is often a common weed in paddy fields, roadsides, cultivated areas, and fallow fields[269]. It succeeds on a variety of wet sites such as ditches, low areas in fertile croplands and wet wastes, often growing in water[269]. It succeeds in cool regions, but is better adapted to areas where the average annual temperature is 14-16°C[269]. Tolerant of most soil types, including saline conditions, plants are not restricted by soil pH[269]. Prefers a rich moist soil[85] but succeeds in ordinary garden soil[1]. The sub-species E. crus-galli zelayensis (HBK)Hitchc. is often found growing wild in alkaline soils[236]. The plant is reported to tolerate an annual precipitation in the range of 31 to 250cm, an annual temperature range of 5.7 to 27.8°C and a pH in the range of 4.8 to 8.2[269].

Barnyard millet is sometimes cultivated for its edible seed in India[171]. It has a relatively long growing season and does not always ripen its seed in Britain, though it should do better in the eastern half of the country[K].

The plant is considered to be a very serious weed of many cultivated crops[269].

Propagation

Seed - sow early spring in a greenhouse and only just cover the seed. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in early summer.

A sowing in situ in late spring might also succeed but is unlikely to ripen a crop of seed if the summer is cool and wet.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Echinochloa crus-galli*

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Echinochloa crus-galli

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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details:

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Echinochloa crus-galli

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Elytrigia repens

Common name:	Couch grass	Family:	Gramineae
Author:	(L.)Desv. ex Nevski.	Botanical references:	17
Synonyms:	Triticum repens (L.), Elymus repens ((L.)Gould.), Agropyron repens ((L.)Beauv.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	A common weed of gardens, fields, hedgerows and meadows[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Agropyron repens var. bromiforme[G] Agropyron repens var. glaucescens[G] Agropyron repens var. subulatum[B,P] E. repens var. repens[P] E. repens var. vaillantiana[B] E. vaillantiana[B] Triticum vaillantianum[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ayrik [E], Common Couch [L], Couch Grass [L], Couch-grass [H], Couchgrass, Quackgrass [S], Creeping Quackgrass [P], Dog-grass [H], Echte Quecke [E], Grama [E], Grama De Las Boticas [E], Grama Del Norte [E], Gramigna [E], Gramigua [E], Groesrod [E], Joula [E], Kweek [E,D], Najm [E], Nejil [E], Pied De Poule [E], Quack Grass [E], Quackgrass [FEIS,P], Quick Grass [L], Quick-grass [H], Quitch Grass [L], Scotch Quelch [H], Squaw Wein [E], Squaw Wijn [E], Twitch-grass [H], Vigne Squaw [E],
Epithets:	From a Dictionary of Botanical Epithets
	repens = creeping;

Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Chile; Denmark; Finland; France; Germany; Iraq; Italy; Netherlands; Spain; Turkey; Us

Physical Characteristics

Perennial growing to 0.6m by 1m . It is not frost tender. It is in flower from June to September, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Meadow, Lawn, Bog Garden, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Leaves; Root; Seed.

Roots - cooked. They can be dried and ground into a powder, then used with wheat when making bread[12, 46, 105, 244]. Although thin and stringy, the roots contain starch and enzymes and are quite sweet[7]. When boiled for a long time to break down the leathery membrane, a syrup can be made from the roots and this is sometimes brewed into a beer[2, 7].

The roasted root is a coffee substitute[46].

Young leaves and shoots - eaten raw in spring salads[7]. A slightly sweet flavour, though quickly becoming very fibrous, they are rather less than wonderful[K]. The juice from these shoots is sometimes used as a spring tonic[244].

Seed[161]. A cereal mash can be made from them[7]. The seed is very small and there is a large husk surrounding it, so that effectively it is more like eating fibre than cereal[K].

Medicinal Uses

Disclaimer

Antiphlogistic; Aperient; Demulcent; Diuretic; Emollient; Lithontripic; Tonic.

Couch grass is of considerable value as a herbal medicine, the roots being very useful in the treatment of a wide range of kidney, liver and urinary disorders[4]. They have a gentle remedial effect which is well-tolerated by the body and has no side-effects[238]. This plant is also a favourite medicine of domestic cats and dogs, who will often eat quite large quantities of the leaves[4].

The roots are antiphlogistic, aperient, demulcent, diuretic, emollient, lithontripic and tonic[4, 7]. They are harvested in the spring and can be dried for later use[4].

A tea made from the roots is used in cases of urinary incompetence and as a worm expellent[222]. It is also an effective treatment for urinary tract infections such as cystitis and urethritis[254]. It both protects the urinary tubules against infections and irritants, and increases the volume of urine thereby diluting it[254]. Externally it is applied as a wash to swollen limbs[222].

Other Uses

Dye; Liquid feed; Soil stabilization.

An infusion of the whole plant is a good liquid plant feed[54].

The plant has a long creeping root system and so it has been planted in sand dunes near the coast to bind the soil together[4].

A grey dye is obtained from the roots[106].

Cultivation details

Couch grass can succeed in any soil, though it grows best in light sandy soils[238]. It is a rapidly spreading, persistent and pernicious weed that should only be introduced with great caution. It tolerates a pH in the range 4.2 to 8.3.

Some modern works have now separated this species off into a new genus as Elytrigia repens.

A food plant for the caterpillars of many butterfly and moth species.

This species can become a pernicious weed, spreading rapidly by underground rhizomes[4] and quickly forming a dense mat of roots in the soil that strangles other plant growth[K]. Even the smallest fragment of root is capable of regenerating into a new plant, thus making it exceedingly difficult to get rid of. A good thick mulch through which nothing can grow, can be applied to the area, though it will need to be left in place for at least two growing seasons to be fully effective[K]. Despite its antisocial tendency in the garden, couch is a very useful herbal medicine and Culpepper is said to have stated that half an acre of couch was worth five acres of carrots twice over[4].

Propagation

This species is a pernicious weed and will not require assistance in spreading itself.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Agropyron repens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elymus repens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

References for *Elytrigia repens var. repens* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Triticum repens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *agropyron repens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Known Hazards:	None known		
Range:	Britain.		
Habitat:	A common weed of gardens, fields, hedgerows and meadows[17].		
Plants For A Future Rating (1-5):	2		

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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database

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Physical Characteristics

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Habitats and Possible Locations

Meadow, Lawn, Bog Garden, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Leaves; Root; Seed.

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Couch grass is of considerable value as a herbal medicine, the roots being very useful in the treatment of a wide range of kidney, liver and urinary disorders[4]. They have a gentle remedial effect which is well-tolerated by the body and has no side-effects[238]. This plant is also a favourite medicine of domestic cats and dogs, who will often eat quite large quantities of the leaves[4].

The roots are antiphlogistic, aperient, demulcent, diuretic, emollient, lithontripic and tonic[4, 7]. They are harvested in the spring and can be dried for later use[4].

A tea made from the roots is used in cases of urinary incompetence and as a worm expellent[222]. It is also an effective treatment for urinary tract infections such as cystitis and urethritis[254]. It both protects the urinary tubules against infections and irritants, and increases the volume of urine thereby diluting it[254]. Externally it is applied as a wash to swollen limbs[222].

Other Uses

Dye; Liquid feed; Soil stabilization.

An infusion of the whole plant is a good liquid plant feed[54].

The plant has a long creeping root system and so it has been planted in sand dunes near the coast to bind the soil together[4].

A grey dye is obtained from the roots[106].

Cultivation details

Couch grass can succeed in any soil, though it grows best in light sandy soils[238]. It is a rapidly spreading, persistent and pernicious weed that should only be introduced with great caution. It tolerates a pH in the range 4.2 to 8.3.

Some modern works have now separated this species off into a new genus as Elytrigia repens.

A food plant for the caterpillars of many butterfly and moth species.

This species can become a pernicious weed, spreading rapidly by underground rhizomes[4] and quickly forming a dense mat of roots in the soil that strangles other plant growth[K]. Even the smallest fragment of root is capable of regenerating into a new plant, thus making it exceedingly difficult to get rid of. A good thick mulch through which nothing can grow, can be applied to the area, though it will need to be left in place for at least two growing seasons to be fully effective[K]. Despite its antisocial tendency in the garden, couch is a very useful herbal medicine and Culpepper is said to have stated that half an acre of couch was worth five acres of carrots twice over[4].

Propagation

This species is a pernicious weed and will not require assistance in spreading itself.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Agropyron repens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elymus repens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

References for *Elytrigia repens var. repens* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Triticum repens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *agropyron repens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N.*

America. Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Elytrigia+repens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elytrigia+repens`

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Plants For A Future: Database Search Results

Elytrigia repens

Common name:	Couch grass	Family:	Gramineae
Author:	(L.)Desv. ex Nevski.	Botanical references:	17
Synonyms:	Triticum repens (L.), Elymus repens ((L.)Gould.), Agropyron repens ((L.)Beauv.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	A common weed of gardens, fields, hedgerows and meadows[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Agropyron repens var. bromiforme[G] Agropyron repens var. glaucescens[G] Agropyron repens var. subulatum[B,P] E. repens var. repens[P] E. repens var. vaillantiana[B] E. vaillantiana[B] Triticum vaillantianum[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ayrik [E], Common Couch [L], Couch Grass [L], Couch-grass [H], Couchgrass, Quackgrass [S], Creeping Quackgrass [P], Dog-grass [H], Echte Quecke [E], Grama [E], Grama De Las Boticas [E], Grama Del Norte [E], Gramigna [E], Gramigua [E], Groesrod [E], Joula [E], Kweek [E,D], Najm [E], Nejil [E], Pied De Poule [E], Quack Grass [E], Quackgrass [FEIS,P], Quick Grass [L], Quick-grass [H], Quitch Grass [L], Scotch Quelch [H], Squaw Wein [E], Squaw Wijn [E], Twitch-grass [H], Vigne Squaw [E],
Epithets:	From a Dictionary of Botanical Epithets
	repens = creeping;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database

	Chile; Denmark; Finland; France; Germany; Iraq; Italy; Netherlands; Spain; Turkey; Us

Physical Characteristics

Perennial growing to 0.6m by 1m . It is not frost tender. It is in flower from June to September, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Meadow, Lawn, Bog Garden, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Leaves; Root; Seed.

Roots - cooked. They can be dried and ground into a powder, then used with wheat when making bread[12, 46, 105, 244]. Although thin and stringy, the roots contain starch and enzymes and are quite sweet[7]. When boiled for a long time to break down the leathery membrane, a syrup can be made from the roots and this is sometimes brewed into a beer[2, 7].

The roasted root is a coffee substitute[46].

Young leaves and shoots - eaten raw in spring salads[7]. A slightly sweet flavour, though quickly becoming very fibrous, they are rather less than wonderful[K]. The juice from these shoots is sometimes used as a spring tonic[244].

Seed[161]. A cereal mash can be made from them[7]. The seed is very small and there is a large husk surrounding it, so that effectively it is more like eating fibre than cereal[K].

Medicinal Uses

Disclaimer

Antiphlogistic; Aperient; Demulcent; Diuretic; Emollient; Lithontripic; Tonic.

Couch grass is of considerable value as a herbal medicine, the roots being very useful in the treatment of a wide range of kidney, liver and urinary disorders[4]. They have a gentle remedial effect which is well-tolerated by the body and has no side-effects[238]. This plant is also a favourite medicine of domestic cats and dogs, who will often eat quite large quantities of the leaves[4].

The roots are antiphlogistic, aperient, demulcent, diuretic, emollient, lithontripic and tonic[4, 7]. They are harvested in the spring and can be dried for later use[4].

A tea made from the roots is used in cases of urinary incompetence and as a worm expellent[222]. It is also an effective treatment for urinary tract infections such as cystitis and urethritis[254]. It both protects the urinary tubules against infections and irritants, and increases the volume of urine thereby diluting it[254]. Externally it is applied as a wash to swollen limbs[222].

Other Uses

Dye; Liquid feed; Soil stabilization.

An infusion of the whole plant is a good liquid plant feed[54].

The plant has a long creeping root system and so it has been planted in sand dunes near the coast to bind the soil together[4].

A grey dye is obtained from the roots[106].

Cultivation details

Couch grass can succeed in any soil, though it grows best in light sandy soils[238]. It is a rapidly spreading, persistent and pernicious weed that should only be introduced with great caution. It tolerates a pH in the range 4.2 to 8.3.

Some modern works have now separated this species off into a new genus as Elytrigia repens.

A food plant for the caterpillars of many butterfly and moth species.

This species can become a pernicious weed, spreading rapidly by underground rhizomes[4] and quickly forming a dense mat of roots in the soil that strangles other plant growth[K]. Even the smallest fragment of root is capable of regenerating into a new plant, thus making it exceedingly difficult to get rid of. A good thick mulch through which nothing can grow, can be applied to the area, though it will need to be left in place for at least two growing seasons to be fully effective[K]. Despite its antisocial tendency in the garden, couch is a very useful herbal medicine and Culpepper is said to have stated that half an acre of couch was worth five acres of carrots twice over[4].

Propagation

This species is a pernicious weed and will not require assistance in spreading itself.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elytrigia repens*

Subject:

Elytrigia repens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elytrigia repens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Eriobotrya japonica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Loquat	Family:	Rosaceae
Author:	(Thunb.) Lindley.	Botanical references:	11, 74, 200
Synonyms:	Photinia japonica ((Thunb.)Franch.&Sav.), Mespilus japonica (Thunb.)		
Known Hazards:	The seed is slightly poisonous. This report probably refers to the hydrogen cyanide that is found in many plants of this family, the seed should only be used in small amounts if it is bitter[K]. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	E. Asia - China, Japan.		
Habitat:	Not known in the wild[109].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Crataegus bibas[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Biwa [E], Loquat [H,P,B,E], P'I P'A [E],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Other Range Info:	From the Ethnobotany Database China; Indochina; Japan
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 9m by 5m at a medium rate. It is hardy to zone 7. It is in leaf all year, in flower from November to March, and the seeds ripen from April to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Cultivar '**Advance**': Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit; Seed.

Fruit - raw, cooked or preserved[46]. A slightly acid, sweet aromatic flavour[200], they can be eaten out of hand or cooked in pies, sauces, jellies etc[3]. Loquat pie, if made from fruit that is not fully ripe, is said to taste like cherry pie[183]. The fruit is produced in winter and early spring[132], it is up to 4cm in diameter[200]. A nutritional analysis is available[218].

Seed - cooked. A pleasant flavour[142]. Caution is advised if the seed is bitter, see notes at top of the page.

The roasted seed is a coffee substitute[105, 177, 183].

Composition

Fruit (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 360 Protein: 3.6 Fat: 3.2 Carbohydrate: 90 Fibre: 5.8 Ash: 4

In milligrammes per 100g weight of food:
Calcium: 290 Phosphorus: 190 Iron: 4.3 Sodium: 35 Potassium: 2650 VitaminA: 5000
Thiamine: 0.18 Riboflavin: 4.9 Niacin: 2.3 VitaminC: 7.84
Source: [218]
Notes: The figures given are the median of a range quoted in the report.

Medicinal Uses

Disclaimer

Analgesic; Antibacterial; Antiemetic; Antitussive; Antiviral; Astringent; Expectorant; Sedative.

The loquat is one of the most popular cough remedies in the Far East, it is the ingredient of many patent medicines[238].

The leaves are analgesic, antibacterial, antiemetic, antitussive, antiviral, astringent and expectorant[7, 116, 147, 176, 218]. A decoction of the leaves or young shoots is used as an intestinal astringent and as a mouthwash in cases of thrush and also in the treatment of bronchitis, coughs, feverish colds etc[7, 238]. The leaves are harvested as required and can be used fresh or dried[238]. The hairs should be removed from the leaves in order to prevent irritation of the throat[238].

The flowers are expectorant[218, 240].

The fruit is slightly astringent, expectorant and sedative[7, 240]. It is used in allaying vomiting and thirst[240].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Wood.

Wood - hard, close grained. Used for rulers etc[146].

Cultivation details

Prefers a fertile well-drained soil in full sun or light shade[200]. Succeeds in any well-drained soil but dislikes too much lime[3]. Prefers to be near the coast, tolerating maritime exposure but dislikes cold winds[200]. Tolerates dry soils[200].

Succeeds in an open position in the milder areas of Britain but usually requires wall protection in most of this country[11, 59]. Plants are hardy to at least -5°c, and can survive to between -12 and -17°c but with some damage[200]. Plants from different provenances differ widely in their hardiness, it is best to obtain stock as cuttings from plants that are established in this country[219]. Trees usually only flower and produce fruit in Britain after a long hot summer[11, 202], but a tree at Maidwell Hall in Northants fruits regularly[11]. The main difficulty with producing a crop of fruit from this tree is that the plant flower in the winter and will not ripen fruit of a satisfactory standard if the winter is cold. Indeed, the fruit is rendered inedible by hard frosts in cold areas[200].

Often cultivated for its edible fruit in warm temperate regions, there are more than 800 cultivars in Japan[200]. 'Advance' is a dwarf tree with very juicy fruits[200].

The flowers emit a most potent oriental perfume[245].

Propagation

Seed - best sown as soon as it is ripe in a cold fame in the spring[200]. Pre-soak stored seed for 24 hours and sow late winter in a warm greenhouse[78, 113]. Germination usually takes place within 1 - 4 months at 20°c. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood with a heel, July/August in a frame[200].

Cuttings of softwood, spring in a frame[78].

Air layering[200].

Scent

Flowers: Fresh

> The flowers emit a most potent oriental perfume.

Cultivars

'Gold Nugget'

> The fruit has a sweet orange flesh[260].

'Advance'

> Medium to large, pear-shaped to elliptic-round fruits, deep yellow in colour, borne in large compact clusters[183]. The skin is downy, thick and tough, the flesh whitish, translucent, melting and very juicy, the flavour sub-acid and very pleasant, the quality good[183]. Ripens mid-season[183]. The seeds are commonly 4 - 5 to a fruit, the seed cavity is not

large[183]. This cultivar is a natural dwarf, growing about 1.5 metres tall[183]. It is highly resistant to pear blight[183]. Self-infertile, it requires a pollinator for fruit production[183]. 'Gold Nugget' is said to be a good pollinator[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Mespilus japonica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Photinia japonica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*

Lovely pictures, a very readable book.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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Plants For A Future: Database Search Results

Eriobotrya japonica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Loquat	Family:	Rosaceae
Author:	(Thunb.) Lindley.	Botanical references:	11, 74, 200
Synonyms:	Photinia japonica ((Thunb.)Franch.&Sav.), Mespilus japonica (Thunb.)		
Known Hazards:	The seed is slightly poisonous. This report probably refers to the hydrogen cyanide that is found in many plants of this family, the seed should only be used in small amounts if it is bitter[K]. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	E. Asia - China, Japan.		
Habitat:	Not known in the wild[109].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Crataegus bibas[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Biwa [E], Loquat [H,P,B,E], P'I P'A [E],
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	China; Indochina; Japan
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 9m by 5m at a medium rate. It is hardy to zone 7. It is in leaf all year, in flower from November to March, and the seeds ripen from April to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Cultivar **'Advance'**: Woodland, Secondary, Sunny Edge, Dappled Shade, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit; Seed.

Fruit - raw, cooked or preserved[46]. A slightly acid, sweet aromatic flavour[200], they can be eaten out of hand or cooked in pies, sauces, jellies etc[3]. Loquat pie, if made from fruit that is not fully ripe, is said to taste like cherry pie[183]. The fruit is produced in winter and early spring[132], it is up to 4cm in diameter[200]. A nutritional analysis is available[218].

Seed - cooked. A pleasant flavour[142]. Caution is advised if the seed is bitter, see notes at top of the page.

The roasted seed is a coffee substitute[105, 177, 183].

Composition

Fruit (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 360 Protein: 3.6 Fat: 3.2 Carbohydrate: 90 Fibre: 5.8 Ash: 4
In milligrammes per 100g weight of food:
Calcium: 290 Phosphorus: 190 Iron: 4.3 Sodium: 35 Potassium: 2650 VitaminA: 5000
Thiamine: 0.18 Riboflavin: 4.9 Niacin: 2.3 VitaminC: 7.84
Source: [218]
Notes: The figures given are the median of a range quoted in the report.

Medicinal Uses

Disclaimer

Analgesic; Antibacterial; Antiemetic; Antitussive; Antiviral; Astringent; Expectorant; Sedative.

The loquat is one of the most popular cough remedies in the Far East, it is the ingredient of many patent medicines[238].

The leaves are analgesic, antibacterial, antiemetic, antitussive, antiviral, astringent and expectorant[7, 116, 147, 176, 218]. A decoction of the leaves or young shoots is used as an intestinal astringent and as a mouthwash in cases of thrush and also in the treatment of bronchitis, coughs, feverish colds etc[7, 238]. The leaves are harvested as required and can be used fresh or dried[238]. The hairs should be removed from the leaves in order to prevent irritation of the throat[238].

The flowers are expectorant[218, 240].

The fruit is slightly astringent, expectorant and sedative[7, 240]. It is used in allaying vomiting and thirst[240].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Wood.

Wood - hard, close grained. Used for rulers etc[146].

Cultivation details

Prefers a fertile well-drained soil in full sun or light shade[200]. Succeeds in any well-drained soil but dislikes too much lime[3]. Prefers to be near the coast, tolerating maritime exposure but dislikes cold winds[200]. Tolerates dry soils[200].

Succeeds in an open position in the milder areas of Britain but usually requires wall protection in most of this country[11, 59]. Plants are hardy to at least -5°c, and can survive to between -12 and -17°c but with some damage[200]. Plants from different provenances differ widely in their hardiness, it is best to obtain stock as cuttings from plants that are established in this country[219]. Trees usually only flower and produce fruit in Britain after a long hot summer[11, 202], but a tree at Maidwell Hall in Northants fruits regularly[11]. The main difficulty with producing a crop of fruit from this tree is that the plant flower in the winter and will not ripen fruit of a satisfactory standard if the winter is cold. Indeed, the fruit is rendered inedible by hard frosts in cold areas[200].

Often cultivated for its edible fruit in warm temperate regions, there are more than 800 cultivars in Japan[200]. 'Advance' is a dwarf tree with very juicy fruits[200].

The flowers emit a most potent oriental perfume[245].

Propagation

Seed - best sown as soon as it is ripe in a cold fame in the spring[200]. Pre-soak stored seed for 24 hours and sow late winter in a warm greenhouse[78, 113]. Germination usually takes place within 1 - 4 months at 20°c. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood with a heel, July/August in a frame[200].

Cuttings of softwood, spring in a frame[78].

Air layering[200].

Scent

Flowers: Fresh

> The flowers emit a most potent oriental perfume.

Cultivars

'Gold Nugget'

> The fruit has a sweet orange flesh[260].

'Advance'

> Medium to large, pear-shaped to elliptic-round fruits, deep yellow in colour, borne in large compact clusters[183]. The skin is downy, thick and tough, the flesh whitish, translucent, melting and very juicy, the flavour sub-acid and very pleasant, the quality good[183]. Ripens mid-season[183]. The seeds are commonly 4 - 5 to a fruit, the seed cavity is not large[183]. This cultivar is a natural dwarf, growing about 1.5 metres tall[183]. It is highly resistant to pear blight[183]. Self-infertile, it requires a pollinator for fruit production[183]. 'Gold Nugget' is said to be a good pollinator[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Mespilus japonica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Photinia japonica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*

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[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
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Readers Comments

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Plants For A Future: Database Search Results

Eriobotrya japonica

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Author:	(Thunb.) Lindley.	Botanical references:	11, 74, 200
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Range:	E. Asia - China, Japan.		
Habitat:	Not known in the wild[109].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Crataegus bibas[H]
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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Coffee; Fruit; Seed.

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Wood.

Wood - hard, close grained. Used for rulers etc[146].

Cultivation details

Prefers a fertile well-drained soil in full sun or light shade[200]. Succeeds in any well-drained soil but dislikes too much lime[3]. Prefers to be near the coast, tolerating maritime exposure but dislikes cold winds[200]. Tolerates dry soils[200].

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Often cultivated for its edible fruit in warm temperate regions, there are more than 800 cultivars in Japan[200]. 'Advance' is a dwarf tree with very juicy fruits[200].

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Cuttings of softwood, spring in a frame[78].

Air layering[200].

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> The flowers emit a most potent oriental perfume.

Cultivars

'Gold Nugget'

> The fruit has a sweet orange flesh[260].

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Eriobotrya japonica*

Subject:

Eriobotrya japonica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Eriobotrya japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:39:02 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Fagus crenata

Common name:	Japanese beech	Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - Japan.		
Habitat:	Forests all over Japan.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. sieboldii[G]
Epithets:	From a Dictionary of Botanical Epithets
	crenata = notched;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 35m at a slow rate. It is hardy to zone 4 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw[105]. A very nice mild flavour but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked[105, 177]. Rich in oil. The seed should not be eaten in large quantities, see the notes above on toxicity. It can be dried and ground into a powder.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but it is ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the

details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Fagus crenata

Common name:	Japanese beech	Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - Japan.		
Habitat:	Forests all over Japan.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. sieboldii[G]
Epithets:	From a Dictionary of Botanical Epithets
	crenata = notched;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 35m at a slow rate. It is hardy to zone 4 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw[105]. A very nice mild flavour but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked[105, 177]. Rich in oil. The seed should not be eaten in large quantities, see the notes above on toxicity. It can be dried and ground into a powder.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but it is ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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Readers Comments

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Plants For A Future: Database Search Results

Fagus crenata

Common name:	Japanese beech	Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - Japan.		
Habitat:	Forests all over Japan.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. sieboldii[G]
Epithets:	From a Dictionary of Botanical Epithets
	crenata = notched;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 35m at a slow rate. It is hardy to zone 4 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw[105]. A very nice mild flavour but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked[105, 177]. Rich in oil. The seed should not be eaten in large quantities, see the notes above on toxicity. It can be dried and ground into a powder.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but it is ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Fagus+crenata`

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Add a comment on: *Fagus crenata*

Subject:

Fagus crenata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fagus crenata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Fagus grandifolia

Common name:	American beech	Family:	Fagaceae
Author:	Ehrenb.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	Large quantities of the raw seed may be toxic[159].		
Range:	Eastern N. America - New Brunswick to Florida, west to Texas and Ontario.		
Habitat:	Rich uplands and mountain slopes, often forming nearly pure forests[82]. In the south of its range it is also found on the margins of streams and swamps[43, 82].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. americana[G,P] F. ferruginea[G,P] F. grandifolia ssp. heterophylla[B,P] F. grandifolia var. caroliniana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Beech [FEIS,E,L,B,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets
	grandifolia = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Colonial)

Physical Characteristics

A decidious tree growing to 10m by 10m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Coffee; Inner bark; Leaves; Oil; Seed.

Young leaves - raw or cooked as a potherb[183]. A very nice mild flavour but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Seed - raw or cooked. Small but very sweet and nutritious[82, 117, 171, 183, 227], it is sold in local markets in Canada and some parts of America[82]. Rich in oil, the seed also contains up to 22% protein[213]. The raw seed should not be eaten in large quantities since it is believed to cause enteritis[159, 226]. It can be dried and ground into a powder, then used with cereal flours in making bread, cakes etc[183]. The germinating seeds can be eaten raw, they are tender, crisp, sweet and nutty[183].

The roasted seed is a coffee substitute[183, 213].

An edible semi-drying oil is obtained from the seed[177, 183].

Inner bark[177]. Dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[213].

Medicinal Uses

Disclaimer

Pectoral; Skin; Vermifuge.

A decoction of the boiled leaves has been used as a wash and poultice to treat frostbite, burns, poison ivy rash etc[213, 222, 257].

The nuts have been eaten as a vermifuge[222, 257].

A tea made from the bark has been used in the treatment of lung ailments[222, 257]. It has also been used to procure an abortion when the mother was suffering[257].

Other Uses

Charcoal; Oil; Wood.

The oil obtained from the seed has been used as a fuel in oil lamps[226].

Wood - strong, hard, heavy, very close grained, not durable, difficult to cure[61, 82, 227]. It weighs 43lb per cubic foot[227]. Harvested commercially, it is used for furniture, flooring, tool handles, crates etc[227]. It makes an excellent charcoal and is used in artwork[61, 227].

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

The seeds are dispersed after the first frosts[227], they are sometimes gathered and sold in local markets in N. America[82, 227]. Good crops are produced every 2 - 3 years in the wild[227].

This species produces suckers[11] and often forms thickets in the wild[227].

Trees have surface-feeding roots and also cast a dense shade, this greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation[226, 227].

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6

A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Fagus grandifolia

Common name:	American beech	Family:	Fagaceae
Author:	Ehrenb.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	Large quantities of the raw seed may be toxic[159].		
Range:	Eastern N. America - New Brunswick to Florida, west to Texas and Ontario.		
Habitat:	Rich uplands and mountain slopes, often forming nearly pure forests[82]. In the south of its range it is also found on the margins of streams and swamps[43, 82].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. americana[G,P] F. ferruginea[G,P] F. grandifolia ssp. heterophylla[B,P] F. grandifolia var. caroliniana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Beech [FEIS,E,L,B,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets
	grandifolia = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Colonial)

Physical Characteristics

A decidious tree growing to 10m by 10m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Coffee; Inner bark; Leaves; Oil; Seed.

Young leaves - raw or cooked as a potherb[183]. A very nice mild flavour but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Seed - raw or cooked. Small but very sweet and nutritious[82, 117, 171, 183, 227], it is sold in local markets in Canada and some parts of America[82]. Rich in oil, the seed also contains up to 22% protein[213]. The raw seed should not be eaten in large quantities since it is believed to cause enteritis[159, 226]. It can be dried and ground into a powder, then used with cereal flours in making bread, cakes etc[183]. The germinating seeds can be eaten raw, they are tender, crisp, sweet and nutty[183].

The roasted seed is a coffee substitute[183, 213].

An edible semi-drying oil is obtained from the seed[177, 183].

Inner bark[177]. Dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[213].

Medicinal Uses

Disclaimer

Pectoral; Skin; Vermifuge.

A decoction of the boiled leaves has been used as a wash and poultice to treat frostbite, burns, poison ivy rash etc[213, 222, 257].

The nuts have been eaten as a vermifuge[222, 257].

A tea made from the bark has been used in the treatment of lung ailments[222, 257]. It has also been used to procure an abortion when the mother was suffering[257].

Other Uses

Charcoal; Oil; Wood.

The oil obtained from the seed has been used as a fuel in oil lamps[226].

Wood - strong, hard, heavy, very close grained, not durable, difficult to cure[61, 82, 227]. It weighs 43lb per cubic foot[227]. Harvested commercially, it is used for furniture, flooring, tool handles, crates etc[227]. It makes an excellent charcoal and is used in artwork[61, 227].

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

The seeds are dispersed after the first frosts[227], they are sometimes gathered and sold in local markets in N. America[82, 227]. Good crops are produced every 2 - 3 years in the wild[227].

This species produces suckers[11] and often forms thickets in the wild[227].

Trees have surface-feeding roots and also cast a dense shade, this greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation[226, 227].

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Plants For A Future: Database Search Results

Fagus grandifolia

Common name:	American beech	Family:	Fagaceae
Author:	Ehrenb.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	Large quantities of the raw seed may be toxic[159].		
Range:	Eastern N. America - New Brunswick to Florida, west to Texas and Ontario.		
Habitat:	Rich uplands and mountain slopes, often forming nearly pure forests[82]. In the south of its range it is also found on the margins of streams and swamps[43, 82].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. americana[G,P] F. ferruginea[G,P] F. grandifolia ssp. heterophylla[B,P] F. grandifolia var. caroliniana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Beech [FEIS,E,L,B,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets
	grandifolia = large leaved;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Colonial)

Physical Characteristics

A deciduous tree growing to 10m by 10m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Coffee; Inner bark; Leaves; Oil; Seed.

Young leaves - raw or cooked as a potherb[183]. A very nice mild flavour but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Seed - raw or cooked. Small but very sweet and nutritious[82, 117, 171, 183, 227], it is sold in local markets in Canada and some parts of America[82]. Rich in oil, the seed also contains up to 22% protein[213]. The raw seed should not be eaten in large quantities since it is believed to cause enteritis[159, 226]. It can be dried and ground into a powder, then used with cereal flours in making bread, cakes etc[183]. The germinating seeds can be eaten raw, they are tender, crisp, sweet and nutty[183].

The roasted seed is a coffee substitute[183, 213].

An edible semi-drying oil is obtained from the seed[177, 183].

Inner bark[177]. Dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[213].

Medicinal Uses

Disclaimer

Pectoral; Skin; Vermifuge.

A decoction of the boiled leaves has been used as a wash and poultice to treat frostbite, burns, poison ivy rash etc[213, 222, 257].

The nuts have been eaten as a vermifuge[222, 257].

A tea made from the bark has been used in the treatment of lung ailments[222, 257]. It has also been used to procure an abortion when the mother was suffering[257].

Other Uses

Charcoal; Oil; Wood.

The oil obtained from the seed has been used as a fuel in oil lamps[226].

Wood - strong, hard, heavy, very close grained, not durable, difficult to cure[61, 82, 227]. It weighs 43lb per cubic foot[227]. Harvested commercially, it is used for furniture, flooring, tool handles, crates etc[227]. It makes an excellent charcoal and is used in artwork[61, 227].

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

The seeds are dispersed after the first frosts[227], they are sometimes gathered and sold in local markets in N. America[82, 227]. Good crops are produced every 2 - 3 years in the wild[227].

This species produces suckers[11] and often forms thickets in the wild[227].

Trees have surface-feeding roots and also cast a dense shade, this greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation[226, 227].

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

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Fagus grandifolia

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Fagus grandifolia

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Fagus japonica

Common name:	Japanese beech	Family:	Fagaceae
Author:	Maxim.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - Japan.		
Habitat:	Mountains in C. and S. Japan.		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 22m at a slow rate. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked. Rich in oil. The raw seed should not be eaten in large quantities, see the notes above on toxicity. It can be dried and ground into a powder.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

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Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the

details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Fagus japonica

Common name:	Japanese beech	Family:	Fagaceae
Author:	Maxim.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - Japan.		
Habitat:	Mountains in C. and S. Japan.		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 22m at a slow rate. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked. Rich in oil. The raw seed should not be eaten in large quantities, see the notes above on toxicity. It can be dried and ground into a powder.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

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Author:	Maxim.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - Japan.		
Habitat:	Mountains in C. and S. Japan.		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 22m at a slow rate. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked. Rich in oil. The raw seed should not be eaten in large quantities, see the notes above on toxicity. It can be dried and ground into a powder.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Fagus japonica

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fagus japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Fagus longipetiolata

Common name:		Family:	Fagaceae
Author:	Seem.	Botanical references:	11, 200, 266
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - C. and W. China.		
Habitat:	Broad-leaved evergreen and mixed mesophytic forests on mountain slopes, occasionally in pure stands but usually with oak, maple and other deciduous trees, 300 - 2400 metres[109, 266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	petiolata = with petioles;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 22m. It is frost tender. It is in flower from April to June, and the seeds ripen from September to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

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An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in

Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

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Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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Add a longer comment

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Plants For A Future: Database Search Results

Fagus longipetiolata

Common name:		Family:	Fagaceae
Author:	Seem.	Botanical references:	11, 200, 266
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - C. and W. China.		
Habitat:	Broad-leaved evergreen and mixed mesophytic forests on mountain slopes, occasionally in pure stands but usually with oak, maple and other deciduous trees, 300 - 2400 metres[109, 266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	petiolata = with petioles;
Systematics:	From a UDSA Plants Database
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Physical Characteristics

A decidious tree growing to 22m. It is frost tender. It is in flower from April to June, and the seeds ripen from September to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

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Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

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Suppliers

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Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - C. and W. China.		
Habitat:	Broad-leaved evergreen and mixed mesophytic forests on mountain slopes, occasionally in pure stands but usually with oak, maple and other deciduous trees, 300 - 2400 metres[109, 266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	petiolata = with petioles;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 22m. It is frost tender. It is in flower from April to June, and the seeds ripen from September to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked[105, 177]. Rich in oil. The seed should not be eaten raw in large quantities. It can be dried and ground into a powder and then used with cereal flours in making bread, cakes etc.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath

them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List](#) or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Fagus longipetiolata*

Subject:

Fagus longipetiolata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fagus longipetiolata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Fagus lucida

Common name:		Family:	Fagaceae
Author:	Rehd. & Wils.	Botanical references:	11, 200, 266
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - China.		
Habitat:	Mixed woods, often in pure stands with F. engleriana[147]. Mixed mesophytic forests on mountain slopes at elevations of 800 - 2000 metres[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	lucida = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 15m. It is hardy to zone 6 and is frost tender. It is in flower from April to June, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked[105, 177]. Rich in oil. The seed should not be eaten in large quantities. It can be dried and ground into a powder, then used with cereal flours in making bread, cakes etc.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Fagus+lucida`

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Plants For A Future: Database Search Results

Fagus lucida

Common name:		Family:	Fagaceae
Author:	Rehd. & Wils.	Botanical references:	11, 200, 266
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - China.		
Habitat:	Mixed woods, often in pure stands with F. engleriana[147]. Mixed mesophytic forests on mountain slopes at elevations of 800 - 2000 metres[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	lucida = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 15m. It is hardy to zone 6 and is frost tender. It is in flower from April to June, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Edible seed - raw or cooked[105, 177]. Rich in oil. The seed should not be eaten in large quantities. It can be dried and ground into a powder, then used with cereal flours in making bread, cakes etc.

An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath

them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

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References for the family Fagaceae.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

Readers Comments

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Plants For A Future: Database Search Results

Fagus lucida

Common name:		Family:	Fagaceae
Author:	Rehd. & Wils.	Botanical references:	11, 200, 266
Synonyms:			
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Asia - China.		
Habitat:	Mixed woods, often in pure stands with F. engleriana[147]. Mixed mesophytic forests on mountain slopes at elevations of 800 - 2000 metres[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	lucida = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 15m. It is hardy to zone 6 and is frost tender. It is in flower from April to June, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

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An edible semi-drying oil is obtained from the seed[105, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil[11], doing well on chalk[1], but ill-adapted for heavy wet soils[1].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Although very cold hardy, this species requires hotter summers than are normally experienced in Britain so is not usually a success here and is very slow growing[200].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath

them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

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Plants For A Future - Readers Comments

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Add a comment on: *Fagus lucida*

Subject:

Fagus lucida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fagus lucida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:39:51 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Fagus orientalis

Common name:	Oriental beech	Family:	Fagaceae
Author:	Lipsky.	Botanical references:	11, 50, 200
Synonyms:	Fagus sylvatica orientalis ((Lipsky.)Greuter.&Burdet.)		
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Europe to W. Asia.		
Habitat:	Forests.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. sylvatica subsp. orientalis[G]
Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Seed - raw or cooked. Rich in oil. The seed should not be eaten raw in large quantities. It can be dried and ground into a powder and then used with cereal flours when making bread, cakes etc.

An edible semi-drying oil is obtained from the seed[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil, doing well on chalk, but ill-adapted for heavy wet soil[1, 11]. Fairly tolerant of most conditions, this is the most successful non-native species of Fagus in Britain[200].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Hybridizes in nature with F. sylvatica[11].

Large mature trees at Kew produced a very good crop of seed in 1999[K].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Fagus sylvatica subsp. orientalis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Fagus+orientalis`

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Plants For A Future: Database Search Results

Fagus orientalis

Common name:	Oriental beech	Family:	Fagaceae
Author:	Lipsky.	Botanical references:	11, 50, 200
Synonyms:	Fagus sylvatica orientalis ((Lipsky.)Greuter.&Burdet.)		
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Europe to W. Asia.		
Habitat:	Forests.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. sylvatica subsp. orientalis[G]
Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Seed - raw or cooked. Rich in oil. The seed should not be eaten raw in large quantities. It can be dried and ground into a powder and then used with cereal flours when making bread, cakes etc.

An edible semi-drying oil is obtained from the seed[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil, doing well on chalk, but ill-adapted for heavy wet soil[1, 11]. Fairly tolerant of most conditions, this is the most successful non-native species of Fagus in Britain[200].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Hybridizes in nature with F. sylvatica[11].

Large mature trees at Kew produced a very good crop of seed in 1999[K].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Fagus sylvatica subsp. orientalis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Fagus orientalis

Common name:	Oriental beech	Family:	Fagaceae
Author:	Lipsky.	Botanical references:	11, 50, 200
Synonyms:	Fagus sylvatica orientalis ((Lipsky.)Greuter.&Burdet.)		
Known Hazards:	Although no specific mention has been seen for this species, large quantities of the seed of many species in this genus are thought to be toxic.		
Range:	E. Europe to W. Asia.		
Habitat:	Forests.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. sylvatica subsp. orientalis[G]
Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw. A very nice mild flavour, but the leaves quickly become tough so only the youngest should be used. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Seed - raw or cooked. Rich in oil. The seed should not be eaten raw in large quantities. It can be dried and ground into a powder and then used with cereal flours when making bread, cakes etc.

An edible semi-drying oil is obtained from the seed[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Thrives on a light or medium soil, doing well on chalk, but ill-adapted for heavy wet soil[1, 11]. Fairly tolerant of most conditions, this is the most successful non-native species of Fagus in Britain[200].

Young trees are very shade tolerant, but are subject to frost damage so are best grown in a woodland position which will protect them[200].

Hybridizes in nature with F. sylvatica[11].

Large mature trees at Kew produced a very good crop of seed in 1999[K].

Trees have surface-feeding roots and also cast a dense shade. This greatly inhibits the growth of other plants and, especially where a number of the trees are growing together, the ground beneath them is often almost devoid of vegetation.

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Fagus orientalis*

Subject:

Fagus orientalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fagus orientalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:40:01 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Fagus sylvatica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Beech	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Large quantities of the seed may be toxic[65, 76].		
Range:	Britain.		
Habitat:	Grows in woodlands where it is often the dominant species, especially on chalky soils[13].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. silvatica[E] F. slyvatica[E] F. sylvatica var. atropunicea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beech [H,L], Beuk [D], Buck-mast [H], Common Beech [H], European Beech [H,DEN1,B,P,E], Hay Beech [H], Hayo [E], Kayinagaci [E],
Epithets:	From a Dictionary of Botanical Epithets
	sylvatica = growing in the woods, wild;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

A decidious tree growing to 30m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw[183]. A very nice mild flavour, they go well in a mixed salad. However, the leaves quickly become tough so only the youngest should be used[2, 5, 12, K]. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Seed - raw or cooked[2, 5, 7, 63, 183]. A pleasant sweet flavour, though rather small and fiddly[K]. The seed can also be dried and ground into a powder and then used with cereal flours when making bread, cakes etc[12]. The seed is rich in oil. The seed should not be eaten in large quantities because it contains a deleterious principle[65, 238].

The seed contains 17 - 20% of an edible semi-drying oil[4, 7, 8, 57]. This stores well without going rancid and is said to be equal in delicacy to olive oil[183]. It is used as a dressing for salads and also for cooking[238]. The seed residue is poisonous[9, 57].

The roasted seed is used as a coffee substitute[2, 63].

Medicinal Uses

Disclaimer

Antacid; Antipyretic; Antiseptic; Antitussive; Bach; Expectorant; Odontalgic; Skin.

The bark is antacid, antipyretic, antiseptic, antitussive, expectorant, odontalgic[7, 9].

A tar (or creosote), obtained by dry distillation of the branches, is stimulating and antiseptic[4]. It is used internally as a stimulating expectorant and externally as an application to various skin diseases[4, 238]. The pure creosote has been used to give relief from toothache, but it should not be used without expert guidance[7].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Intolerance', 'Criticism' and 'Passing judgements'[209].

Other Uses

Charcoal; Fuel; Hedge; Stuffing; Teeth; Wood.

A semi-drying oil is obtained from the seed, it is used as a fuel for lighting, as a lubricant, for polishing wood etc[12, 13, 46, 57, 63]. The seed residue is poisonous[9, 57].

The leaf buds harvested in the winter and dried on the twigs are used as toothpicks[66].

The leaves are gathered in autumn and used as a stuffing material for mattresses etc[115].

Wood - hard, heavy, strong, very durable[13, 46]. It is not suitable for outdoor use[1] and is often attacked by a small beetle[4]. It has a wide range of applications, including furniture, flooring, turnery etc[100]. It makes a very good fuel[6, 66], burning with a lot of heat[4], and yields a charcoal known as 'Carbo Ligni Pulveratus'[46].

The wood has often been used as a source of creosote, tar, methyl alcohol. acetic acid[123].

Cultivation details

Thrives on a light or medium soil, doing well on chalk, but ill-adapted for a heavy wet soil[1, 11]. Prefers a calcareous soil but succeeds in acid soils though it does not make such a fine tree in such a situation[186]. Succeeds in almost any soil and any pH, it is also very tolerant of a wide range of climatic conditions so long as there is sufficient rainfall[200]. Established trees are drought tolerant[186]. Very wind tolerant but dislikes salt[200]. Trees are shallow rooted and this might make them less wind resistant[186].

Trees have two growth periods a year, each of about 3 weeks in duration. The first is in spring around the end of April, the second is in summer, around the end of July.

Trees are often slow growing and also can be very slow to establish after transplanting. However, in good conditions they are capable of growing up to a metre in a year.

Young trees are very shade tolerant, but are subject to frost damage to their flowers and young leaves and so are best grown in a woodland position which will protect them[200].

An important food plant for many caterpillars, it has 64 species of associated insects[24].

Trees have a heavy canopy and cast a dense shade, very few other species can grow in a dense beech wood and on suitable soils it becomes the dominant species[186].

Very intolerant of coppicing, trees producing none or only very weak growth afterwards and this is soon smothered by other plants[186]. Plants are very tolerant of light pruning however and if this is carried out in late summer the plants will retain their dead leaves over winter[29].

There are many named forms selected for their ornamental value. Those forms with purple leaves prefer a position in full sun whilst forms with yellow leaves prefer some shade[188].

This species is notably resistant to honey fungus[200].

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn[186]. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

> lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Fagus sylvatica* (common beech)

Forever Trees Nursery

Phone 01803 814098
Denbury Road
Ipplepen
TQ12 5TR
Distribution: UK
How to order: Direct from Forever Trees
Last Updated: March 03
Item: *Fagus sylvatica* (Beech)
Size: 2 year old Price: £4

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Fagus sylvatica* (Beech)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Vegtable Oils
- Alternative Lighting: Plant Oils and Waxes
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Fagus silvatica* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Fagus slyvatica* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *fagus sylvatica* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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gardens at Wisley in Surrey.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[123] **?** *Encyclopaedia Britannica. 15th edition.*
It contains a few things of interest to the plant project.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Fagus+sylvatica`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Fagus+sylvatica`

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Plants For A Future: Database Search Results

Fagus sylvatica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Beech	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Large quantities of the seed may be toxic[65, 76].		
Range:	Britain.		
Habitat:	Grows in woodlands where it is often the dominant species, especially on chalky soils[13].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. silvatica[E] F. slyvatica[E] F. sylvatica var. atropunicea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beech [H,L], Beuk [D], Buck-mast [H], Common Beech [H], European Beech [H,DEN1,B,P,E], Hay Beech [H], Hayo [E], Kayinagaci [E],
Epithets:	From a Dictionary of Botanical Epithets
	sylvatica = growing in the woods, wild;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

A decidious tree growing to 30m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw[183]. A very nice mild flavour, they go well in a mixed salad. However, the leaves quickly become tough so only the youngest should be used[2, 5, 12, K]. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

Seed - raw or cooked[2, 5, 7, 63, 183]. A pleasant sweet flavour, though rather small and fiddly[K]. The seed can also be dried and ground into a powder and then used with cereal flours when making bread, cakes etc[12]. The seed is rich in oil. The seed should not be eaten in large quantities because it contains a deleterious principle[65, 238].

The seed contains 17 - 20% of an edible semi-drying oil[4, 7, 8, 57]. This stores well without going rancid and is said to be equal in delicacy to olive oil[183]. It is used as a dressing for salads and also for cooking[238]. The seed residue is poisonous[9, 57].

The roasted seed is used as a coffee substitute[2, 63].

Medicinal Uses

Disclaimer

Antacid; Antipyretic; Antiseptic; Antitussive; Bach; Expectorant; Odontalgic; Skin.

The bark is antacid, antipyretic, antiseptic, antitussive, expectorant, odontalgic[7, 9].

A tar (or creosote), obtained by dry distillation of the branches, is stimulating and antiseptic[4]. It is used internally as a stimulating expectorant and externally as an application to various skin diseases[4, 238]. The pure creosote has been used to give relief from toothache, but it should not be used without expert guidance[7].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Intolerance', 'Criticism' and 'Passing judgements'[209].

Other Uses

Charcoal; Fuel; Hedge; Stuffing; Teeth; Wood.

A semi-drying oil is obtained from the seed, it is used as a fuel for lighting, as a lubricant, for polishing wood etc[12, 13, 46, 57, 63]. The seed residue is poisonous[9, 57].

The leaf buds harvested in the winter and dried on the twigs are used as toothpicks[66].

The leaves are gathered in autumn and used as a stuffing material for mattresses etc[115].

Wood - hard, heavy, strong, very durable[13, 46]. It is not suitable for outdoor use[1] and is often attacked by a small beetle[4]. It has a wide range of applications, including furniture, flooring, turnery etc[100]. It makes a very good fuel[6, 66], burning with a lot of heat[4], and yields a charcoal known as 'Carbo Ligni Pulveratus'[46].

The wood has often been used as a source of creosote, tar, methyl alcohol. acetic acid[123].

Cultivation details

Thrives on a light or medium soil, doing well on chalk, but ill-adapted for a heavy wet soil[1, 11]. Prefers a calcareous soil but succeeds in acid soils though it does not make such a fine tree in such a situation[186]. Succeeds in almost any soil and any pH, it is also very tolerant of a wide range of climatic conditions so long as there is sufficient rainfall[200]. Established trees are drought tolerant[186]. Very wind tolerant but dislikes salt[200]. Trees are shallow rooted and this might make them less wind resistant[186].

Trees have two growth periods a year, each of about 3 weeks in duration. The first is in spring around the end of April, the second is in summer, around the end of July.

Trees are often slow growing and also can be very slow to establish after transplanting. However, in good conditions they are capable of growing up to a metre in a year.

Young trees are very shade tolerant, but are subject to frost damage to their flowers and young leaves and so are best grown in a woodland position which will protect them[200].

An important food plant for many caterpillars, it has 64 species of associated insects[24].

Trees have a heavy canopy and cast a dense shade, very few other species can grow in a dense beech wood and on suitable soils it becomes the dominant species[186].

Very intolerant of coppicing, trees producing none or only very weak growth afterwards and this is soon smothered by other plants[186]. Plants are very tolerant of light pruning however and if this is carried out in late summer the plants will retain their dead leaves over winter[29].

There are many named forms selected for their ornamental value. Those forms with purple leaves prefer a position in full sun whilst forms with yellow leaves prefer some shade[188].

This species is notably resistant to honey fungus[200].

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn[186]. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK

How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Fagus sylvatica* (common beech)

Forever Trees Nursery

Phone 01803 814098
Denbury Road
Ipplepen
TQ12 5TR
Distribution: UK
How to order: Direct from Forever Trees
Last Updated: March 03
Item: *Fagus sylvatica* (Beech)
Size: 2 year old Price: £4

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Fagus sylvatica* (Beech)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Vegtable Oils
- Alternative Lighting: Plant Oils and Waxes
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Fagus silvatica* (a possible synonym).

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Plants For A Future: Database Search Results

Fagus sylvatica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Beech	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Large quantities of the seed may be toxic[65, 76].		
Range:	Britain.		
Habitat:	Grows in woodlands where it is often the dominant species, especially on chalky soils[13].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Beech [H,L], Beuk [D], Buck-mast [H], Common Beech [H], European Beech [H,DEN1,B,P,E], Hay Beech [H], Hayo [E], Kayinagaci [E],
Epithets:	From a Dictionary of Botanical Epithets
	sylvatica = growing in the woods, wild;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

A decidious tree growing to 30m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Leaves; Oil; Seed.

Young leaves - raw[183]. A very nice mild flavour, they go well in a mixed salad. However, the leaves quickly become tough so only the youngest should be used[2, 5, 12, K]. New growth is usually produced for 2 periods of 3 weeks each year, one in spring and one in mid-summer.

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The seed contains 17 - 20% of an edible semi-drying oil[4, 7, 8, 57]. This stores well without going rancid and is said to be equal in delicacy to olive oil[183]. It is used as a dressing for salads and also for cooking[238]. The seed residue is poisonous[9, 57].

The roasted seed is used as a coffee substitute[2, 63].

Medicinal Uses

Disclaimer

Antacid; Antipyretic; Antiseptic; Antitussive; Bach; Expectorant; Odontalgic; Skin.

The bark is antacid, antipyretic, antiseptic, antitussive, expectorant, odontalgic[7, 9].

A tar (or creosote), obtained by dry distillation of the branches, is stimulating and antiseptic[4]. It is used internally as a stimulating expectorant and externally as an application to various skin diseases[4, 238]. The pure creosote has been used to give relief from toothache, but it should not be used without expert guidance[7].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Intolerance', 'Criticism' and 'Passing judgements'[209].

Other Uses

Charcoal; Fuel; Hedge; Stuffing; Teeth; Wood.

A semi-drying oil is obtained from the seed, it is used as a fuel for lighting, as a lubricant, for polishing wood etc[12, 13, 46, 57, 63]. The seed residue is poisonous[9, 57].

The leaf buds harvested in the winter and dried on the twigs are used as toothpicks[66].

The leaves are gathered in autumn and used as a stuffing material for mattresses etc[115].

Wood - hard, heavy, strong, very durable[13, 46]. It is not suitable for outdoor use[1] and is often attacked by a small beetle[4]. It has a wide range of applications, including furniture, flooring, turnery etc[100]. It makes a very good fuel[6, 66], burning with a lot of heat[4], and yields a charcoal known as 'Carbo Ligni Pulveratus'[46].

The wood has often been used as a source of creosote, tar, methyl alcohol. acetic acid[123].

Cultivation details

Thrives on a light or medium soil, doing well on chalk, but ill-adapted for a heavy wet soil[1, 11]. Prefers a calcareous soil but succeeds in acid soils though it does not make such a fine tree in such a situation[186]. Succeeds in almost any soil and any pH, it is also very tolerant of a wide range of climatic conditions so long as there is sufficient rainfall[200]. Established trees are drought tolerant[186]. Very wind tolerant but dislikes salt[200]. Trees are shallow rooted and this might make them less wind resistant[186].

Trees have two growth periods a year, each of about 3 weeks in duration. The first is in spring around the end of April, the second is in summer, around the end of July.

Trees are often slow growing and also can be very slow to establish after transplanting. However, in good conditions they are capable of growing up to a metre in a year.

Young trees are very shade tolerant, but are subject to frost damage to their flowers and young leaves and so are best grown in a woodland position which will protect them[200].

An important food plant for many caterpillars, it has 64 species of associated insects[24].

Trees have a heavy canopy and cast a dense shade, very few other species can grow in a dense beech wood and on suitable soils it becomes the dominant species[186].

Very intolerant of coppicing, trees producing none or only very weak growth afterwards and this is soon smothered by other plants[186]. Plants are very tolerant of light pruning however and if this is carried out in late summer the plants will retain their dead leaves over winter[29].

There are many named forms selected for their ornamental value. Those forms with purple leaves prefer a position in full sun whilst forms with yellow leaves prefer some shade[188].

This species is notably resistant to honey fungus[200].

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in the autumn in a cold frame. Protect the seed from mice. Germination takes place in the spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seedlings are slow growing for the first few years and are very susceptible to damage by late frosts.

The seed can also be sown in an outdoor seedbed in the autumn[186]. The seedlings can be left in the open ground for three years before transplanting, but do best if put into their final positions as soon as possible and given some protection from spring frosts.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK

How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Fagus sylvatica* (common beech)

Forever Trees Nursery

Phone 01803 814098
Denbury Road
Ipplepen
TQ12 5TR
Distribution: UK
How to order: Direct from Forever Trees
Last Updated: March 03
Item: *Fagus sylvatica* (Beech)
Size: 2 year old Price: £4

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Fagus sylvatica* (Beech)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Fagus+sylvatica`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Fagus sylvatica*

Subject:

Fagus sylvatica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fagus sylvatica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:40:14 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Fragaria vesca

Common name:	Wild strawberry	Family:	Rosaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, grassland and scrub[9].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. F. insularis[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Alpine Strawberry [H], Bosaardbei [D], Cilek [E], Erdbeer [E], Fraise [E], Fraise Des Bois [E], Fraises [E], Fraises Des Bois [H], Fraisier [E], Fresa [E], Perpetual Strawberry [H], Strawberry [H], Wild Strawberry [L,H], Wood Strawberry [H], Woodland Strawberry [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets vesca = little;
Systematics:	From a UDSA Plants Database Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database

	Canada(Salish); Dominican Republic; Germany; Haiti; Kashmir; Mexico; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.25m by 1m . It is hardy to zone 5 and is not frost tender. It is in flower from April to July, and the seeds ripen from May to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked or made into preserves[2, 12, 101, 183]. Sweet and succulent. An exquisite flavour but the fruits are usually very small and fiddly[53, 132], though they can be up to 10mm in diameter[200]. Rich in iron and potassium, the fruit is an excellent addition to the diet of people suffering from anaemia[244].

Young leaves - raw or cooked[52, 105]. Added to salads or used as a potherb[183].

The fresh or dried leaves are used as a tea substitute[7, 177, 183, 257]. A delicious drink, it is ideal for children[244].

The root has been used as a coffee substitute in India[240].

Medicinal Uses

Disclaimer

Astringent; Diuretic; Laxative; Tonic.

The leaves and the fruit are mildly astringent, diuretic, laxative and tonic[4, 9, 222, 254]. The leaves are mainly used, though the fruits are an excellent food to take when feverish and are also effective in treating rheumatic gout[4]. A slice of strawberry is also excellent when applied externally to sunburnt skin[4]. A tea made from the leaves is a blood tonic and has been used as a treatment for diarrhoea in adults and children[222, 257]. It is used in the treatment of chilblains[53] and also as an external wash on sunburn[222]. A poultice can be made from the powdered leaves mixed in oil, it is used to treat open sores[257]. The leaves are harvested in the summer and dried for later use[238].

The fruits contain salicylic acid and are beneficial in the treatment of liver and kidney complaints, as well as in the treatment of rheumatism and gout[244].

The roots are astringent and diuretic[4, 222]. A decoction is used internally in the treatment of diarrhoea and chronic dysentery[4, 244, 257]. Externally it is used to treat chilblains and as a throat gargle[244]. The roots are harvested in the autumn and dried for later use[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Teeth.

The fruit is used as a tooth cleaner[4]. The fresh fruit removes stains from teeth if it is allowed to remain for about 5 minutes[4].

The fruit is also used cosmetically in skin-care creams[7]. It tones and whitens the skin, combats wrinkles, lightens freckles, soothes sunburn and whitens the teeth[244].

Cultivation details

Prefers a fertile, well-drained, moisture retentive soil in a sunny position. Tolerates semi-shade though fruit production will be reduced. Succeeds on acid and alkaline soils. Likes a mulch of pine or spruce leaves.

Does well on woodland edges.

Plants spread rapidly by means of runners[K].

Propagation

Seed - sow early spring in a greenhouse. The seed can take 4 weeks or more to germinate. The seedlings are very small and slow-growing at first, but then grow rapidly. Prick them out into individual pots when they are large enough to handle and plant them out during the summer.

Division of runners, preferably done in July/August in order to allow the plants to become established for the following years crop[200]. They can also be moved in the following spring if required, though should not then be allowed to fruit in their first year. The runners can be planted out direct into their permanent positions.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

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philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
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Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Fragaria vesca* (Wild strawberry)
Item: *Fragaria* (Chillean Strawberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *fragaria vesca* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent

photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Fragaria vesca

Common name:	Wild strawberry	Family:	Rosaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, grassland and scrub[9].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. insularis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Strawberry [H], Bosaardbei [D], Cilek [E], Erdbeer [E], Fraise [E], Fraise Des Bois [E], Fraises [E], Fraises Des Bois [H], Fraisier [E], Fresa [E], Perpetual Strawberry [H], Strawberry [H], Wild Strawberry [L,H], Wood Strawberry [H], Woodland Strawberry [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	vesca = little;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Dominican Republic; Germany; Haiti; Kashmir; Mexico; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

Perennial growing to 0.25m by 1m . It is hardy to zone 5 and is not frost tender. It is in flower from April to July, and the seeds ripen from May to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked or made into preserves[2, 12, 101, 183]. Sweet and succulent. An exquisite flavour but the fruits are usually very small and fiddly[53, 132], though they can be up to 10mm in diameter[200]. Rich in iron and potassium, the fruit is an excellent addition to the diet of people suffering from anaemia[244].

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The fruit is also used cosmetically in skin-care creams[7]. It tones and whitens the skin, combats wrinkles, lightens freckles, soothes sunburn and whitens the teeth[244].

Cultivation details

Prefers a fertile, well-drained, moisture retentive soil in a sunny position. Tolerates semi-shade though fruit production will be reduced. Succeeds on acid and alkaline soils. Likes a mulch of pine or spruce leaves.

Does well on woodland edges.

Plants spread rapidly by means of runners[K].

Propagation

Seed - sow early spring in a greenhouse. The seed can take 4 weeks or more to germinate. The seedlings are very small and slow-growing at first, but then grow rapidly. Prick them out into individual pots when they are large enough to handle and plant them out during the summer.

Division of runners, preferably done in July/August in order to allow the plants to become established for the following years crop[200]. They can also be moved in the following spring if required, though should not then be allowed to fruit in their first year. The runners can be planted out direct into their permanent positions.

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philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
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Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
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Item: *Fragaria vesca* (Wild strawberry)
Item: *Fragaria* (Chillean Strawberry)

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- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *fragaria vesca* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Fragaria+vesca`
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Plants For A Future: Database Search Results

Fragaria vesca

Common name:	Wild strawberry	Family:	Rosaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, grassland and scrub[9].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. insularis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Strawberry [H], Bosaardbei [D], Cilek [E], Erdbeer [E], Fraise [E], Fraise Des Bois [E], Fraises [E], Fraises Des Bois [H], Fraisier [E], Fresa [E], Perpetual Strawberry [H], Strawberry [H], Wild Strawberry [L,H], Wood Strawberry [H], Woodland Strawberry [H,P,B],
Epithets:	From a Dictionary of Botanical Epithets
	vesca = little;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Dominican Republic; Germany; Haiti; Kashmir; Mexico; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.25m by 1m . It is hardy to zone 5 and is not frost tender. It is in flower from April to July, and the seeds ripen from May to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked or made into preserves[2, 12, 101, 183]. Sweet and succulent. An exquisite flavour but the fruits are usually very small and fiddly[53, 132], though they can be up to 10mm in diameter[200]. Rich in iron and potassium, the fruit is an excellent addition to the diet of people suffering from anaemia[244].

Young leaves - raw or cooked[52, 105]. Added to salads or used as a potherb[183].

The fresh or dried leaves are used as a tea substitute[7, 177, 183, 257]. A delicious drink, it is ideal for children[244].

The root has been used as a coffee substitute in India[240].

Medicinal Uses

Disclaimer

Astringent; Diuretic; Laxative; Tonic.

The leaves and the fruit are mildly astringent, diuretic, laxative and tonic[4, 9, 222, 254]. The leaves are mainly used, though the fruits are an excellent food to take when feverish and are also effective in treating rheumatic gout[4]. A slice of strawberry is also excellent when applied externally to sunburnt skin[4]. A tea made from the leaves is a blood tonic and has been used as a treatment for diarrhoea in adults and children[222, 257]. It is used in the treatment of chilblains[53] and also as an external wash on sunburn[222]. A poultice can be made from the powdered leaves mixed in oil, it is used to treat open sores[257]. The leaves are harvested in the summer and dried for later use[238].

The fruits contain salicylic acid and are beneficial in the treatment of liver and kidney complaints, as well as in the treatment of rheumatism and gout[244].

The roots are astringent and diuretic[4, 222]. A decoction is used internally in the treatment of diarrhoea and chronic dysentery[4, 244, 257]. Externally it is used to treat chilblains and as a throat gargle[244]. The roots are harvested in the autumn and dried for later use[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Teeth.

The fruit is used as a tooth cleaner[4]. The fresh fruit removes stains from teeth if it is allowed to remain for about 5 minutes[4].

The fruit is also used cosmetically in skin-care creams[7]. It tones and whitens the skin, combats wrinkles, lightens freckles, soothes sunburn and whitens the teeth[244].

Cultivation details

Prefers a fertile, well-drained, moisture retentive soil in a sunny position. Tolerates semi-shade though fruit production will be reduced. Succeeds on acid and alkaline soils. Likes a mulch of pine or spruce leaves.

Does well on woodland edges.

Plants spread rapidly by means of runners[K].

Propagation

Seed - sow early spring in a greenhouse. The seed can take 4 weeks or more to germinate. The seedlings are very small and slow-growing at first, but then grow rapidly. Prick them out into individual pots when they are large enough to handle and plant them out during the summer.

Division of runners, preferably done in July/August in order to allow the plants to become established for the following years crop[200]. They can also be moved in the following spring if required, though should not then be allowed to fruit in their first year. The runners can be planted out direct into their permanent positions.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Fragaria vesca* (Wild strawberry)
Item: *Fragaria* (Chillean Strawberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Fragaria+vesca`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Fragaria vesca*

Subject:

Fragaria vesca

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fragaria vesca

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:40:25 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Fragaria vesca 'Semperflorens'

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Alpine strawberry	Family:	Rosaceae
Author:	L.	Botanical references:	200
Synonyms:	Fragaria alpina (Hort.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woodland and damp undergrowth[7].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets semperflorens = always flowering; vesca = little;
Systematics:	From a UDSA Plants Database Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.3m by 0.25m . It is hardy to zone 5 and is not frost tender. It is in flower from May to November, and the seeds ripen from June to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Cultivar **'White'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked or made into preserves[183]. Sweet and succulent with an exquisite taste, they are far superior to the cultivated strawberry[K]. The fruit is fairly small, up to 15mm in diameter, but it is produced abundantly from early summer until the frosts of autumn[K].

Young leaves - raw or cooked[52, 105]. Added to salads or used as a potherb[183].

The fresh or dried leaves are used as a tea substitute[7, 177, 183].

The root has been used as a coffee substitute in India[240].

Medicinal Uses

Disclaimer

Astringent; Diuretic; Laxative; Tonic.

The leaves and the fruit are astringent, diuretic, laxative and tonic[4, 9, 222]. The leaves are mainly used, though the fruits are an excellent food to take when feverish and are also effective in treating rheumatic gout[4]. A slice of strawberry is also excellent when applied externally to sunburnt skin[4]. A tea made from the leaves is a blood tonic[222]. It is used in the treatment of chilblains[53] and also as an external wash on sunburn[222]. The leaves are harvested in the summer and dried for later use[238].

The fruits contain salicylic acid and are beneficial in the treatment of liver and kidney complaints, as well as in the treatment of rheumatism and gout[244].

The roots are astringent and diuretic[4, 222]. A decoction is used internally in the treatment of diarrhoea and chronic dysentery[4, 244]. Externally it is used to treat chilblains and as a throat gargle[244]. The roots are harvested in the autumn and dried for later use[238].

Other Uses

Compost; Teeth.

The flowers are an alternative ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

The fruit is used as a tooth cleaner[4]. The fresh fruit removes stains from teeth if it is allowed to remain for about 5 minutes[4].

The fruit is also used cosmetically in skin-care creams[7]. It tones and whitens the skin, combats wrinkles, lightens freckles, soothes sunburn and whitens the teeth[244].

Cultivation details

Prefers a fertile, well-drained, moisture retentive soil in a sunny position[27, 200]. Tolerates semi-shade though fruit production will be reduced when plants are growing in such a position. Prefers some shade according to some reports[3, 31]. Plants are often found on clay soils[31] and on soils overlying chalk[13].

Alpine strawberries appreciate a mulch of pine or spruce leaves[18].

The alpine strawberry is often cultivated in the garden for its edible fruit. This fruit is fairly small but exquisitely flavoured and is freely produced from June to November. There are some named varieties[183]. It is not very feasible to grow this plant on a commercial scale because it is very labour intensive to pick and it is also hard to get the fruit to market in good quality. However, it is sometimes grown by specialised growers for the luxury market.

The main drawback of growing this plant is that it tends to lose vigour after about 2 - 3 years, partly due to virus diseases and partly because the plant flowers and fruits so freely that it exhausts itself.

Propagation

Seed - sow early spring in a greenhouse. The seed can take 4 weeks or more to germinate. The seedlings are very small and slow-growing at first, but then grow rapidly. Prick them out into individual pots when they are large enough to handle and plant them out during the summer.

Cultivars

'White'

> The small white fruit has an excellent mild sweet flavour and is not as acid as the red-fruited forms[183]. The fruit's colour makes it less attractive to birds]183].

Suppliers

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Cool Temperate Nurseries

> philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
> 10 Ivy Grove
> Nottingham
> NG7 7LZ
> Distribution: UK
> How to order: Direct from Cool Temperate by email/phone
> Notes: Many Trees supplied on their own rootstock
> Last Updated: April 03

Item: *Fragaria vesca* (Wild strawberry)
Item: *Fragaria* (Chillean Strawberry)

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

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[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
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Readers Comments

Fragaria vesca 'Semperflorens'

Steve Harris Mon Nov 18 03:14:18 2002

"The fruits contain salicylic acid and are beneficial in the treatment of liver and kidney complaints, as well as in the treatment of rheumatism and gout[244]. "

I don't think so. Salicylic acid and it's salts are containdicated in gout because they inhibit excretion of uric acid.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Fragaria vesca 'Semperflorens'

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Alpine strawberry	Family:	Rosaceae
Author:	L.	Botanical references:	200
Synonyms:	Fragaria alpina (Hort.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woodland and damp undergrowth[7].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	semperflorens = always flowering; vesca = little;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

Perennial growing to 0.3m by 0.25m . It is hardy to zone 5 and is not frost tender. It is in flower from May to November, and the seeds ripen from June to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Cultivar **'White'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked or made into preserves[183]. Sweet and succulent with an exquisite taste, they are far superior to the cultivated strawberry[K]. The fruit is fairly small, up to 15mm in diameter, but it is produced abundantly from early summer until the frosts of autumn[K].

Young leaves - raw or cooked[52, 105]. Added to salads or used as a potherb[183].

The fresh or dried leaves are used as a tea substitute[7, 177, 183].

The root has been used as a coffee substitute in India[240].

Medicinal Uses

Disclaimer

Astringent; Diuretic; Laxative; Tonic.

The leaves and the fruit are astringent, diuretic, laxative and tonic[4, 9, 222]. The leaves are mainly used, though the fruits are an excellent food to take when feverish and are also effective in treating rheumatic gout[4]. A slice of strawberry is also excellent when applied externally to sunburnt skin[4]. A tea made from the leaves is a blood tonic[222]. It is used in the treatment of chilblains[53] and also as an external wash on sunburn[222]. The leaves are harvested in the summer and dried for later use[238].

The fruits contain salicylic acid and are beneficial in the treatment of liver and kidney complaints, as well as in the treatment of rheumatism and gout[244].

The roots are astringent and diuretic[4, 222]. A decoction is used internally in the treatment of diarrhoea and chronic dysentery[4, 244]. Externally it is used to treat chilblains and as a throat gargle[244]. The roots are harvested in the autumn and dried for later use[238].

Other Uses

Compost; Teeth.

The flowers are an alternative ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

The fruit is used as a tooth cleaner[4]. The fresh fruit removes stains from teeth if it is allowed to remain for about 5 minutes[4].

The fruit is also used cosmetically in skin-care creams[7]. It tones and whitens the skin, combats wrinkles, lightens freckles, soothes sunburn and whitens the teeth[244].

Cultivation details

Prefers a fertile, well-drained, moisture retentive soil in a sunny position[27, 200]. Tolerates semi-shade though fruit production will be reduced when plants are growing in such a position. Prefers some shade according to some reports[3, 31]. Plants are often found on clay soils[31] and on soils overlying chalk[13].

Alpine strawberries appreciate a mulch of pine or spruce leaves[18].

The alpine strawberry is often cultivated in the garden for its edible fruit. This fruit is fairly small but exquisitely flavoured and is freely produced from June to November. There are some named varieties[183]. It is not very feasible to grow this plant on a commercial scale because it is very labour intensive to pick and it is also hard to get the fruit to market in good quality. However, it is sometimes grown by specialised growers for the luxury market.

The main drawback of growing this plant is that it tends to lose vigour after about 2 - 3 years, partly due to virus diseases and partly because the plant flowers and fruits so freely that it exhausts itself.

Propagation

Seed - sow early spring in a greenhouse. The seed can take 4 weeks or more to germinate. The seedlings are very small and slow-growing at first, but then grow rapidly. Prick them out into individual pots when they are large enough to handle and plant them out during the summer.

Cultivars

'White'

> The small white fruit has an excellent mild sweet flavour and is not as acid as the red-fruited forms[183]. The fruit's colour makes it less attractive to birds]183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Fragaria vesca* (Wild strawberry)
Item: *Fragaria* (Chillean Strawberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

Readers Comments

Fragaria vesca 'Semperflorens'

Steve Harris Mon Nov 18 03:14:18 2002

"The fruits contain salicylic acid and are beneficial in the treatment of liver and kidney complaints, as well as in the treatment of rheumatism and gout[244]. "

I don't think so. Salicylic acid and it's salts are containdicated in gout because they inhibit excretion of uric acid.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Fragaria+vesca+%27Semperflorens%27`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Fragaria+vesca+%27Semperflorens%27`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Fragaria vesca 'Semperflorens'

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Alpine strawberry	Family:	Rosaceae
Author:	L.	Botanical references:	200
Synonyms:	Fragaria alpina (Hort.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woodland and damp undergrowth[7].		
Plants For A Future Rating (1-5):	5		

Epithets:	From a Dictionary of Botanical Epithets
	semperflorens = always flowering; vesca = little;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.3m by 0.25m . It is hardy to zone 5 and is not frost tender. It is in flower from May to November, and the seeds ripen from June to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Cultivar **'White'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked or made into preserves[183]. Sweet and succulent with an exquisite taste, they are far superior to the cultivated strawberry[K]. The fruit is fairly small, up to 15mm in diameter, but it is produced abundantly from early summer until the frosts of autumn[K].

Young leaves - raw or cooked[52, 105]. Added to salads or used as a potherb[183].

The fresh or dried leaves are used as a tea substitute[7, 177, 183].

The root has been used as a coffee substitute in India[240].

Medicinal Uses

Disclaimer

Astringent; Diuretic; Laxative; Tonic.

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Compost; Teeth.

The flowers are an alternative ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

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Cultivation details

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The main drawback of growing this plant is that it tends to lose vigour after about 2 - 3 years, partly due to virus diseases and partly because the plant flowers and fruits so freely that it exhausts itself.

Propagation

Seed - sow early spring in a greenhouse. The seed can take 4 weeks or more to germinate. The seedlings are very small and slow-growing at first, but then grow rapidly. Prick them out into individual pots when they are large enough to handle and plant them out during the summer.

Cultivars

'White'

> The small white fruit has an excellent mild sweet flavour and is not as acid as the red-fruited forms[183]. The fruit's colour makes it less attractive to birds]183].

Suppliers

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Fragaria vesca* (Wild strawberry)
Item: *Fragaria* (Chillean Strawberry)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Fragaria vesca 'Semperflorens'*

Subject:

Fragaria vesca 'Semperflorens'

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fragaria vesca 'Semperflorens'

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:40:36 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Galium aparine

Common name:	Goosegrass	Family:	Rubiaceae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	The sap of the plant can cause contact dermatitis in sensitive people[222].		
Range:	Britain.		
Habitat:	Hedgerows and as a weed of cultivated land[7]. Moist and grassy places on most types of soil[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. G. agreste var. echinospermum[B,P] G. aparine var. echinospermum[B,P] G. aparine var. intermedium[B,P] G. aparine var. minor[B,P] G. aparine var. vaillantii[B,P] G. spurium var. echinospermum[B,P] G. spurium var. vaillantii[B,P] G. vaillantii[B,P] Gallium aparine[Sn6]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Amor De Hortelano [E], Barweed [H], Bedstraw, Cleavers [S], Catchweed [H], Cleavers [S,H,E,L], Cleavers Goosegrass [E], Cleever [E], Clivers [H], Eriffe [H], Everlasting Friendship [H], Gia Mara [E], Goosebill [H], Goosegrass [H,L], Grateron [E], Grip Grass [H], Hashishat Al Af'A [E], Hayriffe [H], Hayruff [H], Hedge Clivers [E], Hedgeheriff [H], Kaz Yogurtotu [E], Kleefkruid [D], Loveman [H], Mutton Chops [H], Robin-run-in-the-Grass [H], Scratweed [H], Sticky-willy [B], Stickywilly [P], Zhu Yang Yang [E],
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	Australia; Britain; Britain(Wales); China; Europe; France; Iraq; Kurdistan; Mexico(Mazatec); Spain; Turkey; Us; Us(Appalachia)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Western Australia.

Physical Characteristics

Annual growing to 1.2m by 3m . It is hardy to zone 3 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Coffee; Leaves; Tea.

The tender young shoot tips - raw or cooked as a pot-herb[5, 7, 53, 55, 62, 172, 183]. A rather bitter flavour that some people find unpalatable[244], they are best used in the spring[178]. They make a useful addition to vegetable soups[7, 244]. It is said that using this plant as a vegetable has a slimming effect on the body[238].

The roasted seed is a coffee substitute[2, 53, 62]. One of the best substitutes, it merely needs to be dried and lightly roasted and has much the flavour of coffee[4, 115, 183].

A decoction of the whole dried plant gives a drink equal to tea[2, 4].

Medicinal Uses

Disclaimer

Alterative; Antiphlogistic; Aperient; Astringent; Cancer; Depurative; Diaphoretic; Diuretic; Febrifuge; Homeopathy; Skin; Tonic; Vulnerary.

Goosegrass has a long history of domestic medicinal use and is also used widely by modern herbalists. A valuable diuretic, it is often taken to treat skin problems such as seborrhoea, eczema and psoriasis, and as a general detoxifying agent in serious illnesses such as cancer[254].

The whole plant, excluding the root, is alterative, antiphlogistic, aperient, astringent, depurative, diaphoretic, diuretic, febrifuge, tonic and vulnerary[4, 7, 9, 21, 165, 218, 222]. It is harvested in May and June as it comes into flower and can be used fresh or dried for later use[4, 238]. It is used both internally and externally in the treatment of a wide range of ailments, including as a poultice for wounds, ulcers and many other skin problems[4, 7, 244], and as a decoction for insomnia and cases where a strong diuretic is beneficial[4]. It has been shown of benefit in the treatment of glandular fever, ME, tonsillitis, hepatitis, cystitis etc[238]. The plant is often used as part of a spring tonic drink with other herbs[4].

A tea made from the plant has traditionally been used internally and externally in the treatment of cancer[4, 218, 222]. One report says that it is better to use a juice of the plant rather than a tea[254]. The effectiveness of this treatment has never been proved or disproved[7].

A number of species in this genus contain asperuloside, a substance that produces coumarin and gives the scent of new-mown hay as the plant dries[238]. Asperuloside can be converted into prostaglandins (hormone-like compounds that stimulate the uterus and affect blood vessels), making the genus of great interest to the pharmaceutical industry[238].

A homeopathic remedy has been made from the plant[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cleanser; Dye; Filter; Tinder.

A red dye is obtained from a decoction of the root[4, 7, 168]. When ingested it can dye the bones red[4].

The dried plant is used as a tinder[99].

The plant can be rubbed on the hands to remove pitch (tar)[99].

The stems are placed in a layer 8cm or more thick and then used as a sieve for filtering liquids[4, 115, 172].

Cultivation details

Prefers a loose moist leafy soil in some shade[200]. Plants tolerate dry soils, but they quickly become scorched when growing in full sun[200]. They do not thrive in a hot climate[200]. Another report says that plants succeed in most soils in full sun or heavy shade.

A scrambling plant, the stems and leaves are covered with little hooked bristles by which it can adhere to other plants and climb into them[4].

A good species to grow in the wild garden, it provides food for the larvae of many butterfly species[30].

Propagation

Seed - best sown in situ as soon as the seed is ripe in late summer[200]. The seed can also be sown in spring though it may be very slow to germinate[200]. Once established, this plant does not really need any help to reproduce itself.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Gallium aparine* (a possible synonym).

- [S] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Galium aparine

Common name:	Goosegrass	Family:	Rubiaceae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	The sap of the plant can cause contact dermatitis in sensitive people[222].		
Range:	Britain.		
Habitat:	Hedgerows and as a weed of cultivated land[7]. Moist and grassy places on most types of soil[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. G. agreste var. echinospermum[B,P] G. aparine var. echinospermum[B,P] G. aparine var. intermedium[B,P] G. aparine var. minor[B,P] G. aparine var. vaillantii[B,P] G. spurium var. echinospermum[B,P] G. spurium var. vaillantii[B,P] G. vaillantii[B,P] Gallium aparine[Sn6]
Other Common Names:	From various places around the Web, may not be correct. See below. Amor De Hortelano [E], Barweed [H], Bedstraw, Cleavers [S], Catchweed [H], Cleavers [S,H,E,L], Cleavers Goosegrass [E], Cleever [E], Clivers [H], Eriffe [H], Everlasting Friendship [H], Gia Mara [E], Goosebill [H], Goosegrass [H,L], Grateron [E], Grip Grass [H], Hashishat Al Af'A [E], Hayriffe [H], Hayruff [H], Hedge Clivers [E], Hedgeheriff [H], Kaz Yogurtotu [E], Kleefkruid [D], Loveman [H], Mutton Chops [H], Robin-run-in-the-Grass [H], Scratweed [H], Sticky-willy [B], Stickywilly [P], Zhu Yang Yang [E],
Systematics:	From a UDSA Plants Database Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database

	Australia; Britain; Britain(Wales); China; Europe; France; Iraq; Kurdistan; Mexico(Mazatec); Spain; Turkey; Us; Us(Appalachia)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Western Australia.

Physical Characteristics

Annual growing to 1.2m by 3m . It is hardy to zone 3 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Coffee; Leaves; Tea.

The tender young shoot tips - raw or cooked as a pot-herb[5, 7, 53, 55, 62, 172, 183]. A rather bitter flavour that some people find unpalatable[244], they are best used in the spring[178]. They make a useful addition to vegetable soups[7, 244]. It is said that using this plant as a vegetable has a slimming effect on the body[238].

The roasted seed is a coffee substitute[2, 53, 62]. One of the best substitutes, it merely needs to be dried and lightly roasted and has much the flavour of coffee[4, 115, 183].

A decoction of the whole dried plant gives a drink equal to tea[2, 4].

Medicinal Uses

Disclaimer

Alterative; Antiphlogistic; Aperient; Astringent; Cancer; Depurative; Diaphoretic; Diuretic; Febrifuge; Homeopathy; Skin; Tonic; Vulnerary.

Goosegrass has a long history of domestic medicinal use and is also used widely by modern herbalists. A valuable diuretic, it is often taken to treat skin problems such as seborrhoea, eczema and psoriasis, and as a general detoxifying agent in serious illnesses such as cancer[254].

The whole plant, excluding the root, is alterative, antiphlogistic, aperient, astringent, depurative, diaphoretic, diuretic, febrifuge, tonic and vulnerary[4, 7, 9, 21, 165, 218, 222]. It is harvested in May and June as it comes into flower and can be used fresh or dried for later use[4, 238]. It is used both internally and externally in the treatment of a wide range of ailments, including as a poultice for wounds, ulcers and many other skin problems[4, 7, 244], and as a decoction for insomnia and cases where a strong diuretic is beneficial[4]. It has been shown of benefit in the treatment of glandular fever, ME, tonsillitis, hepatitis, cystitis etc[238]. The plant is often used as part of a spring tonic drink with other herbs[4].

A tea made from the plant has traditionally been used internally and externally in the treatment of cancer[4, 218, 222]. One report says that it is better to use a juice of the plant rather than a tea[254]. The effectiveness of this treatment has never been proved or disproved[7].

A number of species in this genus contain asperuloside, a substance that produces coumarin and gives the scent of new-mown hay as the plant dries[238]. Asperuloside can be converted into prostaglandins (hormone-like compounds that stimulate the uterus and affect blood vessels), making the genus of great interest to the pharmaceutical industry[238].

A homeopathic remedy has been made from the plant[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cleanser; Dye; Filter; Tinder.

A red dye is obtained from a decoction of the root[4, 7, 168]. When ingested it can dye the bones red[4].

The dried plant is used as a tinder[99].

The plant can be rubbed on the hands to remove pitch (tar)[99].

The stems are placed in a layer 8cm or more thick and then used as a sieve for filtering liquids[4, 115, 172].

Cultivation details

Prefers a loose moist leafy soil in some shade[200]. Plants tolerate dry soils, but they quickly become scorched when growing in full sun[200]. They do not thrive in a hot climate[200]. Another report says that plants succeed in most soils in full sun or heavy shade.

A scrambling plant, the stems and leaves are covered with little hooked bristles by which it can adhere to other plants and climb into them[4].

A good species to grow in the wild garden, it provides food for the larvae of many butterfly species[30].

Propagation

Seed - best sown in situ as soon as the seed is ripe in late summer[200]. The seed can also be sown in spring though it may be very slow to germinate[200]. Once established, this plant does not really need any help to reproduce itself.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Gallium aparine* (a possible synonym).

- [S] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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Range:	Britain.		
Habitat:	Hedgerows and as a weed of cultivated land[7]. Moist and grassy places on most types of soil[17].		
Plants For A Future Rating (1-5):	2		

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Edible Uses

Coffee; Leaves; Tea.

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Cultivation details

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Propagation

Seed - best sown in situ as soon as the seed is ripe in late summer[200]. The seed can also be sown in spring though it may be very slow to germinate[200]. Once established, this plant does not really need any help to reproduce itself.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Galium aparine

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Galium verum

Common name:	Lady's bedstraw	Family:	Rubiaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Waste ground, roadsides etc[7], mainly near the sea[4], on all but the most acid soils[17].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Baqlat Al Laban [E], Caille Lait [E], Cheese Rennet [H], Cheese Renning [H], Cleavers,Common [E], Gaillet Jaune [E], Galio [E], Geel Walstro [D], Khitharah [E], Lady's Bedstraw [H,L], Maid's Hair [H], Our Lady's Bedstraw [H], Petty Mugget [H], Yellow Bedstraw [H,L], Yellow Spring Bedstraw [B,P], Yogurtotu [E],
Epithets:	From a Dictionary of Botanical Epithets
	verum = true;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Iraq; Spain; Turkey; Us

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 3 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Colouring; Curdling agent; Drink; Leaves; Seed.

Leaves - raw or cooked[62, 179].

A yellow dye from the flowering stems is used as a food colouring[105, 183].

The roasted seed is a coffee substitute[7]. The seed is also said to be edible[179].

The chopped up plant can be used as a rennet to coagulate plant milks[7, 67, 115, 183, 244].

The flowering tops are distilled in water to make a refreshing acid beverage[2, 183].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Diuretic; Foot care; Lithontripic; Vulnerary.

Lady's bedstraw has a long history of use as a herbal medicine, though it is little used in modern medicine. Its main application is as a diuretic and as a treatment for skin complaints[254].

The leaves, stems and flowering shoots are antispasmodic, astringent, diuretic, foot care, lithontripic and vulnerary[4, 7, 9]. The plant is used as a remedy in gravel, stone or urinary disorders[4, 9, 53, 238] and is believed to be a remedy for epilepsy[4, 21]. A powder made from the fresh plant is used to soothe reddened skin and reduce inflammation[7] whilst the plant is also used as a poultice on cuts, skin infections, slow-healing wounds etc[9]. The plant is harvested as it comes into flower and is dried for later use[9].

A number of species in this genus contain asperuloside, a substance that produces coumarin and gives the scent of new-mown hay as the plant dries[238]. Asperuloside can be converted into prostaglandins (hormone-like compounds that stimulate the uterus and affect blood vessels), making the genus of great interest to the pharmaceutical industry[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Repellent; Strewing; Stuffing.

A red dye is obtained from the root[4, 6, 7, 67, 115]. It is rather fiddly to utilize[169].

A yellow dye is obtained from the flowering tops[4, 7, 115]. The dye is obtained from the foliage when it is boiled with alum[207].

The dried plant has the scent of newly mown hay, it was formerly used as a strewing herb[24] and for stuffing mattresses etc[61, 67, 115]. It is said to keep fleas away[207].

A sprig in a shoe is said to prevent blisters[67].

Cultivation details

Prefers a loose moist leafy soil in some shade, but it tolerates a position in full sun[14]. Plants are tolerant of dry soils[1], but do not thrive in a hot climate. They dislike very acid soils[17, 53].

A very invasive plant[1], though it is low-growing and mixes without harm with any plants at least 60cm tall[K]. It grows well in the summer meadow[24] and is a food plant for the larvae of several species of butterflies[30].

Propagation

Seed - best sown in situ as soon as it is ripe in late summer[200]. The seed can also be sown in situ in the spring though it may be very slow to germinate[200].

Division in spring. The plant can be successfully divided throughout the growing season if the divisions are kept moist until they are established[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (G-L)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *galium verum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References for the family Rubiaceae.

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Reinhold 1982 ISBN 0442222009
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[67] **Ahrendt.** *Berberis and Mahonia.* Journal of the Linnean Society, 57 1961
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Covers all aspects of growing your own clothes, from fibre plants to dyes.

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Readers Comments

Galium verum

Lukasz Luczaj Wed Jan 23 21:24:21 2002

Crcuciata glabra is not a synonim for Galium verum but for Galium vernum! G. verum and G. vernum are two very distinct species.

(in the process of fixing it Rich)

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Email Address:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Galium+verum`

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Plants For A Future: Database Search Results

Galium verum

Common name:	Lady's bedstraw	Family:	Rubiaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Waste ground, roadsides etc[7], mainly near the sea[4], on all but the most acid soils[17].		
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Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 3 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Colouring; Curdling agent; Drink; Leaves; Seed.

Leaves - raw or cooked[62, 179].

A yellow dye from the flowering stems is used as a food colouring[105, 183].

The roasted seed is a coffee substitute[7]. The seed is also said to be edible[179].

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Disclaimer

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A sprig in a shoe is said to prevent blisters[67].

Cultivation details

Prefers a loose moist leafy soil in some shade, but it tolerates a position in full sun[14]. Plants are tolerant of dry soils[1], but do not thrive in a hot climate. They dislike very acid soils[17, 53].

A very invasive plant[1], though it is low-growing and mixes without harm with any plants at least 60cm tall[K]. It grows well in the summer meadow[24] and is a food plant for the larvae of several species of butterflies[30].

Propagation

Seed - best sown in situ as soon as it is ripe in late summer[200]. The seed can also be sown in situ in the spring though it may be very slow to germinate[200].

Division in spring. The plant can be successfully divided throughout the growing season if the divisions are kept moist until they are established[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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References for the family Rubiaceae.

See the PFAF Links Pages for other sources

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(in the process of fixing it Rich)

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WEB search engine by Rich Morris - Home Page- Contact Info

Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Galium+verum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Galium+verum`

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Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Waste ground, roadsides etc[7], mainly near the sea[4], on all but the most acid soils[17].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Baqlat Al Laban [E], Caille Lait [E], Cheese Rennet [H], Cheese Renning [H], Cleavers,Common [E], Gaillet Jaune [E], Galio [E], Geel Walstro [D], Khitharah [E], Lady's Bedstraw [H,L], Maid's Hair [H], Our Lady's Bedstraw [H], Petty Mugget [H], Yellow Bedstraw [H,L], Yellow Spring Bedstraw [B,P], Yogurtotu [E],
Epithets:	From a Dictionary of Botanical Epithets
	verum = true;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Iraq; Spain; Turkey; Us

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 3 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Colouring; Curdling agent; Drink; Leaves; Seed.

Leaves - raw or cooked[62, 179].

A yellow dye from the flowering stems is used as a food colouring[105, 183].

The roasted seed is a coffee substitute[7]. The seed is also said to be edible[179].

The chopped up plant can be used as a rennet to coagulate plant milks[7, 67, 115, 183, 244].

The flowering tops are distilled in water to make a refreshing acid beverage[2, 183].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Diuretic; Foot care; Lithontripic; Vulnerary.

Lady's bedstraw has a long history of use as a herbal medicine, though it is little used in modern medicine. Its main application is as a diuretic and as a treatment for skin complaints[254].

The leaves, stems and flowering shoots are antispasmodic, astringent, diuretic, foot care, lithontripic and vulnerary[4, 7, 9]. The plant is used as a remedy in gravel, stone or urinary disorders[4, 9, 53, 238] and is believed to be a remedy for epilepsy[4, 21]. A powder made from the fresh plant is used to soothe reddened skin and reduce inflammation[7] whilst the plant is also used as a poultice on cuts, skin infections, slow-healing wounds etc[9]. The plant is harvested as it comes into flower and is dried for later use[9].

A number of species in this genus contain asperuloside, a substance that produces coumarin and gives the scent of new-mown hay as the plant dries[238]. Asperuloside can be converted into prostaglandins (hormone-like compounds that stimulate the uterus and affect blood vessels), making the genus of great interest to the pharmaceutical industry[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that

Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Repellent; Strewing; Stuffing.

A red dye is obtained from the root[4, 6, 7, 67, 115]. It is rather fiddly to utilize[169].

A yellow dye is obtained from the flowering tops[4, 7, 115]. The dye is obtained from the foliage when it is boiled with alum[207].

The dried plant has the scent of newly mown hay, it was formerly used as a strewing herb[24] and for stuffing mattresses etc[61, 67, 115]. It is said to keep fleas away[207].

A sprig in a shoe is said to prevent blisters[67].

Cultivation details

Prefers a loose moist leafy soil in some shade, but it tolerates a position in full sun[14]. Plants are tolerant of dry soils[1], but do not thrive in a hot climate. They dislike very acid soils[17, 53].

A very invasive plant[1], though it is low-growing and mixes without harm with any plants at least 60cm tall[K]. It grows well in the summer meadow[24] and is a food plant for the larvae of several species of butterflies[30].

Propagation

Seed - best sown in situ as soon as it is ripe in late summer[200]. The seed can also be sown in situ in the spring though it may be very slow to germinate[200].

Division in spring. The plant can be successfully divided throughout the growing season if the divisions are kept moist until they are established[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Galium verum*

Subject:

Galium verum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Galium verum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Genista tinctoria

Common name:	Dyer's greenweed	Family:	Leguminosae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Meadows, pastures, heaths and the edges of fields[4], especially on poor soils[11].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. patula[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Base-broom [H], Boyaci Katirtirnagi [E], Dyer's Greenweed [H,L,P,B], Dyer's Greenwood [H], Dyer's Weed [H], Genista [E], Greenweed [H], Hitotuba-Enisida [E], Retama De Tintoreros [E], Verfbrem [D], Waxen Wood [H], Wede-wixen [H], Woodwaxen [E,H], Woud-wix [H],
Epithets:	From a Dictionary of Botanical Epithets
	tinctoria = used in dyeing;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Britain; Spain; Turkey; Us(Ca)

Physical Characteristics

A decidious shrub growing to 0.6m by 1m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower from June to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Ground Cover.

Edible Uses

Coffee; Condiment; Leaves.

The seed has been suggested as a possible coffee substitute[177, 183].

The flower buds are pickled and used as a substitute for capers[2, 183]. Used as a vegetable[105].

Medicinal Uses

Disclaimer

Cathartic; Diaphoretic; Diuretic; Emetic; Homeopathy; Stimulant; Vasoconstrictor.

The twigs, leaves and flowering stems are cathartic, diaphoretic, diuretic, emetic, stimulant and vasoconstrictor[4, 9, 21, 46]. The seeds are also sometimes used[4]. The plant is harvested in early summer as it comes into flower and can be dried for later use[9]. It should not be stored for more than 12 months since its active ingredients break down[238].

The powdered seeds act as a mild purgative and were at one time used to make a plaster for broken limbs[244].

A decoction of the whole plant has been used as a remedy for dropsy, rheumatism and gout[4, 9, 244].

A homeopathic remedy is made from the fresh shoots[9]. It is used in the treatment of rheumatism[9].

Other Uses

Dye; Fibre; Ground cover.

A very good quality yellow dye is obtained from the whole plant, but especially from the flowers and young shoots[4, 9, 11, 57, 66, 141, 169, 244]. It produces a very good quality green when mixed with woad (Isatis tinctoria)[11, 238]. Alum, cream of tartar and sulphate of lime are used to fix the colour[4]. The stems can be dried and stored until the dye is required[169].

A fibre obtained from the stems is used for coarse cloth and cordage[4, 169].

Plants can be used as a ground cover when spaced about 45cm apart each way[208]. The cultivar 'Flore Pleno' is always dwarf and is more reliable than the species[208].

Cultivation details

Easily grown in a light well-drained soil in a sunny position[1, 11]. Prefers a rather dry soil, tolerating poor and sandy soils[238]. Prefers a lime-free soil[244]. Succeeds in acid or basic soils.

A very cold-tolerant plant, tolerating temperatures down to about -35°c[200].

Resents root disturbance and should only be transplanted whilst young[11, 169].

Sometimes cultivated as a dye plant, it is usually treated as a biennial for this purpose, the whole plant being harvested in the second year[141].

Plants do not require pruning, but they can be cut back as required once they have finished flowering in order to maintain shape[238].

Polymorphic, a number of named forms have been developed for their ornamental value[182].

A good bee plant[20]. Rabbits love eating this plant[169, K]. Cows also eat the plant, but it taints their milk[4].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

The seed requires a period of cold stratification and is best sown autumn in a cold frame. Pre-soak stored seed for 24 hours in warm water and sow February in a cold frame. Good germination[78]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, 5 - 10 cm with a heel, July/August in a frame. Roots are formed in the spring[11].

Cuttings of ripe wood, 5 - 10 cm with a heel, September/October in a frame. Good percentage. Plant out the following autumn[78].

Cultivars

'Flore Pleno'

A dwarf form, it is more reliable for ground cover than the species[208].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *genista tinctoria* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each

species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Genista+tinctoria`

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Plants For A Future: Database Search Results

Genista tinctoria

Common name:	Dyer's greenweed	Family:	Leguminosae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Meadows, pastures, heaths and the edges of fields[4], especially on poor soils[11].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

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Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Ground Cover.

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Coffee; Condiment; Leaves.

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Cultivation details

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A very cold-tolerant plant, tolerating temperatures down to about -35°c[200].

Resents root disturbance and should only be transplanted whilst young[11, 169].

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Cultivars

'Flore Pleno'

A dwarf form, it is more reliable for ground cover than the species[208].

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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

Readers Comments

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Plants For A Future: Database Search Results

Genista tinctoria

Common name:	Dyer's greenweed	Family:	Leguminosae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Meadows, pastures, heaths and the edges of fields[4], especially on poor soils[11].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. patula[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Base-broom [H], Boyaci Katirtirnagi [E], Dyer's Greenweed [H,L,P,B], Dyer's Greenwood [H], Dyer's Weed [H], Genista [E], Greenweed [H], Hitotuba-Enisida [E], Retama De Tintoreros [E], Verfbrem [D], Waxen Wood [H], Wede-wixen [H], Woodwaxen [E,H], Woud-wix [H],
Epithets:	From a Dictionary of Botanical Epithets
	tinctoria = used in dyeing;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Britain; Spain; Turkey; Us(Ca)

Physical Characteristics

A decidious shrub growing to 0.6m by 1m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower from June to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It can fix Nitrogen. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Ground Cover.

Edible Uses

Coffee; Condiment; Leaves.

The seed has been suggested as a possible coffee substitute[177, 183].

The flower buds are pickled and used as a substitute for capers[2, 183]. Used as a vegetable[105].

Medicinal Uses

Disclaimer

Cathartic; Diaphoretic; Diuretic; Emetic; Homeopathy; Stimulant; Vasoconstrictor.

The twigs, leaves and flowering stems are cathartic, diaphoretic, diuretic, emetic, stimulant and vasoconstrictor[4, 9, 21, 46]. The seeds are also sometimes used[4]. The plant is harvested in early summer as it comes into flower and can be dried for later use[9]. It should not be stored for more than 12 months since its active ingredients break down[238].

The powdered seeds act as a mild purgative and were at one time used to make a plaster for broken limbs[244].

A decoction of the whole plant has been used as a remedy for dropsy, rheumatism and gout[4, 9, 244].

A homeopathic remedy is made from the fresh shoots[9]. It is used in the treatment of rheumatism[9].

Other Uses

Dye; Fibre; Ground cover.

A very good quality yellow dye is obtained from the whole plant, but especially from the flowers and young shoots[4, 9, 11, 57, 66, 141, 169, 244]. It produces a very good quality green when mixed with woad (Isatis tinctoria)[11, 238]. Alum, cream of tartar and sulphate of lime are used to fix the colour[4]. The stems can be dried and stored until the dye is required[169].

A fibre obtained from the stems is used for coarse cloth and cordage[4, 169].

Plants can be used as a ground cover when spaced about 45cm apart each way[208]. The cultivar 'Flore Pleno' is always dwarf and is more reliable than the species[208].

Cultivation details

Easily grown in a light well-drained soil in a sunny position[1, 11]. Prefers a rather dry soil, tolerating poor and sandy soils[238]. Prefers a lime-free soil[244]. Succeeds in acid or basic soils.

A very cold-tolerant plant, tolerating temperatures down to about -35°c[200].

Resents root disturbance and should only be transplanted whilst young[11, 169].

Sometimes cultivated as a dye plant, it is usually treated as a biennial for this purpose, the whole plant being harvested in the second year[141].

Plants do not require pruning, but they can be cut back as required once they have finished flowering in order to maintain shape[238].

Polymorphic, a number of named forms have been developed for their ornamental value[182].

A good bee plant[20]. Rabbits love eating this plant[169, K]. Cows also eat the plant, but it taints their milk[4].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

The seed requires a period of cold stratification and is best sown autumn in a cold frame. Pre-soak stored seed for 24 hours in warm water and sow February in a cold frame. Good germination[78]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, 5 - 10 cm with a heel, July/August in a frame. Roots are formed in the spring[11].

Cuttings of ripe wood, 5 - 10 cm with a heel, September/October in a frame. Good percentage. Plant out the following autumn[78].

Cultivars

'Flore Pleno'

A dwarf form, it is more reliable for ground cover than the species[208].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Genista tinctoria*

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Genista tinctoria

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Genista tinctoria

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Gevuina avellana

Common name:	Chilean hazel	Family:	Proteaceae
Author:	Mol.	Botanical references:	11, 139, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Wet mountain forests, where it rapidly colonizes cleared areas[200]. Grows from the snow-line down to the coast along the Pacific coast of the Andes[139]. It is seldom found in groups[139].		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Proteales . Protea family

Physical Characteristics

An evergreen shrub growing to 10m by 10m at a slow rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from June to August, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade, Shady Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Seed.

Seed - raw or cooked. A pleasant taste, similar to cob nuts[11, 63, 139, 183]. A popular food in Chile where it is often sold in local markets and is a much sought after item of diet[177]. The seed contains about 12.5% protein, 49.5% oil, 24.1% carbohydrate[183].

The roasted seed is used as a coffee substitute[139].

Medicinal Uses

Disclaimer

None known

Other Uses

Tannin; Wood.

The seedcase is a source of tannin[139].

Wood - light, strong, easily worked, elastic, not very durable. It is used for furniture, oars, roof-shingles etc[46, 117, 139].

Cultivation details

Requires a lime-free soil and a sheltered position[182]. Requires a well-drained moist fertile soil[188]. Best grown in semi-shade[200], the plant prefers woodland conditions[166].

A very ornamental plant[1, 117], when dormant it is hardy to -10°c[184] in a sheltered woodland environment, but succeeds outdoors only in the milder areas of Britain, growing well in Devon and Cornwall[11, 59]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. Plants flower and set viable seed every year at Coleton Fishacre in S. Devon[104]. In general, however, flowering is unreliable in cool temperate zones[200].

The leaves are very variable in shape, ranging from pinnate to bipinnate, the leaflets varying in number from 3 to 30.

There is probably some form of symbiotic relationship with a fungus in the soil that the plants are dependant upon.

Plants are very intolerant of root disturbance[117].

Propagation

Seed - best sown as soon as it is ripe in a greenhouse. Sow stored seed as soon as possible in the year. The seed often germinates well but then sickens and dies, it has been suggested that this is due to the plants need of a symbiotic relationship with a soil-borne fungus. Adding some soil from around a growing plant to the seed compost might improve success rates. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter or two outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering - hard pruning provides lots of material.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Proteaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

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Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[104] **RHS.** *The Garden. Volume 111.* Royal Horticultural Society 1986
Snippets of information from the magazine of the RHS, including an article in Crambe maritima and another on several species thought to be tender that are succeeding in a S. Devon garden.

[117] **Rosengarten. jnr. F.** *The Book of Edible Nuts.* Walker & Co. 1984 ISBN 0802707699
A very readable and comprehensive guide. Well illustrated.

[139] **?** *Flora of Chile. (in Spanish)*
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[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Gevuina avellana

Common name:	Chilean hazel	Family:	Proteaceae
Author:	Mol.	Botanical references:	11, 139, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Wet mountain forests, where it rapidly colonizes cleared areas[200]. Grows from the snow-line down to the coast along the Pacific coast of the Andes[139]. It is seldom found in groups[139].		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Proteales . Protea family

Physical Characteristics

An evergreen shrub growing to 10m by 10m at a slow rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from June to August, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade, Shady Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Seed.

Seed - raw or cooked. A pleasant taste, similar to cob nuts[11, 63, 139, 183]. A popular food in Chile where it is often sold in local markets and is a much sought after item of diet[177]. The seed contains about 12.5% protein, 49.5% oil, 24.1% carbohydrate[183].

The roasted seed is used as a coffee substitute[139].

Medicinal Uses

Disclaimer

None known

Other Uses

Tannin; Wood.

The seedcase is a source of tannin[139].

Wood - light, strong, easily worked, elastic, not very durable. It is used for furniture, oars, roof-shingles etc[46, 117, 139].

Cultivation details

Requires a lime-free soil and a sheltered position[182]. Requires a well-drained moist fertile soil[188]. Best grown in semi-shade[200], the plant prefers woodland conditions[166].

A very ornamental plant[1, 117], when dormant it is hardy to -10°c[184] in a sheltered woodland environment, but succeeds outdoors only in the milder areas of Britain, growing well in Devon and Cornwall[11, 59]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. Plants flower and set viable seed every year at Coleton Fishacre in S. Devon[104]. In general, however, flowering is unreliable in cool temperate zones[200].

The leaves are very variable in shape, ranging from pinnate to bipinnate, the leaflets varying in number from 3 to 30.

There is probably some form of symbiotic relationship with a fungus in the soil that the plants are dependant upon.

Plants are very intolerant of root disturbance[117].

Propagation

Seed - best sown as soon as it is ripe in a greenhouse. Sow stored seed as soon as possible in the year. The seed often germinates well but then sickens and dies, it has been suggested that this is due to the plants need of a symbiotic relationship with a soil-borne fungus. Adding some soil from around a growing plant to the seed compost might improve success rates. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter or two outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering - hard pruning provides lots of material.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

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See the PFAF Links Pages for other sources

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[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Gevuina avellana

Common name:	Chilean hazel	Family:	Proteaceae
Author:	Mol.	Botanical references:	11, 139, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Wet mountain forests, where it rapidly colonizes cleared areas[200]. Grows from the snow-line down to the coast along the Pacific coast of the Andes[139]. It is seldom found in groups[139].		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Proteales . Protea family

Physical Characteristics

An evergreen shrub growing to 10m by 10m at a slow rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from June to August, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade, Shady Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Seed.

Seed - raw or cooked. A pleasant taste, similar to cob nuts[11, 63, 139, 183]. A popular food in Chile where it is often sold in local markets and is a much sought after item of diet[177]. The seed contains about 12.5% protein, 49.5% oil, 24.1% carbohydrate[183].

The roasted seed is used as a coffee substitute[139].

Medicinal Uses

Disclaimer

None known

Other Uses

Tannin; Wood.

The seedcase is a source of tannin[139].

Wood - light, strong, easily worked, elastic, not very durable. It is used for furniture, oars, roof-shingles etc[46, 117, 139].

Cultivation details

Requires a lime-free soil and a sheltered position[182]. Requires a well-drained moist fertile soil[188]. Best grown in semi-shade[200], the plant prefers woodland conditions[166].

A very ornamental plant[1, 117], when dormant it is hardy to -10°c[184] in a sheltered woodland environment, but succeeds outdoors only in the milder areas of Britain, growing well in Devon and Cornwall[11, 59]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. Plants flower and set viable seed every year at Coleton Fishacre in S. Devon[104]. In general, however, flowering is unreliable in cool temperate zones[200].

The leaves are very variable in shape, ranging from pinnate to bipinnate, the leaflets varying in number from 3 to 30.

There is probably some form of symbiotic relationship with a fungus in the soil that the plants are dependant upon.

Plants are very intolerant of root disturbance[117].

Propagation

Seed - best sown as soon as it is ripe in a greenhouse. Sow stored seed as soon as possible in the year. The seed often germinates well but then sickens and dies, it has been suggested that this is due to the plants need of a symbiotic relationship with a soil-borne fungus. Adding some soil from around a growing plant to the seed compost might improve success rates. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter or two outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering - hard pruning provides lots of material.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Gevuina avellana*

Subject:

Gevuina avellana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Gevuina avellana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Gleditsia triacanthos

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Honey locust	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	The plant contains potentially toxic compounds[222].		
Range:	Eastern N. America. Occasionally naturalized in C. and S. Europe.		
Habitat:	Usually growing singly, though occasionally forming almost pure woods, on the borders of streams and in rich woods, usually in moist fertile soils but sometimes on dry sterile gravelly hills[43, 82].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. G. ferox[H] G. triacanthos var. inermis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Acacia Negra [E], Espinheiro Da Virginia [E], Fevier D'Amerique [E], Honey Locust [H], Honey-locust [FEIS,B], Honeylocust [P,DEN1], Soet Peui [H], Three-horned Acacia [H], Three-thorned Acacia [H],
Systematics:	From a UDSA Plants Database Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database France; Lesotho; Portugal; Spain

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales, Queensland.

Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 3. It is in flower in July, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Ashworth'**: Woodland, Canopy.

Edible Uses

Coffee; Drink; Seed; Seedpod; Sweetener.

Seed - raw or cooked. It can contain up to 30% sugar[160]. Young seeds taste like raw peas[183]. Seeds are not always borne in maritime regions because the tree prefers long hot summers[11]. The oval seeds are about 8mm long[227]. They contain 10.6 - 24.1% protein, 0.8 - 4.3% fat, 84.7% carbohydrate, 21.1% fibre, 4% ash, 280mg calcium and 320mg phosphorus per 100g[218].

The seeds have been roasted and used as a coffee substitute[269].

Seedpods - the pulp is sweet and can be eaten raw or made into sugar[149, 159, 183]. The render young seedpods can be cooked and eaten[183]. The pulp in older pods turns bitter[227]. The seedpods are up to 40cm long and 4cm wide[227].

A sweet, pleasant tasting drink can be made from the seed pods[257].

The seed pulp has been used to make a drink[257].

Medicinal Uses

Disclaimer

Anaesthetic; Antiseptic; Cancer; Stomachic.

The pods have been made into a tea for the treatment of indigestion, measles, catarrh etc[222, 257]. The juice of the pods is antiseptic[222]. The pods have been seen as a good antidote for children's complaints[257].

The alcoholic extract of the fruits of the honey locust, after elimination of tannin, considerably retarded the growth, up to 63% of Ehrlich mouse carcinoma[269]. However, the cytotoxicity of the extract was quite high and the animals, besides losing weight, showed dystrophic changes in their liver and spleen[260]. The alcoholic extract of the fruit exerted moderate oncostatic activity against sarcoma 180 and Ehrlich carcinoma at the total dose 350 mg/kg/body weight/mouse. Weight loss was considerable[269].

An infusion of the bark has been drunk and used as a wash in the treatment of dyspepsia[257]. It has also been used in the treatment of whooping cough, measles, smallpox etc[257].

The twigs and the leaves contain the alkaloids gleditschine and stenocarpine[4]. Stenocarpine has been used as a local anaesthetic whilst gleditschine causes stupor and loss of reflex activity[4].

Current research is examining the leaves as a potential source of anticancer compounds[222].

Other Uses

Gum; Soil reclamation; Tannin; Wood.

Planted for land reclamation on mining waste[200].

The gum from the seeds has been suggested as an emulsifying substitute for acacia and tragacanth[269].

The heartwood contains 4 - 4.8% tannin[240].

Wood - strong, coarse-grained, elastic, very hard, very durable in contact with the soil, highly shock resistant[46, 61, 82, 149]. It does not shrink much but splits rather easily and does not glue well[227]. It weighs 42lb per cubic foot[227]. Largely used for making fence posts and rails, wheel hubs, farm implements etc and in construction[46, 61, 82, 149].

Cultivation details

Succeeds in most soils, acid or alkaline[160, 200], so long as they are well-drained[202]. Requires a sunny position[11]. Tolerates drought once established[1] and atmospheric pollution[200]. Salt tolerant[200]. The honey locust is speculated to tolerate an annual precipitation of 60 to 150cm, an annual temperature range of 10 to 21°C, and a pH in the range of 6 to 8[269].

Trees are rather tender when young, but they are hardy to about -30°c once they are established[200]. They grow best in southern Britain[11].

The honey locust is often cultivated in warm temperate zones for its edible seeds and seedpods[202], trees start to bear when about 10 years old and produce commercial crops for about 100 years[227]. Wild trees seldom live longer than 120 years[229]. Trees are shy to flower and therefore do not often produce a worthwhile crop in Britain due to our cooler summers[202]. There are some named varieties[183]. The sub-species nana produced lots of viable seed in the hot summer of 1989 at Kew[K], it also had a very good crop in 1994, 1996 and in 1999[K]. The sub-species inermis had a very good crop of pods in the autumn of 1996[K]. 'Ashworth' has pods with a very sweet pulp that has a melon-like flavour[183].

The flowers have a pleasing scent[245].

A very ornamental tree[1], the flowers are very attractive to bees[149, 269].

Trees have a light canopy, they come into leaf late and lose their leaves early[11] making them an excellent canopy tree for a woodland garden.

Plants in this genus are notably resistant to honey fungus[200].

Unlike most plants in this family, honey locusts do not fix atmospheric nitrogen[160, 226].

Propagation

Seed - pre-soak for 24 hours in warm water and then sow in spring in a greenhouse[78]. The seed should have swollen up, in which case it can be sown, if it has not swollen then soak it for another 24 hours in warm water. If this does not work then file away some of the seed coat but be careful not to damage the embryo[78]. Further soaking should then cause the seed to swell. One it has swollen, the seed should germinate within 2 - 4 weeks at 20°c. As soon as they are large enough to handle, prick the seedlings out into individual deep pots and plant them out into their permanent positions in the summer. Give the plants some protection from the cold for their first few winters outdoors.

Scent

Flowers: Fresh

The flowers have a pleasing scent.

Cultivars

'Ashworth'

The seed pods contain a very sweet pulp with a melon-like flavour[183]. An extremely hardy, spineless tree[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN

0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Hippophae rhamnoides

Rich (webmaster@pfaf.org) Sun Jun 29 18:53:23 2003

Forest, Farm, and Community Tree Network (FACT Net) has a detail factsheet on the plant. The factsheets have extensive details on the uses of the plant.

Cross references: *Plants: Adenanthera pavonina, Alnus acuminata, Alnus nepalensis, Andira inermis, Azadirachta indica, Cajanus cajan, Calliandra calothyrsus, Chamaecytisus palmensis, Dalbergia latifolia, Dalbergia melanoxylon, Dalbergia sissoo, Enterolobium cyclocarpum, Erythrina edulis, Erythrina poeppigiana, Erythrina sandwicensis, Erythrina variegata, Faidherbia albida, Flemingia macrophyla, Gmelina arborea, Grevillea robusta, Guazuma ulmifolia, Hippophae rhamnoides, Hymenaea courbaril, Inga edulis, Juliflorae acacias, Mimosa scabrella, Moringa oleifera, Olneya tesota, Ougeinia dalbergioides, Paraserianthes falcataria, Pentaclethra macrophylla, Pithecellobium dulce, Pongamia pinnata, Pterocarpus erinaceus, Pterocarpus indicus, Robinia pseudoacacia, Senna siamea, Sesbania grandiflora, Sesbania sesban, Ziziphus mauritiana. Genera: Acacia, Actinorhizal, Albizia, Casuarina, Elaeagnus, Gliricidia, Leucaena, Prosopis, Myroxylon. Web-pages: Edible Trees and Shrubs Hardy in Britain*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Glycine max

Common name:	Soya bean	Family:	Leguminosae
Author:	(L.) Merr.	Botanical references:	58, 200
Synonyms:	Soja max ((L.)Piper.), Phaseolus max (L.), Glycine hispida ((Moench.)Maxim.)		
Known Hazards:	The raw mature seed is toxic and must be thoroughly cooked before being eaten[76]. The sprouted raw seed is sometimes eaten and is considered to be a wholesome food.		
Range:	E. Asia.		
Habitat:	Lowland thickets, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dolichos soja[G,P] G. gracilis[G,P] G. soja[G] Soja hispida[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chiang [E], Chiang Yu [E], Hei Tou [E], Huang Tou [E], Jen Shu [E], Jung Shu [E], Pai Tou [E], Shih Tou [E], Shih Yu [E], Shu [E], Sojaboon [D], Soy Bean [H], Soya Fasulyasi [E], Soybean [B,H,L,E,P], Ta Tou [E], Ta Tou Huang Chuen [E], Ta Tou Shih [E], Tou Fu [E], Tou Huang [E], Tou Yu [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Asia; China; India; Turkey; Us; Us(Ny)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Fiskeby V'**: Cultivated Beds.

Edible Uses

Coffee; Leaves; Milk; Oil; Seed; Seedpod.

Mature seed - cooked[2, 33]. The seeds furnish one of the world's most important sources of oil and protein, they can be eaten as they are in soups, stews etc[183, 269], though they are also very commonly used in the preparation of various meat substitutes[34, 46]. The dried seed can be ground into a flour and added to cereal flours or used for making noodles etc[183]. The Japanese make a powder from the roasted and ground seed, it is called 'Kinako' and has a nutty flavour and fragrance - it is used in many popular confections[183]. The sprouted seed is eaten raw or added to cooked dishes. The toasted seeds can be eaten as a peanut-like snack[183]. The seed is also made into numerous fermented foods such as miso and tempeh[183] and is also used to make soya milk, a valuable protein supplement in infant feeding which also provides curds and cheese[269]. The seed contains 20% oil and 30 - 45% protein[100]. All seeds on a soybean plant mature at essentially the same time. Maturity of the seed is accompanied by a rapid dropping of the leaves and drying of the stems[269]. Average yield of beans is about 1700 kg/ha[269]. High-yielding cvs, adapted to the locality and grown under proper culture and favourable conditions will yield more than twice the average yield[269].

The immature seed is cooked and used like peas or eaten raw in salads[105, 183].

The strongly roasted and ground seeds are used as a coffee substitute[183].

The young seedpods are cooked and used like French beans[116, 183].

An edible semi-drying oil is obtained from the seed[269]. It is cooked or can be used as a dressing in salads etc and for manufacture of margarine and shortening[34, 183, 269].

Young leaves - raw or cooked[179, 183].

Medicinal Uses

Disclaimer

Antidote; Astringent; Diaphoretic; Laxative; Ophthalmic; Resolvent; Stomachic.

The fermented seed is weakly diaphoretic and stomachic[176]. It is used in the treatment of colds, fevers and headaches, insomnia, irritability and a stuffy sensation in the chest[176].

The bruised leaves are applied to snakebite[218].

The flowers are used in the treatment of blindness and opacity of the cornea[218].

The ashes of the stems are applied to granular haemorrhoids or fungus growths on the anus[218].

The immature seedpods are chewed to a pulp and applied to corneal and smallpox ulcers[218].

The seed is antidote[218]. It is considered to be specific for the healthy functioning of bowels, heart, kidney, liver and stomach[218, 269].

The seed sprouts are constructive, laxative and resolvent[218]. They are used in the treatment of oedema, dysuria, chest fullness, decreased perspiration, the initial stages of flu and arthralgia[176].

A decoction of the bark or root is astringent[240, 269].

Soybean diets are valued for treating acidosis[269].

Since soybean oil has a high proportion of unsaturated fatty acid, it is recommended, like safflower, poppy seed, etc. to combat hypercholesteremia[269].

Commercial grades of natural lecithin, which are often derived from soybean, are reported to contain a potent vasopressor. Medicinally lecithin is indicated as a lipotropic agent[269].

Soybean is listed as a major starting material for stigmasterol, once known as an antistiffness factor. Sitosterol, also a soy by-product, has been used to replace diosgenin in some antihypertensive drugs[269].

Other Uses

Biomass; Green manure; Oil; Paper.

The seed contains up to 20% of an edible semi-drying oil[171, 269]. It is non-drying according to another report[57]. This oil has a very wide range of applications and is commonly used in the chemical industry[171, 206]. The oil is used industrially in the manufacture of paints, linoleum, oilcloth, printing inks, soap, insecticides, and disinfectants[34, 46, 100, 269].

Lecithin phospholipids, obtained as a by-product of the oil industry, are used as a wetting and stabilizing agent in food, cosmetic, pharmaceutical, leather, paint, plastic, soap, and detergent industries[269].

Both the meal and the soy bean protein are used in the manufacture of synthetic fibre, adhesives, textile sizing, waterproofing, fire-fighting foam and many other uses[269].

The plant is sometimes grown as a green manure[269].

The straw can be used to make paper, stiffer than that made from wheat straw[269].

The plant is an excellent source of biomass. The oil from the seeds can be used as a diesel fuel whilst the stems can be burnt as a fuel[269].

Cultivation details

A fairly easily-grown plant, it grows best in a sunny position on fertile, well-drained soils[33, 38], but does tolerate a wide range of soil conditions[269]. Soybeans will brow better than many crops on soils that are low in fertility, droughty or poorly drained[269]. Prefers a well-drained sandy soil[1]. Prefers a slightly acid soil[200, 206]. Soya does not grow well in a wet climate[132], nor will it withstand excessive heat or severe cold winters[269]. The plant has been reported to tolerate an annual precipitation in the range of 31 to 410cm (though it requires at least 50cm for a good crop), an annual mean temperature range of 5.9 to 27°C and a pH in the range of 4.3 to 8.4 (preferring 6 - 6.5)[269].

Soya is one of the most widely cultivated plants in the world, being grown for its oil and protein rich edible seed, there are many named varieties[183, 206, 269]. A subtropical plant, but its cultivation extends from the tropics to as far north as latitude 52°N[269]. The species, and most of its cultivars, is a short-day plant and does not flower or set seed unless the daylight hours are less than 13 hours per day[269].

There are three basic types of soya bean, those with green seeds are considered to be the most tender and best flavoured and are the type best suited for northern climates. Black seeded forms are normally used dried and yellow seeded forms are used for making soya milk, flour etc[206]. The plant requires a hot summer with a mean July temperature between 16 and 18°c[206] and a dry autumn if it is to do well in Britain[1, 33], though it is as hardy as the runner bean, Phaseolus coccineus[1]. The best crops outdoors in Britain are obtained if the plants are started off in a greenhouse and planted out in late spring although a direct sowing outdoors in early May can succeed in good summers but yields will then normally be low. Many cultivars will not flower in the shorter days of late summer in the northern hemisphere and so are not suitable for growing in Britain[206].

Some botanists separate the cultivated forms of soya from this species and call them G. soja. Sieb.&Zucc[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. Soybean soils must contain the proper nitrogen-fixing bacteria. When grown on the same land for 2 - 3 successive years, increasing yields are obtained year after year[269]. Seed can be purchased that has been treated with this rhizobium, it is unnecessary on soils with a pH below 5.5 but can be helpful on other soils[206]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and then sow in early spring in a greenhouse. The seed should germinate within two weeks at a temperature between 12 - 16°c[206]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in late spring or early summer, after the last expected frosts.

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Cultivars

'Fiskeby V'

> Produces mosty 3 small light-yellow beans per pod[183]. It is grown mainly for eating when the pods are still green, though it can also be grown as a seed crop[183, K]. The seeds contain about 40% protein, which is very low in the antitrypsin factor that interferes with the digestion of uncooked soya protein[183]. An exceptionally hardy and early maturing form, it has produced good yields as far north as southern Canada[183]. Unfortunately, most gardeners who have tried growing it in Britain have had very low yields[K].

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For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Glycine hispida* (a possible synonym).

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- [HP] PhotoFrom Henriette's plant pictures
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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4

Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Glycine+max`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Glycine+max`

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Plants For A Future: Database Search Results

Glycine max

Common name:	Soya bean	Family:	Leguminosae
Author:	(L.) Merr.	Botanical references:	58, 200
Synonyms:	Soja max ((L.)Piper.), Phaseolus max (L.), Glycine hispida ((Moench.)Maxim.)		
Known Hazards:	The raw mature seed is toxic and must be thoroughly cooked before being eaten[76]. The sprouted raw seed is sometimes eaten and is considered to be a wholesome food.		
Range:	E. Asia.		
Habitat:	Lowland thickets, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dolichos soja[G,P] G. gracilis[G,P] G. soja[G] Soja hispida[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chiang [E], Chiang Yu [E], Hei Tou [E], Huang Tou [E], Jen Shu [E], Jung Shu [E], Pai Tou [E], Shih Tou [E], Shih Yu [E], Shu [E], Sojaboon [D], Soy Bean [H], Soya Fasulyasi [E], Soybean [B,H,L,E,P], Ta Tou [E], Ta Tou Huang Chuen [E], Ta Tou Shih [E], Tou Fu [E], Tou Huang [E], Tou Yu [E],
Systematics:	From a UDSA Plants Database
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Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Fiskeby V'**: Cultivated Beds.

Edible Uses

Coffee; Leaves; Milk; Oil; Seed; Seedpod.

Mature seed - cooked[2, 33]. The seeds furnish one of the world's most important sources of oil and protein, they can be eaten as they are in soups, stews etc[183, 269], though they are also very commonly used in the preparation of various meat substitutes[34, 46]. The dried seed can be ground into a flour and added to cereal flours or used for making noodles etc[183]. The Japanese make a powder from the roasted and ground seed, it is called 'Kinako' and has a nutty flavour and fragrance - it is used in many popular confections[183]. The sprouted seed is eaten raw or added to cooked dishes. The toasted seeds can be eaten as a peanut-like snack[183]. The seed is also made into numerous fermented foods such as miso and tempeh[183] and is also used to make soya milk, a valuable protein supplement in infant feeding which also provides curds and cheese[269]. The seed contains 20% oil and 30 - 45% protein[100]. All seeds on a soybean plant mature at essentially the same time. Maturity of the seed is accompanied by a rapid dropping of the leaves and drying of the stems[269]. Average yield of beans is about 1700 kg/ha[269]. High-yielding cvs, adapted to the locality and grown under proper culture and favourable conditions will yield more than twice the average yield[269].

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Other Uses

Biomass; Green manure; Oil; Paper.

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[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Glycine+max`
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Plants For A Future: Database Search Results

Glycine max

Common name:	Soya bean	Family:	Leguminosae
Author:	(L.) Merr.	Botanical references:	58, 200
Synonyms:	Soja max ((L.)Piper.), Phaseolus max (L.), Glycine hispida ((Moench.)Maxim.)		
Known Hazards:	The raw mature seed is toxic and must be thoroughly cooked before being eaten[76]. The sprouted raw seed is sometimes eaten and is considered to be a wholesome food.		
Range:	E. Asia.		
Habitat:	Lowland thickets, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dolichos soja[G,P] G. gracilis[G,P] G. soja[G] Soja hispida[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chiang [E], Chiang Yu [E], Hei Tou [E], Huang Tou [E], Jen Shu [E], Jung Shu [E], Pai Tou [E], Shih Tou [E], Shih Yu [E], Shu [E], Sojaboon [D], Soy Bean [H], Soya Fasulyasi [E], Soybean [B,H,L,E,P], Ta Tou [E], Ta Tou Huang Chuen [E], Ta Tou Shih [E], Tou Fu [E], Tou Huang [E], Tou Yu [E],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Asia; China; India; Turkey; Us; Us(Ny)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Fiskeby V'**: Cultivated Beds.

Edible Uses

Coffee; Leaves; Milk; Oil; Seed; Seedpod.

Mature seed - cooked[2, 33]. The seeds furnish one of the world's most important sources of oil and protein, they can be eaten as they are in soups, stews etc[183, 269], though they are also very commonly used in the preparation of various meat substitutes[34, 46]. The dried seed can be ground into a flour and added to cereal flours or used for making noodles etc[183]. The Japanese make a powder from the roasted and ground seed, it is called 'Kinako' and has a nutty flavour and fragrance - it is used in many popular confections[183]. The sprouted seed is eaten raw or added to cooked dishes. The toasted seeds can be eaten as a peanut-like snack[183]. The seed is also made into numerous fermented foods such as miso and tempeh[183] and is also used to make soya milk, a valuable protein supplement in infant feeding which also provides curds and cheese[269]. The seed contains 20% oil and 30 - 45% protein[100]. All seeds on a soybean plant mature at essentially the same time. Maturity of the seed is accompanied by a rapid dropping of the leaves and drying of the stems[269]. Average yield of beans is about 1700 kg/ha[269]. High-yielding cvs, adapted to the locality and grown under proper culture and favourable conditions will yield more than twice the average yield[269].

The immature seed is cooked and used like peas or eaten raw in salads[105, 183].

The strongly roasted and ground seeds are used as a coffee substitute[183].

The young seedpods are cooked and used like French beans[116, 183].

An edible semi-drying oil is obtained from the seed[269]. It is cooked or can be used as a dressing in salads etc and for manufacture of margarine and shortening[34, 183, 269].

Young leaves - raw or cooked[179, 183].

Medicinal Uses

Disclaimer

Antidote; Astringent; Diaphoretic; Laxative; Ophthalmic; Resolvent; Stomachic.

The fermented seed is weakly diaphoretic and stomachic[176]. It is used in the treatment of colds, fevers and headaches, insomnia, irritability and a stuffy sensation in the chest[176].

The bruised leaves are applied to snakebite[218].

The flowers are used in the treatment of blindness and opacity of the cornea[218].

The ashes of the stems are applied to granular haemorrhoids or fungus growths on the anus[218].

The immature seedpods are chewed to a pulp and applied to corneal and smallpox ulcers[218].

The seed is antidote[218]. It is considered to be specific for the healthy functioning of bowels, heart, kidney, liver and stomach[218, 269].

The seed sprouts are constructive, laxative and resolvent[218]. They are used in the treatment of oedema, dysuria, chest fullness, decreased perspiration, the initial stages of flu and arthralgia[176].

A decoction of the bark or root is astringent[240, 269].

Soybean diets are valued for treating acidosis[269].

Since soybean oil has a high proportion of unsaturated fatty acid, it is recommended, like safflower, poppy seed, etc. to combat hypercholesteremia[269].

Commercial grades of natural lecithin, which are often derived from soybean, are reported to contain a potent vasopressor. Medicinally lecithin is indicated as a lipotropic agent[269].

Soybean is listed as a major starting material for stigmasterol, once known as an antistiffness factor. Sitosterol, also a soy by-product, has been used to replace diosgenin in some antihypertensive drugs[269].

Other Uses

Biomass; Green manure; Oil; Paper.

The seed contains up to 20% of an edible semi-drying oil[171, 269]. It is non-drying according to another report[57]. This oil has a very wide range of applications and is commonly used in the chemical industry[171, 206]. The oil is used industrially in the manufacture of paints, linoleum, oilcloth, printing inks, soap, insecticides, and disinfectants[34, 46, 100, 269].

Lecithin phospholipids, obtained as a by-product of the oil industry, are used as a wetting and stabilizing agent in food, cosmetic, pharmaceutical, leather, paint, plastic, soap, and detergent industries[269].

Both the meal and the soy bean protein are used in the manufacture of synthetic fibre, adhesives, textile sizing, waterproofing, fire-fighting foam and many other uses[269].

The plant is sometimes grown as a green manure[269].

The straw can be used to make paper, stiffer than that made from wheat straw[269].

The plant is an excellent source of biomass. The oil from the seeds can be used as a diesel fuel whilst the stems can be burnt as a fuel[269].

Cultivation details

A fairly easily-grown plant, it grows best in a sunny position on fertile, well-drained soils[33, 38], but does tolerate a wide range of soil conditions[269]. Soybeans will brow better than many crops on soils that are low in fertility, droughty or poorly drained[269]. Prefers a well-drained sandy soil[1]. Prefers a slightly acid soil[200, 206]. Soya does not grow well in a wet climate[132], nor will it withstand excessive heat or severe cold winters[269]. The plant has been reported to tolerate an annual precipitation in the range of 31 to 410cm (though it requires at least 50cm for a good crop), an annual mean temperature range of 5.9 to 27°C and a pH in the range of 4.3 to 8.4 (preferring 6 - 6.5)[269].

Soya is one of the most widely cultivated plants in the world, being grown for its oil and protein rich edible seed, there are many named varieties[183, 206, 269]. A subtropical plant, but its cultivation extends from the tropics to as far north as latitude 52°N[269]. The species, and most of its cultivars, is a short-day plant and does not flower or set seed unless the daylight hours are less than 13 hours per day[269].

There are three basic types of soya bean, those with green seeds are considered to be the most tender and best flavoured and are the type best suited for northern climates. Black seeded forms are normally used dried and yellow seeded forms are used for making soya milk, flour etc[206]. The plant requires a hot summer with a mean July temperature between 16 and 18°c[206] and a dry autumn if it is to do well in Britain[1, 33], though it is as hardy as the runner bean, Phaseolus coccineus[1]. The best crops outdoors in Britain are obtained if the plants are started off in a greenhouse and planted out in late spring although a direct sowing outdoors in early May can succeed in good summers but yields will then normally be low. Many cultivars will not flower in the shorter days of late summer in the northern hemisphere and so are not suitable for growing in Britain[206].

Some botanists separate the cultivated forms of soya from this species and call them G. soja. Sieb.&Zucc[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. Soybean soils must contain the proper nitrogen-fixing bacteria. When grown on the same land for 2 - 3 successive years, increasing yields are obtained year after year[269]. Seed can be purchased that has been treated with this rhizobium, it is unnecessary on soils with a pH below 5.5 but can be helpful on other soils[206]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and then sow in early spring in a greenhouse. The seed should germinate within two weeks at a temperature between 12 - 16°c[206]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in late spring or early summer, after the last expected frosts.

Seed can also be pre-soaked for 12 hours in warm water and then sown in situ in late spring, though this will not yield well unless the summer is very hot.

Cultivars

'Fiskeby V'

> Produces mosty 3 small light-yellow beans per pod[183]. It is grown mainly for eating when the pods are still green, though it can also be grown as a seed crop[183, K]. The seeds contain about 40% protein, which is very low in the antitrypsin factor that interferes with the digestion of uncooked soya protein[183]. An exceptionally hardy and early maturing form, it has produced good yields as far north as southern Canada[183]. Unfortunately, most gardeners who have tried growing it in Britain have had very low yields[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Glycine max

Group:
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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Glycine max

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Glycine soja

Common name:	Wild soya bean	Family:	Leguminosae
Author:	Siebold.&Zucc.	Botanical references:	58
Synonyms:	Glycine ussuriensis (Regel.&Maack.)		
Known Hazards:	The raw mature seed is toxic and must be thoroughly cooked before being eaten[76]. The sprouted raw seed is sometimes eaten and is considered to be a wholesome food.		
Range:	E. Asia - China.		
Habitat:	Lowland thickets, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dolichos soja[G,P] G. formosana[G] G. gracilis[G,P] G. hispida[G,P] G. max[B,DUTCH,ENERGY,E,G,H,HPIC,HORTIPLEX,L,P] G. max subsp. soja[G] Phaseolus max[G,P] Soja hispida[G,H,P] Soja max[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chiang [E], Chiang Yu [E], Hei Tou [E], Huang Tou [E], Jen Shu [E], Jung Shu [E], Shih Tou [E], Shih Yu [E], Shu [E], Sojaboon [D], Soy Bean [H], Soya Fasulyasi [E], Soybean [B,P,H,L,E], Ta Tou [E], Ta Tou Huang Chuen [E], Ta Tou Shih [E], Tou Fu [E], Tou Huang [E], Tou Yu [E], Wild Soybean [P,B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Asia; China; India; Turkey; Us; Us(Ny)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

Coffee; Leaves; Milk; Oil; Seed; Seedpod.

Mature seed - cooked[2, 33]. Very rich in protein, the seeds can be eaten as they are in soups, stews etc[183], though they are very commonly used in the preparation of various meat substitutes[34, 46]. The dried seed can be ground into a flour and added to cereal flours or used for making noodles etc[183]. The Japanese make a powder from the roasted and ground seed, it is called 'Kinako' and has a nutty flavour and fragrance - it is used in many popular confections[183]. The sprouted seed is eaten raw or added to cooked dishes. The toasted seeds can be eaten as a peanut-like snack[183]. The seed is also made into numerous fermented foods such as miso and tempeh[183] and is also used to make soya milk, used in place of cow's milk. The seed contains 20% oil and 30 - 45% protein[100].

The immature seed is cooked and used like peas or eaten raw in salads[105, 183].

The strongly roasted and ground seeds are used as a coffee substitute[183].

The young seedpods are cooked and used like French beans[116, 183].

An edible oil is obtained from the seed. It is cooked or used as a dressing in salads etc[34, 183].

Young leaves - raw or cooked[179, 183].

Medicinal Uses

Disclaimer

Antidote; Astringent; Diaphoretic; Laxative; Ophthalmic; Resolvent; Stomachic.

The fermented seed is weakly diaphoretic and stomachic[176]. It is used in the treatment of colds, fevers and headaches, insomnia, irritability and a stuffy sensation in the chest[176].

The bruised leaves are applied to snakebite[218].

The flowers are used in the treatment of blindness and opacity of the cornea[218].

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The seed is antidote[218]. It is considered to be specific for the healthy functioning of bowels, heart, kidney, liver and stomach[218].

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A decoction of the bark is astringent[240].

Other Uses

Oil.

The seed contains up to 20% of an edible semi-drying oil[171]. It is non-drying according to another report[57]. This oil has a very wide range of applications and is commonly used in the chemical industry[171, 206]. It is used in making soap, plastics, paints etc[34, 46, 100].

Cultivation details

Requires a rich soil and a sunny position[33, 38]. Prefers a well-drained sandy soil[1]. Prefers a slightly acid soil[200, 206]. Does not grow well in a wet climate[132].

This is the wild ancestor of the cultivated soya bean and is of potential value as a genetic resource, especially when trying to breed for increased yields.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. Seed can be purchased that has been treated with this rhizobium, it is unnecessary on soils with a pH below 5.5 but can be helpful on other soils[206]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and then sow in early spring in a greenhouse. The seed should germinate within two weeks at a temperature between 12 - 16°c[206]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in late spring or early summer, after the last expected frosts.

Seed can also be pre-soaked for 12 hours in warm water and then sown in situ in late spring, though this will not yield well unless the summer is very hot.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Glycine max* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *glycine max* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[38] **Simmons A. E.** *Simmons' Manual of Fruit.* David & Charles. 1978 ISBN 0-7153-7607-1
A good guide to some of the cultivars of temperate fruits. It covers quite a wide range of fruits.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Glycine+soja`
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Plants For A Future: Database Search Results

Glycine soja

Common name:	Wild soya bean	Family:	Leguminosae
Author:	Siebold.&Zucc.	Botanical references:	58
Synonyms:	Glycine ussuriensis (Regel.&Maack.)		
Known Hazards:	The raw mature seed is toxic and must be thoroughly cooked before being eaten[76]. The sprouted raw seed is sometimes eaten and is considered to be a wholesome food.		
Range:	E. Asia - China.		
Habitat:	Lowland thickets, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dolichos soja[G,P] G. formosana[G] G. gracilis[G,P] G. hispida[G,P] G. max[B,DUTCH,ENERGY,E,G,H,HPIC,HORTIPLEX,L,P] G. max subsp. soja[G] Phaseolus max[G,P] Soja hispida[G,H,P] Soja max[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chiang [E], Chiang Yu [E], Hei Tou [E], Huang Tou [E], Jen Shu [E], Jung Shu [E], Shih Tou [E], Shih Yu [E], Shu [E], Sojaboon [D], Soy Bean [H], Soya Fasulyasi [E], Soybean [B,P,H,L,E], Ta Tou [E], Ta Tou Huang Chuen [E], Ta Tou Shih [E], Tou Fu [E], Tou Huang [E], Tou Yu [E], Wild Soybean [P,B],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Asia; China; India; Turkey; Us; Us(Ny)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

Coffee; Leaves; Milk; Oil; Seed; Seedpod.

Mature seed - cooked[2, 33]. Very rich in protein, the seeds can be eaten as they are in soups, stews etc[183], though they are very commonly used in the preparation of various meat substitutes[34, 46]. The dried seed can be ground into a flour and added to cereal flours or used for making noodles etc[183]. The Japanese make a powder from the roasted and ground seed, it is called 'Kinako' and has a nutty flavour and fragrance - it is used in many popular confections[183]. The sprouted seed is eaten raw or added to cooked dishes. The toasted seeds can be eaten as a peanut-like snack[183]. The seed is also made into numerous fermented foods such as miso and tempeh[183] and is also used to make soya milk, used in place of cow's milk. The seed contains 20% oil and 30 - 45% protein[100].

The immature seed is cooked and used like peas or eaten raw in salads[105, 183].

The strongly roasted and ground seeds are used as a coffee substitute[183].

The young seedpods are cooked and used like French beans[116, 183].

An edible oil is obtained from the seed. It is cooked or used as a dressing in salads etc[34, 183].

Young leaves - raw or cooked[179, 183].

Medicinal Uses

Disclaimer

Antidote; Astringent; Diaphoretic; Laxative; Ophthalmic; Resolvent; Stomachic.

The fermented seed is weakly diaphoretic and stomachic[176]. It is used in the treatment of colds, fevers and headaches, insomnia, irritability and a stuffy sensation in the chest[176].

The bruised leaves are applied to snakebite[218].

The flowers are used in the treatment of blindness and opacity of the cornea[218].

The ashes of the stems are applied to granular haemorrhoids or fungus growths on the anus[218].

The immature seedpods are chewed to a pulp and applied to corneal and smallpox ulcers[218].

The seed is antidote[218]. It is considered to be specific for the healthy functioning of bowels, heart, kidney, liver and stomach[218].

The seed sprouts are constructive, laxative and resolvent[218]. They are used in the treatment of oedema, dysuria, chest fullness, decreased perspiration, the initial stages of flu and arthralgia[176].

A decoction of the bark is astringent[240].

Other Uses

Oil.

The seed contains up to 20% of an edible semi-drying oil[171]. It is non-drying according to another report[57]. This oil has a very wide range of applications and is commonly used in the chemical industry[171, 206]. It is used in making soap, plastics, paints etc[34, 46, 100].

Cultivation details

Requires a rich soil and a sunny position[33, 38]. Prefers a well-drained sandy soil[1]. Prefers a slightly acid soil[200, 206]. Does not grow well in a wet climate[132].

This is the wild ancestor of the cultivated soya bean and is of potential value as a genetic resource, especially when trying to breed for increased yields.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. Seed can be purchased that has been treated with this rhizobium, it is unnecessary on soils with a pH below 5.5 but can be helpful on other soils[206]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and then sow in early spring in a greenhouse. The seed should germinate within two weeks at a temperature between 12 - 16°c[206]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in late spring or early summer, after the last expected frosts.

Seed can also be pre-soaked for 12 hours in warm water and then sown in situ in late spring, though this will not yield well unless the summer is very hot.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Glycine max* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *glycine max* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[38] **Simmons A. E.** *Simmons' Manual of Fruit.* David & Charles. 1978 ISBN 0-7153-7607-1
A good guide to some of the cultivars of temperate fruits. It covers quite a wide range of fruits.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*

Lovely pictures, a very readable book.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Glycine soja

Common name:	Wild soya bean	Family:	Leguminosae
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Synonyms:	Glycine ussuriensis (Regel.&Maack.)		
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Range:	E. Asia - China.		
Habitat:	Lowland thickets, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

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	Dolichos soja[G,P] G. formosana[G] G. gracilis[G,P] G. hispida[G,P] G. max[B,DUTCH,ENERGY,E,G,H,HPIC,HORTIPLEX,L,P] G. max subsp. soja[G] Phaseolus max[G,P] Soja hispida[G,H,P] Soja max[G,P]
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Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Asia; China; India; Turkey; Us; Us(Ny)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

Coffee; Leaves; Milk; Oil; Seed; Seedpod.

Mature seed - cooked[2, 33]. Very rich in protein, the seeds can be eaten as they are in soups, stews etc[183], though they are very commonly used in the preparation of various meat substitutes[34, 46]. The dried seed can be ground into a flour and added to cereal flours or used for making noodles etc[183]. The Japanese make a powder from the roasted and ground seed, it is called 'Kinako' and has a nutty flavour and fragrance - it is used in many popular confections[183]. The sprouted seed is eaten raw or added to cooked dishes. The toasted seeds can be eaten as a peanut-like snack[183]. The seed is also made into numerous fermented foods such as miso and tempeh[183] and is also used to make soya milk, used in place of cow's milk. The seed contains 20% oil and 30 - 45% protein[100].

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Other Uses

Oil.

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Cultivation details

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This is the wild ancestor of the cultivated soya bean and is of potential value as a genetic resource, especially when trying to breed for increased yields.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. Seed can be purchased that has been treated with this rhizobium, it is unnecessary on soils with a pH below 5.5 but can be helpful on other soils[206]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and then sow in early spring in a greenhouse. The seed should germinate within two weeks at a temperature between 12 - 16°c[206]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in late spring or early summer, after the last expected frosts.

Seed can also be pre-soaked for 12 hours in warm water and then sown in situ in late spring, though this will not yield well unless the summer is very hot.

Suppliers

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Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Glycine soja

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Gymnocladus dioica

Common name:	Kentucky coffee tree	Family:	Leguminosae
Author:	(L.) K. Koch.	Botanical references:	11, 43, 200
Synonyms:	Gymnocladus canadensis (Lam.), Guilandina dioica (L.)		
Known Hazards:	The ripe seed contains hydrocyanic acid. This toxin can be destroyed by thoroughly heating the seed for at least 3 hours at 150°c[183]. The seed contains saponins[222]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by heat so a long slow baking can destroy them. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Eastern and Central N. America - New York to Tennessee, west to Arkansas and South Dakota.		
Habitat:	Prefers deep rich soils in bottomlands, deep ravines and moist lower slopes[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. dioicus[B,E,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Kentucky Coffee Tree [E,H], Kentucky Coffeetree [P,DEN1,B],

Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Appalachia)

Physical Characteristics

A decidious tree growing to 20m by 15m at a slow rate. It is hardy to zone 4. It is in flower in June, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Coffee; Seed; Seedpod.

Seedpod - raw or cooked. The roasted seeds can be eaten like sweet chestnuts[257]. The pulp is sweet[2, 82]. A flavour like caramel[222]. The pods are up to 25cm long and 5cm wide[229].

The roasted seed is a caffeine-free coffee substitute[2, 11, 46, 95, 213]. A bitter flavour[226]. Thorough roasting for at least 3 hours at 150°c is necessary in order to destroy the poisonous hydrocyanic acid that is found in the seed[183].

Seed - roasted and eaten like a nut[161, 213, 226]. The seed contains toxic substances, see notes above.

Medicinal Uses

Disclaimer

Homeopathy; Miscellany.

The pulverised root bark is used as an effective enema[213, 222, 257]. A tea made from the bark is diuretic[222]. It is used in the treatment of coughs due to inflamed mucous membranes and also to help speed up a protracted labour[222]. A snuff made from the pulverized root bark has been used to cause sneezing in comatose patients[257].

A tea made from the leaves and pulp from the pods is laxative and has also been used in the treatment of reflex troubles[222].

A decoction of the fresh green pulp of the unripe fruit is used in homeopathic practice[82].

Other Uses

Insecticide; Soap; Soil reclamation; Wood.

The fruit is high in saponins and is used as a soap[200].

The leaves are used as a fly poison[222].

Trees are planted on the spoil tips of mines to stabilize and reclaim the soil[200].

Wood - coarse-grained, heavy though not hard, strong, very durable in contact with the soil, finishes to a fine lustre. A handsome wood, it weighs 43lb per cubic foot and is used for cabinet work, furniture, construction, fencing etc[46, 61, 82, 171, 229, 235].

Cultivation details

Requires a deep rich soil and a sunny position[1, 200]. Tolerates drought, atmospheric pollution, salt and limestone soils[200].

A very cold-hardy plant, tolerating temperatures down to about -30°c[200].

A very ornamental[1] but slow growing tree[11], it rarely flowers in Britain, requiring more summer heat than it usually gets here[11, 200]. Trees in the wild seldom live longer than 100 years[229]. The tree has a light canopy so does not cast much shade[200], making it a good tree to use for the top canopy of a woodland garden.

Dioecious. Male and female plants must be grown if seed is required.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on

the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe[200]. The seed can also be sown in early spring in a greenhouse[78]. Scarification and pre-soaking the seed for 24 hours in warm water, especially if it has been stored, will improve germination[200]. Make sure the seed has swollen after soaking, soak it again if it has not and, if it still does not swell, try filing away some of the seedcoat but be careful not to damage the embryo. As soon as they are large enough to handle, prick the seedlings out into fairly deep individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection against the cold for their first couple of winters outdoors

Root cuttings 4cm long and 1cm thick in a greenhouse in December[200]. Plant the roots horizontally in pots[78]. Good percentage.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

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- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Gymnocladus canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

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References

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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Gymnocladus dioica

Common name:	Kentucky coffee tree	Family:	Leguminosae
Author:	(L.) K. Koch.	Botanical references:	11, 43, 200
Synonyms:	Gymnocladus canadensis (Lam.), Guilandina dioica (L.)		
Known Hazards:	The ripe seed contains hydrocyanic acid. This toxin can be destroyed by thoroughly heating the seed for at least 3 hours at 150°c[183]. The seed contains saponins[222]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by heat so a long slow baking can destroy them. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Eastern and Central N. America - New York to Tennessee, west to Arkansas and South Dakota.		
Habitat:	Prefers deep rich soils in bottomlands, deep ravines and moist lower slopes[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. dioicus[B,E,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Kentucky Coffee Tree [E,H], Kentucky Coffeetree [P,DEN1,B],
Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Other Range Info:	From the Ethnobotany Database
	Us; Us(Appalachia)

Physical Characteristics

A decidious tree growing to 20m by 15m at a slow rate. It is hardy to zone 4. It is in flower in June, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Coffee; Seed; Seedpod.

Seedpod - raw or cooked. The roasted seeds can be eaten like sweet chestnuts[257]. The pulp is sweet[2, 82]. A flavour like caramel[222]. The pods are up to 25cm long and 5cm wide[229].

The roasted seed is a caffeine-free coffee substitute[2, 11, 46, 95, 213]. A bitter flavour[226]. Thorough roasting for at least 3 hours at 150°c is necessary in order to destroy the poisonous hydrocyanic acid that is found in the seed[183].

Seed - roasted and eaten like a nut[161, 213, 226]. The seed contains toxic substances, see notes above.

Medicinal Uses

Disclaimer

Homeopathy; Miscellany.

The pulverised root bark is used as an effective enema[213, 222, 257]. A tea made from the bark is diuretic[222]. It is used in the treatment of coughs due to inflamed mucous membranes and also to help speed up a protracted labour[222]. A snuff made from the pulverized root bark has been used to cause sneezing in comatose patients[257].

A tea made from the leaves and pulp from the pods is laxative and has also been used in the treatment of reflex troubles[222].

A decoction of the fresh green pulp of the unripe fruit is used in homeopathic practice[82].

Other Uses

Insecticide; Soap; Soil reclamation; Wood.

The fruit is high in saponins and is used as a soap[200].

The leaves are used as a fly poison[222].

Trees are planted on the spoil tips of mines to stabilize and reclaim the soil[200].

Wood - coarse-grained, heavy though not hard, strong, very durable in contact with the soil, finishes to a fine lustre. A handsome wood, it weighs 43lb per cubic foot and is used for cabinet work, furniture, construction, fencing etc[46, 61, 82, 171, 229, 235].

Cultivation details

Requires a deep rich soil and a sunny position[1, 200]. Tolerates drought, atmospheric pollution, salt and limestone soils[200].

A very cold-hardy plant, tolerating temperatures down to about -30°c[200].

A very ornamental[1] but slow growing tree[11], it rarely flowers in Britain, requiring more summer heat than it usually gets here[11, 200]. Trees in the wild seldom live longer than 100 years[229]. The tree has a light canopy so does not cast much shade[200], making it a good tree to use for the top canopy of a woodland garden.

Dioecious. Male and female plants must be grown if seed is required.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe[200]. The seed can also be sown in early spring in a greenhouse[78]. Scarification and pre-soaking the seed for 24 hours in warm water, especially if it has been stored, will improve germination[200]. Make sure the seed has swollen after soaking, soak it again if it has not and, if it still does not swell, try filing away some of the seedcoat but be careful not to damage the embryo. As soon as they are large enough to handle, prick the seedlings out into fairly deep individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection against the cold for their first couple of winters outdoors

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Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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Gymnocladus dioica

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Author:	(L.) K. Koch.	Botanical references:	11, 43, 200
Synonyms:	Gymnocladus canadensis (Lam.), Guilandina dioica (L.)		
Known Hazards:	The ripe seed contains hydrocyanic acid. This toxin can be destroyed by thoroughly heating the seed for at least 3 hours at 150°c[183]. The seed contains saponins[222]. Although toxic, these substances are very poorly absorbed by the body and so tend to pass through without causing harm. They are also broken down by heat so a long slow baking can destroy them. Saponins are found in many plants, including several that are often used for food, such as certain beans. It is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Eastern and Central N. America - New York to Tennessee, west to Arkansas and South Dakota.		
Habitat:	Prefers deep rich soils in bottomlands, deep ravines and moist lower slopes[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Other Range Info:	From the Ethnobotany Database
	Us; Us(Appalachia)

Physical Characteristics

A decidious tree growing to 20m by 15m at a slow rate. It is hardy to zone 4. It is in flower in June, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Coffee; Seed; Seedpod.

Seedpod - raw or cooked. The roasted seeds can be eaten like sweet chestnuts[257]. The pulp is sweet[2, 82]. A flavour like caramel[222]. The pods are up to 25cm long and 5cm wide[229].

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Cultivation details

Requires a deep rich soil and a sunny position[1, 200]. Tolerates drought, atmospheric pollution, salt and limestone soils[200].

A very cold-hardy plant, tolerating temperatures down to about -30°c[200].

A very ornamental[1] but slow growing tree[11], it rarely flowers in Britain, requiring more summer heat than it usually gets here[11, 200]. Trees in the wild seldom live longer than 100 years[229]. The tree has a light canopy so does not cast much shade[200], making it a good tree to use for the top canopy of a woodland garden.

Dioecious. Male and female plants must be grown if seed is required.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe[200]. The seed can also be sown in early spring in a greenhouse[78]. Scarification and pre-soaking the seed for 24 hours in warm water, especially if it has been stored, will improve germination[200]. Make sure the seed has swollen after soaking, soak it again if it has not and, if it still does not swell, try filing away some of the seedcoat but be careful not to damage the embryo. As soon as they are large enough to handle, prick the seedlings out into fairly deep individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection against the cold for their first couple of winters outdoors

Root cuttings 4cm long and 1cm thick in a greenhouse in December[200]. Plant the roots horizontally in pots[78]. Good percentage.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Gymnocladus dioica*

Subject:

Gymnocladus dioica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Gymnocladus dioica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:42:17 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Helianthus annuus

Common name:	Sunflower	Family:	Compositae
Author:	L.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	The growing plant can accumulate nitrates, especially when fed on artificial fertilizers[76]. The pollen or plant extracts may cause allergic reactions[222].		
Range:	Western N. America. An occasional garden escape in Britain.		
Habitat:	Open dry or moderately moist soils on the plains[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Chrysanthemum peruvianum[H] H. annuus ssp. jaegeri[B,P] H. annuus ssp. lenticularis[B,P] H. annuus ssp. texanus[B,P] H. annuus subsp. lenticularis[G] H. annuus var. lenticularis[B,G,P] H. annuus var. macrocarpus[B,G,P] H. annuus var. texanus[B,P] H. aridus[B,P] H. lenticularis[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Bbad Al Shams [E], A'In Ash Shams [E], Aycicegi [E], Common Sunflower [P,B,L], Fleur Soleil [E], Fleurs Soleil [E], Flor De Sol [E], Girasol [E], Gula Barbaroza [E], Guna Baqan [E], Gundondu [E], Helianthe [E], Himawari [E], Sunflower [H], Tournesol [E], Ward Ash Shams [E], Zonnebloem [D],

Epithets:	From a Dictionary of Botanical Epithets annuus = annual;
Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Britain; Dominican Republic; Haiti; India(Santal); Iraq; Kurdistan; Mexico; Sa; Spain; Turkey; Us; Us(Amerindian); Us(Blackfoot); Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Iowa, Minnesota.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 3m by 0.3m at a fast rate. It is hardy to zone 7 and is frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Dwarf Russian'**: Cultivated Beds.
Cultivar **'Rostov'**: Cultivated Beds.

Edible Uses

Coffee; Flowers; Oil; Seed; Stem.

Seed - raw or cooked[4, 14, 94, 101, 183]. A delicious nut-like flavour, but very fiddly to extract due to the small size of the seed. Commercially there are machines designed to do this. Rich in fats, the seed can be ground into a powder[95], made into sunflower butter or used to make seed yoghurt. When mixed with cereal flours, it makes a nutritious bread[244]. Cultivars with up to

50% oil have been developed in Russia[218]. The oil contains between 44 - 72% linoleic acid[218]. The germinated seed is said to be best for seed yoghurt, it is blended with water and left to ferment[183]. The sprouted seed can be eaten raw[183]. A nutritional analysis of the seed is available[218].

Young flower buds - steamed and served like globe artichokes[2, 85, 101, 117, 183]. A mild and pleasant enough flavour, but rather fiddly[K]. Average yields range from 900 - 1,575 kg/ha of seed, however yields of over 3,375 kg/ha have been reported[269].

A high quality edible semi-drying oil is obtained from the seed[4]. It is low in cholesterol[244], and is said to be equal in quality to olive oil[4]. Used in salads, margarines, or in cooking[2, 34, 46, 57, 94, 95, 183, 269].

The roasted seed is a coffee and drinking chocolate substitute[4, 7, 100, 102]. Another report says the roasted hulls are used[183].

The leaf petioles are boiled and mixed in with other foodstuffs[7].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 4.8 Calories: 560 Protein: 24 Fat: 47.3 Carbohydrate: 19.4 Fibre: 3.8 Ash: 4
In milligrammes per 100g weight of food:
Calcium: 120 Phosphorus: 837 Iron: 7.1 Sodium: 30 Potassium: 920 VitaminA: 30 Thiamine: 1.96 Riboflavin: 0.23 Niacin: 5.4 VitaminC: 0

Medicinal Uses

Disclaimer

Diuretic; Expectorant; Febrifuge; Stomachic.

A tea made from the leaves is astringent, diuretic and expectorant, it is used in the treatment of high fevers[222]. The crushed leaves are used as a poultice on sores, swellings, snakebites and spider bites[222, 257]. The leaves are harvested as the plant comes into flower and are dried for later use[238].

A tea made from the flowers is used in the treatment of malaria and lung ailments[222, 257].

The flowering head and seeds are febrifuge, nutritive and stomachic[7]. The seed is also considered to be diuretic and expectorant[4, 218, 222]. It has been used with success in the treatment of many pulmonary complaints[4].

A decoction of the roots has been used as a warm wash on rheumatic aches and pains[257].

Other Uses

Blotting paper; Dye; Fibre; Fuel; Green manure; Herbicide; Kindling; Microscope; Paper.

An edible semi-drying oil is obtained from the seed. Some varieties contain up to 45% oil[61]. The oil is also used, often mixed with a drying oil such as linseed (Linum usitatissimum) to make soap, candles, varnishes, paint etc, as well as for lighting. The oil is said to be unrivalled as a lubricant[4, 21, 34, 46, 100, 269].

A blotting paper is made from the seed receptacles[2, 4, 101, 117].

A high quality writing paper is made from the inner stalk[4, 14, 100, 101].

The pith of the stems is one of the lightest substances known, having a specific gravity of 0.028[4]. It has a wide range of applications, being used for purposes such as making life-saving appliances and slides for microscopes[4, 46, 61].

The dried stems make an excellent fuel, the ash is rich in potassium[4]. Both the dried stems and the empty seed receptacles are an excellent kindling[4].

A fibre from the stem is used to make paper[4] and a fine quality cloth[1, 94, 101].

A yellow dye is obtained from the flowers[4, 14, 94, 95].

A purple-black dye is obtained from the seed of certain varieties that were grown by the Hopi Indians of S.W. North America[117, 169].

Sunflowers can be grown as a spring-sown green manure, they produce a good bulk of material[87].

Root secretions from the plant can inhibit the growth of nearby plants[201].

Cultivation details

An easily grown plant, it succeeds in most soils[1, 34, 117], including poor soils provided they are deep and well-drained[269], but it grows best in a deep rich soil[1, 200]. Plants are intolerant of acid or waterlogged conditions[269]. Especially when grown for its edible seed, the plant prefers a sunny position[1, 34, 117, 269] though it also tolerates light shade[1]. Requires a neutral or preferably calcareous soil[200]. As sunflowers have highly efficient root systems, they can be grown in areas which are too dry for many other crops[269]. Established plants are quite drought-resistant except during flowering[117, 269]. The sunflower tolerates an annual precipitation of 20 - 400cm, an average annual temperature in the range of 6 - 28°C and a pH in the range of 4.5 - 8.7[269].

The young growth is extremely attractive to slugs, plants can be totally destroyed by them[K].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

The sunflower is a very ornamental plant that is widely grown in gardens and is also a major commercial crop for its edible seed and many other uses[1, 4]. It grows well in Britain, but it does not ripen its seed reliably in this country and so is not suitable for commercial cultivation at the present[K]. It is the state flower of Kansas[85].

Three distinct groups of sunflowers are cultivated:-

Giant types grow from 1.8 - 4.2 metres tall with flower heads 30 - 50cm in diameter. The seeds are large, white or gray in colour, sometimes with black stripes, and are the best for culinary purposes, though the oil content is lower than for other types. 'Grey Stripe', 'Hopi Black Dye', 'Mammoth Russian' and 'Sundak' are examples of this type[183, 200, 269].

Semi-dwarf types grow from 1.3 - 1.8 m tall, are early maturing and have heads 17 - 23 cm diameter. The seeds are smaller, black, gray or striped, the oil content is also higher. Examples include 'Pole Star' and 'Jupiter'

Dwarf types grow from 0.6 - 1.4 m tall, are early maturing and have heads 14 - 16 cm in diameter[269. The seeds are small but the oil content is the highest. Examples include 'Advance' and 'Sunset'[269].

Some forms are being bred for greater cold tolerance and should be more reliable in Britain[117, 141]. Plants tend to grow better in the south and south-west of England[4]. Most forms require a four month frost-free growing season[117], though some Russian cultivars can mature a crop in 70 days[269]. When plants are grown in cooler latitudes the seed contains higher proportions of polyunsaturated fatty oils[117].

The plant has a strong taproot that can penetrate the soil to depth of 3 metres, it also has a large lateral spread of surface roots[269].

Sunflowers grow badly with potatoes but they do well with cucumbers and corn[18, 20, 201]. A very greedy and vigorous plant, it can inhibit the growth of nearby plants[20]. Plants tend to impoverish the soil if they are grown too often in the same place[117].

A good bee plant, providing large quantities of nectar[18, 34, 244]. The flowers attract beneficial insects such as lacewings and parasitic wasps[238]. These prey on various insect pests, especially aphis[238].

Propagation

Seed - sow in mid spring in situ. An earlier start can be made by sowing 2 - 3 seeds per pot in a greenhouse in early spring. Use a fairly rich compost. Thin to the strongest seedling, give them an occasional liquid feed to make sure they do not become nutrient deficient and plant them out in late spring or early summer.

Seed, harvested at 12% moisture content and stored, will retain its viability for several years[269].

Cultivars

'Rostov'

Grown mainly as an oil seed, this is an early-maturing, black-seeded form[183]. The heads average 30cm or more in diameter[183]. Plants grow up to 2.5 metres tall, they can withstand heavy rain and winds[183].

'Dwarf Russian'

Grown mainly for its edible seeds, this is an early ripening cultivar that is sturdy and vigorous yet smaller than the cultivar 'Mammoth Russian'[183]. The seed heads are the same size as in other cultivars, and the seeds are large[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *helianthus annuus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[87] **Woodward. L. Burge. P.** *Green Manures.* Elm Farm Research Centre. 1982
Green manure crops for temperate areas. Quite a lot of information on a number of species.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218

An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[117] **Rosengarten. jnr. F.** *The Book of Edible Nuts.* Walker & Co. 1984 ISBN 0802707699
A very readable and comprehensive guide. Well illustrated.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Helianthus+annuus`

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	Britain; Dominican Republic; Haiti; India(Santal); Iraq; Kurdistan; Mexico; Sa; Spain; Turkey; Us; Us(Amerindian); Us(Blackfoot); Venezuela
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In milligrammes per 100g weight of food:
Calcium: 120 Phosphorus: 837 Iron: 7.1 Sodium: 30 Potassium: 920 VitaminA: 30
Thiamine: 1.96 Riboflavin: 0.23 Niacin: 5.4 VitaminC: 0

Medicinal Uses

Disclaimer

Diuretic; Expectorant; Febrifuge; Stomachic.

A tea made from the leaves is astringent, diuretic and expectorant, it is used in the treatment of high fevers[222]. The crushed leaves are used as a poultice on sores, swellings, snakebites and spider bites[222, 257]. The leaves are harvested as the plant comes into flower and are dried for later use[238].

A tea made from the flowers is used in the treatment of malaria and lung ailments[222, 257].

The flowering head and seeds are febrifuge, nutritive and stomachic[7]. The seed is also considered to be diuretic and expectorant[4, 218, 222]. It has been used with success in the treatment of many pulmonary complaints[4].

A decoction of the roots has been used as a warm wash on rheumatic aches and pains[257].

Other Uses

Blotting paper; Dye; Fibre; Fuel; Green manure; Herbicide; Kindling; Microscope; Paper.

An edible semi-drying oil is obtained from the seed. Some varieties contain up to 45% oil[61]. The oil is also used, often mixed with a drying oil such as linseed (Linum usitatissimum) to make soap, candles, varnishes, paint etc, as well as for lighting. The oil is said to be unrivalled as a lubricant[4, 21, 34, 46, 100, 269].

A blotting paper is made from the seed receptacles[2, 4, 101, 117].

A high quality writing paper is made from the inner stalk[4, 14, 100, 101].

The pith of the stems is one of the lightest substances known, having a specific gravity of 0.028[4]. It has a wide range of applications, being used for purposes such as making life-saving appliances and slides for microscopes[4, 46, 61].

The dried stems make an excellent fuel, the ash is rich in potassium[4]. Both the dried stems and the empty seed receptacles are an excellent kindling[4].

A fibre from the stem is used to make paper[4] and a fine quality cloth[1, 94, 101].

A yellow dye is obtained from the flowers[4, 14, 94, 95].

A purple-black dye is obtained from the seed of certain varieties that were grown by the Hopi Indians of S.W. North America[117, 169].

Sunflowers can be grown as a spring-sown green manure, they produce a good bulk of material[87].

Root secretions from the plant can inhibit the growth of nearby plants[201].

Cultivation details

An easily grown plant, it succeeds in most soils[1, 34, 117], including poor soils provided they are deep and well-drained[269], but it grows best in a deep rich soil[1, 200]. Plants are intolerant of acid or waterlogged conditions[269]. Especially when grown for its edible seed, the plant prefers a sunny position[1, 34, 117, 269] though it also tolerates light shade[1]. Requires a neutral or preferably calcareous soil[200]. As sunflowers have highly efficient root systems, they can be grown in areas which are too dry for many other crops[269]. Established plants are quite drought-resistant except during flowering[117, 269]. The sunflower tolerates an annual precipitation of 20 - 400cm, an average annual temperature in the range of 6 - 28°C and a pH in the range of 4.5 - 8.7[269].

The young growth is extremely attractive to slugs, plants can be totally destroyed by them[K].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

The sunflower is a very ornamental plant that is widely grown in gardens and is also a major commercial crop for its edible seed and many other uses[1, 4]. It grows well in Britain, but it does not ripen its seed reliably in this country and so is not suitable for commercial cultivation at the present[K]. It is the state flower of Kansas[85].

Three distinct groups of sunflowers are cultivated:-

Giant types grow from 1.8 - 4.2 metres tall with flower heads 30 - 50cm in diameter. The seeds are large, white or gray in colour, sometimes with black stripes, and are the best for culinary purposes, though the oil content is lower than for other types. 'Grey Stripe', 'Hopi Black Dye', 'Mammoth Russian' and 'Sundak' are examples of this type[183, 200, 269].

Semi-dwarf types grow from 1.3 - 1.8 m tall, are early maturing and have heads 17 - 23 cm diameter. The seeds are smaller, black, gray or striped, the oil content is also higher. Examples include 'Pole Star' and 'Jupiter'

Dwarf types grow from 0.6 - 1.4 m tall, are early maturing and have heads 14 - 16 cm in diameter[269. The seeds are small but the oil content is the highest. Examples include 'Advance' and 'Sunset'[269].

Some forms are being bred for greater cold tolerance and should be more reliable in Britain[117, 141]. Plants tend to grow better in the south and south-west of England[4]. Most forms require a four month frost-free growing season[117], though some Russian cultivars can mature a crop in 70 days[269]. When plants are grown in cooler latitudes the seed contains higher proportions of polyunsaturated fatty oils[117].

The plant has a strong taproot that can penetrate the soil to depth of 3 metres, it also has a large lateral spread of surface roots[269].

Sunflowers grow badly with potatoes but they do well with cucumbers and corn[18, 20, 201]. A very greedy and vigorous plant, it can inhibit the growth of nearby plants[20]. Plants tend to impoverish the soil if they are grown too often in the same place[117].

A good bee plant, providing large quantities of nectar[18, 34, 244]. The flowers attract beneficial insects such as lacewings and parasitic wasps[238]. These prey on various insect pests, especially aphis[238].

Propagation

Seed - sow in mid spring in situ. An earlier start can be made by sowing 2 - 3 seeds per pot in a greenhouse in early spring. Use a fairly rich compost. Thin to the strongest seedling, give them an occasional liquid feed to make sure they do not become nutrient deficient and plant them out in late spring or early summer.

Seed, harvested at 12% moisture content and stored, will retain its viability for several years[269].

Cultivars

'Rostov'

Grown mainly as an oil seed, this is an early-maturing, black-seeded form[183]. The heads average 30cm or more in diameter[183]. Plants grow up to 2.5 metres tall, they can withstand heavy rain and winds[183].

'Dwarf Russian'

Grown mainly for its edible seeds, this is an early ripening cultivar that is sturdy and vigorous yet smaller than the cultivar 'Mammoth Russian'[183]. The seed heads are the same size as in other cultivars, and the seeds are large[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *helianthus annuus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[87] **Woodward. L. Burge. P.** *Green Manures.* Elm Farm Research Centre. 1982
Green manure crops for temperate areas. Quite a lot of information on a number of species.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National

Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[117] **Rosengarten. jnr. F.** *The Book of Edible Nuts.* Walker & Co. 1984 ISBN 0802707699
A very readable and comprehensive guide. Well illustrated.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both

the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Helianthus+annuus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Helianthus+annuus`

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Plants For A Future: Database Search Results

Helianthus annuus

Common name:	Sunflower	Family:	Compositae
Author:	L.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	The growing plant can accumulate nitrates, especially when fed on artificial fertilizers[76]. The pollen or plant extracts may cause allergic reactions[222].		
Range:	Western N. America. An occasional garden escape in Britain.		
Habitat:	Open dry or moderately moist soils on the plains[60].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Chrysanthemum peruvianum[H] H. annuus ssp. jaegeri[B,P] H. annuus ssp. lenticularis[B,P] H. annuus ssp. texanus[B,P] H. annuus subsp. lenticularis[G] H. annuus var. lenticularis[B,G,P] H. annuus var. macrocarpus[B,G,P] H. annuus var. texanus[B,P] H. aridus[B,P] H. lenticularis[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Bbad Al Shams [E], A'In Ash Shams [E], Aycicegi [E], Common Sunflower [P,B,L], Fleur Soleil [E], Fleurs Soleil [E], Flor De Sol [E], Girasol [E], Gula Barbaroza [E], Guna Baqan [E], Gundondu [E], Helianthe [E], Himawari [E], Sunflower [H], Tournesol [E], Ward Ash Shams [E], Zonnebloem [D],
Epithets:	From a Dictionary of Botanical Epithets
	annuus = annual;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Britain; Dominican Republic; Haiti; India(Santal); Iraq; Kurdistan; Mexico; Sa; Spain; Turkey; Us; Us(Amerindian); Us(Blackfoot); Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 3m by 0.3m at a fast rate. It is hardy to zone 7 and is frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Dwarf Russian'**: Cultivated Beds.
Cultivar **'Rostov'**: Cultivated Beds.

Edible Uses

Coffee; Flowers; Oil; Seed; Stem.

Seed - raw or cooked[4, 14, 94, 101, 183]. A delicious nut-like flavour, but very fiddly to extract due to the small size of the seed. Commercially there are machines designed to do this. Rich in fats, the seed can be ground into a powder[95], made into sunflower butter or used to make seed yoghurt. When mixed with cereal flours, it makes a nutritious bread[244]. Cultivars with up to 50% oil have been developed in Russia[218]. The oil contains between 44 - 72% linoleic acid[218]. The germinated seed is said to be best for seed yoghurt, it is blended with water and left to ferment[183]. The sprouted seed can be eaten raw[183]. A nutritional analysis of the seed is available[218].

Young flower buds - steamed and served like globe artichokes[2, 85, 101, 117, 183]. A mild and pleasant enough flavour, but rather fiddly[K]. Average yields range from 900 - 1,575 kg/ha of seed, however yields of over 3,375 kg/ha have been reported[269].

A high quality edible semi-drying oil is obtained from the seed[4]. It is low in cholesterol[244], and is said to be equal in quality to olive oil[4]. Used in salads, margarines, or in cooking[2, 34, 46, 57, 94, 95, 183, 269].

The roasted seed is a coffee and drinking chocolate substitute[4, 7, 100, 102]. Another report says the roasted hulls are used[183].

The leaf petioles are boiled and mixed in with other foodstuffs[7].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 4.8 Calories: 560 Protein: 24 Fat: 47.3 Carbohydrate: 19.4 Fibre: 3.8 Ash: 4
In milligrammes per 100g weight of food:
Calcium: 120 Phosphorus: 837 Iron: 7.1 Sodium: 30 Potassium: 920 VitaminA: 30
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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Helianthus annuus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:42:30 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Helianthus lenticularis

Common name:	Wild sunflower	Family:	Compositae
Author:	Douglas.	Botanical references:	1, 43, 71
Synonyms:	Helianthus annuus lenticularis ((Dougl. ex Lindl.) Cockerell.)		
Known Hazards:	None known		
Range:	N. America - Minnesota to North Dakota, Idaho, Missouri, Texas and California.		
Habitat:	Roadsides and waste places[71] in rich soils[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Chrysanthemum peruvianum[H] H. annuus[B,C,CAL,,DUTCH,ENERGY,E,G,H,HPIC,HORTIPLEX,L,P] H. annuus ssp. jaegeri[B,P] H. annuus ssp. lenticularis[B,P] H. annuus ssp. texanus[B,P] H. annuus subsp. lenticularis[G] H. annuus var. lenticularis[B,G,P] H. annuus var. macrocarpus[B,G,P] H. annuus var. texanus[B,P] H. aridus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Bbad Al Shams [E], A'In Ash Shams [E], Aycicegi [E], Common Sunflower [P,L,B], Fleur Soleil [E], Fleurs Soleil [E], Flor De Sol [E], Girasol [E], Gula Barbaroza [E], Guna Baqan [E], Gundondu [E], Helianthe [E], Himawari [E], Sunflower [H], Tournesol [E], Ward Ash Shams [E], Zonnebloem [D],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Britain; Dominican Republic; Haiti; India(Santal); Iraq; Kurdistan; Mexico; Sa; Spain; Turkey; Us; Us(Amerindian); Us(Blackfoot); Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota.

Physical Characteristics

Annual growing to 3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[172]. The seed can be dried and ground into a powder then used with cereal flowers in making breads, cakes and rich soups[183].

An edible oil is obtained from the seed[183].

The roasted shells, after the starch has been removed, or the roasted seeds, can be used in preparing a coffee-like beverage[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils in a sunny position[1]. Requires a rich soil[1]. Dislikes shade[1].

The young growth is extremely attractive to slugs, plants can be totally destroyed by them[K].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Probably no more than the wild form of the cultivated sunflower, H. annuus, it is treated as a sub-species of that by many botanists[1, 200].

Propagation

Seed - sow in mid spring in situ. An earlier start can be made by sowing 2 - 3 seeds per pot in a greenhouse in early spring. Use a fairly rich compost. Thin to the strongest seedling, give them an occasional liquid feed to make sure they do not become nutrient deficient and plant them out in late spring or early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Helianthus annuus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's

Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *helianthus annuus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

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An excellent flora but no pictures. Not for the casual reader.

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A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Helianthus lenticularis

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Author:	Douglas.	Botanical references:	1, 43, 71
Synonyms:	Helianthus annuus lenticularis ((Dougl. ex Lindl.) Cockerell.)		
Known Hazards:	None known		
Range:	N. America - Minnesota to North Dakota, Idaho, Missouri, Texas and California.		
Habitat:	Roadsides and waste places[71] in rich soils[43].		
Plants For A Future Rating (1-5):	3		

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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
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Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota.

Physical Characteristics

Annual growing to 3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[172]. The seed can be dried and ground into a powder then used with cereal flowers in making breads, cakes and rich soups[183].

An edible oil is obtained from the seed[183].

The roasted shells, after the starch has been removed, or the roasted seeds, can be used in preparing a coffee-like beverage[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils in a sunny position[1]. Requires a rich soil[1]. Dislikes shade[1].

The young growth is extremely attractive to slugs, plants can be totally destroyed by them[K].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Probably no more than the wild form of the cultivated sunflower, H. annuus, it is treated as a sub-species of that by many botanists[1, 200].

Propagation

Seed - sow in mid spring in situ. An earlier start can be made by sowing 2 - 3 seeds per pot in a greenhouse in early spring. Use a fairly rich compost. Thin to the strongest seedling, give them an occasional liquid feed to make sure they do not become nutrient deficient and plant them out in late spring or early summer.

Suppliers

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

Readers Comments

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Helianthus+lenticularis`
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Helianthus lenticularis

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Known Hazards:	None known		
Range:	N. America - Minnesota to North Dakota, Idaho, Missouri, Texas and California.		
Habitat:	Roadsides and waste places[71] in rich soils[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Dominican Republic; Haiti; India(Santal); Iraq; Kurdistan; Mexico; Sa; Spain; Turkey; Us; Us(Amerindian); Us(Blackfoot); Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota.

Physical Characteristics

Annual growing to 3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[172]. The seed can be dried and ground into a powder then used with cereal flowers in making breads, cakes and rich soups[183].

An edible oil is obtained from the seed[183].

The roasted shells, after the starch has been removed, or the roasted seeds, can be used in preparing a coffee-like beverage[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils in a sunny position[1]. Requires a rich soil[1]. Dislikes shade[1].

The young growth is extremely attractive to slugs, plants can be totally destroyed by them[K].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Probably no more than the wild form of the cultivated sunflower, H. annuus, it is treated as a sub-species of that by many botanists[1, 200].

Propagation

Seed - sow in mid spring in situ. An earlier start can be made by sowing 2 - 3 seeds per pot in a greenhouse in early spring. Use a fairly rich compost. Thin to the strongest seedling, give them an occasional liquid feed to make sure they do not become nutrient deficient and plant them out in late spring or early summer.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Helianthus lenticularis*

Subject:

Helianthus lenticularis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Helianthus lenticularis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:42:40 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Helianthus tuberosus

Common name:	Jerusalem artichoke	Family:	Compositae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Minnesota and Kansas. Occasionally naturalized in Britain.		
Habitat:	Rich and damp thickets[43].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. tomentosus[B,G,P] H. tuberosus var. subcanescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aardpeer [D], Aguaturma [E], Almazah [E], Jerusalem Artichoke [H,P,L], Jerusalem-artichoke [B], Sunflower Artichoke [H], Tartuf [E], Tartuf Al Ard [E], Yerelmasi [E],
Epithets:	From a Dictionary of Botanical Epithets
	tuberosus = tuberous;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Iraq; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Perennial growing to 2.4m by 0.6m at a fast rate. It is hardy to zone 4 and is not frost tender. It is in flower in October, and the seeds ripen in November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Cultivar **'Dwarf Sunray'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.
Cultivar **'Stampede'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.
Cultivar **'Fuseau'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.
Cultivar **'Long Red'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.
Cultivar **'Boston Red'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Root; Sweetener.

Tubers - raw or cooked[2, 46, 61, 95]. The tuber develops a pleasant sweetness during the winter, especially if subjected to frosts, and is then reasonably acceptable raw[K]. Otherwise it is generally best cooked, and can be used in all the ways that potatoes are used[K]. The tubers are rich in inulin[46], a starch which the body cannot digest, so Jerusalem artichokes provide a bulk of food without many calories[K]. Some people are not very tolerant of inulin, it tends to ferment in their guts and can cause quite severe wind[K]. The tubers are fairly large, up to 10cm long and 6cm in diameter[200]. The tubers bruise easily and lose moisture rapidly so are best left in the ground and harvested as required[200].

The inulin from the roots can be converted into fructose, a sweet substance that is safe for diabetics to use[46, 171].

The roasted tubers are a coffee substitute[183].

Medicinal Uses

Disclaimer

Aperient; Cholagogue; Diuretic; Stomachic; Tonic.

Reported to be aperient, aphrodisiac, cholagogue, diuretic, spermatogenetic, stomachic, and tonic, Jerusalem artichoke is a folk remedy for diabetes and rheumatism[269].

Other Uses

Biomass.

The plants are a good source of biomass. The tubers are used in industry to make alcohol etc[141]. The alcohol fermented from the tubers is said to be of better quality than that from sugar beets[269].

A fast-growing plant, Jerusalem artichokes can be grown as a temporary summer screen[200]. Very temporary, it is July before they reach a reasonable height and by October they are dying down[K].

Cultivation details

A very easily grown plant, it grows best in a loose circumneutral loam but succeeds in most soils and conditions in a sunny position[1, 16, 37, 38, 269]. Plants are more productive when grown in a rich soil[1, 37, 38]. Heavy soils produce the highest yields, but the tubers are easily damaged at harvest-time so lighter well-drained sandy loams are more suitable[200]. Dislikes shade[1]. Likes some lime in the soil[16]. Jerusalem artichoke is reported to tolerate an annual precipitation of 31 to 282cm, an average annual temperature of 6.3 to 26.6°C and a pH in the range of 4.5 to 8.2[269].

Jerusalem artichokes were cultivated as a food plant by the N. American Indians and they are today often grown in temperate areas for their edible tubers. There are some named varieties[4, 46, 183, 200]. The plant is a suitable crop in any soil and climate where corn (Zea mays) will grow. It survives in poor soil and in areas as cold as Alaska. It also tolerates hot to sub-zero temperatures[269]. The first frost kills the stems and leaves, but the tubers can withstand freezing for months[269]. The plants are particularly suited to dry regions and poor soils where they will out-yield potatoes[200]. Tuber production occurs in response to decreasing day-length in late summer[200]. Yields range from 1 - 2kg per square metre[200]. The tubers are very cold-tolerant and can be safely left in the ground in the winter to be harvested as required. They can be attacked by slugs, however, and in sites prone to slug damage it is probably best to harvest the tubers in late autumn and store them over the winter. It is almost impossible to find all the tubers at harvest time, any left in the soil will grow away vigorously in the spring.

Plants do not flower in northern Europe. They are sensitive to day-length hours, requiring longer periods of light from seedling to maturation of plant, and shorter periods for tuber formation. They do not grow where day-lengths vary little[269].

The plant is good weed eradicator, it makes so dense a shade that few other plants can compete[269].

The young growth is extremely attractive to slugs, plants can be totally destroyed by them[K].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Plants only produce flowers in Britain after a long hot summer[17] and seed is rarely formed[200].

Grows well with corn[20].

Plants can be invasive[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring or autumn[200]. Harvest the tubers in late autumn or the winter and either replant the tubers immediately or store them in a cool but frost-free place and plant them out in early spring. Jerusalem artichoke is propagated by tubers, which should be planted as early as possible in the spring when the soil can be satisfactorily worked[269]. Late planting usually reduces tuber yields and size seriously. Whole tubers or pieces about 50 g (2 oz.) should be planted like potatoes and covered to a depth of 10 cm. Pieces larger than 50 g do not increase the yield, though those smaller will decrease it. Deeper planting may delay emergence, weaken the sprouts, and cause the tubers to develop deeper, making harvest more difficult[269].

Basal cuttings in spring. Harvest the shoots when they are about 10 - 15cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Cultivars

'Stampede'

> The white-skinned tubers are large, sometimes weighing more than 250 grams each[183]. A special high-yielding, extra early strain, maturing a month or more before other cultivars[183]. Relatively dwarf, growing to 1.8 metres tall[183]. It is winter hardy even in severe cold[183].

'Long Red'

> Large tapered tubers that are free from the knobs that make cleaning Jerusalem Artichokes

so difficult[183].

'Fuseau'

Long tapered tubers 10 - 12cm long and up to 4cm wide[183]. Very smooth and free from the knobs that characterize most Jerusalem Artichokes, thus making them easier to clean[183].

'Dwarf Sunray'

Tubers are so crisp and tender that no peeling of the outer skin is necessary[183]. A relatively low-growing cultivar, 1.5 - 2 metres tall. Unlike other cultivars, this form usually flowers freely[183].

'Boston Red'

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Root Crops.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *helianthus tuberosus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[38] **Simmons A. E.** *Simmons' Manual of Fruit.* David & Charles. 1978 ISBN 0-7153-7607-1
A good guide to some of the cultivars of temperate fruits. It covers quite a wide range of fruits.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of

useful plants from around the world with very brief details of the uses. Not for the casual reader.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Helianthus+tuberosus`

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Plants For A Future: Database Search Results

Helianthus tuberosus

Common name:	Jerusalem artichoke	Family:	Compositae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Minnesota and Kansas. Occasionally naturalized in Britain.		
Habitat:	Rich and damp thickets[43].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. tomentosus[B,G,P] H. tuberosus var. subcanescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aardpeer [D], Aguaturma [E], Almazah [E], Jerusalem Artichoke [H,P,L], Jerusalem-artichoke [B], Sunflower Artichoke [H], Tartuf [E], Tartuf Al Ard [E], Yerelmasi [E],
Epithets:	From a Dictionary of Botanical Epithets
	tuberosus = tuberous;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Iraq; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Perennial growing to 2.4m by 0.6m at a fast rate. It is hardy to zone 4 and is not frost tender. It is in flower in October, and the seeds ripen in November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Cultivar **'Dwarf Sunray'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.
Cultivar **'Stampede'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.
Cultivar **'Fuseau'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.
Cultivar **'Long Red'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.
Cultivar **'Boston Red'**: Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Root; Sweetener.

Tubers - raw or cooked[2, 46, 61, 95]. The tuber develops a pleasant sweetness during the winter, especially if subjected to frosts, and is then reasonably acceptable raw[K]. Otherwise it is generally best cooked, and can be used in all the ways that potatoes are used[K]. The tubers are rich in inulin[46], a starch which the body cannot digest, so Jerusalem artichokes provide a bulk of food without many calories[K]. Some people are not very tolerant of inulin, it tends to ferment in their guts and can cause quite severe wind[K]. The tubers are fairly large, up to 10cm long and 6cm in diameter[200]. The tubers bruise easily and lose moisture rapidly so are best left in the ground and harvested as required[200].

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The roasted tubers are a coffee substitute[183].

Medicinal Uses

Disclaimer

Aperient; Cholagogue; Diuretic; Stomachic; Tonic.

Reported to be aperient, aphrodisiac, cholagogue, diuretic, spermatogenetic, stomachic, and tonic, Jerusalem artichoke is a folk remedy for diabetes and rheumatism[269].

Other Uses

Biomass.

The plants are a good source of biomass. The tubers are used in industry to make alcohol etc[141]. The alcohol fermented from the tubers is said to be of better quality than that from sugar beets[269].

A fast-growing plant, Jerusalem artichokes can be grown as a temporary summer screen[200]. Very temporary, it is July before they reach a reasonable height and by October they are dying down[K].

Cultivation details

A very easily grown plant, it grows best in a loose circumneutral loam but succeeds in most soils and conditions in a sunny position[1, 16, 37, 38, 269]. Plants are more productive when grown in a rich soil[1, 37, 38]. Heavy soils produce the highest yields, but the tubers are easily damaged at harvest-time so lighter well-drained sandy loams are more suitable[200]. Dislikes shade[1]. Likes some lime in the soil[16]. Jerusalem artichoke is reported to tolerate an annual precipitation of 31 to 282cm, an average annual temperature of 6.3 to 26.6°C and a pH in the range of 4.5 to 8.2[269].

Jerusalem artichokes were cultivated as a food plant by the N. American Indians and they are today often grown in temperate areas for their edible tubers. There are some named varieties[4, 46, 183, 200]. The plant is a suitable crop in any soil and climate where corn (Zea mays) will grow. It survives in poor soil and in areas as cold as Alaska. It also tolerates hot to sub-zero temperatures[269]. The first frost kills the stems and leaves, but the tubers can withstand freezing for months[269]. The plants are particularly suited to dry regions and poor soils where they will out-yield potatoes[200]. Tuber production occurs in response to decreasing day-length in late summer[200]. Yields range from 1 - 2kg per square metre[200]. The tubers are very cold-tolerant and can be safely left in the ground in the winter to be harvested as required. They can be attacked by slugs, however, and in sites prone to slug damage it is probably best to harvest the tubers in late autumn and store them over the winter. It is almost impossible to find all the tubers at harvest time, any left in the soil will grow away vigorously in the spring.

Plants do not flower in northern Europe. They are sensitive to day-length hours, requiring longer periods of light from seedling to maturation of plant, and shorter periods for tuber formation. They do not grow where day-lengths vary little[269].

The plant is good weed eradicator, it makes so dense a shade that few other plants can compete[269].

The young growth is extremely attractive to slugs, plants can be totally destroyed by them[K].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Plants only produce flowers in Britain after a long hot summer[17] and seed is rarely formed[200].

Grows well with corn[20].

Plants can be invasive[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring or autumn[200]. Harvest the tubers in late autumn or the winter and either replant the tubers immediately or store them in a cool but frost-free place and plant them out in early spring. Jerusalem artichoke is propagated by tubers, which should be planted as early as possible in the spring when the soil can be satisfactorily worked[269]. Late planting usually reduces tuber yields and size seriously. Whole tubers or pieces about 50 g (2 oz.) should be planted like potatoes and covered to a depth of 10 cm. Pieces larger than 50 g do not increase the yield, though those smaller will decrease it. Deeper planting may delay emergence, weaken the sprouts, and cause the tubers to develop deeper, making harvest more difficult[269].

Basal cuttings in spring. Harvest the shoots when they are about 10 - 15cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Cultivars

'Stampede'

> The white-skinned tubers are large, sometimes weighing more than 250 grams each[183]. A special high-yielding, extra early strain, maturing a month or more before other cultivars[183]. Relatively dwarf, growing to 1.8 metres tall[183]. It is winter hardy even in severe cold[183].

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> Large tapered tubers that are free from the knobs that make cleaning Jerusalem Artichokes so difficult[183].

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Tubers are so crisp and tender that no peeling of the outer skin is necessary[183]. A relatively low-growing cultivar, 1.5 - 2 metres tall. Unlike other cultivars, this form usually flowers freely[183].

'Boston Red'

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Helianthus tuberosus

Group:
Plant Information

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Name of Site:	
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Details:	

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Helianthus tuberosus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Hibiscus sabdariffa

Common name:	Roselle	Family:	Malvaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Tropics.		
Habitat:	Disturbed ground[238].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	African Mallow [H], Afrika Bamyasi [E], Chai Kujarat [E], Hibiscus Tea Flower [H], Indian Sorrel [H], Jamaica Sorrel [H], Jamaica Tea Flower [H], Karkad, [H], Kerkedeh [E], Maravilla [E], Oseille De Guinee [E], Pink Lemonade Flower [H], Roselle [H,P,E,B], Vinagrillo [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Guatemala; Haiti; India; Iraq; Mexico; Panama(Cuna); Sudan; Turkey

Physical Characteristics

Annual/Perennial growing to 3m by 2m . It is hardy to zone 10 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Oil; Pectin; Root; Seed.

The fresh calyx (the outer whorl of the flower) is eaten raw in salads, is cooked and used as a flavouring in cakes etc and is also used in making jellies, soups, sauces, pickles, puddings etc[74, 171, 183, 269]. The calyx is rich in citric acid and pectin and so is useful for making jams, jellies etc[240, 269]. It is also used to add a red colour and to flavour to herb teas[238, 269], and can be roasted and used as a coffee substitute[183].

A refreshing and very popular beverage can be made by boiling the calyx, sweetening it with sugar and adding ginger[183].

Tender young leaves and stems - raw or cooked[177, 269]. Used in salads, as a potherb and as a seasoning in curries, they have an acid, rhubarb-like flavour[183, 238, 269].

Seed - roasted and ground into a powder then used in oily soups and sauces[177, 183].

The roasted seeds have been used as a coffee substitute that is said to have aphrodisiac properties[269].

Root - it is edible but very fibrousy[144]. Mucilaginous, without very much flavour[144].

The seed yields 20% oil[74]. (This is probably edible[K]).

Medicinal Uses

Disclaimer

Antiscorbutic; Astringent; Diuretic; Febrifuge; Stomachic.

Roselle is an aromatic, astringent, cooling herb that is much used in the Tropics. It is said to have diuretic effects, to help lower fevers and is antiscorbutic[74, 238].

The leaves are antiscorbutic, emollient, diuretic, refrigerant, and sedative[269]. The leaves are very mucilaginous and are used as an emollient and as a soothing cough remedy. They are used externally as a poultice on abscesses[269].

The fruits are antiscorbutic[269].

The flowers contain gossypetin, anthocyanin, and the glycoside hibiscin[269]. These may have diuretic and choleretic effects, decreasing the viscosity of the blood, reducing blood pressure and stimulating intestinal peristalsis[269]. The leaves and flowers are used internally as a tonic tea for digestive and kidney functions[74, 238]. Experimentally, an infusion decreases the viscosity of the blood, reduces blood pressure and stimulates intestinal peristalsis[240].

The ripe calyces are diuretic and antiscorbutic[269]. The succulent calyx, boiled in water, is used as a drink in the treatment of bilious attacks[269].

The seeds are diuretic, laxative and tonic[269]. They are used in the treatment of debility[269].

The bitter root is aperitif and tonic[269].

The plant is also reported to be antiseptic, aphrodisiac, astringent, cholagogue, demulcent, digestive, purgative and resolvent[269]. It is used as a folk remedy in the treatment of abscesses, bilious conditions, cancer, cough, debility, dyspepsia, dysuria, fever, hangover, heart ailments, hypertension, neurosis, scurvy, and strangury[269].

One report says that the plant has been shown to be of value in the treatment of arteriosclerosis and as an intestinal antiseptic, though it does not say which part of the plant is used[269].

Simulated ingestion of the plant extract decreased the rate of absorption of alcohol, lessening the intensity of alcohol effects in chickens[269].

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Other Uses

Dye; Fibre; Oil.

A fibre from the stem (called rosella hemp) is used for making sackcloth, twine and cord[74, 171, 238].

A yellow dye is obtained from the petals[240]. It is used in medicines etc[74].

The seed yields 20% oil[74].

Cultivation details

Prefers a well-drained humus rich fertile soil in full sun[200]. Roselle requires a permeable soil, a friable sandy loam with humus being preferable; however, it will adapt to a variety of soils[269]. It is not shade tolerant and must be kept weed-free[269]. It will tolerate floods, heavy winds or stagnant water[269]. Roselle is reported to tolerate an annual precipitation of 64 to 429cm, an annual temperature in the range of 12.5 to 27.5°C and a pH of 4.5 to 8.0[269].

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Plants have a deep penetrating taproot[269].

Propagation

Seed - sow early spring in a warm greenhouse. Germination is usually fairly rapid. Prick out the seedlings into individual pots when they are large enough to handle. If growing them as annuals, plant them out into their permanent positions in early summer and protect them with a frame or cloche until they are growing away well. If hoping to grow them as perennials, then it is better to grow them on in the greenhouse for their first year and to plant them out in early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. Overwinter them in a warm greenhouse and plant out after the last expected frosts.

Cultivars

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> No entries have been made for this species as yet.

Suppliers

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Readers Comments

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Plants For A Future: Database Search Results

Hibiscus sabdariffa

Common name:	Roselle	Family:	Malvaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Tropics.		
Habitat:	Disturbed ground[238].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	African Mallow [H], Afrika Bamyasi [E], Chai Kujarat [E], Hibiscus Tea Flower [H], Indian Sorrel [H], Jamaica Sorrel [H], Jamaica Tea Flower [H], Karkad, [H], Kerkedeh [E], Maravilla [E], Oseille De Guinee [E], Pink Lemonade Flower [H], Roselle [H,P,E,B], Vinagrillo [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Guatemala; Haiti; India; Iraq; Mexico; Panama(Cuna); Sudan; Turkey

Physical Characteristics

Annual/Perennial growing to 3m by 2m . It is hardy to zone 10 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Oil; Pectin; Root; Seed.

The fresh calyx (the outer whorl of the flower) is eaten raw in salads, is cooked and used as a flavouring in cakes etc and is also used in making jellies, soups, sauces, pickles, puddings etc[74, 171, 183, 269]. The calyx is rich in citric acid and pectin and so is useful for making jams, jellies etc[240, 269]. It is also used to add a red colour and to flavour to herb teas[238, 269], and can be roasted and used as a coffee substitute[183].

A refreshing and very popular beverage can be made by boiling the calyx, sweetening it with sugar and adding ginger[183].

Tender young leaves and stems - raw or cooked[177, 269]. Used in salads, as a potherb and as a seasoning in curries, they have an acid, rhubarb-like flavour[183, 238, 269].

Seed - roasted and ground into a powder then used in oily soups and sauces[177, 183].

The roasted seeds have been used as a coffee substitute that is said to have aphrodisiac properties[269].

Root - it is edible but very fibrousy[144]. Mucilaginous, without very much flavour[144].

The seed yields 20% oil[74]. (This is probably edible[K]).

Medicinal Uses

Disclaimer

Antiscorbutic; Astringent; Diuretic; Febrifuge; Stomachic.

Roselle is an aromatic, astringent, cooling herb that is much used in the Tropics. It is said to have diuretic effects, to help lower fevers and is antiscorbutic[74, 238].

The leaves are antiscorbutic, emollient, diuretic, refrigerant, and sedative[269]. The leaves are very mucilaginous and are used as an emollient and as a soothing cough remedy. They are used externally as a poultice on abscesses[269].

The fruits are antiscorbutic[269].

The flowers contain gossypetin, anthocyanin, and the glycoside hibiscin[269]. These may have diuretic and choleretic effects, decreasing the viscosity of the blood, reducing blood pressure and stimulating intestinal peristalsis[269]. The leaves and flowers are used internally as a tonic tea for digestive and kidney functions[74, 238]. Experimentally, an infusion decreases the viscosity of the blood, reduces blood pressure and stimulates intestinal peristalsis[240].

The ripe calyces are diuretic and antiscorbutic[269]. The succulent calyx, boiled in water, is used as a drink in the treatment of bilious attacks[269].

The seeds are diuretic, laxative and tonic[269]. They are used in the treatment of debility[269].

The bitter root is aperitif and tonic[269].

The plant is also reported to be antiseptic, aphrodisiac, astringent, cholagogue, demulcent, digestive, purgative and resolvent[269]. It is used as a folk remedy in the treatment of abscesses, bilious conditions, cancer, cough, debility, dyspepsia, dysuria, fever, hangover, heart ailments, hypertension, neurosis, scurvy, and strangury[269].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hibiscus sabdariffa*

Subject:

Hibiscus sabdariffa

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Plant Information

Comment:

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Plants For A Future: Database Search Results

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Hordeum distichon

Common name:	Two-rowed barley	Family:	Gramineae
Author:	L.	Botanical references:	50
Synonyms:	Hordeum vulgare distichon		
Known Hazards:	None known		
Range:	Of uncertain origin, possibly a hybrid between H. spontaneum and a 6-rowed barley[34].		
Habitat:	Not known in the wild. Occurs as a relict of cultivation in Britain but it does not persist[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); China; Egypt; India; Iraq; Italy; Kurdistan; Nepal; Spain; Turkey

Physical Characteristics

Annual growing to 1.2m. It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Salt; Seed; Sweetener.

Seed - cooked. The seed can be ground into a flour and used as a cereal in making bread, porridge etc[1, 4, 34, 46].

Malt is obtained by sprouting and roasting the seed, then boiling the seed. The resulting liquid is a sweet substance that is used in making beer and as a food[4, 46]. The longer the seed is roasted, the darker this liquid will be.

The roasted (unsprouted) seed is used as a coffee and a salt substitute[46].

Medicinal Uses

Disclaimer

Demulcent; Nutritive.

Barley grain is an excellent food for convalescence, either in the form of porridge or as a decoction of the seed. It is soothing to the throat and provides easily assimilated nutrients[4, 254]. It can also be taken to clear catarrh. Its demulcent properties soothes inflammation of the gut and urinary tract[254]. It is commonly given to children suffering minor infections or diarrhoea and is particularly recommended as a treatment for feverish states and in catarrhal affections of the respiratory and urinary organs[4, 254]. Made into a poultice, the seed is an effective remedy for soothing and reducing inflammation in sores and swellings[254].

Modern research has shown that barley may be of aid in the treatment of hepatitis, whilst other trials have shown that it may help to control diabetes[254]. Barley bran may have the effect of lowering blood cholesterol levels and preventing bowel cancer[254].

Other Uses

Biomass; Mulch; Paper.

The stems, after the seed has been harvested, have many uses. They are a source of fibres for making paper, a biomass for fuel etc, they can be shredded and used as a mulch[141, 171].

Cultivation details

Succeeds in most soils and in climates ranging from sub-arctic to sub-tropical[1, 171]. Easily grown in light soils[162].

Widely cultivated in temperate zones, especially in cooler or moister areas, for its edible seed[1, 50, 171]. There are many named varieties. This species is sometimes considered to be no more than a sub-species of H. vulgare[61].

Propagation

Seed - sow in situ in March or October and only just cover the seed. Make sure the soil surface does not dry out if the weather is dry. Germination takes place within 2 weeks.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
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Plants For A Future: Database Search Results

Hordeum distichon

Common name:	Two-rowed barley	Family:	Gramineae
Author:	L.	Botanical references:	50
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Range:	Of uncertain origin, possibly a hybrid between H. spontaneum and a 6-rowed barley[34].		
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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Annual growing to 1.2m. It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Salt; Seed; Sweetener.

Seed - cooked. The seed can be ground into a flour and used as a cereal in making bread, porridge etc[1, 4, 34, 46].

Malt is obtained by sprouting and roasting the seed, then boiling the seed. The resulting liquid is a sweet substance that is used in making beer and as a food[4, 46]. The longer the seed is roasted, the darker this liquid will be.

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Other Uses

Biomass; Mulch; Paper.

The stems, after the seed has been harvested, have many uses. They are a source of fibres for making paper, a biomass for fuel etc, they can be shredded and used as a mulch[141, 171].

Cultivation details

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Widely cultivated in temperate zones, especially in cooler or moister areas, for its edible seed[1, 50, 171]. There are many named varieties. This species is sometimes considered to be no more than a sub-species of H. vulgare[61].

Propagation

Seed - sow in situ in March or October and only just cover the seed. Make sure the soil surface does not dry out if the weather is dry. Germination takes place within 2 weeks.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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	H. aegiceras[B,G,P] H. agriocrithon[G] H. agriocrithon var. dawoense[G] H. coeleste var. trifurcatum[G] H. deficiens[G] H. deficiens var. nudideficians[G] H. deficiens var. steudelii[G] H. deficiens var. tridax[G] H. distichon var. abyssinicum[G] H. distichon var. erectum[G] H. distichon var. ianthinum[G] H. distichon var. nigricans[G] H. distichon var. nudideficiens[G] H. distichon var. nudum[G] H. distichon var. nutans[G] H. distichon var. palmella[G] H. distichon var. persicum[G] H. distichon var. tridax[G] H. hexastichon[G,P] H. hexastichum[B,P] H. irregulare[G,P] H. lagunculiforme[G] H. polystichon[G] H. polystichum var. trifurcatum[G] H. sativum[G,P] H. tetrastichum[G] H. tetrastichum var. aethiops[G] H. vulgare[B,DUTCH,ENERGY,E,G,L,P] H. vulgare subsp. deficiens[G] H. vulgare subsp. interjectum[G] H. vulgare subsp. intermedium[G] H. vulgare subsp. vulgare[G] H. vulgare var. aethiops[G] H. vulgare var. afghanicum[G] H. vulgare var. coeleste[G] H. vulgare var. coerulescens[G] H. vulgare var. cornutum[G] H. vulgare var. deficiens[G] H. vulgare var. duplinigrum[G] H. vulgare var. himalayense[G] H. vulgare var. horsfordianum[G] H. vulgare var. leiorrhynchum[G] H. vulgare var. nigricans[G] H. vulgare var. nigrum[G] H. vulgare var. nudum[G] H. vulgare var. pallidum[G] H. vulgare var. steudelii[G] H. vulgare var. tetrastichon[G] H. vulgare var.

	trifurcatum[B,G,P] H. vulgare var. violaceum[G] H. x intermedium[G] H. x intermedium var. cornutum[G] H. x intermedium var. haxtonii[G] H. x intermedium var. mortonii[G] H. x intermedium var. nudihaxtonii[G] H. zeocrithon[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Arpa [E], Barley [L,E,H], Cebada [E], Chevaliersgerst [D], Common Barley [P,B], Gerst [D], Jo [E], Kung Mai [E], Kung Mai Nieh [E], Mai Ya [E], No Mai [E], Orzo [E], Pearl Barley [H], Perlatum [H], Sha'Ir [E], Six-rowed Barley [L], Ta Mai [E],
Systematics:	From a UDSA Plants Database Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database Britain(Wales); China; Egypt; India; Iraq; Italy; Kurdistan; Nepal; Spain; Turkey

Physical Characteristics

Annual growing to 1.2m. It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Salt; Seed; Sweetener.

Seed - cooked. The seed can be ground into a flour and used as a cereal in making bread, porridge etc[1, 4, 34, 46].

Malt is obtained by sprouting and roasting the seed, then boiling the seed. The resulting liquid is a sweet substance that is used in making beer and as a food[4, 46]. The longer the seed is roasted, the darker this liquid will be.

The roasted (unsprouted) seed is used as a coffee and a salt substitute[46].

Medicinal Uses

Disclaimer

Demulcent; Nutritive.

Barley grain is an excellent food for convalescence, either in the form of porridge or as a decoction of the seed. It is soothing to the throat and provides easily assimilated nutrients[4, 254]. It can also be taken to clear catarrh. Its demulcent properties soothes inflammation of the gut and urinary tract[254]. It is commonly given to children suffering minor infections or diarrhoea and is particularly recommended as a treatment for feverish states and in catarrhal affections of the respiratory and urinary organs[4, 254]. Made into a poultice, the seed is an effective remedy for soothing and reducing inflammation in sores and swellings[254].

Modern research has shown that barley may be of aid in the treatment of hepatitis, whilst other trials have shown that it may help to control diabetes[254]. Barley bran may have the effect of lowering blood cholesterol levels and preventing bowel cancer[254].

Other Uses

Biomass; Mulch; Paper.

The stems, after the seed has been harvested, have many uses. They are a source of fibres for making paper, a biomass for fuel etc, they can be shredded and used as a mulch[141, 171].

Cultivation details

Succeeds in most soils and in climates ranging from sub-arctic to sub-tropical[1, 171]. Easily grown in light soils[162].

Widely cultivated in temperate zones, especially in cooler or moister areas, for its edible seed[1, 50, 171]. There are many named varieties. This species is sometimes considered to be no more than a sub-species of H. vulgare[61].

Propagation

Seed - sow in situ in March or October and only just cover the seed. Make sure the soil surface does not dry out if the weather is dry. Germination takes place within 2 weeks.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hordeum distichon*

Subject:

Hordeum distichon

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hordeum distichon

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Hordeum jubatum

Common name:	Foxtail barley	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The barbed awns around the seeds can work their way into the gums and digestive tract of animals when the seed is eaten, causing irritation and inflammation[212]. They can also work their way into the ears and eyes, sometimes causing blindness and even death[212].		
Range:	Most areas of N. America to Siberia. An occasional casual in Britain.		
Habitat:	Grassy bushy places below 2500 metres in California.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Critesion jubatum[G] H. caespitosum[G] H. jubatum var. caespitosum[G]
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	Fox-tail Barley [B], Foxtail Barley [L,FEIS,P], Kwispelgerst [D], Squirrel Tail-grass [H], Squirrel-tail Grass [L], Wild Barley [L],
Epithets:	From a Dictionary of Botanical Epithets
	jubatum = crested;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Perennial growing to 0.3m. It is hardy to zone 5. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[2, 105, 161, 257]. The seed can be ground into a flour and used as a cereal in making bread, porridge etc[177, 183]. Native North Americans would eat the dry flour raw[257]. The seed is exceedingly small and fiddly to use[K].

The roasted seed is used as a coffee substitute[183].

Medicinal Uses

Disclaimer

The dry root can be wrapped, then moistened and used as a compress for styes in the eyes or on swollen eyelids[257].

Other Uses

None known

Cultivation details

Prefers a rather dry soil[1] and a sunny position[200]. Succeeds in most soils and in climates ranging from sub-arctic to sub-tropical[171]. Easily grown in light soils[162]. Established plants are drought resistant[190].

A very short-lived plant, it is often only an annual[162], though it often self sows a little[190].

Propagation

Seed - sow in situ in March or October and only just cover the seed. Make sure the soil surface does not dry out if the weather is dry. Germination takes place within 2 weeks.

Division in spring. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Plants For A Future: Database Search Results

Hordeum jubatum

Common name:	Foxtail barley	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The barbed awns around the seeds can work their way into the gums and digestive tract of animals when the seed is eaten, causing irritation and inflammation[212]. They can also work their way into the ears and eyes, sometimes causing blindness and even death[212].		
Range:	Most areas of N. America to Siberia. An occasional casual in Britain.		
Habitat:	Grassy bushy places below 2500 metres in California.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Critesion jubatum[G] H. caespitosum[G] H. jubatum var. caespitosum[G]
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Epithets:	From a Dictionary of Botanical Epithets
	jubatum = crested;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Perennial growing to 0.3m. It is hardy to zone 5. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[2, 105, 161, 257]. The seed can be ground into a flour and used as a cereal in making bread, porridge etc[177, 183]. Native North Americans would eat the dry flour raw[257]. The seed is exceedingly small and fiddly to use[K].

The roasted seed is used as a coffee substitute[183].

Medicinal Uses

Disclaimer

The dry root can be wrapped, then moistened and used as a compress for styes in the eyes or on swollen eyelids[257].

Other Uses

None known

Cultivation details

Prefers a rather dry soil[1] and a sunny position[200]. Succeeds in most soils and in climates ranging from sub-arctic to sub-tropical[171]. Easily grown in light soils[162]. Established plants are drought resistant[190].

A very short-lived plant, it is often only an annual[162], though it often self sows a little[190].

Propagation

Seed - sow in situ in March or October and only just cover the seed. Make sure the soil surface does not dry out if the weather is dry. Germination takes place within 2 weeks.

Division in spring. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

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Habitat:	Grassy bushy places below 2500 metres in California.		
Plants For A Future Rating (1-5):	1		

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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family

Physical Characteristics

Perennial growing to 0.3m. It is hardy to zone 5. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[2, 105, 161, 257]. The seed can be ground into a flour and used as a cereal in making bread, porridge etc[177, 183]. Native North Americans would eat the dry flour raw[257]. The seed is exceedingly small and fiddly to use[K].

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Medicinal Uses

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The dry root can be wrapped, then moistened and used as a compress for styes in the eyes or on swollen eyelids[257].

Other Uses

None known

Cultivation details

Prefers a rather dry soil[1] and a sunny position[200]. Succeeds in most soils and in climates ranging from sub-arctic to sub-tropical[171]. Easily grown in light soils[162]. Established plants are drought resistant[190].

A very short-lived plant, it is often only an annual[162], though it often self sows a little[190].

Propagation

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Division in spring. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Hordeum+jubatum`
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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hordeum jubatum*

Subject:

Hordeum jubatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hordeum jubatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:44:12 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Hordeum vulgare

Common name:	Barley	Family:	Gramineae
Author:	L.	Botanical references:	1, 17
Synonyms:	Hordeum sativum (Pers.)		
Known Hazards:	None known		
Range:	Of uncertain origin.		
Habitat:	Not known in the wild, it is found in Britain as a relict of cultivation but does not persist[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); China; Egypt; India; Iraq; Italy; Kurdistan; Nepal; Spain; Turkey

Physical Characteristics

Annual growing to 1m by 0.2m . It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Drink; Salt; Seed; Sweetener.

Seed - cooked as a whole grain or ground up and used as a flour for making bread, porridges etc[2, 7, 46, 183]. It has a low gluten content and so is unsuitable for making wheat-type breads[238, K].

The seed can be fermented into sourdough and many other fermented foods such as 'tempeh' and 'miso'[183]. The seed can also be sprouted and added to salads or the sprouted seed juiced and the juice drunk as a health-food drink[183].

The decorticated seed is called pearl barley. This is no longer viable since the decortication process damages the embryo. It is used in soups, stews etc[238].

Malt is obtained by sprouting the whole seed and then roasting it. The seed is then ground into a flour and boiled in water. The resulting liquid is very sweet and can be used in making beer or other drinks, and as a nutritious sweetener in various foods.[7, 46].

The roasted (unsprouted) seed is used as a coffee[46, 183] and a salt substitute.

Medicinal Uses

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Abortifacient; Cancer; Carminative; Demulcent; Digestive; Diuretic; Emollient; Expectorant; Febrifuge; Galactofuge; Hypoglycaemic; Lenitive; Nutritive; Poultice; Stomachic.

The shoots are diuretic[218].

The seed sprouts are demulcent, expectorant, galactofuge, lenitive and stomachic[176, 218]. They are sometimes abortifacient[218]. They are used in the treatment of dyspepsia caused by cereals, infantile lacto-dyspepsia, regurgitation of milk and breast distension[176]. They are best not given to a nursing mother since this can reduce milk flow[176].

The seed is digestive, emollient, nutritive, febrifuge and stomachic[218]. It is taken internally as a nutritious food or as barley water (an infusion of the germinated seed in water) and is of special use for babies and invalids[238]. Its use is said to reduce excessive lactation[238]. Barley is also used as a poultice for burns and wounds[4, 46, 176, 218].

The plant has a folk history of antitumour activity[218].

The germinating seed has a hypoglycaemic effect preceded by a hyperglycaemic action[218].

Modern research has shown that barley may be of aid in the treatment of hepatitis, whilst other trials have shown that it may help to control diabetes[254]. Barley bran may have the effect of lowering blood cholesterol levels and preventing bowel cancer[254].

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Other Uses

Biomass; Mulch; Paper.

The stems, after the seed has been harvested, have many uses. They are a source of fibres for making paper, a biomass for fuel etc, they can be shredded and used as a mulch[141, 171].

Cultivation details

Succeeds in most soils and in climates ranging from sub-arctic to sub-tropical[1, 171]. Easily grown in light soils[162]. Prefers a calcareous soil[7]. Best grown in a sunny position[238].

Barley first came under cultivation about 12,000 years ago[238]. It is widely cultivated in Temperate areas of the world for its edible seed, there are many named varieties[57, 183]. It succeeds further north than most other cereal crops (it succeeds in Norway at latitude 70° N[142]), and at higher altitudes (it is a staple crop in Tibet)[57, 238]. The Coeleste group contains the hull-less barleys. Although lower yielding than the type, these hull-less seeds are much easier to harvest making them a much easier crop to grow on a small scale[183].

Propagation

Seed - sow in situ in March or October and only just cover the seed. Make sure the soil surface does not dry out if the weather is dry. Germination takes place within 2 weeks.

Cultivars

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> There are many named varieties of this annual cereal, with new forms being developed each year. At present there is not time to enter these in the database.

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Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[162] **Grounds. R.** *Ornamental Grasses.* Christopher Helm 1989 ISBN 0-7470-1219-9
Cultivation details of many of the grasses and bamboos. Well illustrated.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Plants For A Future: Database Search Results

Hordeum vulgare

Common name:	Barley	Family:	Gramineae
Author:	L.	Botanical references:	1, 17
Synonyms:	Hordeum sativum (Pers.)		
Known Hazards:	None known		
Range:	Of uncertain origin.		
Habitat:	Not known in the wild, it is found in Britain as a relict of cultivation but does not persist[17].		
Plants For A Future Rating (1-5):	4		

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The decorticated seed is called pearl barley. This is no longer viable since the decortication process damages the embryo. It is used in soups, stews etc[238].

Malt is obtained by sprouting the whole seed and then roasting it. The seed is then ground into a flour and boiled in water. The resulting liquid is very sweet and can be used in making beer or other drinks, and as a nutritious sweetener in various foods.[7, 46].

The roasted (unsprouted) seed is used as a coffee[46, 183] and a salt substitute.

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Succeeds in most soils and in climates ranging from sub-arctic to sub-tropical[1, 171]. Easily grown in light soils[162]. Prefers a calcareous soil[7]. Best grown in a sunny position[238].

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Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[162] **Grounds. R.** *Ornamental Grasses.* Christopher Helm 1989 ISBN 0-7470-1219-9
Cultivation details of many of the grasses and bamboos. Well illustrated.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Hordeum vulgare

Common name:	Barley	Family:	Gramineae
Author:	L.	Botanical references:	1, 17
Synonyms:	Hordeum sativum (Pers.)		
Known Hazards:	None known		
Range:	Of uncertain origin.		
Habitat:	Not known in the wild, it is found in Britain as a relict of cultivation but does not persist[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. aegiceras[B,G,P] H. agriocrithon[G] H. agriocrithon var. dawoense[G] H. coeleste var. trifurcatum[G] H. deficiens[G] H. deficiens var. nudideficians[G] H. deficiens var. steudelii[G] H. deficiens var. tridax[G] H. distichon[B,G,P] H. distichon var. abyssinicum[G] H. distichon var. erectum[G] H. distichon var. ianthinum[G] H. distichon var. nigricans[G] H. distichon var. nudideficiens[G] H. distichon var. nudum[G] H. distichon var. nutans[G] H. distichon var. palmella[G] H. distichon var. persicum[G] H. distichon var. tridax[G] H. hexastichon[G,P] H. hexastichum[B,P] H. irregulare[G,P] H. lagunculiforme[G] H. polystichon[G] H. polystichum var. trifurcatum[G] H. tetrastichum[G] H. tetrastichum var. aethiops[G] H. vulgare subsp. deficiens[G] H. vulgare subsp. interjectum[G] H. vulgare subsp. intermedium[G] H. vulgare subsp. vulgare[G] H. vulgare var. aethiops[G] H. vulgare var. afghanicum[G] H. vulgare var. coeleste[G] H. vulgare var. coerulescens[G] H. vulgare var. cornutum[G] H. vulgare var. deficiens[G] H. vulgare var. duplinigrum[G] H. vulgare var. himalayense[G] H. vulgare var. horsfordianum[G] H. vulgare var. leiorrhynchum[G] H. vulgare var. nigricans[G] H. vulgare var. nigrum[G] H. vulgare var. nudum[G] H. vulgare var. pallidum[G] H. vulgare var. steudelii[G] H. vulgare var. tetrastichon[G] H. vulgare var. trifurcatum[B,G,P] H. vulgare var. violaceum[G] H. x intermedium[G] H. x intermedium var.

	cornutum[G] H. x intermedium var. haxtonii[G] H. x intermedium var. mortonii[G] H. x intermedium var. nudihaxtonii[G] H. zeocrithon[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arpa [E], Barley [E,L], Cebada [E], Common Barley [B,P], Gerst [D], Jo [E], Kung Mai [E], Kung Mai Nieh [E], Mai Ya [E], No Mai [E], Orzo [E], Sha'Ir [E], Six-rowed Barley [L], Ta Mai [E],
Epithets:	From a Dictionary of Botanical Epithets
	vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); China; Egypt; India; Iraq; Italy; Kurdistan; Nepal; Spain; Turkey

Physical Characteristics

Annual growing to 1m by 0.2m . It is hardy to zone 4 and is not frost tender. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Drink; Salt; Seed; Sweetener.

Seed - cooked as a whole grain or ground up and used as a flour for making bread, porridges etc[2, 7, 46, 183]. It has a low gluten content and so is unsuitable for making wheat-type breads[238, K]. The seed can be fermented into sourdough and many other fermented foods such as 'tempeh' and 'miso'[183]. The seed can also be sprouted and added to salads or the sprouted seed juiced and the juice drunk as a health-food drink[183].

The decorticated seed is called pearl barley. This is no longer viable since the decortication process damages the embryo. It is used in soups, stews etc[238].

Malt is obtained by sprouting the whole seed and then roasting it. The seed is then ground into a flour and boiled in water. The resulting liquid is very sweet and can be used in making beer or other drinks, and as a nutritious sweetener in various foods.[7, 46].

The roasted (unsprouted) seed is used as a coffee[46, 183] and a salt substitute.

Medicinal Uses

Disclaimer

Abortifacient; Cancer; Carminative; Demulcent; Digestive; Diuretic; Emollient; Expectorant; Febrifuge; Galactofuge; Hypoglycaemic; Lenitive; Nutritive; Poultice; Stomachic.

The shoots are diuretic[218].

The seed sprouts are demulcent, expectorant, galactofuge, lenitive and stomachic[176, 218]. They are sometimes abortifacient[218]. They are used in the treatment of dyspepsia caused by cereals, infantile lacto-dyspepsia, regurgitation of milk and breast distension[176]. They are best not given to a nursing mother since this can reduce milk flow[176].

The seed is digestive, emollient, nutritive, febrifuge and stomachic[218]. It is taken internally as a nutritious food or as barley water (an infusion of the germinated seed in water) and is of special use for babies and invalids[238]. Its use is said to reduce excessive lactation[238]. Barley is also used as a poultice for burns and wounds[4, 46, 176, 218].

The plant has a folk history of antitumour activity[218].

The germinating seed has a hypoglycaemic effect preceded by a hyperglycaemic action[218].

Modern research has shown that barley may be of aid in the treatment of hepatitis, whilst other trials have shown that it may help to control diabetes[254]. Barley bran may have the effect of lowering blood cholesterol levels and preventing bowel cancer[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Biomass; Mulch; Paper.

The stems, after the seed has been harvested, have many uses. They are a source of fibres for making paper, a biomass for fuel etc, they can be shredded and used as a mulch[141, 171].

Cultivation details

Succeeds in most soils and in climates ranging from sub-arctic to sub-tropical[1, 171]. Easily grown in light soils[162]. Prefers a calcareous soil[7]. Best grown in a sunny position[238].

Barley first came under cultivation about 12,000 years ago[238]. It is widely cultivated in Temperate areas of the world for its edible seed, there are many named varieties[57, 183]. It succeeds further north than most other cereal crops (it succeeds in Norway at latitude 70° N[142]), and at higher altitudes (it is a staple crop in Tibet)[57, 238]. The Coeleste group contains the hull-less barleys. Although lower yielding than the type, these hull-less seeds are much easier to harvest making them a much easier crop to grow on a small scale[183].

Propagation

Seed - sow in situ in March or October and only just cover the seed. Make sure the soil surface does not dry out if the weather is dry. Germination takes place within 2 weeks.

Cultivars

"

> There are many named varieties of this annual cereal, with new forms being developed each year. At present there is not time to enter these in the database.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hordeum vulgare*

Subject:

Hordeum vulgare

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hordeum vulgare

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Ilex latifolia

Common name:	Tarajo	Family:	Aquifoliaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, at least some members of this genus are slightly toxic so some caution is advised.		
Range:	E. Asia - China, Japan.		
Habitat:	Woods[184].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. macrophylla[G]
Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Holly family

Physical Characteristics

An evergreen tree growing to 6m by 5m . It is hardy to zone 7. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Tea.

The leaves are used as a tea substitute[177, 183].

The roasted seed is used as a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils so long as they are not water-logged[200].

One report says that this species is hardy to about -15°c[184], another that it is hardy to about -5°c[260], whilst others say that it is not fully hardy in many parts of Britain and is best grown in the milder areas of the country[188, 200]. Plants succeed but they do not thrive outdoors at Kew, though they thrive just a few miles south of there[11].

Resents root disturbance, especially as the plant grows older[1, 11]. It is best to place the plants into their permanent positions as soon as possible, perhaps giving some winter protection for their first year or two[K].

Plants are very tolerant of pruning and can be cut right back into old wood if required[188].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame. It can take 18 months to germinate. Stored seed generally requires two winters and a summer before it will germinate and should be sown as soon as possible in a cold frame. Scarification, followed by a warm stratification and then a cold stratification may speed up the germination time[78, 80]. The seedlings are rather slow-growing. Pot them up into individual pots when they are large enough to handle and grow them on in light shade in a cold frame for their first year. It is possible to plant them out into a nursery bed in late spring of the following year, but they should not be left here for more than two years since they do not like being transplanted. Alternatively, grow them on in their pots for a second season and then plant them out into their permanent positions in late spring or early summer. Give them a good mulch and some protection for their first winter outdoors.

Cuttings of almost ripe wood with a heel, August in a shaded position in a cold frame. Leave for 12 months before potting up.

Layering in October. Takes 2 years.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Aquifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Range:	E. Asia - China, Japan.		
Habitat:	Woods[184].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Holly family

Physical Characteristics

An evergreen tree growing to 6m by 5m . It is hardy to zone 7. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Tea.

The leaves are used as a tea substitute[177, 183].

The roasted seed is used as a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils so long as they are not water-logged[200].

One report says that this species is hardy to about -15°c[184], another that it is hardy to about -5°c[260], whilst others say that it is not fully hardy in many parts of Britain and is best grown in the milder areas of the country[188, 200]. Plants succeed but they do not thrive outdoors at Kew, though they thrive just a few miles south of there[11].

Resents root disturbance, especially as the plant grows older[1, 11]. It is best to place the plants into their permanent positions as soon as possible, perhaps giving some winter protection for their first year or two[K].

Plants are very tolerant of pruning and can be cut right back into old wood if required[188].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame. It can take 18 months to germinate. Stored seed generally requires two winters and a summer before it will germinate and should be sown as soon as possible in a cold frame. Scarification, followed by a warm stratification and then a cold stratification may speed up the germination time[78, 80]. The seedlings are rather slow-growing. Pot them up into individual pots when they are large enough to handle and grow them on in light shade in a cold frame for their first year. It is possible to plant them out into a nursery bed in late spring of the following year, but they should not be left here for more than two years since they do not like being transplanted. Alternatively, grow them on in their pots for a second season and then plant them out into their permanent positions in late spring or early summer. Give them a good mulch and some protection for their first winter outdoors.

Cuttings of almost ripe wood with a heel, August in a shaded position in a cold frame. Leave for 12 months before potting up.

Layering in October. Takes 2 years.

Suppliers

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Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

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Plants For A Future: Database Search Results

Ilex latifolia

Common name:	Tarajo	Family:	Aquifoliaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, at least some members of this genus are slightly toxic so some caution is advised.		
Range:	E. Asia - China, Japan.		
Habitat:	Woods[184].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. macrophylla[G]
Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Holly family

Physical Characteristics

An evergreen tree growing to 6m by 5m . It is hardy to zone 7. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Tea.

The leaves are used as a tea substitute[177, 183].

The roasted seed is used as a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils so long as they are not water-logged[200].

One report says that this species is hardy to about -15°c[184], another that it is hardy to about -5°c[260], whilst others say that it is not fully hardy in many parts of Britain and is best grown in the milder areas of the country[188, 200]. Plants succeed but they do not thrive outdoors at Kew, though they thrive just a few miles south of there[11].

Resents root disturbance, especially as the plant grows older[1, 11]. It is best to place the plants into their permanent positions as soon as possible, perhaps giving some winter protection for their first year or two[K].

Plants are very tolerant of pruning and can be cut right back into old wood if required[188].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame. It can take 18 months to germinate. Stored seed generally requires two winters and a summer before it will germinate and should be sown as soon as possible in a cold frame. Scarification, followed by a warm stratification and then a cold stratification may speed up the germination time[78, 80]. The seedlings are rather slow-growing. Pot them up into individual pots when they are large enough to handle and grow them on in light shade in a cold frame for their first year. It is possible to plant them out into a nursery bed in late spring of the following year, but they should not be left here for more than two years since they do not like being transplanted. Alternatively, grow them on in their pots for a second season and then plant them out into their permanent positions in late spring or early summer. Give them a good mulch and some protection for their first winter outdoors.

Cuttings of almost ripe wood with a heel, August in a shaded position in a cold frame. Leave for 12 months before potting up.

Layering in October. Takes 2 years.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ilex latifolia*

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Ilex latifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ilex latifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Iris missouriensis

Common name:	Rocky Mountain iris	Family:	Iridaceae
Author:	Nutt.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. An arrow poison was made from the ground-up roots[207]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Western N. America - British Columbia to Mexico, east to South Dakota and Alberta.		
Habitat:	Meadows and streamsides[60]. Also found in pinewoods[79]. Often found in apparently dry situations, but always where moisture is abundant until flowering time[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. longipetala[B,C,P] I. missouriensis var. arizonica[B,P] I. missouriensis var. pelogonus[B,P] I. pariensis[B,P] I. tolmieeana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Flag, Western [S], Rocky Mountain Iris [B,P], Western Blue Flag [S],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.75m by 1m . . It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Diuretic; Emetic; Odontalgic; Poultice; Salve; Stomachic.

Rocky Mountain iris was employed medicinally by several native North American Indian tribes who used it to treat various complaints, but especially as an external application for skin problems[257]. It was for a time an officinal American medicinal plant[4], but is little, if at all, used in modern herbalism.

The root is emetic and odontalgic[61, 257]. An infusion has been used in the treatment of kidney and bladder complaints, stomach aches etc[257]. The pulped root is placed in the tooth cavity or on the gum in order to bring relief from toothache[207]. A decoction of the root has been used as ear drops to treat earaches[257]. A poultice of the mashed roots has been applied to rheumatic joints and also used as a salve on venereal sores[257].

Caution is advised in the use of this plant, see the notes above on toxicity[K].

A paste of the ripe seeds has been used as a dressing on burns[257].

Other Uses

Dye.

Yields a green dye[155] (part of plant used is not specified).

Cultivation details

Requires a moist soil, growing well in a moist border, but intolerant of stagnant water[1]. Easily grown in a sunny position so long as the soil is wet in the spring[187].

A polymorphic species[79].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division, best done after flowering. Another report says that it is best done in spring or early autumn[187]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

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References

[K] **Ken Fern**
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Plants For A Future: Database Search Results

Iris missouriensis

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Author:	Nutt.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. An arrow poison was made from the ground-up roots[207]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Western N. America - British Columbia to Mexico, east to South Dakota and Alberta.		
Habitat:	Meadows and streamsides[60]. Also found in pinewoods[79]. Often found in apparently dry situations, but always where moisture is abundant until flowering time[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Flag, Western [S], Rocky Mountain Iris [B,P], Western Blue Flag [S],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
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	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.75m by 1m . . It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Diuretic; Emetic; Odontalgic; Poultice; Salve; Stomachic.

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Caution is advised in the use of this plant, see the notes above on toxicity[K].

A paste of the ripe seeds has been used as a dressing on burns[257].

Other Uses

Dye.

Yields a green dye[155] (part of plant used is not specified).

Cultivation details

Requires a moist soil, growing well in a moist border, but intolerant of stagnant water[1]. Easily grown in a sunny position so long as the soil is wet in the spring[187].

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Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

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Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. An arrow poison was made from the ground-up roots[207]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Western N. America - British Columbia to Mexico, east to South Dakota and Alberta.		
Habitat:	Meadows and streamsides[60]. Also found in pinewoods[79]. Often found in apparently dry situations, but always where moisture is abundant until flowering time[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. longipetala[B,C,P] I. missouriensis var. arizonica[B,P] I. missouriensis var. pelogonus[B,P] I. pariensis[B,P] I. tolmieana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Flag, Western [S], Rocky Mountain Iris [B,P], Western Blue Flag [S],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.75m by 1m . . It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Diuretic; Emetic; Odontalgic; Poultice; Salve; Stomachic.

Rocky Mountain iris was employed medicinally by several native North American Indian tribes who used it to treat various complaints, but especially as an external application for skin problems[257]. It was for a time an officinal American medicinal plant[4], but is little, if at all, used in modern herbalism.

The root is emetic and odontalgic[61, 257]. An infusion has been used in the treatment of kidney and bladder complaints, stomach aches etc[257]. The pulped root is placed in the tooth cavity or on the gum in order to bring relief from toothache[207]. A decoction of the root has been used as ear drops to treat earaches[257]. A poultice of the mashed roots has been applied to rheumatic joints and also used as a salve on venereal sores[257].

Caution is advised in the use of this plant, see the notes above on toxicity[K].

A paste of the ripe seeds has been used as a dressing on burns[257].

Other Uses

Dye.

Yields a green dye[155] (part of plant used is not specified).

Cultivation details

Requires a moist soil, growing well in a moist border, but intolerant of stagnant water[1]. Easily grown in a sunny position so long as the soil is wet in the spring[187].

A polymorphic species[79].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division, best done after flowering. Another report says that it is best done in spring or early autumn[187]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Iris+missouriensis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Iris+missouriensis`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Iris missouriensis*

Subject:

Iris missouriensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Iris missouriensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Iris pseudacorus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yellow flag	Family:	Iridaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots and leaves are toxic to animals, including humans[13, 62, 65]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Britain.		
Habitat:	Damp marshy areas and shallow water[17], often in shade[4].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. aquatica[H] I. lutia[H] I. pseudoacorus[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Achorus [E], Acoro Bastardo [E], Daggers [H], Dragon Flower [H], Flaggon [H], Fleur De Luce [H], Fliggers [H], Flower De Luce [E], Gele Lis [D], Gladyne [H], Iris [E], Jacob's Sword [H], Levers [H], Livers [H], Meklin [H], Myrtle Flower [H], Pale-yellow Iris [B], Paleyellow Iris [P], Sari Susen [E], Segg [H], Shalder [H], Sheggs [H], Yellow Flag [H,MS], Yellow Iris [H,L],

Epithets:	From a Dictionary of Botanical Epithets uda = moist;
Systematics:	From a UDSA Plants Database Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database Europe; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1.5m by 2m . It is hardy to zone 5 and is not frost tender. It is in flower from May to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and hoverflies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can grow in water. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Pond, Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee.

The seed is said to make an excellent coffee substitute as long as it is well roasted[2, 7, 61, 105, 115, 244]. Caution is advised, it might be poisonous[177].

Medicinal Uses

Disclaimer

Astringent; Cathartic; Emetic; Emmenagogue; Odontalgic.

The fresh root is astringent, cathartic, emetic, emmenagogue and odontalgic[4, 7, 61]. A slice of the root held against an aching tooth is said to bring immediate relief[244]. It was at one time widely used as a powerful cathartic but is seldom used nowadays because of its extremely acrid nature[4]. It can also cause violent vomiting and diarrhoea[244]. When dried the root loses its acridity and then only acts as an astringent[4].

Other Uses

Dye; Essential; Ink; Tannin.

A beautiful yellow dye is obtained from the flowers[4].

A good black dye is obtained from the root if it is mixed with iron sulphate[4, 115]. It is brown otherwise[141].

The root is a source of tannin[61] and has been used in making ink[4].

A delicately scented essential oil, obtained from the roots, has been used to adulterate the oil of Acorus calamus[245].

Cultivation details

Prefers a humus rich soil[79]. Succeeds in water up to 15cm deep[24]. Requires a moist soil, especially in early summer. Prefers a position in semi-shade[188]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233].

A delicately scented essential oil is obtained from the dried roots[245].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Some named forms have been selected for their ornamental value[187].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[4]. Stored seed should be sown as early in the year as possible in a cold frame. A period of cold stratification improves germination time and rates. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division in March or October. Early autumn is best[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

A delicately scented essential oil is obtained from the dried roots.

Flowers: Fresh

The flowers are scented.

Cultivars

"

There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

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Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Iris pseudacorus* (yellow flag iris*)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Iris pseudoacorus* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *iris pseudacorus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962

A very comprehensive flora, the standard reference book but it has no pictures.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[79] **Innes. C.** *The World of Iridaceae*
Deals with many of the plants in the Iris family giving brief details of habitat and notes on cultivation. Well illustrated.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Iris pseudacorus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yellow flag	Family:	Iridaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots and leaves are toxic to animals, including humans[13, 62, 65]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Britain.		
Habitat:	Damp marshy areas and shallow water[17], often in shade[4].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. aquatica[H] I. lutia[H] I. pseudoacorus[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Achorus [E], Acoro Bastardo [E], Daggers [H], Dragon Flower [H], Flaggon [H], Fleur De Luce [H], Fliggers [H], Flower De Luce [E], Gele Lis [D], Gladyne [H], Iris [E], Jacob's Sword [H], Levers [H], Livers [H], Meklin [H], Myrtle Flower [H], Pale-yellow Iris [B], Paleyellow Iris [P], Sari Susen [E], Segg [H], Shalder [H], Sheggs [H], Yellow Flag [H,MS], Yellow Iris [H,L],
Epithets:	From a Dictionary of Botanical Epithets
	uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database

	Europe; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1.5m by 2m . It is hardy to zone 5 and is not frost tender. It is in flower from May to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and hoverflies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can grow in water. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Pond, Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee.

The seed is said to make an excellent coffee substitute as long as it is well roasted[2, 7, 61, 105, 115, 244]. Caution is advised, it might be poisonous[177].

Medicinal Uses

Disclaimer

Astringent; Cathartic; Emetic; Emmenagogue; Odontalgic.

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Other Uses

Dye; Essential; Ink; Tannin.

A beautiful yellow dye is obtained from the flowers[4].

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Cultivation details

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Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Some named forms have been selected for their ornamental value[187].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[4]. Stored seed should be sown as early in the year as possible in a cold frame. A period of cold stratification improves germination time and rates. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division in March or October. Early autumn is best[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

> A delicately scented essential oil is obtained from the dried roots.

Flowers: Fresh

The flowers are scented.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Iris pseudacorus* (yellow flag iris*)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Iris pseudoacorus* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *iris pseudacorus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of

useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[79] **Innes. C.** *The World of Iridaceae*
Deals with many of the plants in the Iris family giving brief details of habitat and notes on cultivation. Well illustrated.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN

0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Iris pseudacorus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yellow flag	Family:	Iridaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots and leaves are toxic to animals, including humans[13, 62, 65]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Britain.		
Habitat:	Damp marshy areas and shallow water[17], often in shade[4].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. aquatica[H] I. lutia[H] I. pseudoacorus[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Achorus [E], Acoro Bastardo [E], Daggers [H], Dragon Flower [H], Flaggon [H], Fleur De Luce [H], Fliggers [H], Flower De Luce [E], Gele Lis [D], Gladyne [H], Iris [E], Jacob's Sword [H], Levers [H], Livers [H], Meklin [H], Myrtle Flower [H], Pale-yellow Iris [B], Paleyellow Iris [P], Sari Susen [E], Segg [H], Shalder [H], Sheggs [H], Yellow Flag [H,MS], Yellow Iris [H,L],
Epithets:	From a Dictionary of Botanical Epithets
	uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database

	Europe; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1.5m by 2m . It is hardy to zone 5 and is not frost tender. It is in flower from May to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and hoverflies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can grow in water. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Pond, Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee.

The seed is said to make an excellent coffee substitute as long as it is well roasted[2, 7, 61, 105, 115, 244]. Caution is advised, it might be poisonous[177].

Medicinal Uses

Disclaimer

Astringent; Cathartic; Emetic; Emmenagogue; Odontalgic.

The fresh root is astringent, cathartic, emetic, emmenagogue and odontalgic[4, 7, 61]. A slice of the root held against an aching tooth is said to bring immediate relief[244]. It was at one time widely used as a powerful cathartic but is seldom used nowadays because of its extremely acrid nature[4]. It can also cause violent vomiting and diarrhoea[244]. When dried the root loses its acridity and then only acts as an astringent[4].

Other Uses

Dye; Essential; Ink; Tannin.

A beautiful yellow dye is obtained from the flowers[4].

A good black dye is obtained from the root if it is mixed with iron sulphate[4, 115]. It is brown otherwise[141].

The root is a source of tannin[61] and has been used in making ink[4].

A delicately scented essential oil, obtained from the roots, has been used to adulterate the oil of Acorus calamus[245].

Cultivation details

Prefers a humus rich soil[79]. Succeeds in water up to 15cm deep[24]. Requires a moist soil, especially in early summer. Prefers a position in semi-shade[188]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233].

A delicately scented essential oil is obtained from the dried roots[245].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Some named forms have been selected for their ornamental value[187].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[4]. Stored seed should be sown as early in the year as possible in a cold frame. A period of cold stratification improves germination time and rates. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division in March or October. Early autumn is best[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

> A delicately scented essential oil is obtained from the dried roots.

Flowers: Fresh

The flowers are scented.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Iris pseudacorus* (yellow flag iris*)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Iris pseudacorus*

Subject:

Iris pseudacorus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Iris pseudacorus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Iris setosa

Common name:	Beachhead iris	Family:	Iridaceae
Author:	Pall.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	N. America to E. Asia.		
Habitat:	Wet peaty meadows, riversides and open woods, sometimes also in brackish bogs[187].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beach-head Iris [B], Beachhead Iris [P],
Epithets:	From a Dictionary of Botanical Epithets
	setosa = bristly-hairy;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 5 and is not frost tender. It is in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Root.

Root - yields an edible starch[2, 105, 177, 183]. Caution is advised, see the notes above on toxicity.

Roasted and ground seed is a coffee substitute[46, 61, 183, 257].

Medicinal Uses

Disclaimer

Laxative.

A decoction of the root is used as a laxative[257].

Other Uses

Dye.

A dye is obtained from the petals, but the colour is not specified[257].

Cultivation details

Prefers a well-drained moist soil[79] but succeeds in most soils[42]. Dislikes lime and dry soils[42, 79]. The form from N. Hokkaido does not require an acid soil[187].

Cultivated for its edible root in Japan[2]. Many named forms have been selected for their ornamental value[187].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division, best done in September after flowering. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[42] **Grey. C. H.** *Hardy Bulbs.* Williams & Norgate. 1938
Rather dated now, but an immense work on bulbs for temperate zones and how to grow them. Three large volumes.

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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Iris setosa

Common name:	Beachhead iris	Family:	Iridaceae
Author:	Pall.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	N. America to E. Asia.		
Habitat:	Wet peaty meadows, riversides and open woods, sometimes also in brackish bogs[187].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beach-head Iris [B], Beachhead Iris [P],
Epithets:	From a Dictionary of Botanical Epithets
	setosa = bristly-hairy;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
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	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 5 and is not frost tender. It is in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Root.

Root - yields an edible starch[2, 105, 177, 183]. Caution is advised, see the notes above on toxicity.

Roasted and ground seed is a coffee substitute[46, 61, 183, 257].

Medicinal Uses

Disclaimer

Laxative.

A decoction of the root is used as a laxative[257].

Other Uses

Dye.

A dye is obtained from the petals, but the colour is not specified[257].

Cultivation details

Prefers a well-drained moist soil[79] but succeeds in most soils[42]. Dislikes lime and dry soils[42, 79]. The form from N. Hokkaido does not require an acid soil[187].

Cultivated for its edible root in Japan[2]. Many named forms have been selected for their ornamental value[187].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division, best done in September after flowering. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[79] **Innes. C.** *The World of Iridaceae*
Deals with many of the plants in the Iris family giving brief details of habitat and notes on cultivation. Well illustrated.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Iris+setosa`
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Plants For A Future: Database Search Results

Iris setosa

Common name:	Beachhead iris	Family:	Iridaceae
Author:	Pall.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	N. America to E. Asia.		
Habitat:	Wet peaty meadows, riversides and open woods, sometimes also in brackish bogs[187].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beach-head Iris [B], Beachhead Iris [P],
Epithets:	From a Dictionary of Botanical Epithets
	setosa = bristly-hairy;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 5 and is not frost tender. It is in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Root.

Root - yields an edible starch[2, 105, 177, 183]. Caution is advised, see the notes above on toxicity.

Roasted and ground seed is a coffee substitute[46, 61, 183, 257].

Medicinal Uses

Disclaimer

Laxative.

A decoction of the root is used as a laxative[257].

Other Uses

Dye.

A dye is obtained from the petals, but the colour is not specified[257].

Cultivation details

Prefers a well-drained moist soil[79] but succeeds in most soils[42]. Dislikes lime and dry soils[42, 79]. The form from N. Hokkaido does not require an acid soil[187].

Cultivated for its edible root in Japan[2]. Many named forms have been selected for their ornamental value[187].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division, best done in September after flowering. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Iris+setosa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Iris+setosa`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Iris setosa*

Subject:

Iris setosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Iris setosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Juniperus communis

Common name:	Juniper	Family:	Cupressaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Although the fruit of this plant is quite often used medicinally and as a flavouring in various foods and drinks, large doses of the fruit can cause renal damage. Juniper should not be used internally in any quantities by pregnant women[65, 165].		
Range:	Britain.		
Habitat:	Chalk downs in S. England but only where there is least sunshine and most rain, heaths, moors, pine and birch woods in the north of Scotland on acid peat, often dominant on chalk, limestone and slate.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. sibirica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Ra'R A'Di [E], Ardic [E], Ardij Aghaji [E], Common Juniper [S,FEIS,B,L,P,DEN1], Enebro [E], Havrest [E], Jeneverbes [D], Juniper [H,E,L], Juniper, Common [S], Sabino Macho [S], Yoshu-Nezu [E],
Epithets:	From a Dictionary of Botanical Epithets
	communis = common;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family

Other Range Info:	From the Ethnobotany Database
	Britain; Canada(Kwakiutl); Kurdistan; Malaya; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 9m by 4m at a slow rate. It is hardy to zone 2 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Secondary, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Condiment; Fruit; Tea.

Fruit - raw or cooked[2, 5, 9, 15]. It is usually harvested in the autumn when fully ripe and then dried for later use[12]. A soft, mealy, sweet, resinous flesh[82]. The fruit is often used as a flavouring in sauerkraut, stuffings, vegetable pates etc, and is an essential ingredient of gin[183]. The aromatic fruit is used as a pepper substitute according to one report[183]. An essential oil is sometimes distilled from the fruit to be used as a flavouring[183]. Average yields are around 1%[7]. The cones are about 4 - 8mm in diameter and take 2 - 3 years to mature[82, 200]. Some caution is advised when using the fruit, see the notes above on toxicity.

The roasted seed is a coffee substitute[177].

A tea is made by boiling the leaves and stems[161]. A tea made from the berries has a spicy gin-like flavour[183].

Medicinal Uses

Disclaimer

Antiseptic; Aromatherapy; Aromatic; Carminative; Diaphoretic; Diuretic; Rubefacient; Stomachic; Tonic.

Juniper fruits are commonly used in herbal medicine, as a household remedy, and also in some commercial preparations. They are especially useful in the treatment of digestive disorders plus kidney and bladder problems[4].

The fully ripe fruits are strongly antiseptic, aromatic, carminative, diaphoretic, strongly diuretic, rubefacient, stomachic and tonic[4, 7, 9, 21, 46, 165, 240, 254]. They are used in the treatment of cystitis, digestive problems, chronic arthritis, gout and rheumatic conditions[254]. They can be eaten raw or used in a tea[222], but some caution is advised since large doses can irritate the urinary passage[4]. Externally, it is applied as a diluted essential oil, having a slightly warming effect upon the skin and is thought to promote the removal of waste products from underlying tissues[254]. It is, therefore, helpful when applied to arthritic joints etc[254]. The fruits should not be used internally by pregnant women since this can cause an abortion[9]. The fruits also increase menstrual bleeding so should not be used by women with heavy periods[254]. When made into an ointment, they are applied to exposed wounds and prevent irritation by flies[4].

The essential oil is used in aromatherapy. Its keyword is 'Toxin elimination'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Fuel; Ground cover; Hair; Incense; Repellent; Resin; Strewing; Tinder.

A decoction of the branches is used as an anti-dandruff shampoo[172].

The essential oil distilled from the fruits is used in perfumes with spicy fragrances[238].

In hot countries the tree yields the resin 'Sandarac' from incisions in the trunk[4, 74]. This is used in the production of a white varnish[74].

The stems were at one time used as a strewing herb to sweeten the smell of rooms[14, 244]. The whole plant can be burnt as an incense and fumigant[66, 102, 146]. It was used during epidemics in the belief that it would purify the air and cleanse it of infection[244]. Fresh or dried juniper branches also make a good insect repellent[102, 172].

Many forms of this species are good ground cover plants for sunny situations[208]. Forms to try include 'Depressa Aurea', 'Dumosa', 'Effusa', and 'Repanda'[197]. 'Prostrata' can also be used[188].

The bark is used as cordage[61] and as a tinder[172].

Wood - strong, hard, fragrant, very durable in contact with the soil and very close-grained, but usually too small to be of much use[82, 229, 244, 245]. It makes an excellent fuel[66].

Cultivation details

An easily grown plant, it succeeds in hot dry soils and in poor soils. Succeeds in most soils so long as they are well drained[186], preferring a neutral or slightly alkaline soil. Does well in chalky soils[1]. Grows well in heavy clay soils. Tolerates a pH range from 4 to 8[186]. Succeeds in light woodland but dislikes heavy shade[186]. Established plants are very tolerant of drought[186].

Although the fully dormant plant is cold-tolerant throughout Britain, the young growth in spring can be damaged by late frosts.

All parts of the plant are very aromatic[245].

Juniper is a very polymorphic species that has a long history of culinary and medicinal use[244]. It is frequently grown in the ornamental and herb garden, there is a huge range of cultivars of widely diverse habits[11, 81]. At least some forms tolerate maritime exposure[186], there is a thriving colony in an exposed position at Land's End in Cornwall[81].

The fruits take 2 - 3 years to ripen on the plant[11].

Plants are usually very slow growing, often only a few centimetres a year[186].

Resists honey fungus[88]. Plants are sometimes attacked by a rust, this fungus has an aecidial stage on hawthorn (Crataegus spp.)[1].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Scent

Plant: Fresh Crushed Dried

All parts of the plant are very fragrant.

Cultivars

'Repanda'

Of prostrate, very dense habit[11], this form makes a good ground cover for sunny situations[197].

'Prostrata'

This form makes a good ground cover for sunny situations[188].

'Effusa'

This form makes a good ground cover for sunny situations[197].

'Dumosa'

This form makes a good ground cover for sunny situations[197].

'Depressa Aurea'

A prostrate form with young leaves golden-yellow[11] it makes a good ground cover for sunny situations[197].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- Trees and Shrubs for Shelterbelts: E-M

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: I-L
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for ground cover
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Illustration from the Southwest School of Botanical Medicine
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *juniperus communis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
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[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
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A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
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[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

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A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van

Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Name of Site:

URL for Site: http://

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Add a longer comment

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Juniperus communis

Common name:	Juniper	Family:	Cupressaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Although the fruit of this plant is quite often used medicinally and as a flavouring in various foods and drinks, large doses of the fruit can cause renal damage. Juniper should not be used internally in any quantities by pregnant women[65, 165].		
Range:	Britain.		
Habitat:	Chalk downs in S. England but only where there is least sunshine and most rain, heaths, moors, pine and birch woods in the north of Scotland on acid peat, often dominant on chalk, limestone and slate.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. sibirica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Ra'R A'Di [E], Ardic [E], Ardij Aghaji [E], Common Juniper [S,FEIS,B,L,P,DEN1], Enebro [E], Havrest [E], Jeneverbes [D], Juniper [H,E,L], Juniper, Common [S], Sabino Macho [S], Yoshu-Nezu [E],
Epithets:	From a Dictionary of Botanical Epithets
	communis = common;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Britain; Canada(Kwakiutl); Kurdistan; Malaya; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 9m by 4m at a slow rate. It is hardy to zone 2 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Secondary, Cultivated Beds, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Condiment; Fruit; Tea.

Fruit - raw or cooked[2, 5, 9, 15]. It is usually harvested in the autumn when fully ripe and then dried for later use[12]. A soft, mealy, sweet, resinous flesh[82]. The fruit is often used as a flavouring in sauerkraut, stuffings, vegetable pates etc, and is an essential ingredient of gin[183]. The aromatic fruit is used as a pepper substitute according to one report[183]. An essential oil is sometimes distilled from the fruit to be used as a flavouring[183]. Average yields are around 1%[7]. The cones are about 4 - 8mm in diameter and take 2 - 3 years to mature[82, 200]. Some caution is advised when using the fruit, see the notes above on toxicity.

The roasted seed is a coffee substitute[177].

A tea is made by boiling the leaves and stems[161]. A tea made from the berries has a spicy gin-like flavour[183].

Medicinal Uses

Disclaimer

Antiseptic; Aromatherapy; Aromatic; Carminative; Diaphoretic; Diuretic; Rubefacient; Stomachic; Tonic.

Juniper fruits are commonly used in herbal medicine, as a household remedy, and also in some commercial preparations. They are especially useful in the treatment of digestive disorders plus kidney and bladder problems[4].

The fully ripe fruits are strongly antiseptic, aromatic, carminative, diaphoretic, strongly diuretic, rubefacient, stomachic and tonic[4, 7, 9, 21, 46, 165, 240, 254]. They are used in the treatment of cystitis, digestive problems, chronic arthritis, gout and rheumatic conditions[254]. They can be eaten raw or used in a tea[222], but some caution is advised since large doses can irritate the urinary passage[4]. Externally, it is applied as a diluted essential oil, having a slightly warming effect upon the skin and is thought to promote the removal of waste products from underlying tissues[254]. It is, therefore, helpful when applied to arthritic joints etc[254]. The fruits should not be used internally by pregnant women since this can cause an abortion[9]. The fruits also increase menstrual bleeding so should not be used by women with heavy periods[254]. When made into an ointment, they are applied to exposed wounds and prevent irritation by flies[4].

The essential oil is used in aromatherapy. Its keyword is 'Toxin elimination'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Fuel; Ground cover; Hair; Incense; Repellent; Resin; Strewing; Tinder.

A decoction of the branches is used as an anti-dandruff shampoo[172].

The essential oil distilled from the fruits is used in perfumes with spicy fragrances[238].

In hot countries the tree yields the resin 'Sandarac' from incisions in the trunk[4, 74]. This is used in the production of a white varnish[74].

The stems were at one time used as a strewing herb to sweeten the smell of rooms[14, 244]. The whole plant can be burnt as an incense and fumigant[66, 102, 146]. It was used during epidemics in the belief that it would purify the air and cleanse it of infection[244]. Fresh or dried juniper branches also make a good insect repellent[102, 172].

Many forms of this species are good ground cover plants for sunny situations[208]. Forms to try include 'Depressa Aurea', 'Dumosa', 'Effusa', and 'Repanda'[197]. 'Prostrata' can also be used[188].

The bark is used as cordage[61] and as a tinder[172].

Wood - strong, hard, fragrant, very durable in contact with the soil and very close-grained, but usually too small to be of much use[82, 229, 244, 245]. It makes an excellent fuel[66].

Cultivation details

An easily grown plant, it succeeds in hot dry soils and in poor soils. Succeeds in most soils so long as they are well drained[186], preferring a neutral or slightly alkaline soil. Does well in chalky soils[1]. Grows well in heavy clay soils. Tolerates a pH range from 4 to 8[186]. Succeeds in light woodland but dislikes heavy shade[186]. Established plants are very tolerant of drought[186].

Although the fully dormant plant is cold-tolerant throughout Britain, the young growth in spring can be damaged by late frosts.

All parts of the plant are very aromatic[245].

Juniper is a very polymorphic species that has a long history of culinary and medicinal use[244]. It is frequently grown in the ornamental and herb garden, there is a huge range of cultivars of widely diverse habits[11, 81]. At least some forms tolerate maritime exposure[186], there is a thriving colony in an exposed position at Land's End in Cornwall[81].

The fruits take 2 - 3 years to ripen on the plant[11].

Plants are usually very slow growing, often only a few centimetres a year[186].

Resists honey fungus[88]. Plants are sometimes attacked by a rust, this fungus has an aecidial stage on hawthorn (Crataegus spp.)[1].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Scent

Plant: Fresh Crushed Dried

All parts of the plant are very fragrant.

Cultivars

'Repanda'

Of prostrate, very dense habit[11], this form makes a good ground cover for sunny situations[197].

'Prostrata'

This form makes a good ground cover for sunny situations[188].

'Effusa'

This form makes a good ground cover for sunny situations[197].

'Dumosa'

This form makes a good ground cover for sunny situations[197].

'Depressa Aurea'

A prostrate form with young leaves golden-yellow[11] it makes a good ground cover for sunny situations[197].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- Trees and Shrubs for Shelterbelts: E-M
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: I-L
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for ground cover
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Illustration from the Southwest School of Botanical Medicine
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *juniperus communis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

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Antiseptic; Aromatherapy; Aromatic; Carminative; Diaphoretic; Diuretic; Rubefacient; Stomachic; Tonic.

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The fully ripe fruits are strongly antiseptic, aromatic, carminative, diaphoretic, strongly diuretic, rubefacient, stomachic and tonic[4, 7, 9, 21, 46, 165, 240, 254]. They are used in the treatment of cystitis, digestive problems, chronic arthritis, gout and rheumatic conditions[254]. They can be eaten raw or used in a tea[222], but some caution is advised since large doses can irritate the urinary passage[4]. Externally, it is applied as a diluted essential oil, having a slightly warming effect upon the skin and is thought to promote the removal of waste products from underlying tissues[254]. It is, therefore, helpful when applied to arthritic joints etc[254]. The fruits should not be used internally by pregnant women since this can cause an abortion[9]. The fruits also increase menstrual bleeding so should not be used by women with heavy periods[254]. When made into an ointment, they are applied to exposed wounds and prevent irritation by flies[4].

The essential oil is used in aromatherapy. Its keyword is 'Toxin elimination'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Fuel; Ground cover; Hair; Incense; Repellent; Resin; Strewing; Tinder.

A decoction of the branches is used as an anti-dandruff shampoo[172].

The essential oil distilled from the fruits is used in perfumes with spicy fragrances[238].

In hot countries the tree yields the resin 'Sandarac' from incisions in the trunk[4, 74]. This is used in the production of a white varnish[74].

The stems were at one time used as a strewing herb to sweeten the smell of rooms[14, 244]. The whole plant can be burnt as an incense and fumigant[66, 102, 146]. It was used during epidemics in the belief that it would purify the air and cleanse it of infection[244]. Fresh or dried juniper branches also make a good insect repellent[102, 172].

Many forms of this species are good ground cover plants for sunny situations[208]. Forms to try include 'Depressa Aurea', 'Dumosa', 'Effusa', and 'Repanda'[197]. 'Prostrata' can also be used[188].

The bark is used as cordage[61] and as a tinder[172].

Wood - strong, hard, fragrant, very durable in contact with the soil and very close-grained, but usually too small to be of much use[82, 229, 244, 245]. It makes an excellent fuel[66].

Cultivation details

An easily grown plant, it succeeds in hot dry soils and in poor soils. Succeeds in most soils so long as they are well drained[186], preferring a neutral or slightly alkaline soil. Does well in chalky soils[1]. Grows well in heavy clay soils. Tolerates a pH range from 4 to 8[186]. Succeeds in light woodland but dislikes heavy shade[186]. Established plants are very tolerant of drought[186].

Although the fully dormant plant is cold-tolerant throughout Britain, the young growth in spring can be damaged by late frosts.

All parts of the plant are very aromatic[245].

Juniper is a very polymorphic species that has a long history of culinary and medicinal use[244]. It is frequently grown in the ornamental and herb garden, there is a huge range of cultivars of widely diverse habits[11, 81]. At least some forms tolerate maritime exposure[186], there is a thriving colony in an exposed position at Land's End in Cornwall[81].

The fruits take 2 - 3 years to ripen on the plant[11].

Plants are usually very slow growing, often only a few centimetres a year[186].

Resists honey fungus[88]. Plants are sometimes attacked by a rust, this fungus has an aecidial stage on hawthorn (Crataegus spp.)[1].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Scent

Plant: Fresh Crushed Dried

All parts of the plant are very fragrant.

Cultivars

'Repanda'

Of prostrate, very dense habit[11], this form makes a good ground cover for sunny situations[197].

'Prostrata'

This form makes a good ground cover for sunny situations[188].

'Effusa'

This form makes a good ground cover for sunny situations[197].

'Dumosa'

This form makes a good ground cover for sunny situations[197].

'Depressa Aurea'

A prostrate form with young leaves golden-yellow[11] it makes a good ground cover for sunny situations[197].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Juniperus+communis`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Juniperus communis*

Subject:

Juniperus communis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Juniperus communis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Juniperus communis nana

Common name:	Juniper	Family:	Cupressaceae
Author:	Syme.	Botanical references:	11, 17
Synonyms:	Juniperus sibirica (Burgsdorf.), Juniperus nana (Willd.)		
Known Hazards:	Although the fruit of this plant is quite often used medicinally and as a flavouring in various foods and drinks, large doses of the fruit can cause renal damage. Juniper should not be used internally in any quantities by pregnant women[65, 165].		
Range:	Britain.		
Habitat:	Rocks and moors on mountains and lowland bogs in N. Wales, N. England and Scotland[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. alpina[B,P] J. communis[B,CPHOTO,CAL,CAL,,DUTCH,E,G,H,HPIC,HORTIPLEX,L,Shl,Sill,Smap,P] J. communis ssp. alpina[B,P] J. communis ssp. nana[B,P] J. communis ssp. saxitilis[B,P] J. communis subsp. nana[G] J. communis var. alpina[B,P] J. communis var. jackii[B,P] J. communis var. montana[B,P] J. communis var. saxatilis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Ra'R A'Di [E], Ardic [E], Ardij Aghaji [E], Common Juniper [S,B,P,FEIS,DEN1,L], Enebro [E], Havrest [E], Jeneverbes [D], Juniper [H,E,L], Juniper, Common [S], Sabino Macho [S], Yoshu-Nezu [E],
Epithets:	From a Dictionary of Botanical Epithets
	communis = common; nana = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database

	Britain; Canada(Kwakiutl); Kurdistan; Malaya; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 9m at a slow rate. It is hardy to zone 2 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Ground Cover.

Edible Uses

Coffee; Condiment; Fruit; Tea.

Fruit - raw or cooked[2, 5, 9, 15]. It is usually dried [12]. The fruit is often used as a flavouring in sauerkraut, stuffings, vegetable pates etc, and is an essential ingredient of gin[183]. The aromatic fruit is used as a pepper substitute according to one report[183]. An essential oil is sometimes distilled from the fruit to be used as a flavouring[183]. Average yields are around 1%[7]. The cones are about 4 - 8mm in diameter and take 2 years to mature[200]. Some caution is advised when using the fruit, see the notes above on toxicity.

The roasted seed is a coffee substitute[177].

A tea is made by boiling the leaves and stems[161]. A tea made from the berries has a spicy gin-like flavour[183].

Medicinal Uses

Disclaimer

Antiseptic; Aromatic; Carminative; Diaphoretic; Diuretic; Rubefacient; Stomachic; Tonic.

Juniper fruits are commonly used in herbal medicine, as a household remedy, and also in some commercial preparations. They are especially useful in the treatment of digestive disorders plus kidney and bladder problems[4].

The fully ripe fruits are strongly antiseptic, aromatic, carminative, diaphoretic, strongly diuretic, rubefacient, stomachic and tonic[4, 7, 9, 21, 46, 165, 240, 254]. They are used in the treatment of cystitis, digestive problems, chronic arthritis, gout and rheumatic conditions[254]. They can be eaten raw or used in a tea[222], but some caution is advised since large doses can irritate the urinary passage[4]. Externally, it is applied as a diluted essential oil, having a slightly warming effect upon the skin and is thought to promote the removal of waste products from underlying tissues[254]. It is, therefore, helpful when applied to arthritic joints etc[254]. The fruits should not be used internally by pregnant women since this can cause an abortion[9]. The fruits also increase menstrual bleeding so should not be used by women with heavy periods[254]. When made into an ointment, they are applied to exposed wounds and prevent irritation by flies[4].

The essential oil is used in aromatherapy. Its keyword is 'Toxin elimination'[210].

Other Uses

Fibre; Fuel; Ground cover; Hair; Incense; Repellent; Resin; Strewing; Tinder.

A decoction of the branches is used as an anti-dandruff shampoo[172].

Yields the resin 'Sandarac', used in the production of a white varnish[74].

The stems were at one time used as a strewing herb[14]. The whole plant can be burnt as an incense and fumigant[66, 102, 146]. It makes a good insect repellent[102, 172].

The bark is used as cordage[61] and as a tinder[172].

An excellent fuel wood[66].

Many forms of this species are good ground cover plants for sunny situations[208].

Cultivation details

Succeeds in hot dry soils and in poor soils. Succeeds in most soils so long as they are well drained[186], preferring a neutral or slightly alkaline soil. Does well in chalky soils[1]. Grows well in heavy clay soils. Tolerates a pH range from 4 to 8[186]. Succeeds in light woodland but dislikes heavy shade[186]. Established plants are very tolerant of drought[186].

Although the fully dormant plant is cold-tolerant throughout Britain, the young growth in spring can be damaged by late frosts.

A very polymorphic species, there is a huge range of cultivars of widely diverse habits[11, 81]. At least some forms tolerate maritime exposure[186], there is a thriving colony in an exposed position at Land's End in Cornwall[81].

Seed takes 2 - 3 years to ripen on the plant[11].

Plants are usually very slow growing, often only a few centimetres a year[186].

Resists honey fungus[88]. Plants are sometimes attacked by a rust, this fungus has an aecidial stage on hawthorn (Crataegus spp.)[1].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: I-L
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Juniperus communis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Illustration from the Southwest School of Botanical Medicine
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Juniperus communis subsp. nana* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Juniperus sibirica* (a possible synonym).

- [S] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
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[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
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[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
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A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2

Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

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[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Juniperus communis nana

Common name:	Juniper	Family:	Cupressaceae
Author:	Syme.	Botanical references:	11, 17
Synonyms:	Juniperus sibirica (Burgsdorf.), Juniperus nana (Willd.)		
Known Hazards:	Although the fruit of this plant is quite often used medicinally and as a flavouring in various foods and drinks, large doses of the fruit can cause renal damage. Juniper should not be used internally in any quantities by pregnant women[65, 165].		
Range:	Britain.		
Habitat:	Rocks and moors on mountains and lowland bogs in N. Wales, N. England and Scotland[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. alpina[B,P] J. communis[B,CPHOTO,CAL,CAL,,DUTCH,E,G,H,HPIC,HORTIPLEX,L,Shl,Sill,Smap,P] J. communis ssp. alpina[B,P] J. communis ssp. nana[B,P] J. communis ssp. saxitilis[B,P] J. communis subsp. nana[G] J. communis var. alpina[B,P] J. communis var. jackii[B,P] J. communis var. montana[B,P] J. communis var. saxatilis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Ra'R A'Di [E], Ardic [E], Ardij Aghaji [E], Common Juniper [S,B,P,FEIS,DEN1,L], Enebro [E], Havrest [E], Jeneverbes [D], Juniper [H,E,L], Juniper, Common [S], Sabino Macho [S], Yoshu-Nezu [E],
Epithets:	From a Dictionary of Botanical Epithets
	communis = common; nana = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Britain; Canada(Kwakiutl); Kurdistan; Malaya; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 9m at a slow rate. It is hardy to zone 2 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Ground Cover.

Edible Uses

Coffee; Condiment; Fruit; Tea.

Fruit - raw or cooked[2, 5, 9, 15]. It is usually dried [12]. The fruit is often used as a flavouring in sauerkraut, stuffings, vegetable pates etc, and is an essential ingredient of gin[183]. The aromatic fruit is used as a pepper substitute according to one report[183]. An essential oil is sometimes distilled from the fruit to be used as a flavouring[183]. Average yields are around 1%[7]. The cones are about 4 - 8mm in diameter and take 2 years to mature[200]. Some caution is advised when using the fruit, see the notes above on toxicity.

The roasted seed is a coffee substitute[177].

A tea is made by boiling the leaves and stems[161]. A tea made from the berries has a spicy gin-like flavour[183].

Medicinal Uses

Disclaimer

Antiseptic; Aromatic; Carminative; Diaphoretic; Diuretic; Rubefacient; Stomachic; Tonic.

Juniper fruits are commonly used in herbal medicine, as a household remedy, and also in some commercial preparations. They are especially useful in the treatment of digestive disorders plus kidney and bladder problems[4].

The fully ripe fruits are strongly antiseptic, aromatic, carminative, diaphoretic, strongly diuretic, rubefacient, stomachic and tonic[4, 7, 9, 21, 46, 165, 240, 254]. They are used in the treatment of cystitis, digestive problems, chronic arthritis, gout and rheumatic conditions[254]. They can be eaten raw or used in a tea[222], but some caution is advised since large doses can irritate the urinary passage[4]. Externally, it is applied as a diluted essential oil, having a slightly warming effect upon the skin and is thought to promote the removal of waste products from underlying tissues[254]. It is, therefore, helpful when applied to arthritic joints etc[254]. The fruits should not be used internally by pregnant women since this can cause an abortion[9]. The fruits also increase menstrual bleeding so should not be used by women with heavy periods[254]. When made into an ointment, they are applied to exposed wounds and prevent irritation by flies[4].

The essential oil is used in aromatherapy. Its keyword is 'Toxin elimination'[210].

Other Uses

Fibre; Fuel; Ground cover; Hair; Incense; Repellent; Resin; Strewing; Tinder.

A decoction of the branches is used as an anti-dandruff shampoo[172].

Yields the resin 'Sandarac', used in the production of a white varnish[74].

The stems were at one time used as a strewing herb[14]. The whole plant can be burnt as an incense and fumigant[66, 102, 146]. It makes a good insect repellent[102, 172].

The bark is used as cordage[61] and as a tinder[172].

An excellent fuel wood[66].

Many forms of this species are good ground cover plants for sunny situations[208].

Cultivation details

Succeeds in hot dry soils and in poor soils. Succeeds in most soils so long as they are well drained[186], preferring a neutral or slightly alkaline soil. Does well in chalky soils[1]. Grows well in heavy clay soils. Tolerates a pH range from 4 to 8[186]. Succeeds in light woodland but dislikes heavy shade[186]. Established plants are very tolerant of drought[186].

Although the fully dormant plant is cold-tolerant throughout Britain, the young growth in spring can be damaged by late frosts.

A very polymorphic species, there is a huge range of cultivars of widely diverse habits[11, 81]. At least some forms tolerate maritime exposure[186], there is a thriving colony in an exposed position at Land's End in Cornwall[81].

Seed takes 2 - 3 years to ripen on the plant[11].

Plants are usually very slow growing, often only a few centimetres a year[186].

Resists honey fungus[88]. Plants are sometimes attacked by a rust, this fungus has an aecidial stage on hawthorn (Crataegus spp.)[1].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: I-L
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Juniperus communis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Illustration from the Southwest School of Botanical Medicine
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Juniperus communis subsp. nana* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Juniperus communis var. montana* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Juniperus sibirica* (a possible synonym).

- [S] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2

Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Juniperus communis nana

Common name:	Juniper	Family:	Cupressaceae
Author:	Syme.	Botanical references:	11, 17
Synonyms:	Juniperus sibirica (Burgsdorf.), Juniperus nana (Willd.)		
Known Hazards:	Although the fruit of this plant is quite often used medicinally and as a flavouring in various foods and drinks, large doses of the fruit can cause renal damage. Juniper should not be used internally in any quantities by pregnant women[65, 165].		
Range:	Britain.		
Habitat:	Rocks and moors on mountains and lowland bogs in N. Wales, N. England and Scotland[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. alpina[B,P] J. communis[B,CPHOTO,CAL,CAL,,DUTCH,E,G,H,HPIC,HORTIPLEX,L,Shl,Sill,Smap,P] J. communis ssp. alpina[B,P] J. communis ssp. nana[B,P] J. communis ssp. saxitilis[B,P] J. communis subsp. nana[G] J. communis var. alpina[B,P] J. communis var. jackii[B,P] J. communis var. montana[B,P] J. communis var. saxatilis[B,P]
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Woodland, Sunny Edge, Ground Cover.

Edible Uses

Coffee; Condiment; Fruit; Tea.

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Cultivation details

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Seed takes 2 - 3 years to ripen on the plant[11].

Plants are usually very slow growing, often only a few centimetres a year[186].

Resists honey fungus[88]. Plants are sometimes attacked by a rust, this fungus has an aecidial stage on hawthorn (Crataegus spp.)[1].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Juniperus communis nana*

Subject:

Juniperus communis nana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Juniperus communis nana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Juniperus horizontalis

Common name:	Creeping juniper	Family:	Cupressaceae
Author:	Moench.	Botanical references:	200, 204
Synonyms:			
Known Hazards:	None known		
Range:	Northern N. America - Newfoundland to British Columbia, south to Washington and Maine.		
Habitat:	Dry rocky soil, sterile pastures and fields[204].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. horizontalis var. argentea[G] J. horizontalis var. douglasii[B,P] J. horizontalis var. glauca[G] J. horizontalis var. variegata[B,P] J. hudsonica[B,P] J. prostrata[B,P] J. repens[B,P] J. virginiana var. prostrata[B,P] Sabina horizontalis[B,P] Sabina prostrata[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Rug Juniper [H], Cedar [E], Creeping Juniper [FEIS,B,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets
	horizontalis = horizontal;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 1m by 3m . It is hardy to zone 4. It is in leaf all year, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Ground Cover.

Edible Uses

Coffee; Tea.

The fruits are roasted and used in the preparation of a coffee-like beverage[183].

A tea is made from the young branch tips[183, 257].

Medicinal Uses

Disclaimer

Diaphoretic; Febrifuge; Kidney.

An infusion of the branches, or fleshy cones, has been used in the treatment of coughs, colds and fevers[257]. The cones or branches can also be used as a steam bath[257].

An infusion of the seeds has been used in the treatment of kidney problems[257].

Other Uses

Baby care; Ground cover; Incense.

A good ground cover plant for a sunny position[208], eventually making a dense cover though it requires weeding for the first year or so[197].

The bark has been crushed and used as a soft hygienic pad in cradles[257]. It has also been used to make mats[257].

The young twigs and leaves have been burnt as an incense[257].

Cultivation details

Succeeds in a sunny position in most soils so long as they are well drained, preferring a neutral or slightly alkaline soil[11] and succeeding on chalk[200]. Succeeds in dry soils[200].

An aggregate species[204]. There are many named varieties selected for their ornamental value[200]. 'Bar Harbour' is very salt-resistant[200].

Dioecious, male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Cultivars

'Bar Harbour'

A very salt-resistant form[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: I-L
- Checklist of plants suitable for ground cover

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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A bit dated but a good book on propagation techniques with specific details for a wide range of

plants.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[204] **Livingstone. B.** *Flora of Canada* National Museums of Canada 1978 ISBN 0-660-00025-3
In 4 volumes, it does not deal with plant uses but gives descriptions and habitats.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
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Details:	

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Juniperus+horizontalis`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Juniperus horizontalis

Common name:	Creeping juniper	Family:	Cupressaceae
Author:	Moench.	Botanical references:	200, 204
Synonyms:			
Known Hazards:	None known		
Range:	Northern N. America - Newfoundland to British Columbia, south to Washington and Maine.		
Habitat:	Dry rocky soil, sterile pastures and fields[204].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	horizontalis = horizontal;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Blackfoot)

Physical Characteristics

An evergreen shrub growing to 1m by 3m . It is hardy to zone 4. It is in leaf all year, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Ground Cover.

Edible Uses

Coffee; Tea.

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A tea is made from the young branch tips[183, 257].

Medicinal Uses

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Cultivation details

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An aggregate species[204]. There are many named varieties selected for their ornamental value[200]. 'Bar Harbour' is very salt-resistant[200].

Dioecious, male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

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Layering in September/October. Takes 12 months[78].

Cultivars

'Bar Harbour'

A very salt-resistant form[200].

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- Checklist of plants suitable for ground cover: I-L
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Juniperus horizontalis

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Author:	Moench.	Botanical references:	200, 204
Synonyms:			
Known Hazards:	None known		
Range:	Northern N. America - Newfoundland to British Columbia, south to Washington and Maine.		
Habitat:	Dry rocky soil, sterile pastures and fields[204].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

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Edible Uses

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'Bar Harbour'

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Juniperus horizontalis*

Subject:

Juniperus horizontalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Juniperus horizontalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Juniperus scopulorum

Common name:	Rocky Mountain juniper	Family:	Cupressaceae
Author:	Sarg.	Botanical references:	82, 200
Synonyms:	Juniperus virginiana scopulorum ((Sarg.)Lemmon.)		
Known Hazards:	None known		
Range:	Western N. America - British Columbia to Mexico and California.		
Habitat:	Scattered singly on dry rocky ridges, foothills and bluffs[82, 85] in montane areas or in dry habitats of the coastal forest region[226]. The best specimens are found on slightly alkaline soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. scopulorum var. columnaris[B,P] J. virginiana ssp. scopulorum[B,P] J. virginiana var. montana[B,P] J. virginiana var. scopulorum[B,P] Sabina scopulorum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rocky Mountain Juniper [B,P,FEIS,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Us(Blackfoot); Us(Flathead); Us(Swinomish)

Physical Characteristics

An evergreen tree growing to 10m by 4m at a slow rate. It is hardy to zone 3. It is in leaf all year, in flower from April to May, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Sunny Edge, Ground Cover.

Edible Uses

Coffee; Condiment; Fruit; Tea.

Fruit - raw or cooked[105, 161, 183]. Sweet and fleshy, but strongly flavoured[85, 229]. Resinous[227]. Often used as a flavouring, imparting a sage-like taste, for which purpose it is usually dried and ground into a powder[85, 183]. The fruit can also be dried and ground into a meal for making mush and cakes[183].The fruits are about 5 - 8mm in diameter[200, 227].

The roasted fruit is a coffee substitute[183].

A tea is made from the fruits and young shoots[183].

Medicinal Uses

Disclaimer

Antidandruff; Appetizer; Diaphoretic; Disinfectant; Diuretic; Haemostatic; Kidney; Laxative; Poultice; Sedative; Stomachic; Tonic; VD.

Rocky Mountain juniper was widely employed medicinally by many native North American Indian tribes who used it in particular to treat problems connected with the chest and kidneys[257]. It is little, if at all, used in modern herbalism.

A tea made from the terminal shoots has been used in the treatment of VD by some N. American Indian tribes[213]. The treatment has to be taken over a long period of time[257].

The fruits are appetizer, diuretic and stomachic[257]. An infusion has been used in the treatment of stomach, kidney and bladder problems[213, 257].

An infusion of the twigs has been used in the treatment of fevers, pneumonia, coughs and colds[257]. A poultice of the mashed and dampened branches has been applied to skin sores[257].

The leaves are diaphoretic, disinfectant, febrifuge, haemostatic, laxative, sedative and tonic[99, 216, 257]. A decoction has been used in the treatment of internal bleeding, constipation and constant coughing[257]. The leaves have been boiled, then mixed with turpentine and used as an external treatment on rheumatic joints[257].

The leaves have been rubbed into the hair in order to treat dandruff[213, 257].

Other Uses

Beads; Ground cover; Incense; Parasiticide; Repellent; Shelterbelt; Tinder; Wax; Wood.

A fragrant wax on the fruits can be obtained by boiling the fruit and skimming off the wax as it floats to the surface. It is used to make aromatic candles but is only present in small quantities[85].

The boughs are used as an incense to fumigate houses and to drive off smells. The wood can be burnt or just hung in the room, or it can be boiled up in water and the water used to wash the walls, floor etc[99].

The bark is employed as a tinder and is also made into a slow match[216].

The dried seeds have been used as beads or as the 'rattle' in rattles[99, 216].

The fruits and the leaves are used as an insect repellent[169]. A strong infusion of the cones is used to kill ticks[99].

Plants can be grown as a ground cover, the cultivar 'Repens' is especially suitable[208].

A fairly wind resistant tree, it can be grown as part of a shelterbelt planting[200]. In N. America it is used to some extent in re-afforestation and shelterbelt plantings on the prairies[227].

Wood - extremely tough, aromatic, close grained, light, fairly strong in endwise compression but moderately weak in bending, hard, durable in the soil. Used for interior finishes, bows, hoops, hafts, wheels etc[99, 149, 227].

Cultivation details

Succeeds in most soils, including chalk[200], so long as they are well drained, preferring a neutral or slightly alkaline soil[1, 11]. A drought tolerant species once established, succeeding in hot dry positions[200]. Plants are fairly wind-resistant[200].

A long-lived but slow-growing tree in its native range[227], it is very slow growing in Britain where it only makes a shrub[185].

Closely allied to J. virginiana[1, 81] and hybridising with it where the ranges meet[226]. It differs mainly in the fruit, which takes two years to mature in this species instead of one[226].

Plants are resistant to honey fungus[88]. This tree is apparently resistant to the rust fungus that attacks the closely related J. virginiana[149].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Cultivars

'Repens'

> A procumbent form with blue-green leaves[200], it is suitable for growing as ground cover[208].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
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Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
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[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
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[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Juniperus scopulorum

Common name:	Rocky Mountain juniper	Family:	Cupressaceae
Author:	Sarg.	Botanical references:	82, 200
Synonyms:	Juniperus virginiana scopulorum ((Sarg.)Lemmon.)		
Known Hazards:	None known		
Range:	Western N. America - British Columbia to Mexico and California.		
Habitat:	Scattered singly on dry rocky ridges, foothills and bluffs[82, 85] in montane areas or in dry habitats of the coastal forest region[226]. The best specimens are found on slightly alkaline soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. scopulorum var. columnaris[B,P] J. virginiana ssp. scopulorum[B,P] J. virginiana var. montana[B,P] J. virginiana var. scopulorum[B,P] Sabina scopulorum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rocky Mountain Juniper [B,P,FEIS,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Us(Blackfoot); Us(Flathead); Us(Swinomish)

Physical Characteristics

An evergreen tree growing to 10m by 4m at a slow rate. It is hardy to zone 3. It is in leaf all year, in flower from April to May, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Sunny Edge, Ground Cover.

Edible Uses

Coffee; Condiment; Fruit; Tea.

Fruit - raw or cooked[105, 161, 183]. Sweet and fleshy, but strongly flavoured[85, 229]. Resinous[227]. Often used as a flavouring, imparting a sage-like taste, for which purpose it is usually dried and ground into a powder[85, 183]. The fruit can also be dried and ground into a meal for making mush and cakes[183].The fruits are about 5 - 8mm in diameter[200, 227].

The roasted fruit is a coffee substitute[183].

A tea is made from the fruits and young shoots[183].

Medicinal Uses

Disclaimer

Antidandruff; Appetizer; Diaphoretic; Disinfectant; Diuretic; Haemostatic; Kidney; Laxative; Poultice; Sedative; Stomachic; Tonic; VD.

Rocky Mountain juniper was widely employed medicinally by many native North American Indian tribes who used it in particular to treat problems connected with the chest and kidneys[257]. It is little, if at all, used in modern herbalism.

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The leaves have been rubbed into the hair in order to treat dandruff[213, 257].

Other Uses

Beads; Ground cover; Incense; Parasiticide; Repellent; Shelterbelt; Tinder; Wax; Wood.

A fragrant wax on the fruits can be obtained by boiling the fruit and skimming off the wax as it floats to the surface. It is used to make aromatic candles but is only present in small quantities[85].

The boughs are used as an incense to fumigate houses and to drive off smells. The wood can be burnt or just hung in the room, or it can be boiled up in water and the water used to wash the walls, floor etc[99].

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The dried seeds have been used as beads or as the 'rattle' in rattles[99, 216].

The fruits and the leaves are used as an insect repellent[169]. A strong infusion of the cones is used to kill ticks[99].

Plants can be grown as a ground cover, the cultivar 'Repens' is especially suitable[208].

A fairly wind resistant tree, it can be grown as part of a shelterbelt planting[200]. In N. America it is used to some extent in re-afforestation and shelterbelt plantings on the prairies[227].

Wood - extremely tough, aromatic, close grained, light, fairly strong in endwise compression but moderately weak in bending, hard, durable in the soil. Used for interior finishes, bows, hoops, hafts, wheels etc[99, 149, 227].

Cultivation details

Succeeds in most soils, including chalk[200], so long as they are well drained, preferring a neutral or slightly alkaline soil[1, 11]. A drought tolerant species once established, succeeding in hot dry positions[200]. Plants are fairly wind-resistant[200].

A long-lived but slow-growing tree in its native range[227], it is very slow growing in Britain where it only makes a shrub[185].

Closely allied to J. virginiana[1, 81] and hybridising with it where the ranges meet[226]. It differs mainly in the fruit, which takes two years to mature in this species instead of one[226].

Plants are resistant to honey fungus[88]. This tree is apparently resistant to the rust fungus that attacks the closely related J. virginiana[149].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Cultivars

'Repens'

A procumbent form with blue-green leaves[200], it is suitable for growing as ground cover[208].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Plants For A Future: Database Search Results

Juniperus scopulorum

Common name:	Rocky Mountain juniper	Family:	Cupressaceae
Author:	Sarg.	Botanical references:	82, 200
Synonyms:	Juniperus virginiana scopulorum ((Sarg.)Lemmon.)		
Known Hazards:	None known		
Range:	Western N. America - British Columbia to Mexico and California.		
Habitat:	Scattered singly on dry rocky ridges, foothills and bluffs[82, 85] in montane areas or in dry habitats of the coastal forest region[226]. The best specimens are found on slightly alkaline soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. scopulorum var. columnaris[B,P] J. virginiana ssp. scopulorum[B,P] J. virginiana var. montana[B,P] J. virginiana var. scopulorum[B,P] Sabina scopulorum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rocky Mountain Juniper [B,P,FEIS,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Us(Blackfoot); Us(Flathead); Us(Swinomish)

Physical Characteristics

An evergreen tree growing to 10m by 4m at a slow rate. It is hardy to zone 3. It is in leaf all year, in flower from April to May, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy, Sunny Edge, Ground Cover.

Edible Uses

Coffee; Condiment; Fruit; Tea.

Fruit - raw or cooked[105, 161, 183]. Sweet and fleshy, but strongly flavoured[85, 229]. Resinous[227]. Often used as a flavouring, imparting a sage-like taste, for which purpose it is usually dried and ground into a powder[85, 183]. The fruit can also be dried and ground into a meal for making mush and cakes[183].The fruits are about 5 - 8mm in diameter[200, 227].

The roasted fruit is a coffee substitute[183].

A tea is made from the fruits and young shoots[183].

Medicinal Uses

Disclaimer

Antidandruff; Appetizer; Diaphoretic; Disinfectant; Diuretic; Haemostatic; Kidney; Laxative; Poultice; Sedative; Stomachic; Tonic; VD.

Rocky Mountain juniper was widely employed medicinally by many native North American Indian tribes who used it in particular to treat problems connected with the chest and kidneys[257]. It is little, if at all, used in modern herbalism.

A tea made from the terminal shoots has been used in the treatment of VD by some N. American Indian tribes[213]. The treatment has to be taken over a long period of time[257].

The fruits are appetizer, diuretic and stomachic[257]. An infusion has been used in the treatment of stomach, kidney and bladder problems[213, 257].

An infusion of the twigs has been used in the treatment of fevers, pneumonia, coughs and colds[257]. A poultice of the mashed and dampened branches has been applied to skin sores[257].

The leaves are diaphoretic, disinfectant, febrifuge, haemostatic, laxative, sedative and tonic[99, 216, 257]. A decoction has been used in the treatment of internal bleeding, constipation and constant coughing[257]. The leaves have been boiled, then mixed with turpentine and used as an external treatment on rheumatic joints[257].

The leaves have been rubbed into the hair in order to treat dandruff[213, 257].

Other Uses

Beads; Ground cover; Incense; Parasiticide; Repellent; Shelterbelt; Tinder; Wax; Wood.

A fragrant wax on the fruits can be obtained by boiling the fruit and skimming off the wax as it floats to the surface. It is used to make aromatic candles but is only present in small quantities[85].

The boughs are used as an incense to fumigate houses and to drive off smells. The wood can be burnt or just hung in the room, or it can be boiled up in water and the water used to wash the walls, floor etc[99].

The bark is employed as a tinder and is also made into a slow match[216].

The dried seeds have been used as beads or as the 'rattle' in rattles[99, 216].

The fruits and the leaves are used as an insect repellent[169]. A strong infusion of the cones is used to kill ticks[99].

Plants can be grown as a ground cover, the cultivar 'Repens' is especially suitable[208].

A fairly wind resistant tree, it can be grown as part of a shelterbelt planting[200]. In N. America it is used to some extent in re-afforestation and shelterbelt plantings on the prairies[227].

Wood - extremely tough, aromatic, close grained, light, fairly strong in endwise compression but moderately weak in bending, hard, durable in the soil. Used for interior finishes, bows, hoops, hafts, wheels etc[99, 149, 227].

Cultivation details

Succeeds in most soils, including chalk[200], so long as they are well drained, preferring a neutral or slightly alkaline soil[1, 11]. A drought tolerant species once established, succeeding in hot dry positions[200]. Plants are fairly wind-resistant[200].

A long-lived but slow-growing tree in its native range[227], it is very slow growing in Britain where it only makes a shrub[185].

Closely allied to J. virginiana[1, 81] and hybridising with it where the ranges meet[226]. It differs mainly in the fruit, which takes two years to mature in this species instead of one[226].

Plants are resistant to honey fungus[88]. This tree is apparently resistant to the rust fungus that attacks the closely related J. virginiana[149].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Cultivars

'Repens'

> A procumbent form with blue-green leaves[200], it is suitable for growing as ground cover[208].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Lathyrus japonicus maritimus

Common name:	Beach pea	Family:	Leguminosae
Author:	(L.) P. W. Ball.	Botanical references:	17, 200
Synonyms:	Lathyrus maritimus ((L.)Bigel.)		
Known Hazards:	The seed contains a toxic amino-acid which, in large quantities, can cause a very serious disease of the nervous system known as 'lathyrism'. The seed is said to be perfectly safe and very nutritious in small quantities, but should not comprise more than 30% of the diet[65, 76].		
Range:	Britain.		
Habitat:	Shingle beaches and sand dunes[17, 187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	maritimus = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 3. It is in flower from May to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Seed; Seedpod.

The immature seeds are eaten raw or cooked like peas[183, 257]. Mature seeds are cooked or sprouted and used in salads[183]. A delightful vegetable[172]. A famine food[177]. Very bitter[2, 105, 106]. Some caution is advised, see the notes above on toxicity.

Young seedpods - raw or cooked when less than 25mm long[105, 106, 183]. A sweet flavour[106, 172].

Young plant - raw or cooked[161]. Use young shoots that are less than 25cm long[172, 213].

The roasted seed is a coffee substitute[61, 183, 257].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in any moderately good garden soil[1]. Prefers a deep moist well-drained soil in a cool position[187]. Prefers a position in full sun, growing well on hot sunny banks[200].

The seed remains viable for 4 - 5 years in sea water[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Pre-soak the seed for 24 hours in warm water and then sow in early spring in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

If you have sufficient seed, then it can also be sown in situ in mid spring[200].

Division in spring. It may not transplant well so care should be taken[200].

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Plants For A Future Rating (1-5):	2		

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Author:	(L.) P. W. Ball.	Botanical references:	17, 200
Synonyms:	Lathyrus maritimus ((L.)Bigel.)		
Known Hazards:	The seed contains a toxic amino-acid which, in large quantities, can cause a very serious disease of the nervous system known as 'lathyrism'. The seed is said to be perfectly safe and very nutritious in small quantities, but should not comprise more than 30% of the diet[65, 76].		
Range:	Britain.		
Habitat:	Shingle beaches and sand dunes[17, 187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. japonicus ssp. maritimus[B,P] L. japonicus subsp. maritimus[G] L. japonicus var. glaber[B,G,P] L. japonicus var. maritimus[B,P] L. maritimus var. glaber[B,P] Pisum maritimum[B,G,P] Pisum maritimum var. glabrum[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beach Pea [L], Ch'Iao Yao [E], Sea Pea [L], Sea Peavine [P], Yeh Wan Tou [E],
Epithets:	From a Dictionary of Botanical Epithets
	maritimus = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 3. It is in flower from May to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Seed; Seedpod.

The immature seeds are eaten raw or cooked like peas[183, 257]. Mature seeds are cooked or sprouted and used in salads[183]. A delightful vegetable[172]. A famine food[177]. Very bitter[2, 105, 106]. Some caution is advised, see the notes above on toxicity.

Young seedpods - raw or cooked when less than 25mm long[105, 106, 183]. A sweet flavour[106, 172].

Young plant - raw or cooked[161]. Use young shoots that are less than 25cm long[172, 213].

The roasted seed is a coffee substitute[61, 183, 257].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in any moderately good garden soil[1]. Prefers a deep moist well-drained soil in a cool position[187]. Prefers a position in full sun, growing well on hot sunny banks[200].

The seed remains viable for 4 - 5 years in sea water[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Pre-soak the seed for 24 hours in warm water and then sow in early spring in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

If you have sufficient seed, then it can also be sown in situ in mid spring[200].

Division in spring. It may not transplant well so care should be taken[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Lathyrus japonicus maritimus*

Subject:

Lathyrus japonicus maritimus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lathyrus japonicus maritimus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Leontodon hispidus

Common name:	Rough hawkbit	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Meadows, roadside verges etc, usually on calcareous soils and avoiding shade12, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Apargia hispidus[H] Hieracium hispidus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bristly Hawkbit [B,P], Rough Hawkbit [H,L], Ruige Leeuwentand [D],
Epithets:	From a Dictionary of Botanical Epithets
	hispidus = bristly;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.45m. It is hardy to zone 6. It is in flower from June to September, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles and Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Meadow.

Edible Uses

Coffee; Leaves.

Young leaves - raw or cooked[12, 100]. Neither the taste nor the texture are by any means wonderful, but the leaves are acceptable raw, particularly since they can be available in the late winter.

The roasted root is a coffee substitute[46, 61, 183].

Medicinal Uses

Disclaimer

Diuretic.

The herb is diuretic[4]. An infusion is used in the treatment of kidney complaints and as a remedy for dropsy and jaundice[4].

Other Uses

None known

Cultivation details

An easily grown and tolerant plant[K], it prefers a sunny position in a well-drained soil[200] and does well on clay.

A good bee and butterfly plant[108, 200], it grows well in the spring meadow[24].

Propagation

Seed - best sown as soon as it is ripe in situ, only just covering the seed. Very fast germination.

The seed can also be sown in the spring.

If you are short of seed it can be sown in a pot in the cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Edible Lawn

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
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Plants For A Future: Database Search Results

Leontodon hispidus

Common name:	Rough hawkbit	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Meadows, roadside verges etc, usually on calcareous soils and avoiding shade12, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	hispidus = bristly;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.45m. It is hardy to zone 6. It is in flower from June to September, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles and Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Meadow.

Edible Uses

Coffee; Leaves.

Young leaves - raw or cooked[12, 100]. Neither the taste nor the texture are by any means wonderful, but the leaves are acceptable raw, particularly since they can be available in the late winter.

The roasted root is a coffee substitute[46, 61, 183].

Medicinal Uses

Disclaimer

Diuretic.

The herb is diuretic[4]. An infusion is used in the treatment of kidney complaints and as a remedy for dropsy and jaundice[4].

Other Uses

None known

Cultivation details

An easily grown and tolerant plant[K], it prefers a sunny position in a well-drained soil[200] and does well on clay.

A good bee and butterfly plant[108, 200], it grows well in the spring meadow[24].

Propagation

Seed - best sown as soon as it is ripe in situ, only just covering the seed. Very fast germination.

The seed can also be sown in the spring.

If you are short of seed it can be sown in a pot in the cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Suppliers

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Leontodon hispidus

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Range:	Britain.		
Habitat:	Meadows, roadside verges etc, usually on calcareous soils and avoiding shade12, 17].		
Plants For A Future Rating (1-5):	2		

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Epithets:	From a Dictionary of Botanical Epithets
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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Meadow.

Edible Uses

Coffee; Leaves.

Young leaves - raw or cooked[12, 100]. Neither the taste nor the texture are by any means wonderful, but the leaves are acceptable raw, particularly since they can be available in the late winter.

The roasted root is a coffee substitute[46, 61, 183].

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Disclaimer

Diuretic.

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Other Uses

None known

Cultivation details

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A good bee and butterfly plant[108, 200], it grows well in the spring meadow[24].

Propagation

Seed - best sown as soon as it is ripe in situ, only just covering the seed. Very fast germination.

The seed can also be sown in the spring.

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Add a comment on: *Leontodon hispidus*

Subject:

Leontodon hispidus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Leontodon hispidus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Ligustrum indicum

Common name:		Family:	Oleaceae
Author:	(Lour.) Merr.	Botanical references:	51, 200
Synonyms:	Ligustrum nepalense (Wall.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, at least one member of this genus is recorded as being mildly toxic and it is quite possible that other members of the genus also contain toxins[65].		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Damp gullies, wet oak forests, 1200 - 2700 metres from Uttar Pradesh to Bhutan[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. microcarpum[G] L. sinense[B,G,HORTIPLEX,P] L. sinense var. stauntonii[G] L. stauntonii[G] L. villosum[B,P] Phillyrea indica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Privet [B,P], Privet [DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	indicum = Indian;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	India; Nepal

Physical Characteristics

An evergreen shrub growing to 3m. . It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[61, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

A very tolerant and easily grown plant, it succeeds in any soil that is not impoverished or water-logged[11, 182]. Grows well in heavy clay soils.

This species is notably susceptible to honey fungus[200].

Propagation

The seed does not require any pre-treatment and can be sown in the spring in a cold frame[113]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, 20 - 30cm in a sheltered outdoor bed in November/December. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ligustrum nepalense* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Ligustrum sinense* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Ligustrum indicum

Common name:		Family:	Oleaceae
Author:	(Lour.) Merr.	Botanical references:	51, 200
Synonyms:	Ligustrum nepalense (Wall.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, at least one member of this genus is recorded as being mildly toxic and it is quite possible that other members of the genus also contain toxins[65].		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Damp gullies, wet oak forests, 1200 - 2700 metres from Uttar Pradesh to Bhutan[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. microcarpum[G] L. sinense[B,G,HORTIPLEX,P] L. sinense var. stauntonii[G] L. stauntonii[G] L. villosum[B,P] Phillyrea indica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Privet [B,P], Privet [DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	indicum = Indian;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	India; Nepal

Physical Characteristics

An evergreen shrub growing to 3m. . It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1

out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[61, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

A very tolerant and easily grown plant, it succeeds in any soil that is not impoverished or water-logged[11, 182]. Grows well in heavy clay soils.

This species is notably susceptible to honey fungus[200].

Propagation

The seed does not require any pre-treatment and can be sown in the spring in a cold frame[113]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, 20 - 30cm in a sheltered outdoor bed in November/December. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ligustrum nepalense* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Ligustrum sinense* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Ligustrum indicum

Common name:		Family:	Oleaceae
Author:	(Lour.) Merr.	Botanical references:	51, 200
Synonyms:	Ligustrum nepalense (Wall.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, at least one member of this genus is recorded as being mildly toxic and it is quite possible that other members of the genus also contain toxins[65].		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Damp gullies, wet oak forests, 1200 - 2700 metres from Uttar Pradesh to Bhutan[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. microcarpum[G] L. sinense[B,G,HORTIPLEX,P] L. sinense var. stauntonii[G] L. stauntonii[G] L. villosum[B,P] Phillyrea indica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Privet [B,P], Privet [DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	indicum = Indian;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	India; Nepal

Physical Characteristics

An evergreen shrub growing to 3m. . It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1

out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee.

The roasted seed is a coffee substitute[61, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

A very tolerant and easily grown plant, it succeeds in any soil that is not impoverished or water-logged[11, 182]. Grows well in heavy clay soils.

This species is notably susceptible to honey fungus[200].

Propagation

The seed does not require any pre-treatment and can be sown in the spring in a cold frame[113]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, 20 - 30cm in a sheltered outdoor bed in November/December. High percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ligustrum indicum*

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Enter your comment about this plant here.

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Name of Site:	
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ligustrum indicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Ligustrum japonicum

Common name:	Japanese privet	Family:	Oleaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, at least one member of this genus is recorded as being mildly toxic and it is quite possible that other members of the genus also contain toxins[65].		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods and thickets in lowland and hills, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. coriaceum[G] L. japonicum var. rotundifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Privet [P,B,DEN2], Nezumi-Moti [E],
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

An evergreen shrub growing to 5m by 6m . It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Leaves.

The roasted seed is a coffee substitute[61, 177].

Young shoots - cooked. A famine food, used when all else fails[179]. The shoots contain a glycoside and are probably toxic[K].

Medicinal Uses

Disclaimer

Antibacterial; Hypotensive; Tonic.

The fruit is said to be a nutrient tonic[218].

Extracts of the plant show antibacterial, antiulcer and hypotensive activity[218].

Other Uses

Hedge; Wax.

A commercial insect wax is produced on the branches as a result of eggs being laid by insects[11]. Another report says that the wax is produced by the plant due to the stimulation of the feeding insects[61, 149]. Yet another report says that the wax is produced by the insects[178]. It is used for candles and as a polish for earthenware pots, book edges etc[178].

The plant can be used as a hedge[11]. It is very amenable to trimming.

Cultivation details

A very tolerant and easily grown plant, it succeeds in any soil that is not impoverished or water-logged[11, 182]. Grows well in heavy clay soils. Succeeds in sun or semi-shade[188].

Closely related to L. lucidum[11, 200].

There are many named varieties selected for their ornamental value[200].

This species is notably resistant to honey fungus[200].

Propagation

The seed does not require any pre-treatment and can be sown in the spring in a cold frame[113]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, 20 - 30cm in a sheltered outdoor bed in November/December. High percentage[78].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3

Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Ligustrum+japonicum`
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Plants For A Future: Database Search Results

Ligustrum japonicum

Common name:	Japanese privet	Family:	Oleaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, at least one member of this genus is recorded as being mildly toxic and it is quite possible that other members of the genus also contain toxins[65].		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods and thickets in lowland and hills, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. coriaceum[G] L. japonicum var. rotundifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Privet [P,B,DEN2], Nezumi-Moti [E],
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

An evergreen shrub growing to 5m by 6m . It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Leaves.

The roasted seed is a coffee substitute[61, 177].

Young shoots - cooked. A famine food, used when all else fails[179]. The shoots contain a glycoside and are probably toxic[K].

Medicinal Uses

Disclaimer

Antibacterial; Hypotensive; Tonic.

The fruit is said to be a nutrient tonic[218].

Extracts of the plant show antibacterial, antiulcer and hypotensive activity[218].

Other Uses

Hedge; Wax.

A commercial insect wax is produced on the branches as a result of eggs being laid by insects[11]. Another report says that the wax is produced by the plant due to the stimulation of the feeding insects[61, 149]. Yet another report says that the wax is produced by the insects[178]. It is used for candles and as a polish for earthenware pots, book edges etc[178].

The plant can be used as a hedge[11]. It is very amenable to trimming.

Cultivation details

A very tolerant and easily grown plant, it succeeds in any soil that is not impoverished or water-logged[11, 182]. Grows well in heavy clay soils. Succeeds in sun or semi-shade[188].

Closely related to L. lucidum[11, 200].

There are many named varieties selected for their ornamental value[200].

This species is notably resistant to honey fungus[200].

Propagation

The seed does not require any pre-treatment and can be sown in the spring in a cold frame[113]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, 20 - 30cm in a sheltered outdoor bed in November/December. High percentage[78].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptaments' Tree Fact Sheets.

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre

1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Readers Comments

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Add a comment on: *Ligustrum japonicum*

Subject:

Ligustrum japonicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ligustrum japonicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Search for

Edible Use: Coffee (225);

Latin Name	Common Name	Description	PFAF Rating
Ligustrum obtusifolium		Coffee	2
Linum usitatissimum	Flax	Coffee	4
Lithocarpus pachyphyllus		Coffee	2
Lotus tetragonolobus	Asparagus pea	Coffee	2
Lupinus albus	White lupin	Coffee	4
Lupinus luteus	Yellow lupin	Coffee	3
Lycium chinense	Chinese boxthorn	Coffee	4
Mahonia swaseyi	Texas mahonia	Coffee	3
Mahonia trifoliolata	Mexican barberry	Coffee	3
Nelumbo nucifera	Sacred water lotus	Coffee	4
Nymphaea alba	White water lily	Coffee	4
Nymphaea candida		Coffee	4
Phaseolus vulgaris	French bean	Coffee	3
Phoenix reclinata	Senegal date palm	Coffee	1
Phormium cookianum	Wharariki	Coffee	3
Phormium tenax	New Zealand flax	Coffee	5
Pseudotsuga menziesii	Douglas fir	Coffee	2
Psophocarpus tetragonolobus	Winged bean	Coffee	2
Quercus species		Coffee	3
Quercus alba	White oak	Coffee	3
Quercus aliena	Oriental white oak	Coffee	2
Quercus aucheri	Boz-pirnal oak	Coffee	4
Quercus bicolor	Swamp white oak	Coffee	4

Quercus cerris	Turkey oak	Coffee	3
Quercus chrysolepis	Live oak	Coffee	2
Quercus coccifera	Kermes oak	Coffee	3
Quercus coccinea	Scarlet oak	Coffee	2
Quercus dentata	Japanese emperor oak	Coffee	2
Quercus dilatata		Coffee	2
Quercus douglasii	Blue oak	Coffee	3
Quercus dumosa revoluta	California scrub oak	Coffee	2
Quercus ellipsoidalis	Northern pin oak	Coffee	2
Quercus emoryi	Black oak	Coffee	3
Quercus engelmannii	Evergreen oak	Coffee	2
Quercus falcata	Southern red oak	Coffee	1
Quercus frainetto	Hungarian oak	Coffee	4
Quercus fruticosa		Coffee	3
Quercus gambelii	Shin oak	Coffee	3
Quercus garryana	Oregon white oak	Coffee	2
Quercus glauca		Coffee	3
Quercus ilex	Holly oak	Coffee	5
Quercus ilex ballota	Holm oak	Coffee	5
Quercus imbricaria	Shingle oak	Coffee	2
Quercus ithaburensis macrolepis	Valonia oak	Coffee	4
Quercus kelloggii	Californian black oak	Coffee	3
Quercus laevis	American turkey oak	Coffee	2
Quercus lamellosa		Coffee	3
Quercus leucotrichophora		Coffee	2
Quercus libani	Lebanon oak	Coffee	2
Quercus lineata		Coffee	2
Quercus lobata	Californian white oak	Coffee	2
Quercus lyrata	Overcup oak	Coffee	3
Quercus marilandica	Blackjack oak	Coffee	2
Quercus michauxii	Swamp chestnut oak	Coffee	2
Quercus mongolica		Coffee	2

Quercus mongolica grosseserrata		Coffee	2
Quercus muehlenbergii	Yellow chestnut oak	Coffee	3
Quercus myrsinaefolia		Coffee	2
Quercus nigra	Water oak	Coffee	2
Quercus oblongifolia	Mexican blue oak	Coffee	3
Quercus palustris	Pin oak	Coffee	3
Quercus petraea	Sessile oak	Coffee	4
Quercus phellos	Willow oak	Coffee	2
Quercus phillyreoides		Coffee	3
Quercus prinoides	Dwarf chinkapin oak	Coffee	2
Quercus prinus	Rock chestnut oak	Coffee	4
Quercus pungens	Sandpaper oak	Coffee	2
Quercus robur	Pedunculate oak	Coffee	4
Quercus rubra	Red oak	Coffee	3
Quercus semecarpifolia		Coffee	2
Quercus serrata		Coffee	2
Quercus shumardii	Shumard oak	Coffee	2
Quercus stellata	Post oak	Coffee	3
Quercus suber	Cork oak	Coffee	3
Quercus suber occidentalis	Cork oak	Coffee	3
Quercus undulata	Wavyleaf oak	Coffee	2
Quercus variabilis	Chinese cork oak	Coffee	2
Quercus velutina	Black oak	Coffee	2
Quercus virginiana	Live oak	Coffee	3
Quercus wislizenii	Live oak	Coffee	3
Quercus x bebbiana		Coffee	3
Rhus integrifolia	Lemonade berry	Coffee	2
Rosa canina	Dog rose	Coffee	3
Rubus idaeus	Raspberry	Coffee	5
Rumex brownii	Swamp dock	Coffee	2
Rumex crispus	Curled dock	Coffee	2
Ruscus aculeatus	Butcher's broom	Coffee	1

Scolymus hispanicus	Spanish salsify	Coffee	3
Scorzonera hispanica	Scorzonera	Coffee	4
Secale cereale	Rye	Coffee	3
Setaria viridis	Green bristle grass	Coffee	2
Silybum marianum	Milk thistle	Coffee	2
Sium sisarum	Skirret	Coffee	4
Sonchus arvensis	Field milk thistle	Coffee	2
Sorbus aucuparia	Mountain ash	Coffee	2
Symphytum tuberosum		Coffee	2
Taraxacum albidum		Coffee	2
Taraxacum bessarabicum		Coffee	1
Taraxacum brassicaefolium		Coffee	1
Taraxacum erythropodium		Coffee	1

Previous Next List by genus

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Ligustrum obtusifolium

Common name:		Family:	Oleaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Ligustrum ibota (Siebold.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, at least one member of this genus is recorded as being mildly toxic and it is quite possible that other members of the genus also contain toxins[65].		
Range:	E. Asia - China, Japan.		
Habitat:	Thin woods and thickets in lowland and hills all over Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. ciliatum[G] L. regelianum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Border Privet [B,P], Ibota-No-Ki [E],
Epithets:	From a Dictionary of Botanical Epithets
	obtusifolium = blunt leaved;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

An evergreen shrub growing to 3m. It is hardy to zone 3. It is in leaf all year, in flower in July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Tea.

The roasted seed is a coffee substitute[61, 177].

Leaves are a tea substitute[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover; Wax.

A commercial insect wax is produced on the branches as a result of eggs being laid by insects[11]. Another report says that the wax is produced by the plant due to the stimulation of the feeding insects[61]. Yet another report says that the wax is produced by the insects[178]. It is used for candles and as a polish for earthenware pots, book edges etc[178].

The sub-species L. obtusifolium regelianum and its cultivar 'Dart's Perfection' make a good carpeting ground cover about 1.2 metres tall. They should be spaced about 2.5 metres apart each way[208].

Cultivation details

A very tolerant and easily grown plant, it succeeds in any soil that is not impoverished or water-logged[11, 182]. Grows well in heavy clay soils.

A very ornamental plant[1]. Polymorphic[58].

Prefers hotter summers than are normally experienced in Britain[11].

Closely related to L. ovalifolium[200].

This species is notably susceptible to honey fungus[200].

Propagation

The seed does not require any pre-treatment and can be sown in the spring in a cold frame[113]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, 20 - 30cm in a sheltered outdoor bed in November/December. High percentage[78].

Cultivars

'Dart's Perfection'

> This form has a spreading habit of growth and makes a good carpeting ground cover about 1.2 metres tall. The plants should be spaced about 2.5 metres apart each way[208].

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References for *Ligustrum ibota* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

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Plants For A Future: Database Search Results

Ligustrum obtusifolium

Common name:		Family:	Oleaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Ligustrum ibota (Siebold.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, at least one member of this genus is recorded as being mildly toxic and it is quite possible that other members of the genus also contain toxins[65].		
Range:	E. Asia - China, Japan.		
Habitat:	Thin woods and thickets in lowland and hills all over Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. ciliatum[G] L. regelianum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Border Privet [B,P], Ibota-No-Ki [E],
Epithets:	From a Dictionary of Botanical Epithets
	obtusifolium = blunt leaved;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

An evergreen shrub growing to 3m. It is hardy to zone 3. It is in leaf all year, in flower in July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Tea.

The roasted seed is a coffee substitute[61, 177].

Leaves are a tea substitute[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover; Wax.

A commercial insect wax is produced on the branches as a result of eggs being laid by insects[11]. Another report says that the wax is produced by the plant due to the stimulation of the feeding insects[61]. Yet another report says that the wax is produced by the insects[178]. It is used for candles and as a polish for earthenware pots, book edges etc[178].

The sub-species L. obtusifolium regelianum and its cultivar 'Dart's Perfection' make a good carpeting ground cover about 1.2 metres tall. They should be spaced about 2.5 metres apart each way[208].

Cultivation details

A very tolerant and easily grown plant, it succeeds in any soil that is not impoverished or water-logged[11, 182]. Grows well in heavy clay soils.

A very ornamental plant[1]. Polymorphic[58].

Prefers hotter summers than are normally experienced in Britain[11].

Closely related to L. ovalifolium[200].

This species is notably susceptible to honey fungus[200].

Propagation

The seed does not require any pre-treatment and can be sown in the spring in a cold frame[113]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 10cm with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, 20 - 30cm in a sheltered outdoor bed in November/December. High percentage[78].

Cultivars

'Dart's Perfection'

> This form has a spreading habit of growth and makes a good carpeting ground cover about 1.2 metres tall. The plants should be spaced about 2.5 metres apart each way[208].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Plants For A Future: Database Search Results

Ligustrum obtusifolium

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Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Ligustrum ibota (Siebold.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, at least one member of this genus is recorded as being mildly toxic and it is quite possible that other members of the genus also contain toxins[65].		
Range:	E. Asia - China, Japan.		
Habitat:	Thin woods and thickets in lowland and hills all over Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. ciliatum[G] L. regelianum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Border Privet [B,P], Ibota-No-Ki [E],
Epithets:	From a Dictionary of Botanical Epithets
	obtusifolium = blunt leaved;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

An evergreen shrub growing to 3m. It is hardy to zone 3. It is in leaf all year, in flower in July, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Ground Cover.

Edible Uses

Coffee; Tea.

The roasted seed is a coffee substitute[61, 177].

Leaves are a tea substitute[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover; Wax.

A commercial insect wax is produced on the branches as a result of eggs being laid by insects[11]. Another report says that the wax is produced by the plant due to the stimulation of the feeding insects[61]. Yet another report says that the wax is produced by the insects[178]. It is used for candles and as a polish for earthenware pots, book edges etc[178].

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Cultivars

'Dart's Perfection'

> This form has a spreading habit of growth and makes a good carpeting ground cover about 1.2 metres tall. The plants should be spaced about 2.5 metres apart each way[208].

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Plant Information

Comment:

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ligustrum obtusifolium

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Plant Genera you would like this comment to be added to:

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Linum usitatissimum

Common name:	Flax	Family:	Linaceae
Author:	L.	Botanical references:	
Synonyms:			
Known Hazards:	The seed of some strains contain cyanogenic glycosides in the seed though the toxicity is low, especially if the seed is eaten slowly. It becomes more toxic if water is drunk at the same time[76, 222]. The cyanogenic glycosides are also present in other parts of the plant and have caused poisoning to livestock[240].		
Range:	Possibly native to Europe. A rare casual in Britain, the original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. L. crepitans[G] L. humile[B,G,P] L. usitatissimum subsp. transitorium[G] L. usitatissimum var. humile[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Ama [E], Annual Flax [H], Chih Ma [E], Common Flax [P,H,L], Cultivated Flax [B], Flax [H,S,MS,E,L], Flax, Common [S], Hu Ma [E], Kahtan [E], Keten [E], Kettan [E], Kittan [E], Lin [E], Linaza [E], Lino [E], Linseed [E,H], Linseed Flax [H], Vlas [D],
Epithets:	From a Dictionary of Botanical Epithets usitatissimum = most useful;
Systematics:	From a UDSA Plants Database

	Order: Linales . Flax family
Other Range Info:	From the Ethnobotany Database
	Belgium; Britain; China; Egypt; Ei; Germany; India; India(Santal); Iraq; Kurdistan; Mexico; Peru; Spain; Turkey; Us; Us(Amerindian); Us(Pa); Venezuela

Physical Characteristics

Annual growing to 0.7m by 0.2m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Foster'**: Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[61]. The seed contains 30 - 40% oil, which comprises mainly linoleic and linolenic acids[238]. The seed also contains cyanogenic glycosides (prussic acid). In small quantities these glycosides stimulate respiration and improve digestion, but in excess can cause respiratory failure and death[238]. Cultivars low in these glycosides have been developed and large quantities of the seed would need to be eaten to achieve a harmful dose. The seed is used in breads and cereals, it can also be sprouted and used in salads[183]. The seed is hard to digest and provokes flatulence[4]. A nutritional analysis is available[218].

The roasted seed is said to be a coffee substitute[183].

A herbal tea can be brewed from the seed[183].

An edible oil is obtained from the seed[183], though it needs to be properly refined before it can be eaten. Some caution is advised in the use of the seeds for food since some varieties of this plant contain toxins.

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 6.5 Calories: 498 Protein: 19 Fat: 35.5 Carbohydrate: 35.4 Fibre: 6.8 Ash: 3.5
In milligrammes per 100g weight of food:
Calcium: 220 Phosphorus: 415 Iron: 23 VitaminA: 0.03 Thiamine: 0.17 Riboflavin: 0.16 Niacin: 1.4
Source: [218]
Notes: The figures given here are the median of a range given in the report. Iron had an especially large range, from 2.7 - 43.8.

Medicinal Uses

Disclaimer

Analgesic; Cancer; Cardiotonic; Demulcent; Emollient; Expectorant; Laxative; Nervine; Pectoral; Resolvent; VD.

Linseed has a long history of medicinal use, its main effects being as a laxative and expectorant that soothes irritated tissues, controls coughing and relieves pain[238]. The seed, or the oil from the seed are normally used[238].

The seed is analgesic, demulcent, emollient, laxative, pectoral and resolvent[4, 9, 21, 46, 165, 218, 240]. The crushed seed makes a very useful poultice in the treatment of ulceration, abscesses and deep-seated inflammations[4, 244]. An infusion of the seed contains a good deal of mucilage and is a valuable domestic remedy for coughs, colds and inflammation of the urinary organs[4]. If the seed is bruised and then eaten straight away, it will swell considerably in the digestive tract and stimulate peristalsis[9] and so is used in the treatment of chronic constipation[238].

The oil in the seed contains 4% L-glutamic acid, which is used to treat mental deficiencies in adults[218]. It also has soothing and lubricating properties, and is used in medicines to soothe tonsillitis, sore throats, coughs, colds, constipation, gravel and stones[4, 244]. When mixed with an equal quantity of lime water it is used to treat burns and scalds[244].

The bark and the leaves are used in the treatment of gonorrhoea[240].

The flowers are cardiotonic and nervine[240].

The plant has a long history of folk use in the treatment of cancer[218]. It has been found to contain various anticancer agents[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that

Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Gum; Oil; Size.

A fibre is obtained from the stem[6, 7, 13, 57, 89]. It is of very high quality and is used in making cloth, sails, nets, paper, insulating material etc. The plant is harvested just after it flowers[115]. The yield is 0.5 to 0.9 tonnes of fibre per hectare. When used for paper making, the stems are harvested in late summer or autumn when they are two thirds yellow and are then retted[189]. The fibre is then stripped from the stem, cooked for two hours or more with lye and then beaten in a Hollander beater[189].

The seed contains 38 - 40% of a drying oil[141]. It has a very wide range of applications including as a wood preservative, an ingredient of oil-based paints, furniture polishes, printer's inks, soap making etc[46, 57, 244]. It is also used in the manufacture of linoleum[169].

A mucilage from the soaked or boiled seeds is used as a size for linen warps[169].

Cultivation details

Prefers a light well-drained moderately fertile humus-rich soil in a sunny sheltered position[200]. Prefers a cool moist climate[61]. A very greedy plant, depleting the soil[4, 123] and requiring a rich, well prepared soil if it is to do well[123]. Plants help to break up organic matter and prepare the soil for following crops[201].

Linseed has a very long history of cultivation in temperate climates. It fell into almost complete disuse in Britain in the 20th century as artificial fibres were increasingly used, but it is once again coming into prominence(1995)[K]. Linseed is grown for its edible seed, the oil from the seed and for the fibres obtained from the stems[46]. There are many named varieties, though these usually fall within with two classes. One class, generally known as flax, does not branch much and is grown mainly for the fibre in its stem, whilst the other class, known as linseed, branches much more freely and is grown mainly for its seed. Although classified as a species, linseed is possibly an ancient cultigen derived in cultivation from L. bienne[17, 238].

Linseed is a good companion plant for potatoes and carrots but is inhibited by Camelina sativa[18, 20].

Propagation

Seed - sow early to late spring in situ. Do not transplant the seedlings[238].

Cultivars

'Foster'

> The golden-yellow seeds have a mild flavour and are used for culinary purposes and for making oil - they are a sesame seed substitute[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

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- [HP] PhotoFrom Henriette's plant pictures
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References for the family Linaceae.

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

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[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Linum+usitatissimum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Linum+usitatissimum`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Linum usitatissimum

Common name:	Flax	Family:	Linaceae
Author:	L.	Botanical references:	
Synonyms:			
Known Hazards:	The seed of some strains contain cyanogenic glycosides in the seed though the toxicity is low, especially if the seed is eaten slowly. It becomes more toxic if water is drunk at the same time[76, 222]. The cyanogenic glycosides are also present in other parts of the plant and have caused poisoning to livestock[240].		
Range:	Possibly native to Europe. A rare casual in Britain, the original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. crepitans[G] L. humile[B,G,P] L. usitatissimum subsp. transitorium[G] L. usitatissimum var. humile[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ama [E], Annual Flax [H], Chih Ma [E], Common Flax [P,H,L], Cultivated Flax [B], Flax [H,S,MS,E,L], Flax, Common [S], Hu Ma [E], Kahtan [E], Keten [E], Kettan [E], Kittan [E], Lin [E], Linaza [E], Lino [E], Linseed [E,H], Linseed Flax [H], Vlas [D],
Epithets:	From a Dictionary of Botanical Epithets
	usitatissimum = most useful;
Systematics:	From a UDSA Plants Database
	Order: Linales . Flax family
Other Range Info:	From the Ethnobotany Database
	Belgium; Britain; China; Egypt; Ei; Germany; India; India(Santal); Iraq; Kurdistan; Mexico; Peru; Spain; Turkey; Us; Us(Amerindian); Us(Pa); Venezuela

Physical Characteristics

Annual growing to 0.7m by 0.2m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Foster'**: Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[61]. The seed contains 30 - 40% oil, which comprises mainly linoleic and linolenic acids[238]. The seed also contains cyanogenic glycosides (prussic acid). In small quantities these glycosides stimulate respiration and improve digestion, but in excess can cause respiratory failure and death[238]. Cultivars low in these glycosides have been developed and large quantities of the seed would need to be eaten to achieve a harmful dose. The seed is used in breads and cereals, it can also be sprouted and used in salads[183]. The seed is hard to digest and provokes flatulence[4]. A nutritional analysis is available[218].

The roasted seed is said to be a coffee substitute[183].

A herbal tea can be brewed from the seed[183].

An edible oil is obtained from the seed[183], though it needs to be properly refined before it can be eaten. Some caution is advised in the use of the seeds for food since some varieties of this plant contain toxins.

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 6.5 Calories: 498 Protein: 19 Fat: 35.5 Carbohydrate: 35.4 Fibre: 6.8 Ash: 3.5
In milligrammes per 100g weight of food:
Calcium: 220 Phosphorus: 415 Iron: 23 VitaminA: 0.03 Thiamine: 0.17 Riboflavin: 0.16

Niacin: 1.4
Source: [218]
Notes: The figures given here are the median of a range given in the report. Iron had an especially large range, from 2.7 - 43.8.

Medicinal Uses

Disclaimer

Analgesic; Cancer; Cardiotonic; Demulcent; Emollient; Expectorant; Laxative; Nervine; Pectoral; Resolvent; VD.

Linseed has a long history of medicinal use, its main effects being as a laxative and expectorant that soothes irritated tissues, controls coughing and relieves pain[238]. The seed, or the oil from the seed are normally used[238].

The seed is analgesic, demulcent, emollient, laxative, pectoral and resolvent[4, 9, 21, 46, 165, 218, 240]. The crushed seed makes a very useful poultice in the treatment of ulceration, abscesses and deep-seated inflammations[4, 244]. An infusion of the seed contains a good deal of mucilage and is a valuable domestic remedy for coughs, colds and inflammation of the urinary organs[4]. If the seed is bruised and then eaten straight away, it will swell considerably in the digestive tract and stimulate peristalsis[9] and so is used in the treatment of chronic constipation[238].

The oil in the seed contains 4% L-glutamic acid, which is used to treat mental deficiencies in adults[218]. It also has soothing and lubricating properties, and is used in medicines to soothe tonsillitis, sore throats, coughs, colds, constipation, gravel and stones[4, 244]. When mixed with an equal quantity of lime water it is used to treat burns and scalds[244].

The bark and the leaves are used in the treatment of gonorrhoea[240].

The flowers are cardiotonic and nervine[240].

The plant has a long history of folk use in the treatment of cancer[218]. It has been found to contain various anticancer agents[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Gum; Oil; Size.

A fibre is obtained from the stem[6, 7, 13, 57, 89]. It is of very high quality and is used in making cloth, sails, nets, paper, insulating material etc. The plant is harvested just after it flowers[115]. The yield is 0.5 to 0.9 tonnes of fibre per hectare. When used for paper making, the stems are harvested in late summer or autumn when they are two thirds yellow and are then retted[189]. The fibre is then stripped from the stem, cooked for two hours or more with lye and then beaten in a Hollander beater[189].

The seed contains 38 - 40% of a drying oil[141]. It has a very wide range of applications including as a wood preservative, an ingredient of oil-based paints, furniture polishes, printer's inks, soap making etc[46, 57, 244]. It is also used in the manufacture of linoleum[169].

A mucilage from the soaked or boiled seeds is used as a size for linen warps[169].

Cultivation details

Prefers a light well-drained moderately fertile humus-rich soil in a sunny sheltered position[200]. Prefers a cool moist climate[61]. A very greedy plant, depleting the soil[4, 123] and requiring a rich, well prepared soil if it is to do well[123]. Plants help to break up organic matter and prepare the soil for following crops[201].

Linseed has a very long history of cultivation in temperate climates. It fell into almost complete disuse in Britain in the 20th century as artificial fibres were increasingly used, but it is once again coming into prominence(1995)[K]. Linseed is grown for its edible seed, the oil from the seed and for the fibres obtained from the stems[46]. There are many named varieties, though these usually fall within with two classes. One class, generally known as flax, does not branch much and is grown mainly for the fibre in its stem, whilst the other class, known as linseed, branches much more freely and is grown mainly for its seed. Although classified as a species, linseed is possibly an ancient cultigen derived in cultivation from L. bienne[17, 238].

Linseed is a good companion plant for potatoes and carrots but is inhibited by Camelina sativa[18, 20].

Propagation

Seed - sow early to late spring in situ. Do not transplant the seedlings[238].

Cultivars

'Foster'

The golden-yellow seeds have a mild flavour and are used for culinary purposes and for making oil - they are a sesame seed substitute[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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References for *linum usitatissimum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

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References

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Plants For A Future: Database Search Results

Linum usitatissimum

Common name:	Flax	Family:	Linaceae
Author:	L.	Botanical references:	
Synonyms:			
Known Hazards:	The seed of some strains contain cyanogenic glycosides in the seed though the toxicity is low, especially if the seed is eaten slowly. It becomes more toxic if water is drunk at the same time[76, 222]. The cyanogenic glycosides are also present in other parts of the plant and have caused poisoning to livestock[240].		
Range:	Possibly native to Europe. A rare casual in Britain, the original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	usitatissimum = most useful;
Systematics:	From a UDSA Plants Database
	Order: Linales . Flax family
Other Range Info:	From the Ethnobotany Database
	Belgium; Britain; China; Egypt; Ei; Germany; India; India(Santal); Iraq; Kurdistan; Mexico; Peru; Spain; Turkey; Us; Us(Amerindian); Us(Pa); Venezuela

Physical Characteristics

Annual growing to 0.7m by 0.2m . It is hardy to zone 4 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Foster'**: Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[61]. The seed contains 30 - 40% oil, which comprises mainly linoleic and linolenic acids[238]. The seed also contains cyanogenic glycosides (prussic acid). In small quantities these glycosides stimulate respiration and improve digestion, but in excess can cause respiratory failure and death[238]. Cultivars low in these glycosides have been developed and large quantities of the seed would need to be eaten to achieve a harmful dose. The seed is used in breads and cereals, it can also be sprouted and used in salads[183]. The seed is hard to digest and provokes flatulence[4]. A nutritional analysis is available[218].

The roasted seed is said to be a coffee substitute[183].

A herbal tea can be brewed from the seed[183].

An edible oil is obtained from the seed[183], though it needs to be properly refined before it can be eaten. Some caution is advised in the use of the seeds for food since some varieties of this plant contain toxins.

Composition

Seed (Fresh weight)

> In grammes per 100g weight of food:
> Water: 6.5 Calories: 498 Protein: 19 Fat: 35.5 Carbohydrate: 35.4 Fibre: 6.8 Ash: 3.5
> In milligrammes per 100g weight of food:
> Calcium: 220 Phosphorus: 415 Iron: 23 VitaminA: 0.03 Thiamine: 0.17 Riboflavin: 0.16

Niacin: 1.4
Source: [218]
Notes: The figures given here are the median of a range given in the report. Iron had an especially large range, from 2.7 - 43.8.

Medicinal Uses

Disclaimer

Analgesic; Cancer; Cardiotonic; Demulcent; Emollient; Expectorant; Laxative; Nervine; Pectoral; Resolvent; VD.

Linseed has a long history of medicinal use, its main effects being as a laxative and expectorant that soothes irritated tissues, controls coughing and relieves pain[238]. The seed, or the oil from the seed are normally used[238].

The seed is analgesic, demulcent, emollient, laxative, pectoral and resolvent[4, 9, 21, 46, 165, 218, 240]. The crushed seed makes a very useful poultice in the treatment of ulceration, abscesses and deep-seated inflammations[4, 244]. An infusion of the seed contains a good deal of mucilage and is a valuable domestic remedy for coughs, colds and inflammation of the urinary organs[4]. If the seed is bruised and then eaten straight away, it will swell considerably in the digestive tract and stimulate peristalsis[9] and so is used in the treatment of chronic constipation[238].

The oil in the seed contains 4% L-glutamic acid, which is used to treat mental deficiencies in adults[218]. It also has soothing and lubricating properties, and is used in medicines to soothe tonsillitis, sore throats, coughs, colds, constipation, gravel and stones[4, 244]. When mixed with an equal quantity of lime water it is used to treat burns and scalds[244].

The bark and the leaves are used in the treatment of gonorrhoea[240].

The flowers are cardiotonic and nervine[240].

The plant has a long history of folk use in the treatment of cancer[218]. It has been found to contain various anticancer agents[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Gum; Oil; Size.

A fibre is obtained from the stem[6, 7, 13, 57, 89]. It is of very high quality and is used in making cloth, sails, nets, paper, insulating material etc. The plant is harvested just after it flowers[115]. The yield is 0.5 to 0.9 tonnes of fibre per hectare. When used for paper making, the stems are harvested in late summer or autumn when they are two thirds yellow and are then retted[189]. The fibre is then stripped from the stem, cooked for two hours or more with lye and then beaten in a Hollander beater[189].

The seed contains 38 - 40% of a drying oil[141]. It has a very wide range of applications including as a wood preservative, an ingredient of oil-based paints, furniture polishes, printer's inks, soap making etc[46, 57, 244]. It is also used in the manufacture of linoleum[169].

A mucilage from the soaked or boiled seeds is used as a size for linen warps[169].

Cultivation details

Prefers a light well-drained moderately fertile humus-rich soil in a sunny sheltered position[200]. Prefers a cool moist climate[61]. A very greedy plant, depleting the soil[4, 123] and requiring a rich, well prepared soil if it is to do well[123]. Plants help to break up organic matter and prepare the soil for following crops[201].

Linseed has a very long history of cultivation in temperate climates. It fell into almost complete disuse in Britain in the 20th century as artificial fibres were increasingly used, but it is once again coming into prominence(1995)[K]. Linseed is grown for its edible seed, the oil from the seed and for the fibres obtained from the stems[46]. There are many named varieties, though these usually fall within with two classes. One class, generally known as flax, does not branch much and is grown mainly for the fibre in its stem, whilst the other class, known as linseed, branches much more freely and is grown mainly for its seed. Although classified as a species, linseed is possibly an ancient cultigen derived in cultivation from L. bienne[17, 238].

Linseed is a good companion plant for potatoes and carrots but is inhibited by Camelina sativa[18, 20].

Propagation

Seed - sow early to late spring in situ. Do not transplant the seedlings[238].

Cultivars

'Foster'

> The golden-yellow seeds have a mild flavour and are used for culinary purposes and for making oil - they are a sesame seed substitute[183].

Suppliers

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Add a comment on: *Linum usitatissimum*

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Linum usitatissimum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Linum usitatissimum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Lithocarpus pachyphyllus

Common name:		Family:	Fagaceae
Author:	(Kurz.)Rehder.	Botanical references:	266
Synonyms:	Quercus pachyphylla (Kurz.)		
Known Hazards:	None known		
Range:	E. Asia - Himalayas from Sikkim and Manipur to China.		
Habitat:	1800 - 3000 metres[146]. Broad-leaved evergreen and mixed forests, mixed mesophytic forests at elevations of 800 - 3,200 metres in western China[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	pachyphyllus = thick leaved;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 25m. It is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed can be up to 20mm long and 30mm wide[266]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The seeds and bark are astringent[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - durable, moderately hard. Used for planking, shovels etc[146].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Plants For A Future: Database Search Results

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Range:	E. Asia - Himalayas from Sikkim and Manipur to China.		
Habitat:	1800 - 3000 metres[146]. Broad-leaved evergreen and mixed forests, mixed mesophytic forests at elevations of 800 - 3,200 metres in western China[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	pachyphyllus = thick leaved;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 25m. It is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed can be up to 20mm long and 30mm wide[266]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

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The seeds and bark are astringent[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

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A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

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Wood - durable, moderately hard. Used for planking, shovels etc[146].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

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Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

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Lithocarpus pachyphyllus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lithocarpus pachyphyllus

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Date: Sun May 16 02:47:09 2004

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Lotus tetragonolobus

Common name:	Asparagus pea	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:	Tetragonolobus purpurea (Moench.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Cultivated ground and vineyards.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. tetragonolubus[HORTIPLEX] Tetragonolobus purpureus[G,HPIC,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Winged Pea [P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.3m by 0.25m . . It is in flower from June to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed; Seedpod.

Young seedpods - raw or cooked[16, 27, 33]. Added to salads, cooked as a vegetable or added to soups, stews etc[183]. The taste is said to resemble asparagus[183]. Only the very young pods, when less than 25mm long, should be used, since the older pods quickly turn fibrous[183]. Considered by many to be a gourmet food, though it is not a very high yielding crop[K].

Seed - cooked. Used like peas[105, 177, 183].

The roasted seed is used as a coffee substitute[27, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil[1], preferring a rich light well-drained soil in a sunny position[33].

Occasionally cultivated for its edible young seedpods and also as an ornamental plant[16, 33].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and then sow in situ in the spring[33]. The seed usually germinates in 2 - 4 weeks at 15°c.

If seed is in short supply, it can be sown in pots in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in late spring or early summer[33].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Lotus tetragonolubus* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Tetragonolobus purpureus* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *tetragonolobus purpureus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

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An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

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Plants For A Future: Database Search Results

Lotus tetragonolobus

Common name:	Asparagus pea	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:	Tetragonolobus purpurea (Moench.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Cultivated ground and vineyards.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. tetragonolubus[HORTIPLEX] Tetragonolobus purpureus[G,HPIC,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Winged Pea [P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.3m by 0.25m . . It is in flower from June to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed; Seedpod.

Young seedpods - raw or cooked[16, 27, 33]. Added to salads, cooked as a vegetable or added to soups, stews etc[183]. The taste is said to resemble asparagus[183]. Only the very young pods, when less than 25mm long, should be used, since the older pods quickly turn fibrous[183]. Considered by many to be a gourmet food, though it is not a very high yielding crop[K].

Seed - cooked. Used like peas[105, 177, 183].

The roasted seed is used as a coffee substitute[27, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil[1], preferring a rich light well-drained soil in a sunny position[33].

Occasionally cultivated for its edible young seedpods and also as an ornamental plant[16, 33].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and then sow in situ in the spring[33]. The seed usually germinates in 2 - 4 weeks at 15°c.

If seed is in short supply, it can be sown in pots in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in late spring or early summer[33].

Suppliers

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Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Tetragonolobus purpureus* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

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References

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Synonyms:	Tetragonolobus purpurea (Moench.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Cultivated ground and vineyards.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. tetragonolubus[HORTIPLEX] Tetragonolobus purpureus[G,HPIC,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.3m by 0.25m . . It is in flower from June to August, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed; Seedpod.

Young seedpods - raw or cooked[16, 27, 33]. Added to salads, cooked as a vegetable or added to soups, stews etc[183]. The taste is said to resemble asparagus[183]. Only the very young pods, when less than 25mm long, should be used, since the older pods quickly turn fibrous[183]. Considered by many to be a gourmet food, though it is not a very high yielding crop[K].

Seed - cooked. Used like peas[105, 177, 183].

The roasted seed is used as a coffee substitute[27, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil[1], preferring a rich light well-drained soil in a sunny position[33].

Occasionally cultivated for its edible young seedpods and also as an ornamental plant[16, 33].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

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If seed is in short supply, it can be sown in pots in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in late spring or early summer[33].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Lotus tetragonolobus*

Subject:

Lotus tetragonolobus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lotus tetragonolobus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Add Comment Reset

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Lupinus albus

Common name:	White lupin	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:	Lupinus sativus		
Known Hazards:	The seed of many lupin species contain bitter-tasting toxic alkaloids, though there are often sweet varieties within that species that are completely wholesome[65, 76]. Taste is a very clear indicator. These toxic alkaloids can be leeched out of the seed by soaking it overnight and discarding the soak water. It may also be necessary to change the water once during cooking. Fungal toxins also readily invade the crushed seed and can cause chronic illness[65].		
Range:	S. Europe to Asia.		
Habitat:	Disturbed ground on acid soils[45, 50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. termis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Acibakla [E], Lupino [E], White Lupin [H], White Lupine [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	albus = white;

Systematics:	From a UDSA Plants Database Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database Italy; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 1.2m by 0.25m . . It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Primorsky'**: Cultivated Beds.
Cultivar **'Kiev'**: Cultivated Beds.
Cultivar **'Ultra'**: Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - cooked[2, 7, 50, 105, 132]. Used as a protein-rich vegetable or savoury dish in any of the ways that cooked beans are used, they can also be roasted or ground into a powder and mixed with cereal flours in making bread etc[183]. If the seed is bitter this is due to the presence of toxic alkaloids and the seed should be thoroughly leached by soaking it and then discarding the soak water before cooking[132]. Seeds contain 32 - 40% protein, 8 - 12% oil[160]. The roasted seeds can be used as a snack in much the same way as peanuts[183].

An edible oil is obtained from the seed[4, 7].

The roasted seed is used as a coffee substitute[7, 61, 105, 183].

Medicinal Uses

Disclaimer

Diuretic; Emmenagogue; Hypoglycaemic; Vermifuge.

The seeds, taken internally, are diuretic, emmenagogue, hypoglycaemic and vermifuge[4, 7]. When bruised and soaked in water they are used as a poultice on ulcers etc[4].

Other Uses

Cosmetic; Fibre; Green manure; Oil.

The seed contains up to 12% oil. This is used in making soap[7].

A fibre obtained from the stems is used for making cloth etc[4].

A cosmetic face-mask can be made from lupin flour, this is used to invigorate tired skin[7].

A useful spring-sown green manure crop, especially on light soils. It is deep rooting, fairly fast growing, produces a good bulk and fixes atmospheric nitrogen[7, 46, 61, 87].

Cultivation details

An easily grown plant, succeeding in any moderately good soil. It prefers a light acid soil but tolerates adverse conditions[87]. Requires a sunny position[200].

The white lupin is sometimes cultivated, especially in S. Europe, for its edible seed[50] and also as a green manure crop[4]. There are some named varieties, many of which have bitter seeds that contain toxic alkaloids and require leaching before they are eaten but some sweet varieties have also been developed[183]. These sweet varieties are perfectly wholesome as food for humans and include the cultivar 'Kiev'[183].

There is some confusion between this species and L. nanus[1].

A deep rooting plant[87].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and sow in mid spring in situ[1, 200]. You may need to protect the seed from mice. Germination should take place within 2 weeks.

Cultivars

'Ultra'

The low alkaloid seeds average 3170 seeds to the kilo[183]. The protein content is around 34.3%[183]. This is the cultivar most commonly used for sweet lupin pasta[183]. Plants mature after about 110 days from seed, flowering after 57 days[183]. They are fairly short, to 48cm tall[183].

'Strain 21'

The low alkaloid seeds average 3160 seeds to the kilo[183]. They contain no trypsin inhibitors. Crude fibre is about 12 - 15%[183]. Plants mature after about 114 days from seed, flowering after 56 days[183]. They are fairly short, to 50cm tall[183].

'Primorsky'

Maturing in 110 days from seed, the low-alkaloid seeds average 3430 seeds to the kilo[183]. The average protein content is 37.5% and oil varies from 9 - 13%[183]. A short plant, growing up to 45cm tall, it blooms early about 54 days after sowing[183].

'Kiev'

The seeds of this cultivar are very low in alkaloids and are free of any bitterness[183]. The nutritious seeds are high in digestible protein(40%)[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *lupinus albus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[45] **Polunin. O.** *Flowers of Greece and the Balkans.* Oxford University Press 1980 ISBN 0-19-217626-9
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[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[87] **Woodward. L. Burge. P.** *Green Manures.* Elm Farm Research Centre. 1982
Green manure crops for temperate areas. Quite a lot of information on a number of species.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Plants For A Future: Database Search Results

Lupinus albus

Common name:	White lupin	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:	Lupinus sativus		
Known Hazards:	The seed of many lupin species contain bitter-tasting toxic alkaloids, though there are often sweet varieties within that species that are completely wholesome[65, 76]. Taste is a very clear indicator. These toxic alkaloids can be leeched out of the seed by soaking it overnight and discarding the soak water. It may also be necessary to change the water once during cooking. Fungal toxins also readily invade the crushed seed and can cause chronic illness[65].		
Range:	S. Europe to Asia.		
Habitat:	Disturbed ground on acid soils[45, 50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. termis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Acibakla [E], Lupino [E], White Lupin [H], White Lupine [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	albus = white;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Italy; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 1.2m by 0.25m . . It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Primorsky'**: Cultivated Beds.
Cultivar **'Kiev'**: Cultivated Beds.
Cultivar **'Ultra'**: Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - cooked[2, 7, 50, 105, 132]. Used as a protein-rich vegetable or savoury dish in any of the ways that cooked beans are used, they can also be roasted or ground into a powder and mixed with cereal flours in making bread etc[183]. If the seed is bitter this is due to the presence of toxic alkaloids and the seed should be thoroughly leached by soaking it and then discarding the soak water before cooking[132]. Seeds contain 32 - 40% protein, 8 - 12% oil[160]. The roasted seeds can be used as a snack in much the same way as peanuts[183].

An edible oil is obtained from the seed[4, 7].

The roasted seed is used as a coffee substitute[7, 61, 105, 183].

Medicinal Uses

Disclaimer

Diuretic; Emmenagogue; Hypoglycaemic; Vermifuge.

The seeds, taken internally, are diuretic, emmenagogue, hypoglycaemic and vermifuge[4, 7]. When bruised and soaked in water they are used as a poultice on ulcers etc[4].

Other Uses

Cosmetic; Fibre; Green manure; Oil.

The seed contains up to 12% oil. This is used in making soap[7].

A fibre obtained from the stems is used for making cloth etc[4].

A cosmetic face-mask can be made from lupin flour, this is used to invigorate tired skin[7].

A useful spring-sown green manure crop, especially on light soils. It is deep rooting, fairly fast growing, produces a good bulk and fixes atmospheric nitrogen[7, 46, 61, 87].

Cultivation details

An easily grown plant, succeeding in any moderately good soil. It prefers a light acid soil but tolerates adverse conditions[87]. Requires a sunny position[200].

The white lupin is sometimes cultivated, especially in S. Europe, for its edible seed[50] and also as a green manure crop[4]. There are some named varieties, many of which have bitter seeds that contain toxic alkaloids and require leaching before they are eaten but some sweet varieties have also been developed[183]. These sweet varieties are perfectly wholesome as food for humans and include the cultivar 'Kiev'[183].

There is some confusion between this species and L. nanus[1].

A deep rooting plant[87].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and sow in mid spring in situ[1, 200]. You may need to protect the seed from mice. Germination should take place within 2 weeks.

Cultivars

'Ultra'

> The low alkaloid seeds average 3170 seeds to the kilo[183]. The protein content is around

34.3%[183]. This is the cultivar most commonly used for sweet lupin pasta[183]. Plants mature after about 110 days from seed, flowering after 57 days[183]. They are fairly short, to 48cm tall[183].

'Strain 21'

The low alkaloid seeds average 3160 seeds to the kilo[183]. They contain no trypsin inhibitors. Crude fibre is about 12 - 15%[183]. Plants mature after about 114 days from seed, flowering after 56 days[183]. They are fairly short, to 50cm tall[183].

'Primorsky'

Maturing in 110 days from seed, the low-alkaloid seeds average 3430 seeds to the kilo[183]. The average protein content is 37.5% and oil varies from 9 - 13%[183]. A short plant, growing up to 45cm tall, it blooms early about 54 days after sowing[183].

'Kiev'

The seeds of this cultivar are very low in alkaloids and are free of any bitterness[183]. The nutritious seeds are high in digestible protein(40%)[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [HP] PhotoFrom Henriette's plant pictures

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Plants For A Future: Database Search Results

Lupinus albus

Common name:	White lupin	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:	Lupinus sativus		
Known Hazards:	The seed of many lupin species contain bitter-tasting toxic alkaloids, though there are often sweet varieties within that species that are completely wholesome[65, 76]. Taste is a very clear indicator. These toxic alkaloids can be leeched out of the seed by soaking it overnight and discarding the soak water. It may also be necessary to change the water once during cooking. Fungal toxins also readily invade the crushed seed and can cause chronic illness[65].		
Range:	S. Europe to Asia.		
Habitat:	Disturbed ground on acid soils[45, 50].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. termis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Acibakla [E], Lupino [E], White Lupin [H], White Lupine [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	albus = white;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Italy; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 1.2m by 0.25m . . It is in flower from June to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Primorsky'**: Cultivated Beds.
Cultivar **'Kiev'**: Cultivated Beds.
Cultivar **'Ultra'**: Cultivated Beds.

Edible Uses

Coffee; Oil; Seed.

Seed - cooked[2, 7, 50, 105, 132]. Used as a protein-rich vegetable or savoury dish in any of the ways that cooked beans are used, they can also be roasted or ground into a powder and mixed with cereal flours in making bread etc[183]. If the seed is bitter this is due to the presence of toxic alkaloids and the seed should be thoroughly leached by soaking it and then discarding the soak water before cooking[132]. Seeds contain 32 - 40% protein, 8 - 12% oil[160]. The roasted seeds can be used as a snack in much the same way as peanuts[183].

An edible oil is obtained from the seed[4, 7].

The roasted seed is used as a coffee substitute[7, 61, 105, 183].

Medicinal Uses

Disclaimer

Diuretic; Emmenagogue; Hypoglycaemic; Vermifuge.

The seeds, taken internally, are diuretic, emmenagogue, hypoglycaemic and vermifuge[4, 7]. When bruised and soaked in water they are used as a poultice on ulcers etc[4].

Other Uses

Cosmetic; Fibre; Green manure; Oil.

The seed contains up to 12% oil. This is used in making soap[7].

A fibre obtained from the stems is used for making cloth etc[4].

A cosmetic face-mask can be made from lupin flour, this is used to invigorate tired skin[7].

A useful spring-sown green manure crop, especially on light soils. It is deep rooting, fairly fast growing, produces a good bulk and fixes atmospheric nitrogen[7, 46, 61, 87].

Cultivation details

An easily grown plant, succeeding in any moderately good soil. It prefers a light acid soil but tolerates adverse conditions[87]. Requires a sunny position[200].

The white lupin is sometimes cultivated, especially in S. Europe, for its edible seed[50] and also as a green manure crop[4]. There are some named varieties, many of which have bitter seeds that contain toxic alkaloids and require leaching before they are eaten but some sweet varieties have also been developed[183]. These sweet varieties are perfectly wholesome as food for humans and include the cultivar 'Kiev'[183].

There is some confusion between this species and L. nanus[1].

A deep rooting plant[87].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and sow in mid spring in situ[1, 200]. You may need to protect the seed from mice. Germination should take place within 2 weeks.

Cultivars

'Ultra'

> The low alkaloid seeds average 3170 seeds to the kilo[183]. The protein content is around

34.3%[183]. This is the cultivar most commonly used for sweet lupin pasta[183]. Plants mature after about 110 days from seed, flowering after 57 days[183]. They are fairly short, to 48cm tall[183].

'Strain 21'

The low alkaloid seeds average 3160 seeds to the kilo[183]. They contain no trypsin inhibitors. Crude fibre is about 12 - 15%[183]. Plants mature after about 114 days from seed, flowering after 56 days[183]. They are fairly short, to 50cm tall[183].

'Primorsky'

Maturing in 110 days from seed, the low-alkaloid seeds average 3430 seeds to the kilo[183]. The average protein content is 37.5% and oil varies from 9 - 13%[183]. A short plant, growing up to 45cm tall, it blooms early about 54 days after sowing[183].

'Kiev'

The seeds of this cultivar are very low in alkaloids and are free of any bitterness[183]. The nutritious seeds are high in digestible protein(40%)[183].

Suppliers

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Lupinus albus

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Plant Information

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Name of Site:	
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Plant names you would like this comment to be added to:

Lupinus albus

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Lupinus luteus

Common name:	Yellow lupin	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:	Lupinus odoratus (Heller.)		
Known Hazards:	The seed of many lupin species contain bitter-tasting toxic alkaloids, though there are often sweet varieties within that species that are completely wholesome[65, 76]. Taste is a very clear indicator. These toxic alkaloids can be leeched out of the seed by soaking it overnight and discarding the soak water. It may also be necessary to change the water once during cooking[K]. Fungal toxins also readily invade the crushed seed and can cause chronic illness[65].		
Range:	Europe - Italy and the Mediterranean.		
Habitat:	Light acid soils[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. formosus var. formosus[B,C,P] L. lutosus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	European Yellow Lupine [P,B], Gele Lupine [D], Mojave Royal Lupine [B,P], Summer Lupine [P], Yellow Lupin [H],
Epithets:	From a Dictionary of Botanical Epithets
	luteus = yellow;

Systematics:	From a UDSA Plants Database Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database India
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.6m by 0.25m . It is hardy to zone 6. It is in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 46, 105]. Used as a protein-rich vegetable or savoury dish in any of the ways that cooked beans are used. The seed can also be ground into a powder and be mixed with cereal flours for making bread etc[183]. If the seed is bitter this is due to the presence of toxic alkaloids and the seed should not be eaten without treatment[183]. These alkaloids can usually be removed by soaking the seed in 2 or 3 changes of water. Low alkaloid varieties were developed prior to 1930 by Von Sengbusch[183].

The roasted seed is a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Green manure.

A good green manure for poor soils, it is quite fast growing and fixes atmospheric nitrogen[50, 61, 87]. It is commonly grown as a soil improver in southern Europe[245].

Cultivation details

An easily grown plant, succeeding in any moderately good soil in a sunny position[1, 200]. Succeeds in poor soils[46]. Requires an acid to neutral soil[200].

Cultivated for its edible seed in Italy[2], there are a number of varieties with sweet tasting seeds[183].

The flowers have a delicious vanilla-like perfume, the cultivar 'Romulus' has been especially mentioned[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and sow in mid spring in situ[1, 200]. You may need to protect the seed from mice. Germination should take place within 2 weeks.

The seed can also be sown in situ as late as early summer as a green manure crop.

Scent

Flowers: Fresh

> The flowers have a delicious vanilla-like perfume[245].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Lupinus formosus var. formosus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
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- [C] Taxon data. from the CalFlora database.
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References for *lupinus luteus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8 An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Lupinus luteus

Common name:	Yellow lupin	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:	Lupinus odoratus (Heller.)		
Known Hazards:	The seed of many lupin species contain bitter-tasting toxic alkaloids, though there are often sweet varieties within that species that are completely wholesome[65, 76]. Taste is a very clear indicator. These toxic alkaloids can be leeched out of the seed by soaking it overnight and discarding the soak water. It may also be necessary to change the water once during cooking[K]. Fungal toxins also readily invade the crushed seed and can cause chronic illness[65].		
Range:	Europe - Italy and the Mediterranean.		
Habitat:	Light acid soils[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. formosus var. formosus[B,C,P] L. lutosus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	European Yellow Lupine [P,B], Gele Lupine [D], Mojave Royal Lupine [B,P], Summer Lupine [P], Yellow Lupin [H],
Epithets:	From a Dictionary of Botanical Epithets
	luteus = yellow;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	India

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.6m by 0.25m . It is hardy to zone 6. It is in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 46, 105]. Used as a protein-rich vegetable or savoury dish in any of the ways that cooked beans are used. The seed can also be ground into a powder and be mixed with cereal flours for making bread etc[183]. If the seed is bitter this is due to the presence of toxic alkaloids and the seed should not be eaten without treatment[183]. These alkaloids can usually be removed by soaking the seed in 2 or 3 changes of water. Low alkaloid varieties were developed prior to 1930 by Von Sengbusch[183].

The roasted seed is a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Green manure.

A good green manure for poor soils, it is quite fast growing and fixes atmospheric nitrogen[50, 61, 87]. It is commonly grown as a soil improver in southern Europe[245].

Cultivation details

An easily grown plant, succeeding in any moderately good soil in a sunny position[1, 200]. Succeeds in poor soils[46]. Requires an acid to neutral soil[200].

Cultivated for its edible seed in Italy[2], there are a number of varieties with sweet tasting seeds[183].

The flowers have a delicious vanilla-like perfume, the cultivar 'Romulus' has been especially mentioned[245].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and sow in mid spring in situ[1, 200]. You may need to protect the seed from mice. Germination should take place within 2 weeks.

The seed can also be sown in situ as late as early summer as a green manure crop.

Scent

Flowers: Fresh

> The flowers have a delicious vanilla-like perfume[245].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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References for *Lupinus formosus var. formosus* (a possible synonym).

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References for *Lupinus odoratus* (a possible synonym).

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Readers Comments

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Plants For A Future: Database Search Results

Lupinus luteus

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Author:	L.	Botanical references:	50, 200
Synonyms:	Lupinus odoratus (Heller.)		
Known Hazards:	The seed of many lupin species contain bitter-tasting toxic alkaloids, though there are often sweet varieties within that species that are completely wholesome[65, 76]. Taste is a very clear indicator. These toxic alkaloids can be leeched out of the seed by soaking it overnight and discarding the soak water. It may also be necessary to change the water once during cooking[K]. Fungal toxins also readily invade the crushed seed and can cause chronic illness[65].		
Range:	Europe - Italy and the Mediterranean.		
Habitat:	Light acid soils[50].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. L. formosus var. formosus[B,C,P] L. lutosus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. European Yellow Lupine [P,B], Gele Lupine [D], Mojave Royal Lupine [B,P], Summer Lupine [P], Yellow Lupin [H],
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Systematics:	From a UDSA Plants Database Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database India

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.6m by 0.25m . It is hardy to zone 6. It is in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 46, 105]. Used as a protein-rich vegetable or savoury dish in any of the ways that cooked beans are used. The seed can also be ground into a powder and be mixed with cereal flours for making bread etc[183]. If the seed is bitter this is due to the presence of toxic alkaloids and the seed should not be eaten without treatment[183]. These alkaloids can usually be removed by soaking the seed in 2 or 3 changes of water. Low alkaloid varieties were developed prior to 1930 by Von Sengbusch[183].

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Medicinal Uses

Disclaimer

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The seed can also be sown in situ as late as early summer as a green manure crop.

Scent

Flowers: Fresh

> The flowers have a delicious vanilla-like perfume[245].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Lupinus luteus

Group:
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Enter your comment about this plant here.

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Name of Site:

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Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Lupinus luteus

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Lycium chinense

Common name:	Chinese boxthorn	Family:	Solanaceae
Author:	Mill.	Botanical references:	11, 58, 200
Synonyms:	Lycium ovatum (Loisel.)		
Known Hazards:	Some caution should be exercised with this species, particularly with regard to its edible leaves, since it belongs to a family that often contains toxins. However, use of the leaves is well documented and fairly widespread in some areas.		
Range:	E. Asia - China, Japan. Naturalized in Britain, especially by the sea.		
Habitat:	Thickets and river banks in lowland C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. chinense var. chinense[G] L. chinense var. ovatum[G] L. chinensis[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Desertthorn [P], Chinese Matrimony-vine [B], Chinese Wolfberry [H], Hsien Jen Chang [E], Ko-chi [H], Kou Chi [E], Kou Chi Chien [E], Kou Chi Chiu [E], Kuko [E,H], T'Ien Ts'Ai [E], Ti Ku P'I [E], Yang Ju [E],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family

Other Range Info:	From the Ethnobotany Database China; Japan; Java; Malaya (Import)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 2.5m by 2m at a medium rate. It is hardy to zone 6. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked in soups etc or dried for later use[174, 178, 183]. Sweet with an aniseed-like flavour[183]. The fruit is a berry about 25mm in diameter[200]. Only the fully ripe fruits should be eaten[K].

Leaves and young shoots - raw or cooked[61, 174, 178]. A peppermint-like flavour, the leaves are used in salads or used as a potherb[183]. Rich in vitamin A., the leaves also contain about 3.9% protein, 2.25% carbohydrate, 0.7% fat, 1.4% ash[179].

The roasted seed is a coffee substitute[183].

The dried leaves are a tea substitute[183].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 279 Protein: 39.4 Fat: 5.8 Carbohydrate: 38.5 Fibre: 12.5 Ash: 16.3
In milligrammes per 100g weight of food:

Calcium: 1423 Phosphorus: 414 Iron: 51.9 Sodium: 1836 Potassium: 4981 VitaminA: 43
Thiamine: 0.77 Riboflavin: 2.98 Niacin: 7.69 VitaminC: 77
Source: [218]

Medicinal Uses

Disclaimer

Antibacterial; Antipyretic; Cancer; Haemostatic; Hepatic; Hypoglycaemic; Infertility; Kidney; Ophthalmic; Tonic; Vasodilator.

Chinese boxthorn is a major Chinese tonic herb with a history of almost 2,000 years of medicinal use[254]. Both the berries and the root are used and traditionally the plant is believed to promote long life[254].

The fruit is one of the most popular tonics used in Chinese herbal medicine[176, 218]. A decoction is used to clear the vision, strengthen the kidneys, restore semen and nourish the liver[147]. The fruit protects the liver from damage caused by exposure to toxins[254]. It is also used in the treatment of diabetes mellitus, vertigo, nocturnal emissions and aching back and legs[176].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

The seed is used as a haemostat for the control of bleeding, with a special action on the kidneys and sex organs[218].

The root bark is antibacterial, antipyretic, hepatic, hypoglycaemic and vasodilator[176]. It stimulates the parasympathetic nervous system, which controls involuntary bodily functions such as digestive secretions[254]. The root is used in the treatment of pulmonary tuberculosis and pneumonia in small children[147], chronic febrile disease, night sweats, cough and asthma, tuberculosis, hypertension and diabetes mellitus[176]. The root can be harvested at any time of the year but traditionally it is harvested in the spring and can be dried for later use[254].

The root bark contains betaine. This can increase the rate of growth of farm animals and increase the weight and amount of eggs, it is used in the treatment of achlorhydria, atherosclerosis and hepatic diseases[176].

Haemostatic[174].

Other Uses

Hedge; Soil stabilization.

Can be grown as an informal hedge, succeeding in maritime exposure[200].

Plants have an extensive root system and can be planted to stabilize banks[200].

Cultivation details

An easily grown plant, it does not require a rich soil, flowering and fruiting better in a well-drained soil of moderate quality[1, 11, 200]. Succeeds in impoverished soils[200]. Requires a sunny position[200]. Tolerates maritime exposure[200].

A very hardy plant, tolerating temperatures down to about -23°c[200].

This species is widely cultivated for its edible young shoots in China.

There is much confusion between this species and the closely related L. barbarum. Most, if not all, of the plants being grown as L. chinense in Britain are in fact L.barbarum[11, 50, 200].

Propagation

Seed - sow early spring in a greenhouse. Germination is usually good and fairly quick. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer. Pinch out the shoot tips of the young plants in order to encourage bushy growth[78].

Cuttings of half-ripe wood, 5 - 10cm with a heel if possible, July/August in individual pots in a frame. Good percentage[78].

Cuttings of mature wood of the current season's growth, autumn to late winter in a cold frame. High percentage[78, 200].

Division of suckers in late winter. Very easy, the suckers can be planted out direct into their permanent positions.

Layering.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: L-O
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Lycium chinense var. chinense* (a possible synonym).

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- [HP] PhotoFrom Henriette's plant pictures
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References for the family Solanaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with

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Readers Comments

Lycium chinense

deb (deb.harper@verizon.net) Sun Sep 14 17:32:25 2003

you list lycium, I am looking to buy a lycium tibetica or tibetan gojiberry shrub. Do you know where I may find either one. Thanks

---

Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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WEB search engine by Rich Morris - Home Page- Contact Info

Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Lycium+chinense`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Lycium+chinense`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Lycium chinense

Common name:	Chinese boxthorn	Family:	Solanaceae
Author:	Mill.	Botanical references:	11, 58, 200
Synonyms:	Lycium ovatum (Loisel.)		
Known Hazards:	Some caution should be exercised with this species, particularly with regard to its edible leaves, since it belongs to a family that often contains toxins. However, use of the leaves is well documented and fairly widespread in some areas.		
Range:	E. Asia - China, Japan. Naturalized in Britain, especially by the sea.		
Habitat:	Thickets and river banks in lowland C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. chinense var. chinense[G] L. chinense var. ovatum[G] L. chinensis[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Desertthorn [P], Chinese Matrimony-vine [B], Chinese Wolfberry [H], Hsien Jen Chang [E], Ko-chi [H], Kou Chi [E], Kou Chi Chien [E], Kou Chi Chiu [E], Kuko [E,H], T'Ien Ts'Ai [E], Ti Ku P'I [E], Yang Ju [E],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Java; Malaya (Import)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 2.5m by 2m at a medium rate. It is hardy to zone 6. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked in soups etc or dried for later use[174, 178, 183]. Sweet with an aniseed-like flavour[183]. The fruit is a berry about 25mm in diameter[200]. Only the fully ripe fruits should be eaten[K].

Leaves and young shoots - raw or cooked[61, 174, 178]. A peppermint-like flavour, the leaves are used in salads or used as a potherb[183]. Rich in vitamin A., the leaves also contain about 3.9% protein, 2.25% carbohydrate, 0.7% fat, 1.4% ash[179].

The roasted seed is a coffee substitute[183].

The dried leaves are a tea substitute[183].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 279 Protein: 39.4 Fat: 5.8 Carbohydrate: 38.5 Fibre: 12.5 Ash: 16.3
In milligrammes per 100g weight of food:
Calcium: 1423 Phosphorus: 414 Iron: 51.9 Sodium: 1836 Potassium: 4981 VitaminA: 43
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Source: [218]

Medicinal Uses

Disclaimer

Antibacterial; Antipyretic; Cancer; Haemostatic; Hepatic; Hypoglycaemic; Infertility; Kidney; Ophthalmic; Tonic; Vasodilator.

Chinese boxthorn is a major Chinese tonic herb with a history of almost 2,000 years of medicinal use[254]. Both the berries and the root are used and traditionally the plant is believed to promote long life[254].

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The root bark contains betaine. This can increase the rate of growth of farm animals and increase the weight and amount of eggs, it is used in the treatment of achlorhydria, atherosclerosis and hepatic diseases[176].

Haemostatic[174].

Other Uses

Hedge; Soil stabilization.

Can be grown as an informal hedge, succeeding in maritime exposure[200].

Plants have an extensive root system and can be planted to stabilize banks[200].

Cultivation details

An easily grown plant, it does not require a rich soil, flowering and fruiting better in a well-drained soil of moderate quality[1, 11, 200]. Succeeds in impoverished soils[200]. Requires a sunny position[200]. Tolerates maritime exposure[200].

A very hardy plant, tolerating temperatures down to about -23°c[200].

This species is widely cultivated for its edible young shoots in China.

There is much confusion between this species and the closely related L. barbarum. Most, if not all, of the plants being grown as L. chinense in Britain are in fact L.barbarum[11, 50, 200].

Propagation

Seed - sow early spring in a greenhouse. Germination is usually good and fairly quick. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer. Pinch out the shoot tips of the young plants in order to encourage bushy growth[78].

Cuttings of half-ripe wood, 5 - 10cm with a heel if possible, July/August in individual pots in a frame. Good percentage[78].

Cuttings of mature wood of the current season's growth, autumn to late winter in a cold frame. High percentage[78, 200].

Division of suckers in late winter. Very easy, the suckers can be planted out direct into their permanent positions.

Layering.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

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Readers Comments

Lycium chinense

deb (deb.harper@verizon.net) Sun Sep 14 17:32:25 2003

you list lycium, I am looking to buy a lycium tibetica or tibetan gojiberry shrub. Do you know where I may find either one. Thanks

---

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Lycium+chinense`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Lycium+chinense`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Lycium chinense

Common name:	Chinese boxthorn	Family:	Solanaceae
Author:	Mill.	Botanical references:	11, 58, 200
Synonyms:	Lycium ovatum (Loisel.)		
Known Hazards:	Some caution should be exercised with this species, particularly with regard to its edible leaves, since it belongs to a family that often contains toxins. However, use of the leaves is well documented and fairly widespread in some areas.		
Range:	E. Asia - China, Japan. Naturalized in Britain, especially by the sea.		
Habitat:	Thickets and river banks in lowland C. and S. Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Java; Malaya (Import)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw, cooked in soups etc or dried for later use[174, 178, 183]. Sweet with an aniseed-like flavour[183]. The fruit is a berry about 25mm in diameter[200]. Only the fully ripe fruits should be eaten[K].

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Other Uses

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Cultivation details

An easily grown plant, it does not require a rich soil, flowering and fruiting better in a well-drained soil of moderate quality[1, 11, 200]. Succeeds in impoverished soils[200]. Requires a sunny position[200]. Tolerates maritime exposure[200].

A very hardy plant, tolerating temperatures down to about -23°c[200].

This species is widely cultivated for its edible young shoots in China.

There is much confusion between this species and the closely related L. barbarum. Most, if not all, of the plants being grown as L. chinense in Britain are in fact L.barbarum[11, 50, 200].

Propagation

Seed - sow early spring in a greenhouse. Germination is usually good and fairly quick. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer. Pinch out the shoot tips of the young plants in order to encourage bushy growth[78].

Cuttings of half-ripe wood, 5 - 10cm with a heel if possible, July/August in individual pots in a frame. Good percentage[78].

Cuttings of mature wood of the current season's growth, autumn to late winter in a cold frame. High percentage[78, 200].

Division of suckers in late winter. Very easy, the suckers can be planted out direct into their permanent positions.

Layering.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Lycium chinense*

Subject:

Lycium chinense

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lycium chinense

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Mahonia swaseyi

Common name:	Texas mahonia	Family:	Berberidaceae
Author:	(Buckland.) Fedde.	Botanical references:	11, 270
Synonyms:	Berberis swaseyi (Buckley.)		
Known Hazards:	None known		
Range:	South-western N. America.		
Habitat:	Besides rocky streams in Texas. Endemic to the Edwards Plateau in Texas, where it grows on limestone ridges and canyons at elevations of 150-600 metres[270].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Berberis swaseyi[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Texas Oregon-grape [B], Texas Oregongrape [P],
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family

Physical Characteristics

An evergreen shrub growing to 2.5m. It is hardy to zone 8. It is in leaf all year, in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw but more usually cooked in preserves[183]. Pleasantly acid, it can also be dried and used as raisins[183]. Unfortunately, there is relatively little flesh and a lot of seeds[K]. The fruit, which can be dry or juicy, is up to 15mm in diameter[183, 270].

The roasted seed is a coffee substitute[183].

Medicinal Uses

Disclaimer

Antibacterial; Antitumor; Tonic.

Berberine, universally present in rhizomes of Mahonia species, has marked antibacterial effects[218] and is used as a bitter tonic[213]. Since it is not appreciably absorbed by the body, it is used orally in the treatment of various enteric infections, especially bacterial dysentery[218]. It should not be used with Glycyrrhiza species (Liquorice) because this nullifies the effects of the berberine[218]. Berberine has also shown antitumour activity[218]. The root and root bark are best harvested in the autumn[213].

Other Uses

None known

Cultivation details

Unlike most members of the genus, this species requires a dry, perfectly drained position in full sun, a gritty slightly acid soil is best[200]. It does well in a hot, dry position[200] and grows best on a sunny south facing wall[11]. It requires as sunny a position as possible[11, 200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

This plant has been recommended for improvement by selection and breeding as an edible fruit[183].

Closely related to M. haematocarpa, differing mainly in having broadly ovate bracts up to 8mm long[11]. It is also closely related to M. nevinii[200].

Propagation

Seed - best sown as soon as it is ripe in a greenhouse[78]. It usually germinates in the spring[K]. 'Green' seed (harvested when the embryo has fully developed but before the seed case has dried) should be sown as soon as it is harvested and germinates within 6 weeks[K]. Stored seed should be sown as soon as possible in late winter or spring. 3 weeks cold stratification will improve its germination, which should take place in 3 - 6 months at 10°c. Prick out the seedlings when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant them out in late spring or early summer and consider giving them some protection from the cold for their next winter.

Division of suckers in spring[78]. Whilst they can be placed direct into their permanent positions, better results are achieved if they are potted up and placed in a frame until established[11].

Leaf cuttings in the autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Berberidaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

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[270] *Flora of N. America* 0
An on-line version of the flora with an excellent description of the plant including a brief mention of plant uses.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Mahonia swaseyi

Common name:	Texas mahonia	Family:	Berberidaceae
Author:	(Buckland.) Fedde.	Botanical references:	11, 270
Synonyms:	Berberis swaseyi (Buckley.)		
Known Hazards:	None known		
Range:	South-western N. America.		
Habitat:	Besides rocky streams in Texas. Endemic to the Edwards Plateau in Texas, where it grows on limestone ridges and canyons at elevations of 150-600 metres[270].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Berberis swaseyi[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Texas Oregon-grape [B], Texas Oregongrape [P],
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family

Physical Characteristics

An evergreen shrub growing to 2.5m. It is hardy to zone 8. It is in leaf all year, in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw but more usually cooked in preserves[183]. Pleasantly acid, it can also be dried and used as raisins[183]. Unfortunately, there is relatively little flesh and a lot of seeds[K]. The fruit, which can be dry or juicy, is up to 15mm in diameter[183, 270].

The roasted seed is a coffee substitute[183].

Medicinal Uses

Disclaimer

Antibacterial; Antitumor; Tonic.

Berberine, universally present in rhizomes of Mahonia species, has marked antibacterial effects[218] and is used as a bitter tonic[213]. Since it is not appreciably absorbed by the body, it is used orally in the treatment of various enteric infections, especially bacterial dysentery[218]. It should not be used with Glycyrrhiza species (Liquorice) because this nullifies the effects of the berberine[218]. Berberine has also shown antitumour activity[218]. The root and root bark are best harvested in the autumn[213].

Other Uses

None known

Cultivation details

Unlike most members of the genus, this species requires a dry, perfectly drained position in full sun, a gritty slightly acid soil is best[200]. It does well in a hot, dry position[200] and grows best on a sunny south facing wall[11]. It requires as sunny a position as possible[11, 200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

This plant has been recommended for improvement by selection and breeding as an edible fruit[183].

Closely related to M. haematocarpa, differing mainly in having broadly ovate bracts up to 8mm long[11]. It is also closely related to M. nevinii[200].

Propagation

Seed - best sown as soon as it is ripe in a greenhouse[78]. It usually germinates in the spring[K]. 'Green' seed (harvested when the embryo has fully developed but before the seed case has dried) should be sown as soon as it is harvested and germinates within 6 weeks[K]. Stored seed should be sown as soon as possible in late winter or spring. 3 weeks cold stratification will improve its germination, which should take place in 3 - 6 months at 10°c. Prick out the seedlings when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant them out in late spring or early summer and consider giving them some protection from the cold for their next winter.

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Range:	South-western N. America.		
Habitat:	Besides rocky streams in Texas. Endemic to the Edwards Plateau in Texas, where it grows on limestone ridges and canyons at elevations of 150-600 metres[270].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Texas Oregon-grape [B], Texas Oregongrape [P],
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family

Physical Characteristics

An evergreen shrub growing to 2.5m. It is hardy to zone 8. It is in leaf all year, in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

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The roasted seed is a coffee substitute[183].

Medicinal Uses

Disclaimer

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Other Uses

None known

Cultivation details

Unlike most members of the genus, this species requires a dry, perfectly drained position in full sun, a gritty slightly acid soil is best[200]. It does well in a hot, dry position[200] and grows best on a sunny south facing wall[11]. It requires as sunny a position as possible[11, 200].

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Closely related to M. haematocarpa, differing mainly in having broadly ovate bracts up to 8mm long[11]. It is also closely related to M. nevinii[200].

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Division of suckers in spring[78]. Whilst they can be placed direct into their permanent positions, better results are achieved if they are potted up and placed in a frame until established[11].

Leaf cuttings in the autumn.

Suppliers

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Plants For A Future - Readers Comments

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Add a comment on: *Mahonia swaseyi*

Subject:

Mahonia swaseyi

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Mahonia swaseyi

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:48:03 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Mahonia trifoliolata

Common name:	Mexican barberry	Family:	Berberidaceae
Author:	(Moric.) Fedde.	Botanical references:	11, 200
Synonyms:	Berberis trifoliolata (Moricand.), Berberis trifoliata, Berberis roemeriana		
Known Hazards:	None known		
Range:	South-western N. America - Texas, Arizona, Mexico.		
Habitat:	Dry calcareous soils[67].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Berberis trifoliata var. glauca[P] Berberis trifoliolata var. glauca[B,P] M. trifoliata var. glauca[P] M. trifoliolata var. glauca[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Agarito [FEIS], Algerita [P],
Epithets:	From a Dictionary of Botanical Epithets
	trifoliolata = trifoliolate;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[2, 3, 85]. An acid flavour but nice, especially when added to porridges or muesli[K]. A subtle tart flavour, it is pleasant to eat raw[183]. Unfortunately there is relatively little flesh and a lot of seeds[K]. The fruit is also used to make preserves[149, 183].

The roasted seed is a coffee substitute[149].

Medicinal Uses

Disclaimer

Antibacterial; Antitumor; Tonic.

Berberine, universally present in rhizomes of Mahonia species, has marked antibacterial effects[218] and is used as a bitter tonic[181, 213]. Since it is not appreciably absorbed by the body, it is used orally in the treatment of various enteric infections, especially bacterial dysentery[218]. It should not be used with Glycyrrhiza species (Liquorice) because this nullifies the effects of the berberine[218]. Berberine has also shown antitumour activity[218]. The root and root bark are best harvested in the autumn[213].

Other Uses

Dye; Hedge; Ink; Tannin.

A yellow dye is obtained from the inner bark of the stem and roots[46, 61, 149, 181]. It is green according to another report[168].

An ink is made from the wood[46, 61].

Dark green, violet and dark blue-purple dyes are obtained from the fruit[168].

A green dye is obtained from the leaves[168].

Makes a good hedge[149].

The wood is a source of tannin[46].

Cultivation details

Unlike most members of the genus, this species requires a dry, perfectly drained position in full sun, a gritty slightly acid soil is best[200]. It does well in a hot, dry position[167]. Succeeds in a good garden soil[11].

The form in general cultivation in Britain (M. trifoliolata glauca. I.M.Johnst.) comes from the southern part of its range[67], it is only hardy on a sunny wall in this country or as a free-standing shrub in the very mildest areas[3, 11]. The young growth in spring can be damaged by late frosts.

A good bee plant[149].

Resistant to honey fungus[88].

Propagation

Seed - best sown as soon as it is ripe in a greenhouse[78]. It usually germinates in the spring[K]. 'Green' seed (harvested when the embryo has fully developed but before the seed case has dried) should be sown as soon as it is harvested and germinates within 6 weeks[K]. Stored seed should be sown as soon as possible in late winter or spring. 3 weeks cold stratification will improve its germination, which should take place in 3 - 6 months at 10°c. Prick out the seedlings when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant them out in late spring or early summer and consider giving them some protection from the cold for their next winter.

Division of suckers in spring[78]. Whilst they can be placed direct into their permanent positions, better results are achieved if they are potted up and placed in a frame until established[11].

Leaf cuttings in the autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- Checklist of plants suitable for hedging and windbreaks.
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References for *Berberis trifoliolata* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Berberidaceae.

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Plants For A Future: Database Search Results

Mahonia trifoliolata

Common name:	Mexican barberry	Family:	Berberidaceae
Author:	(Moric.) Fedde.	Botanical references:	11, 200
Synonyms:	Berberis trifoliolata (Moricand.), Berberis trifoliata, Berberis roemeriana		
Known Hazards:	None known		
Range:	South-western N. America - Texas, Arizona, Mexico.		
Habitat:	Dry calcareous soils[67].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Berberis trifoliata var. glauca[P] Berberis trifoliolata var. glauca[B,P] M. trifoliata var. glauca[P] M. trifoliolata var. glauca[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	trifoliolata = trifoliolate;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It

requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[2, 3, 85]. An acid flavour but nice, especially when added to porridges or muesli[K]. A subtle tart flavour, it is pleasant to eat raw[183]. Unfortunately there is relatively little flesh and a lot of seeds[K]. The fruit is also used to make preserves[149, 183].

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Cultivation details

Unlike most members of the genus, this species requires a dry, perfectly drained position in full sun, a gritty slightly acid soil is best[200]. It does well in a hot, dry position[167]. Succeeds in a good garden soil[11].

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Known Hazards:	None known		
Range:	South-western N. America - Texas, Arizona, Mexico.		
Habitat:	Dry calcareous soils[67].		
Plants For A Future Rating (1-5):	3		

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Add a comment on: *Mahonia trifoliolata*

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Mahonia trifoliolata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Mahonia trifoliolata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Nelumbo nucifera

Common name:	Sacred water lotus	Family:	Nelumbonaceae
Author:	Gaertn.	Botanical references:	51, 200
Synonyms:	Nelumbium speciosum (Willd.)		
Known Hazards:	None known		
Range:	Western. Asia from Iran eastwards to China, Japan and Australia.		
Habitat:	Found in large lakes to 1400 metres in the Himalayas[51].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	N. caspica[G] N. nelumbo[G] N. speciosa[B,P] N. speciosum[G] Nelumbium nelumbo[P] Nymphaea nelumbo[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ieh [E], Chieh Fen [E], Chinese Arrowroot [H], Fo Tso Hsu [E], Fu Ch'U [E], Han T'Ao [E], Hasu [E], Ho [E], Ho Lien Hua [E], Ho Yeh [E], Hsia [E], Hung Pai Lien Hua [E], I [E], Kaya [E], Lien [E], Lien Hua [E], Lien I [E], Lien Ou [E], Lien Shih [E], Lien Tzu [E], Lien Tzu Hsin [E], Lotus Bean [E], Lotus,Blue [E], Mi [E], Ou [E], Ou Fen [E], Sacred Lotus [B,P], Shih Lien Tzu [E], Ti [E],
Epithets:	From a Dictionary of Botanical Epithets
	nucifer = nut bearing; nucifera = nut bearing;
Systematics:	From a UDSA Plants Database
	Order: Nymphaeales . Lotus-lily family

Other Range Info:	From the Ethnobotany Database
	China; Egypt; India; India(Santal)

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 5. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Flowers; Leaves; Root; Seed; Stem.

Root - cooked[1, 46, 61]. It is also a source of starch or arrowroot[2, 61]. Much used and relished in Chinese cooking, the root has a mild flavour[178] and a crisp texture[206]. It can be cooked with other vegetables, soaked in syrup or pickled in vinegar[264]. The root contains about 1.7% protein, 0.1% fat, 9.7% carbohydrate, 1.1% ash[179].

Young leaves - cooked or raw[46, 61, 117, 183]. The leaves can also be used to wrap small parcels of food before cooking them[264].

Stems - cooked. A taste somewhat like beet[2, 105]. They are usually peeled before use[193].

Seed - raw or cooked[1, 46, 51, 183]. A delicate flavour[2]. The seed can be popped like popcorn, ground into a powder and used in making bread or eaten dry[183]. The bitter tasting embryo is often removed[116, 117]. The seed contains about 15.9% protein, 2.8% fat, 70% carbohydrate, 3.9% ash[179].

The roasted seed is a coffee substitute[183].

Petals can be floated in soups or used as a garnish[183].

The stamens are used to flavour tea[183].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiotonic; Febrifuge; Hypotensive; Miscellany; Resolvent; Stomachic; Styptic; Tonic; Vasodilator.

The Sacred water lotus has been used in the Orient as a medicinal herb for well over 1,500 years[238]. All parts of the plant are used, they are astringent, cardiotonic, febrifuge, hypotensive, resolvent, stomachic, styptic, tonic and vasodilator[116, 147, 152, 176, 238, 240].

The leaf juice is used in the treatment of diarrhoea and is decocted with liquorice (Glycyrrhiza spp) for the treatment of sunstroke[218].

A decoction of the flowers is used in the treatment of premature ejaculation[218]. The flowers are recommended as a cardiac tonic[240]. A decoction of the floral receptacle is used in the treatment of abdominal cramps, bloody discharges etc[218].

The flower stalk is haemostatic[176]. It is used in treating bleeding gastric ulcers, excessive menstruation, post-partum haemorrhage[238].

The stamens are used in treating urinary frequency, premature ejaculation, haemolysis, epistasis and uterine bleeding[176, 238].

A decoction of the fruit is used in the treatment of agitation, fever, heart complaints etc[218].

The seed is sedative[176]. It is used in the treatment of poor digestion, enteritis, chronic diarrhoea, insomnia, palpitations etc[176, 218, 238].

The plumule and radicle are used to treat thirst in high febrile disease, hypertension, insomnia and restlessness[176, 238].

The root is tonic[218]. The root starch is used in the treatment of diarrhoea, dysentery etc, a paste is applied to ringworm and other skin ailments[218]. It is also taken internally in the treatment of haemorrhages, excessive menstruation and nosebleeds[238]. The roots are harvested in autumn or winter and dried for later use[238].

The root nodes are used in the treatment of nasal bleeding, haemoptysis, haematuria and functional bleeding of the uterus[176].

The plant has a folk history in the treatment of cancer, modern research has isolated certain compounds from the plant that show anticancer activity[218].

Other Uses

None known

Cultivation details

Requires a rich loam[1]. Succeeds in water up to 2.5 metres deep[200]. In cooler climates, however, it should be grown in shallower water, though no less than 30 cm deep, which will warm up more quickly and encourage better growth and flowering[200]. The plant is happiest with water temperatures of 23 - 27°c in the growing season[260] and requires a five month growing season[264].

This species is not tremendously hardy when grown outdoors in Britain and it is best, once the leaves have died down in the autumn, to store the roots in a frost-free place, either in a tub of water or in moist sand[264]..

Plants are resentful of root disturbance and should be planted into their permanent positions as soon as possible[200]. Once established, they can become invasive when growing in suitable conditions[238].

A very ornamental plant[1], there are many named varieties some of which have been developed for their edible uses[183]. It is said that pink-flowered forms are preferred for their edible seeds whilst the white-flowered forms are preferred for their edible roots[264].

Most forms are not cold-hardy outdoors in Britain but some, especially those from far eastern provenances are much hardier and will possibly succeed outdoors in favoured areas of Britain[200]. The flowers have a sweet fruity perfume[245].

This is the sacred Lotus of India and it is much cultivated as a food plant in the Orient[1, 2].

Propagation

Seed - file the seed across its centre, being very careful not to damage the flesh of the seed, and soak in warm water, changing the water twice a day until signs of germination are seen, which should be within 3 - 4 weeks at 25°c. Plant in individual pots just covered in water and increase the depth as the plant grows.

Division in spring as the plant comes into growth. Be very careful, the plants deeply resent root disturbance[200].

Scent

Flowers: Fresh

The flowers have a sweet fruity perfume[245].

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No entries have been made for this species as yet.

Suppliers

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Web References

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References

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vegetables from around the world, including many unusual species.

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Plants For A Future: Database Search Results

Nelumbo nucifera

Common name:	Sacred water lotus	Family:	Nelumbonaceae
Author:	Gaertn.	Botanical references:	51, 200
Synonyms:	Nelumbium speciosum (Willd.)		
Known Hazards:	None known		
Range:	Western. Asia from Iran eastwards to China, Japan and Australia.		
Habitat:	Found in large lakes to 1400 metres in the Himalayas[51].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Nymphaeales . Lotus-lily family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 5. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Flowers; Leaves; Root; Seed; Stem.

Root - cooked[1, 46, 61]. It is also a source of starch or arrowroot[2, 61]. Much used and relished in Chinese cooking, the root has a mild flavour[178] and a crisp texture[206]. It can be cooked with other vegetables, soaked in syrup or pickled in vinegar[264]. The root contains about 1.7% protein, 0.1% fat, 9.7% carbohydrate, 1.1% ash[179].

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The roasted seed is a coffee substitute[183].

Petals can be floated in soups or used as a garnish[183].

The stamens are used to flavour tea[183].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiotonic; Febrifuge; Hypotensive; Miscellany; Resolvent; Stomachic; Styptic; Tonic; Vasodilator.

The Sacred water lotus has been used in the Orient as a medicinal herb for well over 1,500 years[238]. All parts of the plant are used, they are astringent, cardiotonic, febrifuge, hypotensive, resolvent, stomachic, styptic, tonic and vasodilator[116, 147, 152, 176, 238, 240].

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The plant has a folk history in the treatment of cancer, modern research has isolated certain compounds from the plant that show anticancer activity[218].

Other Uses

None known

Cultivation details

Requires a rich loam[1]. Succeeds in water up to 2.5 metres deep[200]. In cooler climates, however, it should be grown in shallower water, though no less than 30 cm deep, which will warm up more quickly and encourage better growth and flowering[200]. The plant is happiest with water temperatures of 23 - 27°c in the growing season[260] and requires a five month growing season[264].

This species is not tremendously hardy when grown outdoors in Britain and it is best, once the leaves have died down in the autumn, to store the roots in a frost-free place, either in a tub of water or in moist sand[264]..

Plants are resentful of root disturbance and should be planted into their permanent positions as soon as possible[200]. Once established, they can become invasive when growing in suitable conditions[238].

A very ornamental plant[1], there are many named varieties some of which have been developed for their edible uses[183]. It is said that pink-flowered forms are preferred for their edible seeds whilst the white-flowered forms are preferred for their edible roots[264].

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This is the sacred Lotus of India and it is much cultivated as a food plant in the Orient[1, 2].

Propagation

Seed - file the seed across its centre, being very careful not to damage the flesh of the seed, and soak in warm water, changing the water twice a day until signs of germination are seen, which should be within 3 - 4 weeks at 25°c. Plant in individual pots just covered in water and increase the depth as the plant grows.

Division in spring as the plant comes into growth. Be very careful, the plants deeply resent root disturbance[200].

Scent

Flowers: Fresh

> The flowers have a sweet fruity perfume[245].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

Readers Comments

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Plants For A Future: Database Search Results

Nelumbo nucifera

Common name:	Sacred water lotus	Family:	Nelumbonaceae
Author:	Gaertn.	Botanical references:	51, 200
Synonyms:	Nelumbium speciosum (Willd.)		
Known Hazards:	None known		
Range:	Western. Asia from Iran eastwards to China, Japan and Australia.		
Habitat:	Found in large lakes to 1400 metres in the Himalayas[51].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	N. caspica[G] N. nelumbo[G] N. speciosa[B,P] N. speciosum[G] Nelumbium nelumbo[P] Nymphaea nelumbo[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ieh [E], Chieh Fen [E], Chinese Arrowroot [H], Fo Tso Hsu [E], Fu Ch'U [E], Han T'Ao [E], Hasu [E], Ho [E], Ho Lien Hua [E], Ho Yeh [E], Hsia [E], Hung Pai Lien Hua [E], I [E], Kaya [E], Lien [E], Lien Hua [E], Lien I [E], Lien Ou [E], Lien Shih [E], Lien Tzu [E], Lien Tzu Hsin [E], Lotus Bean [E], Lotus,Blue [E], Mi [E], Ou [E], Ou Fen [E], Sacred Lotus [B,P], Shih Lien Tzu [E], Ti [E],
Epithets:	From a Dictionary of Botanical Epithets
	nucifer = nut bearing; nucifera = nut bearing;
Systematics:	From a UDSA Plants Database
	Order: Nymphaeales . Lotus-lily family
Other Range Info:	From the Ethnobotany Database
	China; Egypt; India; India(Santal)

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 5. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Flowers; Leaves; Root; Seed; Stem.

Root - cooked[1, 46, 61]. It is also a source of starch or arrowroot[2, 61]. Much used and relished in Chinese cooking, the root has a mild flavour[178] and a crisp texture[206]. It can be cooked with other vegetables, soaked in syrup or pickled in vinegar[264]. The root contains about 1.7% protein, 0.1% fat, 9.7% carbohydrate, 1.1% ash[179].

Young leaves - cooked or raw[46, 61, 117, 183]. The leaves can also be used to wrap small parcels of food before cooking them[264].

Stems - cooked. A taste somewhat like beet[2, 105]. They are usually peeled before use[193].

Seed - raw or cooked[1, 46, 51, 183]. A delicate flavour[2]. The seed can be popped like popcorn, ground into a powder and used in making bread or eaten dry[183]. The bitter tasting embryo is often removed[116, 117]. The seed contains about 15.9% protein, 2.8% fat, 70% carbohydrate, 3.9% ash[179].

The roasted seed is a coffee substitute[183].

Petals can be floated in soups or used as a garnish[183].

The stamens are used to flavour tea[183].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiotonic; Febrifuge; Hypotensive; Miscellany; Resolvent; Stomachic; Styptic; Tonic; Vasodilator.

The Sacred water lotus has been used in the Orient as a medicinal herb for well over 1,500 years[238]. All parts of the plant are used, they are astringent, cardiotonic, febrifuge, hypotensive, resolvent, stomachic, styptic, tonic and vasodilator[116, 147, 152, 176, 238, 240].

The leaf juice is used in the treatment of diarrhoea and is decocted with liquorice (Glycyrrhiza spp) for the treatment of sunstroke[218].

A decoction of the flowers is used in the treatment of premature ejaculation[218]. The flowers are recommended as a cardiac tonic[240]. A decoction of the floral receptacle is used in the treatment of abdominal cramps, bloody discharges etc[218].

The flower stalk is haemostatic[176]. It is used in treating bleeding gastric ulcers, excessive menstruation, post-partum haemorrhage[238].

The stamens are used in treating urinary frequency, premature ejaculation, haemolysis, epistasis and uterine bleeding[176, 238].

A decoction of the fruit is used in the treatment of agitation, fever, heart complaints etc[218].

The seed is sedative[176]. It is used in the treatment of poor digestion, enteritis, chronic diarrhoea, insomnia, palpitations etc[176, 218, 238].

The plumule and radicle are used to treat thirst in high febrile disease, hypertension, insomnia and restlessness[176, 238].

The root is tonic[218]. The root starch is used in the treatment of diarrhoea, dysentery etc, a paste is applied to ringworm and other skin ailments[218]. It is also taken internally in the treatment of haemorrhages, excessive menstruation and nosebleeds[238]. The roots are harvested in autumn or winter and dried for later use[238].

The root nodes are used in the treatment of nasal bleeding, haemoptysis, haematuria and functional bleeding of the uterus[176].

The plant has a folk history in the treatment of cancer, modern research has isolated certain compounds from the plant that show anticancer activity[218].

Other Uses

None known

Cultivation details

Requires a rich loam[1]. Succeeds in water up to 2.5 metres deep[200]. In cooler climates, however, it should be grown in shallower water, though no less than 30 cm deep, which will warm up more quickly and encourage better growth and flowering[200]. The plant is happiest with water temperatures of 23 - 27°c in the growing season[260] and requires a five month growing season[264].

This species is not tremendously hardy when grown outdoors in Britain and it is best, once the leaves have died down in the autumn, to store the roots in a frost-free place, either in a tub of water or in moist sand[264]..

Plants are resentful of root disturbance and should be planted into their permanent positions as soon as possible[200]. Once established, they can become invasive when growing in suitable conditions[238].

A very ornamental plant[1], there are many named varieties some of which have been developed for their edible uses[183]. It is said that pink-flowered forms are preferred for their edible seeds whilst the white-flowered forms are preferred for their edible roots[264].

Most forms are not cold-hardy outdoors in Britain but some, especially those from far eastern provenances are much hardier and will possibly succeed outdoors in favoured areas of Britain[200]. The flowers have a sweet fruity perfume[245].

This is the sacred Lotus of India and it is much cultivated as a food plant in the Orient[1, 2].

Propagation

Seed - file the seed across its centre, being very careful not to damage the flesh of the seed, and soak in warm water, changing the water twice a day until signs of germination are seen, which should be within 3 - 4 weeks at 25°c. Plant in individual pots just covered in water and increase the depth as the plant grows.

Division in spring as the plant comes into growth. Be very careful, the plants deeply resent root disturbance[200].

Scent

Flowers: Fresh

> The flowers have a sweet fruity perfume[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Nelumbo nucifera*

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Nelumbo nucifera

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Nymphaea alba

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	White water lily	Family:	Nymphaeaceae
Author:	L.	Botanical references:	17, 200
Synonyms:	Nymphaea occidentalis, Castalia speciosa (Salisb.), Castalia alba ((L.)Wood.)		
Known Hazards:	One report suggests that the plant is poisonous but gives no further details[19]. The plant contains the toxic alkaloids nupharine and nymphaeine, these substances have an effect on the nervous system[240].		
Range:	Britain.		
Habitat:	Marshes, ponds, slow moving streams, lakes and canals up to 1.2m deep[7, 9, 17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Catalpa speciosa[B,G,H,HPIC,HORTIPLEX,P] N. odorata[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Nilufer [E], European White Waterlily [P], Nenufar Blanco [E], Northern Catalpa [DEN1,P,B], Pondlily,White [E], White Pond Lily [H], White Water-lily [L], Witte Waterlelie [D],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white; phaea = dusky;
Systematics:	From a UDSA Plants Database

	Order: Nymphaeales . Water-lily family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey; Us(Pa)

Physical Characteristics

Perennial. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Root; Seed.

Root - cooked. Eaten when several years old[5, 145]. It contains up to 40% starch, 6% protein[7, 114]. Some caution is advised, see the notes above on toxicity.

The roasted seed is a coffee substitute[7].

Seed - cooked. It contains about 47% starch[114].

Medicinal Uses

Disclaimer

Anaphrodisiac; Anodyne; Antiscrophulatic; Astringent; Cardiotonic; Demulcent; Sedative.

The rhizome is anodyne, antiscrofulatic, astringent, cardiotonic, demulcent and sedative[4, 7, 9, 240]. A decoction of the root is used in the treatment of dysentery or diarrhoea caused by irritable bowel syndrome. It has also been used to treat bronchial catarrh and kidney pain and can be taken as a gargle for sore throats[254]. Externally it can be used to make a douche to treat vaginal soreness or discharges. In combination with slippery elm (Ulmus rubra) or flax (Linum usitatissimum) it is used as a poultice to treat boils and abscesses[254]. The rhizome is harvested in the autumn and can be dried for later use[254].

The flowers are anaphrodisiac and sedative[254]. They have a generally calming and sedative effect upon the nervous system, reputedly reducing the sex drive and making them useful in the treatment of insomnia, anxiety and similar disorders[254].

A complete cure of uterine cancer by a decoction and uterine injection has been recorded[4].

According to one report the plant is not used in modern herbal practice, though it has been quoted as a remedy for dysentery[9].

Other Uses

None known

Cultivation details

A water plant requiring a rich soil and a sunny position in still or slowly moving water[56, 200]. Best grown in 2 - 2.5 metres of water[200]. Prefers a pH between 6 and 7[200]. Dislikes acid conditions according to another report.

This species is hardy to about -20°c[187].

There are two basic types of plant in this genus:-

'crawlers' are species with horizontal roots that often spread freely, with new plants being formed at intervals along the root. These species are useful for naturalising, but they do not flower very freely in the cool summers of Britain[214].

'clumpers' have vertical roots and form slowly spreading clumps and produce offsets around the crown. These forms flower much more freely in Britain[214].

A very ornamental plant[1]. The flowers, which only open in bright sunshine, have a soft delicate scent[245].

Propagation

Seed - sow as soon as it is ripe in a greenhouse in pots submerged under 25mm of water. Prick out into individual pots as soon as the first true leaf appears and grow them on in water in a greenhouse for at least two years before planting them out in late spring.

The seed is collected by wrapping the developing seed head in a muslin bag to avoid the seed being lost. Harvest it 10 days after it sinks below the soil surface or as soon as it reappears[200].

Division in May. Each portion must have at least one eye. Submerge in pots in shallow water until established[56].

Scent

Flowers: Fresh

The flowers have a soft delicate scent[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Edible Pond and Bog Garden

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Catalpa speciosa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *catalpa speciosa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for *nymphaea alba* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Nymphaeaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[56] **Muhlberg. H.** *Complete Guide to Water Plants.* E. P. Publishing Ltd. 1982 ISBN 0-7158-0789-7
Deals with a wide range of plants for temperate areas (and indoor aquaria) with quite a lot of information on cultivation techniques.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*

It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Nymphaea alba

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	White water lily	Family:	Nymphaeaceae
Author:	L.	Botanical references:	17, 200
Synonyms:	Nymphaea occidentalis, Castalia speciosa (Salisb.), Castalia alba ((L.)Wood.)		
Known Hazards:	One report suggests that the plant is poisonous but gives no further details[19]. The plant contains the toxic alkaloids nupharine and nymphaeine, these substances have an effect on the nervous system[240].		
Range:	Britain.		
Habitat:	Marshes, ponds, slow moving streams, lakes and canals up to 1.2m deep[7, 9, 17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Catalpa speciosa[B,G,H,HPIC,HORTIPLEX,P] N. odorata[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Nilufer [E], European White Waterlily [P], Nenufar Blanco [E], Northern Catalpa [DEN1,P,B], Pondlily,White [E], White Pond Lily [H], White Water-lily [L], Witte Waterlelie [D],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white; phaea = dusky;
Systematics:	From a UDSA Plants Database
	Order: Nymphaeales . Water-lily family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey; Us(Pa)

Physical Characteristics

Perennial. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Root; Seed.

Root - cooked. Eaten when several years old[5, 145]. It contains up to 40% starch, 6% protein[7, 114]. Some caution is advised, see the notes above on toxicity.

The roasted seed is a coffee substitute[7].

Seed - cooked. It contains about 47% starch[114].

Medicinal Uses

Disclaimer

Anaphrodisiac; Anodyne; Antiscrophulatic; Astringent; Cardiotonic; Demulcent; Sedative.

The rhizome is anodyne, antiscrofulatic, astringent, cardiotonic, demulcent and sedative[4, 7, 9, 240]. A decoction of the root is used in the treatment of dysentery or diarrhoea caused by irritable bowel syndrome. It has also been used to treat bronchial catarrh and kidney pain and can be taken as a gargle for sore throats[254]. Externally it can be used to make a douche to treat vaginal soreness or discharges. In combination with slippery elm (Ulmus rubra) or flax (Linum usitatissimum) it is used as a poultice to treat boils and abscesses[254]. The rhizome is harvested in the autumn and can be dried for later use[254].

The flowers are anaphrodisiac and sedative[254]. They have a generally calming and sedative effect upon the nervous system, reputedly reducing the sex drive and making them useful in the treatment of insomnia, anxiety and similar disorders[254].

A complete cure of uterine cancer by a decoction and uterine injection has been recorded[4].

According to one report the plant is not used in modern herbal practice, though it has been quoted as a remedy for dysentery[9].

Other Uses

None known

Cultivation details

A water plant requiring a rich soil and a sunny position in still or slowly moving water[56, 200]. Best grown in 2 - 2.5 metres of water[200]. Prefers a pH between 6 and 7[200]. Dislikes acid conditions according to another report.

This species is hardy to about -20°c[187].

There are two basic types of plant in this genus:-

'crawlers' are species with horizontal roots that often spread freely, with new plants being formed at intervals along the root. These species are useful for naturalising, but they do not flower very freely in the cool summers of Britain[214].

'clumpers' have vertical roots and form slowly spreading clumps and produce offsets around the crown. These forms flower much more freely in Britain[214].

A very ornamental plant[1]. The flowers, which only open in bright sunshine, have a soft delicate scent[245].

Propagation

Seed - sow as soon as it is ripe in a greenhouse in pots submerged under 25mm of water. Prick out into individual pots as soon as the first true leaf appears and grow them on in water in a greenhouse for at least two years before planting them out in late spring.

The seed is collected by wrapping the developing seed head in a muslin bag to avoid the seed being lost. Harvest it 10 days after it sinks below the soil surface or as soon as it reappears[200].

Division in May. Each portion must have at least one eye. Submerge in pots in shallow water until established[56].

Scent

Flowers: Fresh

> The flowers have a soft delicate scent[245].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Edible Pond and Bog Garden

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Catalpa speciosa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *catalpa speciosa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for *nymphaea alba* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Nymphaeaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

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[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[56] **Muhlberg. H.** *Complete Guide to Water Plants.* E. P. Publishing Ltd. 1982 ISBN 0-7158-0789-7
Deals with a wide range of plants for temperate areas (and indoor aquaria) with quite a lot of information on cultivation techniques.

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[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Nymphaea alba

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	White water lily	Family:	Nymphaeaceae
Author:	L.	Botanical references:	17, 200
Synonyms:	Nymphaea occidentalis, Castalia speciosa (Salisb.), Castalia alba ((L.)Wood.)		
Known Hazards:	One report suggests that the plant is poisonous but gives no further details[19]. The plant contains the toxic alkaloids nupharine and nymphaeine, these substances have an effect on the nervous system[240].		
Range:	Britain.		
Habitat:	Marshes, ponds, slow moving streams, lakes and canals up to 1.2m deep[7, 9, 17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Catalpa speciosa[B,G,H,HPIC,HORTIPLEX,P] N. odorata[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Nilufer [E], European White Waterlily [P], Nenufar Blanco [E], Northern Catalpa [DEN1,P,B], Pondlily,White [E], White Pond Lily [H], White Water-lily [L], Witte Waterlelie [D],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white; phaea = dusky;
Systematics:	From a UDSA Plants Database
	Order: Nymphaeales . Water-lily family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey; Us(Pa)

Physical Characteristics

Perennial. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Root; Seed.

Root - cooked. Eaten when several years old[5, 145]. It contains up to 40% starch, 6% protein[7, 114]. Some caution is advised, see the notes above on toxicity.

The roasted seed is a coffee substitute[7].

Seed - cooked. It contains about 47% starch[114].

Medicinal Uses

Disclaimer

Anaphrodisiac; Anodyne; Antiscrophulatic; Astringent; Cardiotonic; Demulcent; Sedative.

The rhizome is anodyne, antiscrofulatic, astringent, cardiotonic, demulcent and sedative[4, 7, 9, 240]. A decoction of the root is used in the treatment of dysentery or diarrhoea caused by irritable bowel syndrome. It has also been used to treat bronchial catarrh and kidney pain and can be taken as a gargle for sore throats[254]. Externally it can be used to make a douche to treat vaginal soreness or discharges. In combination with slippery elm (Ulmus rubra) or flax (Linum usitatissimum) it is used as a poultice to treat boils and abscesses[254]. The rhizome is harvested in the autumn and can be dried for later use[254].

The flowers are anaphrodisiac and sedative[254]. They have a generally calming and sedative effect upon the nervous system, reputedly reducing the sex drive and making them useful in the treatment of insomnia, anxiety and similar disorders[254].

A complete cure of uterine cancer by a decoction and uterine injection has been recorded[4].

According to one report the plant is not used in modern herbal practice, though it has been quoted as a remedy for dysentery[9].

Other Uses

None known

Cultivation details

A water plant requiring a rich soil and a sunny position in still or slowly moving water[56, 200]. Best grown in 2 - 2.5 metres of water[200]. Prefers a pH between 6 and 7[200]. Dislikes acid conditions according to another report.

This species is hardy to about -20°c[187].

There are two basic types of plant in this genus:-

'crawlers' are species with horizontal roots that often spread freely, with new plants being formed at intervals along the root. These species are useful for naturalising, but they do not flower very freely in the cool summers of Britain[214].

'clumpers' have vertical roots and form slowly spreading clumps and produce offsets around the crown. These forms flower much more freely in Britain[214].

A very ornamental plant[1]. The flowers, which only open in bright sunshine, have a soft delicate scent[245].

Propagation

Seed - sow as soon as it is ripe in a greenhouse in pots submerged under 25mm of water. Prick out into individual pots as soon as the first true leaf appears and grow them on in water in a greenhouse for at least two years before planting them out in late spring.

The seed is collected by wrapping the developing seed head in a muslin bag to avoid the seed being lost. Harvest it 10 days after it sinks below the soil surface or as soon as it reappears[200].

Division in May. Each portion must have at least one eye. Submerge in pots in shallow water until established[56].

Scent

Flowers: Fresh

The flowers have a soft delicate scent[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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Add a comment on: *Nymphaea alba*

Subject:

Nymphaea alba

Group:
Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Nymphaea alba

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Nymphaea candida

Common name:		Family:	Nymphaeaceae
Author:	Presl. & C. Presl.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	N. Europe. N. Asia.		
Habitat:	Ponds, lakes and slow flowing streams.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Noordelijke Waterlelie [D],
Epithets:	From a Dictionary of Botanical Epithets
	candida = very white; phaea = dusky;
Systematics:	From a UDSA Plants Database
	Order: Nymphaeales . Water-lily family

Physical Characteristics

Perennial. It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Root; Seed.

The following reports refer to the related N. alba and probably also apply to this species[K].

Root - cooked. Eaten when several years old[2, 5, 145]. It contains up to 40% starch, 6% protein[7, 114].

The roasted seed is a coffee substitute[7].

Seed - cooked. It contains about 47% starch[114].

Medicinal Uses

Disclaimer

Anaphrodisiac; Anodyne; Antiscrophulatic; Astringent; Cardiotonic; Demulcent; Sedative.

The following reports refer to the related N. alba and probably also apply to this species[K].

The rhizome and the flowers are anaphrodisiac, anodyne, antiscrofulatic, astringent, cardiotonic, demulcent, sedative[4, 7, 9, 240]. The plant is not used in modern herbal practice, though it has been quoted as a remedy for dysentery[9].

Other Uses

None known

Cultivation details

A water plant requiring a rich soil and a sunny position in still or slowly moving water[56, 200]. It is best grown in 2 - 2.5 metres of water[200]. Prefers a pH between 6 and 7[200]. Dislikes acid conditions according to another report.

Plants are hardy to about -20°c[187].

There are two basic types of plant in this genus:-

'crawlers' are species with horizontal roots that often spread freely, with new plants being formed at intervals along the root. These species are useful for naturalising, but they do not flower very freely in the cool summers of Britain[214].

'clumpers' have vertical roots, they form slowly spreading clumps and produce offsets around the crown. These forms flower much more freely in Britain[214].

A very ornamental plant[1].

Propagation

Seed - sow as soon as it is ripe in a greenhouse in pots submerged under 25mm of water. Prick out into individual pots as soon as the first true leaf appears and grow them on in water in a greenhouse for at least two years before planting them out in late spring.

The seed is collected by wrapping the developing seed head in a muslin bag to avoid the seed being lost. Harvest it 10 days after it sinks below the soil surface or as soon as it reappears[200].

Division in May. Each portion must have at least one eye. Submerge in pots in shallow water until established[56].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Nymphaeaceae.

See the PFAF Links Pages for other sources

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References

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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Lots of entries, quite a lot of information in most entries and references.

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Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Nymphaea candida

Common name:		Family:	Nymphaeaceae
Author:	Presl. & C. Presl.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	N. Europe. N. Asia.		
Habitat:	Ponds, lakes and slow flowing streams.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Noordelijke Waterlelie [D],
Epithets:	From a Dictionary of Botanical Epithets
	candida = very white; phaea = dusky;
Systematics:	From a UDSA Plants Database
	Order: Nymphaeales . Water-lily family

Physical Characteristics

Perennial. It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Root; Seed.

The following reports refer to the related N. alba and probably also apply to this species[K].

Root - cooked. Eaten when several years old[2, 5, 145]. It contains up to 40% starch, 6% protein[7, 114].

The roasted seed is a coffee substitute[7].

Seed - cooked. It contains about 47% starch[114].

Medicinal Uses

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Other Uses

None known

Cultivation details

A water plant requiring a rich soil and a sunny position in still or slowly moving water[56, 200]. It is best grown in 2 - 2.5 metres of water[200]. Prefers a pH between 6 and 7[200]. Dislikes acid conditions according to another report.

Plants are hardy to about -20°c[187].

There are two basic types of plant in this genus:-

'crawlers' are species with horizontal roots that often spread freely, with new plants being formed at intervals along the root. These species are useful for naturalising, but they do not flower very freely in the cool summers of Britain[214].

'clumpers' have vertical roots, they form slowly spreading clumps and produce offsets around the crown. These forms flower much more freely in Britain[214].

A very ornamental plant[1].

Propagation

Seed - sow as soon as it is ripe in a greenhouse in pots submerged under 25mm of water. Prick out into individual pots as soon as the first true leaf appears and grow them on in water in a greenhouse for at least two years before planting them out in late spring.

The seed is collected by wrapping the developing seed head in a muslin bag to avoid the seed being lost. Harvest it 10 days after it sinks below the soil surface or as soon as it reappears[200].

Division in May. Each portion must have at least one eye. Submerge in pots in shallow water until established[56].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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[56] **Muhlberg. H.** *Complete Guide to Water Plants.* E. P. Publishing Ltd. 1982 ISBN 0-7158-0789-7
Deals with a wide range of plants for temperate areas (and indoor aquaria) with quite a lot of information on cultivation techniques.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Nymphaea+candida`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Nymphaea+candida`

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Plants For A Future: Database Search Results

Nymphaea candida

Common name:		Family:	Nymphaeaceae
Author:	Presl. & C. Presl.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	N. Europe. N. Asia.		
Habitat:	Ponds, lakes and slow flowing streams.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Noordelijke Waterlelie [D],
Epithets:	From a Dictionary of Botanical Epithets
	candida = very white; phaea = dusky;
Systematics:	From a UDSA Plants Database
	Order: Nymphaeales . Water-lily family

Physical Characteristics

Perennial. It is hardy to zone 4. It is in flower from July to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It can grow in water.

Habitats and Possible Locations

Pond.

Edible Uses

Coffee; Root; Seed.

The following reports refer to the related N. alba and probably also apply to this species[K].

Root - cooked. Eaten when several years old[2, 5, 145]. It contains up to 40% starch, 6% protein[7, 114].

The roasted seed is a coffee substitute[7].

Seed - cooked. It contains about 47% starch[114].

Medicinal Uses

Disclaimer

Anaphrodisiac; Anodyne; Antiscrophulatic; Astringent; Cardiotonic; Demulcent; Sedative.

The following reports refer to the related N. alba and probably also apply to this species[K].

The rhizome and the flowers are anaphrodisiac, anodyne, antiscrofulatic, astringent, cardiotonic, demulcent, sedative[4, 7, 9, 240]. The plant is not used in modern herbal practice, though it has been quoted as a remedy for dysentery[9].

Other Uses

None known

Cultivation details

A water plant requiring a rich soil and a sunny position in still or slowly moving water[56, 200]. It is best grown in 2 - 2.5 metres of water[200]. Prefers a pH between 6 and 7[200]. Dislikes acid conditions according to another report.

Plants are hardy to about -20°c[187].

There are two basic types of plant in this genus:-

'crawlers' are species with horizontal roots that often spread freely, with new plants being formed at intervals along the root. These species are useful for naturalising, but they do not flower very freely in the cool summers of Britain[214].

'clumpers' have vertical roots, they form slowly spreading clumps and produce offsets around the crown. These forms flower much more freely in Britain[214].

A very ornamental plant[1].

Propagation

Seed - sow as soon as it is ripe in a greenhouse in pots submerged under 25mm of water. Prick out into individual pots as soon as the first true leaf appears and grow them on in water in a greenhouse for at least two years before planting them out in late spring.

The seed is collected by wrapping the developing seed head in a muslin bag to avoid the seed being lost. Harvest it 10 days after it sinks below the soil surface or as soon as it reappears[200].

Division in May. Each portion must have at least one eye. Submerge in pots in shallow water until established[56].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Nymphaea candida*

Subject:

Nymphaea candida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Nymphaea candida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:48:49 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Phaseolus vulgaris

Common name:	French bean	Family:	Leguminosae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the raw mature seed are poisonous[10, 65]. The toxins play a role in protecting the plant from insect predation[76].		
Range:	S. America? Original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	P. vulgaris var. humilis[B,P] P. vulgaris var. mexicanus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bean [E], Boon [D], Common Beans [H], Fasulye [E], Great Bean [E], Haricots Verts [E], Judia [E], Kidney Bean [P,H,B], Pois Rouge [E],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database

	China; Germany; Haiti; Spain; Turkey; Wi
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 2m. It is hardy to zone 10 and is frost tender. It is in leaf from May to October, in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Seed; Seedpod.

Immature seedpods - raw or cooked[46, 105]. The green pods are commonly used as a vegetable, they have a mild flavour and should only be cooked for a short time. When growing the plant for its seedpods, be sure to pick them whilst they are still small and tender. This will ensure the continued production of more pods by the plant. Flowering is reduced once the seeds begin to form inside the pods.

The immature seeds are boiled or steamed and used as a vegetable[183].

The mature seeds are dried and stored for future use. They must be thoroughly cooked before being eaten and are best soaked in water for about 12 hours prior to this. They can be boiled, baked, pureed, ground into a powder or fermented into 'tempeh' etc[183]. The powdered seed makes a protein-enriching additive to flour, it can also be used in soups etc[K]. The seed can also be sprouted and used in salads or cooked[183].

The roasted seeds have been used as a coffee substitute[7].

Young leaves - raw or cooked as a potherb[177, 183].

Medicinal Uses

Disclaimer

Cancer; Diuretic; Homeopathy; Hypoglycaemic; Hypotensive; Narcotic.

The green pods are mildly diuretic and contain a substance that reduces the blood sugar level[218]. The dried mature pod is used according to another report[9]. It is used in the treatment of diabetes[9].

The seed is diuretic, hypoglycaemic and hypotensive[7]. Ground into a flour, it is used externally in the treatment of ulcers[7]. The seed is also used in the treatment of cancer of the blood[218]. When bruised and boiled with garlic they have cured intractable coughs[4].

The root is dangerously narcotic[4].

A homeopathic remedy is made from the entire fresh herb[9]. It is used in the treatment of rheumatism and arthritis, plus disorders of the urinary tract[9].

Other Uses

Dye; Fungicide.

A brown dye is obtained from red kidney beans[168].

The plant contains phaseolin, which has fungicidal activity[218].

Water from the cooked beans is very effective in reviving woollen fabrics[7].

Cultivation details

Requires a warm sunny position in a rich well-drained preferably light soil with plenty of moisture in the growing season[27, 37, 200]. Dislikes heavy, wet or acid soils[16, 37]. Prefers a pH in the range 5.5 to 6.5[200].

The French bean is commonly cultivated in many parts of the world for its edible seeds and immature seedpods, there are many named varieties ranging from dwarf forms about 30cm tall to climbing forms up to 3 metres tall[183, 186, 200]. Plants are not frost-tolerant, air temperatures below 10°c can cause damage to seedlings[200]. When grown for their edible pods, the immature pods should be harvested regularly in order to promote extra flower production and therefore higher yields[200]. Yields of green pods averages about 3kg per square metre, though double this can be achieved[200].

French beans grow well with strawberries, carrots, cauliflowers, cucumbers, cabbage, beet, leek and celeriac[18, 20]. They are inhibited by alliums and fennel growing nearby[18, 20].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and sow in mid spring in a greenhouse. Germination should take place within 10 days. When they are large enough to handle, prick the seedlings out into individual pots and plant them out after the last expected frosts.

The seed can also be sown in situ in late spring though it may not ripen its seed in a cool summer.

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Staple seed crops from perennials.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *phaseolus vulgaris* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0

Fairly good.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Phaseolus vulgaris

Common name:	French bean	Family:	Leguminosae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the raw mature seed are poisonous[10, 65]. The toxins play a role in protecting the plant from insect predation[76].		
Range:	S. America? Original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Annual growing to 2m. It is hardy to zone 10 and is frost tender. It is in leaf from May to October, in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Seed; Seedpod.

Immature seedpods - raw or cooked[46, 105]. The green pods are commonly used as a vegetable, they have a mild flavour and should only be cooked for a short time. When growing the plant for its seedpods, be sure to pick them whilst they are still small and tender. This will ensure the continued production of more pods by the plant. Flowering is reduced once the seeds begin to form inside the pods.

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Dye; Fungicide.

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Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- Staple seed crops from perennials.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *phaseolus vulgaris* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good

section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Readers Comments

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Plants For A Future: Database Search Results

Phaseolus vulgaris

Common name:	French bean	Family:	Leguminosae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Large quantities of the raw mature seed are poisonous[10, 65]. The toxins play a role in protecting the plant from insect predation[76].		
Range:	S. America? Original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	P. vulgaris var. humilis[B,P] P. vulgaris var. mexicanus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bean [E], Boon [D], Common Beans [H], Fasulye [E], Great Bean [E], Haricots Verts [E], Judia [E], Kidney Bean [P,H,B], Pois Rouge [E],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	China; Germany; Haiti; Spain; Turkey; Wi
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 2m. It is hardy to zone 10 and is frost tender. It is in leaf from May to October, in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Seed; Seedpod.

Immature seedpods - raw or cooked[46, 105]. The green pods are commonly used as a vegetable, they have a mild flavour and should only be cooked for a short time. When growing the plant for its seedpods, be sure to pick them whilst they are still small and tender. This will ensure the continued production of more pods by the plant. Flowering is reduced once the seeds begin to form inside the pods.

The immature seeds are boiled or steamed and used as a vegetable[183].

The mature seeds are dried and stored for future use. They must be thoroughly cooked before being eaten and are best soaked in water for about 12 hours prior to this. They can be boiled, baked, pureed, ground into a powder or fermented into 'tempeh' etc[183]. The powdered seed makes a protein-enriching additive to flour, it can also be used in soups etc[K]. The seed can also be sprouted and used in salads or cooked[183].

The roasted seeds have been used as a coffee substitute[7].

Young leaves - raw or cooked as a potherb[177, 183].

Medicinal Uses

Disclaimer

Cancer; Diuretic; Homeopathy; Hypoglycaemic; Hypotensive; Narcotic.

The green pods are mildly diuretic and contain a substance that reduces the blood sugar level[218].

The dried mature pod is used according to another report[9]. It is used in the treatment of diabetes[9].

The seed is diuretic, hypoglycaemic and hypotensive[7]. Ground into a flour, it is used externally in the treatment of ulcers[7]. The seed is also used in the treatment of cancer of the blood[218]. When bruised and boiled with garlic they have cured intractable coughs[4].

The root is dangerously narcotic[4].

A homeopathic remedy is made from the entire fresh herb[9]. It is used in the treatment of rheumatism and arthritis, plus disorders of the urinary tract[9].

Other Uses

Dye; Fungicide.

A brown dye is obtained from red kidney beans[168].

The plant contains phaseolin, which has fungicidal activity[218].

Water from the cooked beans is very effective in reviving woollen fabrics[7].

Cultivation details

Requires a warm sunny position in a rich well-drained preferably light soil with plenty of moisture in the growing season[27, 37, 200]. Dislikes heavy, wet or acid soils[16, 37]. Prefers a pH in the range 5.5 to 6.5[200].

The French bean is commonly cultivated in many parts of the world for its edible seeds and immature seedpods, there are many named varieties ranging from dwarf forms about 30cm tall to climbing forms up to 3 metres tall[183, 186, 200]. Plants are not frost-tolerant, air temperatures below 10°c can cause damage to seedlings[200]. When grown for their edible pods, the immature pods should be harvested regularly in order to promote extra flower production and therefore higher yields[200]. Yields of green pods averages about 3kg per square metre, though double this can be achieved[200].

French beans grow well with strawberries, carrots, cauliflowers, cucumbers, cabbage, beet, leek and celeriac[18, 20]. They are inhibited by alliums and fennel growing nearby[18, 20].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and sow in mid spring in a greenhouse. Germination should take place within 10 days. When they are large enough to handle, prick the seedlings out into individual pots and plant them out after the last expected frosts.

The seed can also be sown in situ in late spring though it may not ripen its seed in a cool summer.

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Phaseolus vulgaris*

Subject:

Phaseolus vulgaris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Phaseolus vulgaris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:49:01 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Phoenix reclinata

Common name:	Senegal date palm	Family:	Palmae
Author:	Jacq.	Botanical references:	1
Synonyms:	Phoenix spinosa (Schum.&Thonn.), Phoenix leonensis		
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	Open forests, savannah woodland or low scrub thickets, usually in alluvial soils in positions such as near the banks of streams where there is permanent access to ground water, even if deep down.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	P. pumila[G] P. reclinata var. leonensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Senegal Date Palm [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	reclinata = reclined;
Systematics:	From a UDSA Plants Database
	Order: Arecales . Renamed to Arecaceae -- Palm family

Physical Characteristics

An evergreen tree growing to 6m by 4m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[2]. Much relished by the local peoples, they can also be used to make a wine[2].

The roasted seed is used as a coffee substitute[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a light moist but very well-drained soil in a sheltered position in full sun[231]. Succeeds in dry soils and is also tolerant of poor soils. Plants are tolerant of light shade, though they will not fruit when growing in such a position.

Capable of withstanding light frosts, this plant is worth trying outdoors in the very mildest parts of Britain[166]. Although certainly not hardy when young, this palm is unusually hardy when mature[231].

Palms usually have deep penetrating root systems and generally establish best when planted out at a young stage. However, older plants are substantially more cold tolerant than juvenile plants[231]. In areas at the limit of their cold tolerance, therefore, it is prudent to grow the plants in containers for some years, giving them winter protection, and only planting them into their permanent positions when sheer size dictates[231]. This species can be cultivated successfully for a long time in containers[231]. It can also be transplanted even when very large[231]. Although the thick fleshy roots are easily damaged and/or desiccated, new roots are generally freely produced. It is important to stake the plant very firmly to prevent rock, and also to give it plenty of water until re-established - removing many of the leaves can also help[231].

It takes 5 - 6 years from seed before the plant will have produced a full head of leaves and it will not start to form a trunk until this stage is reached[231].

Plants often form suckers around their base[231].

Dioecious, male and female plants must be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a warm greenhouse, otherwise sow the seed as soon as you obtain it. Germination usually takes place within 2 - 3 months. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Give the plants some protection from the cold for at least their first winter outdoors.

Division of suckers.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Phoenix reclinata* (Senegal Date palm)

For more details of plant suppliers please see our Suppliers Page which lists many more places to

look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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An excellent little booklet on the subject, though it does not mention many plant uses.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Range:	S. Africa.		
Habitat:	Open forests, savannah woodland or low scrub thickets, usually in alluvial soils in positions such as near the banks of streams where there is permanent access to ground water, even if deep down.		
Plants For A Future Rating (1-5):	1		

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Physical Characteristics

An evergreen tree growing to 6m by 4m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[2]. Much relished by the local peoples, they can also be used to make a wine[2].

The roasted seed is used as a coffee substitute[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a light moist but very well-drained soil in a sheltered position in full sun[231]. Succeeds in dry soils and is also tolerant of poor soils. Plants are tolerant of light shade, though they will not fruit when growing in such a position.

Capable of withstanding light frosts, this plant is worth trying outdoors in the very mildest parts of Britain[166]. Although certainly not hardy when young, this palm is unusually hardy when mature[231].

Palms usually have deep penetrating root systems and generally establish best when planted out at a young stage. However, older plants are substantially more cold tolerant than juvenile plants[231]. In areas at the limit of their cold tolerance, therefore, it is prudent to grow the plants in containers for some years, giving them winter protection, and only planting them into their permanent positions when sheer size dictates[231]. This species can be cultivated successfully for a long time in containers[231]. It can also be transplanted even when very large[231]. Although the thick fleshy roots are easily damaged and/or desiccated, new roots are generally freely produced. It is important to stake the plant very firmly to prevent rock, and also to give it plenty of water until re-established - removing many of the leaves can also help[231].

It takes 5 - 6 years from seed before the plant will have produced a full head of leaves and it will not start to form a trunk until this stage is reached[231].

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Propagation

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Division of suckers.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Phoenix+reclinata`
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Plants For A Future: Database Search Results

Phoenix reclinata

Common name:	Senegal date palm	Family:	Palmae
Author:	Jacq.	Botanical references:	1
Synonyms:	Phoenix spinosa (Schum.&Thonn.), Phoenix leonensis		
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	Open forests, savannah woodland or low scrub thickets, usually in alluvial soils in positions such as near the banks of streams where there is permanent access to ground water, even if deep down.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	P. pumila[G] P. reclinata var. leonensis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Senegal Date Palm [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	reclinata = reclined;
Systematics:	From a UDSA Plants Database
	Order: Arecales . Renamed to Arecaceae -- Palm family

Physical Characteristics

An evergreen tree growing to 6m by 4m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Coffee; Fruit.

Fruit - raw or cooked[2]. Much relished by the local peoples, they can also be used to make a wine[2].

The roasted seed is used as a coffee substitute[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a light moist but very well-drained soil in a sheltered position in full sun[231]. Succeeds in dry soils and is also tolerant of poor soils. Plants are tolerant of light shade, though they will not fruit when growing in such a position.

Capable of withstanding light frosts, this plant is worth trying outdoors in the very mildest parts of Britain[166]. Although certainly not hardy when young, this palm is unusually hardy when mature[231].

Palms usually have deep penetrating root systems and generally establish best when planted out at a young stage. However, older plants are substantially more cold tolerant than juvenile plants[231]. In areas at the limit of their cold tolerance, therefore, it is prudent to grow the plants in containers for some years, giving them winter protection, and only planting them into their permanent positions when sheer size dictates[231]. This species can be cultivated successfully for a long time in containers[231]. It can also be transplanted even when very large[231]. Although the thick fleshy roots are easily damaged and/or desiccated, new roots are generally freely produced. It is important to stake the plant very firmly to prevent rock, and also to give it plenty of water until re-established - removing many of the leaves can also help[231].

It takes 5 - 6 years from seed before the plant will have produced a full head of leaves and it will not start to form a trunk until this stage is reached[231].

Plants often form suckers around their base[231].

Dioecious, male and female plants must be grown if seed is required.

Propagation

Seed - probably best sown as soon as it is ripe in a warm greenhouse, otherwise sow the seed as soon as you obtain it. Germination usually takes place within 2 - 3 months. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Give the plants some protection from the cold for at least their first winter outdoors.

Division of suckers.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

The Palm Center

Distribution: UK
How to order: Online ordering only
Notes: An affiliate program for which we get a commision. No details of sustainability of growing methods
Last Updated: Oct 03
Item: *Phoenix reclinata* (Senegal Date palm)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Phoenix reclinata*

Subject:

Phoenix reclinata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Phoenix reclinata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:49:11 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Phormium cookianum

Common name:	Wharariki	Family:	Agavaceae
Author:	Le Jolis.	Botanical references:	11, 44, 200
Synonyms:	Phormium hookeri (Hook.f.), Phormium colensoi (Hook.f.)		
Known Hazards:	The root is highly purgative[173].		
Range:	New Zealand. Naturalized in Britain on the Scilly Isles.		
Habitat:	Coastal cliffs to mountain slopes, locally dominant on shady faces in high country, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	P. forsterianum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Wharariki [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	New Zealand(Maori)

Physical Characteristics

An evergreen perennial growing to 1.2m by 0.3m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Coffee; Gum; Nectar.

The roasted seed is used as a coffee substitute[173].

An edible nectar is obtained from the flowers[173].

An edible gum is obtained from the base of the leaves[173].

Medicinal Uses

Disclaimer

None known

Other Uses

Adhesive; Fibre; Gum.

A high quality pliable fibre is obtained from the leaves[153].

A gum found at the base of the leaves is used as a paper glue[173].

Cultivation details

Prefers a rich loamy soil[1] but is not too fussy, succeeding in peaty soils and in boggy moorland[11]. Tolerates light shade[1] but prefers full sun[200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233]. Very tolerant of maritime exposure, this species is recommended for coastal plantings[166, 187].

Hardy to about -10°c[187].

Polymorphic, there are many named varieties[200]. This species often hybridizes with P. tenax and there are many cultivars of uncertain origin.

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

The seed is best sown as soon as it is ripe in a cold frame. Sow stored seed in February in a cold frame. Germination is sometimes poor but should take place in 1 - 6 months at 15°c. The seedlings are very variable. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seed remains viable for about 12 months in normal storage[1].

Division in spring as growth commences. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Phormium colensoi* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Phormium cookianum

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Author:	Le Jolis.	Botanical references:	11, 44, 200
Synonyms:	Phormium hookeri (Hook.f.), Phormium colensoi (Hook.f.)		
Known Hazards:	The root is highly purgative[173].		
Range:	New Zealand. Naturalized in Britain on the Scilly Isles.		
Habitat:	Coastal cliffs to mountain slopes, locally dominant on shady faces in high country, North, South and Stewart Islands[44].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	P. forsterianum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Wharariki [E],
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	New Zealand(Maori)

Physical Characteristics

An evergreen perennial growing to 1.2m by 0.3m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from July to August. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Coffee; Gum; Nectar.

The roasted seed is used as a coffee substitute[173].

An edible nectar is obtained from the flowers[173].

An edible gum is obtained from the base of the leaves[173].

Medicinal Uses

Disclaimer

None known

Other Uses

Adhesive; Fibre; Gum.

A high quality pliable fibre is obtained from the leaves[153].

A gum found at the base of the leaves is used as a paper glue[173].

Cultivation details

Prefers a rich loamy soil[1] but is not too fussy, succeeding in peaty soils and in boggy moorland[11]. Tolerates light shade[1] but prefers full sun[200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233]. Very tolerant of maritime exposure, this species is recommended for coastal plantings[166, 187].

Hardy to about -10°c[187].

Polymorphic, there are many named varieties[200]. This species often hybridizes with P. tenax and there are many cultivars of uncertain origin.

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

The seed is best sown as soon as it is ripe in a cold frame. Sow stored seed in February in a cold frame. Germination is sometimes poor but should take place in 1 - 6 months at 15°c. The seedlings are very variable. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seed remains viable for about 12 months in normal storage[1].

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Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Cultivars

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Subject:

Phormium cookianum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Phormium cookianum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Phormium tenax

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	New Zealand flax	Family:	Agavaceae
Author:	Forst. & Forst. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand. Naturalized in Britain in S.W. England[17].		
Habitat:	Lowland swamps and intermittently flooded land, North South Stewart, Chatham and Auckland Islands[44].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Flax,New Zealand [E], Korare [E], New Zealand Flax [H,P,MS], New Zealand-flax [B],
Epithets:	From a Dictionary of Botanical Epithets
	tenax = tenacious;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Germany; New Zealand(Maori)

Physical Characteristics

An evergreen perennial growing to 3m by 2m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Coffee; Gum; Nectar.

The roasted seed is used as a coffee substitute[153, 173].

An edible nectar is obtained from the flowers[173]. Very wholesome eating[183]. A long hollow grass-stalk or straw is used to suck it out of the flowers[183].

An edible gum is obtained from the base of the leaves[173].

Medicinal Uses

Disclaimer

None known

Other Uses

Adhesive; Alcohol; Basketry; Dye; Fibre; Gum; Paper; Tannin.

A very high quality pliable fibre is obtained from the leaves[11, 57, 61, 128, 153]. It is used in the manufacture of ropes (they are not very strong[46]), twine, fine cloth etc. The fibre can also be used for making paper[189] The leaves are harvested in summer, they are scraped to remove the outer skin and are then soaked in water for 2 hours prior to cooking. The fibres are cooked for 24 hours with lye and then beaten in a ball mill for 4 hours. They make a cream paper[189].

The split leaves can be used to make nets, cloaks, sandals, straps etc[153]. They are also used in making paper and basket making[153, 169]. A strip of a leaf is an excellent emergency string substitute for tying up plants in the garden, it can be tied into a knot without breaking[128].

The leaf pulp, after the fibre has been removed, can be fermented to make alcohol[153].

A gum found in the leaves is used as a paper glue[173].

A brown dye is obtained from the flowers[168], it does not require a mordant[169].

A terra-cotta dye is obtained from the seedpods[168]. A mauve can also be obtained[168].

The flowers are rich in tannin[168].

Cultivation details

Prefers a rich loamy soil[1] but is not too fussy, succeeding in peaty soils and in boggy moorland[11]. Tolerates light shade[1] but prefers full sun[200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233]. Prefers a sheltered position[42] but tolerates maritime exposure[75]. Plants tolerate occasional flooding with saline water[200].

Plants can withstand temperatures down to about -11°c[42], but they can be killed in very severe winters in Britain[11].

A polymorphic species[78], there are many named varieties grown in Britain[11, 200]. This species hybridizes readily with P. colensoi and there are many named forms that may be hybrids with that species[11].

This plant has been considered for commercial cultivation for its fibre, though there is some difficulty in mechanically extracting the fibres due to the presence of a gum in the leaves. An alkali has been successfully used to break down the gum but this weakens the fibre. The Maoris had selected many different cultivars for different uses[153].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

The seed is best sown as soon as it is ripe in a cold frame. Sow stored seed in February in a cold frame. Germination is sometimes poor but should take place in 1 - 6 months at 15°c. The seedlings are very variable. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seed remains viable for about 12 months in normal storage[1].

Division in spring as growth commences. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Cultivars

'Yellow Wave'

> This cultivar is somewhat smaller growing than the type species and has attractively variegated leaves. It might be a hybrid with P. colensoi.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Fiber Plants
- Hedges and their uses
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: P
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
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[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Plants For A Future: Database Search Results

Phormium tenax

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	New Zealand flax	Family:	Agavaceae
Author:	Forst. & Forst. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand. Naturalized in Britain in S.W. England[17].		
Habitat:	Lowland swamps and intermittently flooded land, North South Stewart, Chatham and Auckland Islands[44].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Flax,New Zealand [E], Korare [E], New Zealand Flax [H,P,MS], New Zealand-flax [B],
Epithets:	From a Dictionary of Botanical Epithets
	tenax = tenacious;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Germany; New Zealand(Maori)

Physical Characteristics

An evergreen perennial growing to 3m by 2m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Coffee; Gum; Nectar.

The roasted seed is used as a coffee substitute[153, 173].

An edible nectar is obtained from the flowers[173]. Very wholesome eating[183]. A long hollow grass-stalk or straw is used to suck it out of the flowers[183].

An edible gum is obtained from the base of the leaves[173].

Medicinal Uses

Disclaimer

None known

Other Uses

Adhesive; Alcohol; Basketry; Dye; Fibre; Gum; Paper; Tannin.

A very high quality pliable fibre is obtained from the leaves[11, 57, 61, 128, 153]. It is used in the manufacture of ropes (they are not very strong[46]), twine, fine cloth etc. The fibre can also be used for making paper[189] The leaves are harvested in summer, they are scraped to remove the outer skin and are then soaked in water for 2 hours prior to cooking. The fibres are cooked for 24 hours with lye and then beaten in a ball mill for 4 hours. They make a cream paper[189].

The split leaves can be used to make nets, cloaks, sandals, straps etc[153]. They are also used in making paper and basket making[153, 169]. A strip of a leaf is an excellent emergency string substitute for tying up plants in the garden, it can be tied into a knot without breaking[128].

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A terra-cotta dye is obtained from the seedpods[168]. A mauve can also be obtained[168].

The flowers are rich in tannin[168].

Cultivation details

Prefers a rich loamy soil[1] but is not too fussy, succeeding in peaty soils and in boggy moorland[11]. Tolerates light shade[1] but prefers full sun[200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233]. Prefers a sheltered position[42] but tolerates maritime exposure[75]. Plants tolerate occasional flooding with saline water[200].

Plants can withstand temperatures down to about -11°c[42], but they can be killed in very severe winters in Britain[11].

A polymorphic species[78], there are many named varieties grown in Britain[11, 200]. This species hybridizes readily with P. colensoi and there are many named forms that may be hybrids with that species[11].

This plant has been considered for commercial cultivation for its fibre, though there is some difficulty in mechanically extracting the fibres due to the presence of a gum in the leaves. An alkali has been successfully used to break down the gum but this weakens the fibre. The Maoris had selected many different cultivars for different uses[153].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

The seed is best sown as soon as it is ripe in a cold frame. Sow stored seed in February in a cold frame. Germination is sometimes poor but should take place in 1 - 6 months at 15°c. The seedlings are very variable. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seed remains viable for about 12 months in normal storage[1].

Division in spring as growth commences. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Cultivars

'Yellow Wave'

> This cultivar is somewhat smaller growing than the type species and has attractively variegated leaves. It might be a hybrid with P. colensoi.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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Readers Comments

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Plants For A Future: Database Search Results

Cannabis sativa

Common name:	Hemp	Family:	Cannabidaceae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	The plant is a narcotic[19, 76]. Its action is almost entirely on the higher nerve centres, it can produce an exhilarating intoxication with hallucinations and is a widely used street drug[4]. It has also been widely used in the past by mystics and sages wanting to communicate with the higher forces of nature. The nature of its effect does depend much on the temperament of the individual[4]. The use of cannabis is considered to be less harmful than alcohol or tobacco by many people, nevertheless its use has been banned in many countries of the world including most western countries, New Zealand and Australia.		
Range:	W. Asia - Iran to India. A casual in Britain[17].		
Habitat:	Fluvial deposits on crags and stony slopes[74]. It is occasionally found as a casual on waste ground in Britain[17]. It is especially found as a weed of nitrogen-rich soils near human habitations[238]		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. chinense[H] C. indica[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bangue [E], Bhang [E], Canamo [E], Canamo Indio [E], Chanvre [H], Ganeb [H], Ganja [E,H], Han Ma [E], Hanf [H], Hemp [L,E], Hemp,Indian [E], Hennep [D], Hint Keneviri [E], Hops [H], Huang Ma [E], Huo Ma [E], Indian Hemp [H], Kenevir [E], Kif [H], Ma Fen [E], Ma Jen Chiu [E], Mariguana [E], Marijuana [L,B,S,P], Qunnab [E], Ta Ma [E], Tchene [E], Tekrouri [H],

Epithets:	From a Dictionary of Botanical Epithets sativa = cultivated;
Other Range Info:	From the Ethnobotany Database Belgium; Chile; China; Dominican Republic; Ei; Europe; Greece; Haiti; India; India(Santal); Java; Lesotho; Mexico; Morocco; Pakistan; South Africa; Spain; Trinidad; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Illinois, Minnesota, Missouri, North Dakota, Pennsylvania, West Virginia, Victoria, Western Australia.

Physical Characteristics

Annual growing to 2.5m by 0.8m . It is hardy to zone 9. It is in flower in July. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Oil; Seed.

Seed - raw or cooked. It can be parched and eaten as a condiment or made into cakes and fried[2, 85, 177, 183]. The seed is quite tasty, but it is very difficult to separate from the husk. We have tried grinding the seed, husk and all, and eating it this way, but it does then have a very gritty texture[K]. The seed contains about 27.1% protein, 25.6% fat, 7.4% carbohydrate, 6.1% ash[179]. A nutritional analysis is available calculated on a zero moisture basis[218].

A highly nutritious edible oil, rich in essential fatty acids, is obtained from the seed[105, 183].

Leaves. Used in soups[269]. The leaves contain 0.215% carotene[179].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 487 Protein: 31.4 Fat: 29.6 Carbohydrate: 31.9 Fibre: 23.5 Ash: 7.1
In milligrammes per 100g weight of food:
Calcium: 139 Phosphorus: 1123 Iron: 13.9 VitaminA: 518 Thiamine: 0.37 Riboflavin: 0.2
Niacin: 2.43 VitaminC: 0
Source: [218]

Medicinal Uses

Disclaimer

Analgesic; Anodyne; Anthelmintic; Antibacterial; Antiperiodic; Antispasmodic; Cancer; Cholagogue; Demulcent; Diuretic; Emmenagogue; Emollient; Febrifuge; Hypnotic; Laxative; Narcotic; Ophthalmic; Sedative; Tonic.

Hemp, or more appropriately cannabis since the form grown for fibre contains much less of the medicinally active compounds, has a very long history of medicinal use, though it is illegal to grow in many countries since the leaves and other parts of the plant are widely used as a narcotic drug[4]. The leaves and the resin that exudes from them are the parts mainly used, though all parts of the plant contain the active ingredients[4]. Cannabis contains a wide range of active ingredients, perhaps the most important of which is THC. The principal uses of the plant are as a pain-killer, sleep-inducer and reliever of the nausea caused by chemotherapy, whilst it also has a soothing influence in nervous disorders[4]. Although cannabis does not effect a cure for many of the problems it is prescribed to treat, it is a very safe and effective medicine for helping to reduce the symptoms of many serious diseases. For example, it relieves the MS sufferer of the distressing desire to urinate, even when the bladder is empty. As long as it is used regularly, it also greatly reduces the pressure in the eye to relieve the symptoms of glaucoma.

The whole plant is anodyne, anthelmintic, antiemetic, anti-inflammatory, antiperiodic, antispasmodic, cholagogue, diuretic, emollient, hypnotic, hypotensive, laxative, narcotic, ophthalmic and sedative[4, 7, 21, 46, 147, 176, 178, 192, 238, 243]. It is used to relieve some of the unpleasant side effects suffered by people undergoing chemotherapy for cancer - in particular it is very effective in removing the feelings of nausea and indeed helps to create an appetite and positive attitude of mind which is so important to people undergoing this treatment[K]. It has also been found of use in the treatment of glaucoma[200, 222, 238] and relieves the distressing constant desire to urinate that is suffered by many people with multiple sclerosis. Given to patients suffering from AIDS, it helps them to put on weight[238]. Since it strongly increases the desire for food it has been found of benefit in treating anorexia nervosa. It is used externally as a poultice for corns, sores, varicose veins, gout and rheumatism[218, 238].

Few plants have a greater array of folk medicine uses. Cannabis has been used in the treatment of a wide range of conditions including alcohol withdrawal, anthrax, asthma, blood poisoning, bronchitis, burns, catarrh, childbirth, convulsions, coughs, cystitis, delirium, depression, diarrhoea, dysentery, dysmenorrhoea, epilepsy, fever, gonorrhoea, gout, inflammation, insomnia, jaundice, lockjaw, malaria, mania, menorrhagia, migraine, morphine withdrawal, neuralgia, palsy, rheumatism, scalds, snakebite, swellings, tetanus, toothache, uteral prolapse, and whooping cough[269].

The seed is anodyne, anthelmintic, demulcent, diuretic, emollient, emmenagogue, febrifuge, laxative, narcotic and tonic[218]. It is used to treat constipation caused by debility or fluid retention[238]. The seed is an important source of essential fatty acids and can be very helpful in the treatment of many nervous diseases.

A high content of very active antibacterial and analgesic substances has been found in the plant[240]. It has bactericidal effects on gram-positive micro-organisms, in some cases up to a dilution of 1:150,000[240].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fibre; Paper; Repellent.

A drying oil is obtained from the seed. It is used for lighting, soap making, paints, varnish etc[4, 7, 21, 46, 57, 171]. In the temperate zone, oil is produced from females which have been left to stand after the fibre-producing males have been harvested[269]. A varnish is made from the pressed seeds[269]. Seed is harvested from the female plants when most of it falls off when the plant is shaken. Best time of day to harvest seed is in early morning when fruits are turgid and conditions damp. As fruits dry out by mid-day, seed loss increases due to shattering. Usually stems are cut and the seeds shaken out over canvas sheets or beaten with sticks to extract the seeds[269].

A fibre is obtained from the stem. It is strong and very durable[171] and is used in making coarse fabrics, rope etc[1, 7, 21, 46, 57, 61]. Male plants produce the best fibres and they are harvested when the plants turn brown and the flowers begin to open[123, 171, 269]. When used for making paper the stems are harvested in the autumn and either retted or steamed until the fibres can be removed. The fibre is cooked for 2 hours or more with lye and then beaten in a ball mill or Hollander beater. The paper is off-white in colour[189].

A good companion plant for cabbages and other brassicas, it repels the cabbage white butterfly[4, 18, 20, 201] and also secretes a volatile essence from its roots that inhibits pathogenic micro-organisms in the soil[201].

Cultivation details

Cannabis is very adaptable to soil and climatic conditions[269]. It prefers a rich loamy soil with plenty of humus[171] but it succeeds in ordinary garden soil[1] and also in calcareous soils[171]. When grown for fibre, it requires a mild temperate climate with at least 67cm annual rainfall, with abundant rain whilst the seeds are germinating and until young plants become established[269]. Cannabis thrives on rich, fertile, neutral to slightly alkaline, well-drained silt or clay loams with moisture retentive subsoils, it does not grow well on acid, sandy soils[269]. Of the many types of hemp, some are adapted to most vegetated terrains and climates[269]. Cannabis is reported to tolerate an annual precipitation range of 30 to 400cm, an average annual temperature range of 6 to 27°C and a pH in the range of 4.5 to 8.2[269].

Plants require little cultivation, except for weeding during early stages of growth. Hemp grows rapidly and soon crowds out weeds[269]. After the plants are 20 cm tall, weeding is abandoned. Hemp tends to exhaust the soil of nutrients, though some nutrients are returned to the soil after plants are harvested[269].

Hemp is commonly cultivated for its fibre, edible seed and oil in many areas of the world, it is also a socially acceptable drug in areas of Asia and the Middle East[238]. However, it is illegal to grow in Britain and many other western countries (plus Australia and New Zealand) because it contains certain narcotic principles and is a commonly used narcotic drug[20, 123, 238].

As Cannabis sativa has been cultivated for over 4,500 years for different purposes, many varieties and cultivars have been selected for specific purposes, as fibre, oil or narcotics. Drug-producing selections grow better and produce more drug in the tropics; oil and fibre producing plants thrive better in the temperate and subtropical areas. Many of the cultivars and varieties have been named as to the locality where it is grown mainly. However, all so called varieties freely interbreed and produce various combinations of the characters. The form of the plant and the yield of fibre from it vary according to climate and particular variety. Varieties cultivated particularly for their fibres have long stalks, branch very little, and yield only small quantities of seed. Varieties which are grown for the oil from their seed are short in height, mature early and produce large quantities of seed. Varieties grown for the drugs are short, much-branched with smaller dark-green leaves. Between these three main types of plants are numerous varieties which differ from the main one in height, extent of branching and other characteristics[269]. At least one variety has been selected for its virtually insignificant content of the narcotic principles[141]. This form is monoecious whereas most other forms are dioecious[141]. There is also said to be a tall Chinese form that has no narcotic effect[179]. However in 1999 even these varieties are illegal to grow in Britain without a special licence. Certain varieties do not form many side-shoots and these are the forms most commonly grown for their fibre[123]. Plants grown in warmer climates tend to be best for medicinal use, whilst those grown in more northerly latitudes produce the better fibre[4].

The seed is very attractive to birds and is often included in bird seed mixtures[7].

Propagation

Seed - sow in early spring in the greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in early summer. Seeds germinate well at low temperatures, but not below 1°C[269].

The seed can also be sown outdoors in situ in mid spring.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cannabis+sativa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cannabis+sativa`

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Subject:

Cannabis sativa

Group:
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Comment:

Enter your comment about this plant here.

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Cannabis sativa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Fiber Plants

Group:
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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

fibplant.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Subject:

Fiber Plants

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Subject:

Fiber Plants

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Apocynum cannabinum

Common name:	Indian hemp	Family:	Apocynaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	All parts of the plant are poisonous[1, 4, 19, 62]. It contains toxic cardioactive glycosides[222].		
Range:	North-eastern N. America.		
Habitat:	Gravelly or sandy soil, mainly near streams[4]. A common weed of cultivated land[60], usually found in shady or moist places[94].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. album var. hypericifolium[P] A. cannabinum var. angustifolium[B,P] A. cannabinum var. glaberrimum[B,P] A. cannabinum var. greeneanum[B,P] A. cannabinum var. hypericifolium[B,P] A. cannabinum var. nemorale[B,P] A. cannabinum var. pubescens[B,P] A. cannabinum var. suksdorfii[B,P] A. hypericifolium[B,P] A. pubescens[B,P] A. sibiricum[B,P] A. sibiricum var. cordigerum[B,P] A. sibiricum var. farwellii[B,P] A. sibiricum var. salignum[B,P] A. suksdorfii[B,P] A. suksdorfii var. angustifolium[B,P]
	From various places around the Web, may not be correct. See below.

Other Common Names:	American Hemp [H], Amyroot [H], Bitter Root [H,S], Black Indian Hemp [H], Bowman's Root [H], Canacian Hemp [H], Canadian Hemp [S], Canadian Hemp [S,H], Canadian Or Indian Hemp [S], Choctaw Root [H], Dogbane [E], Hemp, Canadian [S], Hint Keneviri [E], Indian Hemp [L], Indian Or Canada Hemp [S], Indian Physic [H], Indian-hemp [B], Indianhemp [P], Milkweed [H], Rheumatism Weed [H], Wild Cotton [H],
Epithets:	From a Dictionary of Botanical Epithets cannabinum = hemp like;
Systematics:	From a UDSA Plants Database Order: Gentianales . Dogbane family
Other Range Info:	From the Ethnobotany Database Turkey; Us; Us(Blackfoot); Us(Indian)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Nevada.

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 4. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Gum; Seed.

Seed - raw or cooked[257]. It can be ground into a powder and used as a meal[94].

A latex obtained from the plant is used as a chewing gum[61, 94, 177]. After the latex has been squeezed from the plant it s allowed to stand overnight to harden into a white gum[257]. The latex was sometimes mixed with clean clay[257].

Medicinal Uses

Disclaimer

Cardiotonic; Diaphoretic; Diuretic; Emetic; Expectorant; Tonic; VD; Vermifuge; Warts.

Indian hemp is an unpleasantly bitter stimulant irritant herb that acts on the heart, respiratory and urinary systems, and also on the uterus[238]. It was much employed by various native North American Indian tribes who used it to treat a wide variety of complaints including rheumatism, coughs, pox, whooping cough, asthma, internal parasites, diarrhoea and also to increase milk flow in lactating mothers[257]. The plant is still used in modern herbalism, but it should be used with great caution, and only under the supervision of a qualified practitioner if taken internally[[4, 222, 238]. See the notes above on toxicity[4, 222].

The root is cardiotonic, diaphoretic, diuretic, emetic and expectorant[4, 46, 61, 94, 238]. It is harvested in the autumn and dried for later use[238]. The fresh root is the most active part medicinally. It has been used in the treatment of syphilis and as a tonic[207]. A weak tea made from the dried root has been used for cardiac diseases[207, 222].

A tea made from the root has been used as a vermifuge[213].

The milky sap is a folk remedy for venereal warts[222].

Other Uses

Fibre; Latex.

A very good quality fibre obtained from the bark is used for making clothes, twine, bags, linen, paper etc[1, 46, 61, 92, 94, 95, 189, 257]. It is about 12 - 18mm long[189]. Very strong[99], it is used as a flax substitute[57], it does not shrink and it retains its strength in water[99]. The fibre is produced late in the season[85], it can be harvested after the leaves fall in autumn but is probably at its best as the seed pods are forming[169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189].

The plant yields a latex which is a possible source of rubber[46, 61, 177]. The latex is also used as a chewing gum.

Cultivation details

Succeeds in sun or shade in most well-drained moist soils[169, 238].

Plants can be invasive[200].

The young shoots of this plant are extremely attractive to slugs[K].

Propagation

Seed - best sown as soon as it is ripe in late summer and overwintered outdoors. The seed requires a period of cold stratification if it is to germinate well[238]. Prick out the seedlings when large enough to handle and grow them on in a cold frame for their first winter, planting out in late spring of the following year[K].

Division in spring just before active growth begins[200]. Plants can also be divided in the autumn[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Fiber Plants

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Illustration from the Southwest School of Botanical Medicine
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Apocynaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
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[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
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[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Fiber Plants

gordon soaring hawk Tue Apr 1 23:48:06 2003

Apocynum cannabinum - dogbane. As a native American artist, I have extensively used dogbane for fiber material. It is easily separated from the stalks and produces a very strong fiber. I have seen nets used for catching rabbits created by the Paiute Indians. These works of art contain over two miles of hand-made cordage. unfortunately, the state of Utah deems this plant to be a noxious weed, and it is being extirpated along much of its former range. It is getting harder to find, but it rivals the best linen in its strength and softness. I use it for cordage, bowstrings, and lashings for arrows, spears, and other artifacts.

Details of Growing Condition: I usually find it along ditchbanks and open streams, where it grows up to about five feet under optimal conditions. Three feet is average, but once in some particularly rich soil, I found enormous stalks growing six feet tall. This was in a canyon in Uta.

Cross references: *Plants:* *Cannabis sativa* . *Genera:* *Apocynum cannabinum*. *Web-pages:* *Fiber Plants*.

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Plants For A Future: Database Search Results

Apocynum cannabinum

Common name:	Indian hemp	Family:	Apocynaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	All parts of the plant are poisonous[1, 4, 19, 62]. It contains toxic cardioactive glycosides[222].		
Range:	North-eastern N. America.		
Habitat:	Gravelly or sandy soil, mainly near streams[4]. A common weed of cultivated land[60], usually found in shady or moist places[94].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. album var. hypericifolium[P] A. cannabinum var. angustifolium[B,P] A. cannabinum var. glaberrimum[B,P] A. cannabinum var. greeneanum[B,P] A. cannabinum var. hypericifolium[B,P] A. cannabinum var. nemorale[B,P] A. cannabinum var. pubescens[B,P] A. cannabinum var. suksdorfii[B,P] A. hypericifolium[B,P] A. pubescens[B,P] A. sibiricum[B,P] A. sibiricum var. cordigerum[B,P] A. sibiricum var. farwellii[B,P] A. sibiricum var. salignum[B,P] A. suksdorfii[B,P] A. suksdorfii var. angustifolium[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Hemp [H], Amyroot [H], Bitter Root [H,S], Black Indian Hemp [H], Bowman's Root [H], Canacian Hemp [H], Canadian Hemp [S], Canadian Hemp [S,H], Canadian Or Indian Hemp [S], Choctaw Root [H], Dogbane [E], Hemp, Canadian [S], Hint Keneviri [E], Indian Hemp [L], Indian Or Canada Hemp [S], Indian Physic [H], Indian-hemp [B], Indianhemp [P], Milkweed [H], Rheumatism Weed [H], Wild Cotton [H],

Epithets:	From a Dictionary of Botanical Epithets cannabinum = hemp like;
Systematics:	From a UDSA Plants Database Order: Gentianales . Dogbane family
Other Range Info:	From the Ethnobotany Database Turkey; Us; Us(Blackfoot); Us(Indian)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Nevada.

Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 4. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Gum; Seed.

Seed - raw or cooked[257]. It can be ground into a powder and used as a meal[94].

A latex obtained from the plant is used as a chewing gum[61, 94, 177]. After the latex has been squeezed from the plant it s allowed to stand overnight to harden into a white gum[257]. The latex was sometimes mixed with clean clay[257].

Medicinal Uses

Disclaimer

Cardiotonic; Diaphoretic; Diuretic; Emetic; Expectorant; Tonic; VD; Vermifuge; Warts.

Indian hemp is an unpleasantly bitter stimulant irritant herb that acts on the heart, respiratory and urinary systems, and also on the uterus[238]. It was much employed by various native North American Indian tribes who used it to treat a wide variety of complaints including rheumatism, coughs, pox, whooping cough, asthma, internal parasites, diarrhoea and also to increase milk flow in lactating mothers[257]. The plant is still used in modern herbalism, but it should be used with great caution, and only under the supervision of a qualified practitioner if taken internally[[4, 222, 238]. See the notes above on toxicity[4, 222].

The root is cardiotonic, diaphoretic, diuretic, emetic and expectorant[4, 46, 61, 94, 238]. It is harvested in the autumn and dried for later use[238]. The fresh root is the most active part medicinally. It has been used in the treatment of syphilis and as a tonic[207]. A weak tea made from the dried root has been used for cardiac diseases[207, 222].

A tea made from the root has been used as a vermifuge[213].

The milky sap is a folk remedy for venereal warts[222].

Other Uses

Fibre; Latex.

A very good quality fibre obtained from the bark is used for making clothes, twine, bags, linen, paper etc[1, 46, 61, 92, 94, 95, 189, 257]. It is about 12 - 18mm long[189]. Very strong[99], it is used as a flax substitute[57], it does not shrink and it retains its strength in water[99]. The fibre is produced late in the season[85], it can be harvested after the leaves fall in autumn but is probably at its best as the seed pods are forming[169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189].

The plant yields a latex which is a possible source of rubber[46, 61, 177]. The latex is also used as a chewing gum.

Cultivation details

Succeeds in sun or shade in most well-drained moist soils[169, 238].

Plants can be invasive[200].

The young shoots of this plant are extremely attractive to slugs[K].

Propagation

Seed - best sown as soon as it is ripe in late summer and overwintered outdoors. The seed requires a period of cold stratification if it is to germinate well[238]. Prick out the seedlings when large enough to handle and grow them on in a cold frame for their first winter, planting out in late spring of the following year[K].

Division in spring just before active growth begins[200]. Plants can also be divided in the autumn[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Fiber Plants

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S] Illustration from the Southwest School of Botanical Medicine
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Apocynaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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Cross references: *Plants:* *Cannabis sativa* . *Genera:* *Apocynum cannabinum*. *Web-pages:* *Fiber Plants*.

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Search for Latin Name: Apocynum cannabinum

New Search: Apocynum cannabinum Search

Latin Name	Common Name	Family	Synonyms	Rating
Apocynum cannabinum	Indian hemp	Apocynaceae	A. album var. hypericifolium; A. cannabinum var. angustifolium; A. cannabinum var. glaberrimum; A. cannabinum var. greeneanum; A. cannabinum var. hypericifolium; A. cannabinum var. nemorale; A. cannabinum var. pubescens; A. cannabinum var. suksdorfii; A. hypericifolium; A. pubescens; A. sibiricum; A. sibiricum var. cordigerum; A. sibiricum var. farwellii; A. sibiricum var. salignum; A. suksdorfii; A. suksdorfii var. angustifolium	3
Apocynum venetum		Apocynaceae	A. sibiricum. Trachomitum venetum. (L.)Woodson.; A. cannabinum; A. cannabinum var. angustifolium; A. cannabinum var. glaberrimum; A. cannabinum var. greeneanum; A. cannabinum var. hypericifolium; A. cannabinum var. nemorale; A. cannabinum var. pubescens; A. cannabinum var. suksdorfii	2

New Search

Latin Name	Apocynum cannabinum
Common Name	
Family	

Rating 1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Plants For A Future: Database Search Results

Apocynum cannabinum

Common name:	Indian hemp	Family:	Apocynaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	All parts of the plant are poisonous[1, 4, 19, 62]. It contains toxic cardioactive glycosides[222].		
Range:	North-eastern N. America.		
Habitat:	Gravelly or sandy soil, mainly near streams[4]. A common weed of cultivated land[60], usually found in shady or moist places[94].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

Perennial growing to 0.6m by 1m . It is hardy to zone 4. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Gum; Seed.

Seed - raw or cooked[257]. It can be ground into a powder and used as a meal[94].

A latex obtained from the plant is used as a chewing gum[61, 94, 177]. After the latex has been squeezed from the plant it s allowed to stand overnight to harden into a white gum[257]. The latex was sometimes mixed with clean clay[257].

Medicinal Uses

Disclaimer

Cardiotonic; Diaphoretic; Diuretic; Emetic; Expectorant; Tonic; VD; Vermifuge; Warts.

Indian hemp is an unpleasantly bitter stimulant irritant herb that acts on the heart, respiratory and urinary systems, and also on the uterus[238]. It was much employed by various native North American Indian tribes who used it to treat a wide variety of complaints including rheumatism, coughs, pox, whooping cough, asthma, internal parasites, diarrhoea and also to increase milk flow in lactating mothers[257]. The plant is still used in modern herbalism, but it should be used with great caution, and only under the supervision of a qualified practitioner if taken internally[[4, 222, 238]. See the notes above on toxicity[4, 222].

The root is cardiotonic, diaphoretic, diuretic, emetic and expectorant[4, 46, 61, 94, 238]. It is harvested in the autumn and dried for later use[238]. The fresh root is the most active part medicinally. It has been used in the treatment of syphilis and as a tonic[207]. A weak tea made from the dried root has been used for cardiac diseases[207, 222].

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The milky sap is a folk remedy for venereal warts[222].

Other Uses

Fibre; Latex.

A very good quality fibre obtained from the bark is used for making clothes, twine, bags, linen, paper etc[1, 46, 61, 92, 94, 95, 189, 257]. It is about 12 - 18mm long[189]. Very strong[99], it is used as a flax substitute[57], it does not shrink and it retains its strength in water[99]. The fibre is produced late in the season[85], it can be harvested after the leaves fall in autumn but is probably at its best as the seed pods are forming[169]. When making paper, the stems can be retted by leaving them in the ground until they are dry in the winter or they can be harvested in late summer, the leaves removed and the stems steamed to remove the fibre[189]. The stems are then cooked for two hours with lye and pounded with mallets[189].

The plant yields a latex which is a possible source of rubber[46, 61, 177]. The latex is also used as a chewing gum.

Cultivation details

Succeeds in sun or shade in most well-drained moist soils[169, 238].

Plants can be invasive[200].

The young shoots of this plant are extremely attractive to slugs[K].

Propagation

Seed - best sown as soon as it is ripe in late summer and overwintered outdoors. The seed requires a period of cold stratification if it is to germinate well[238]. Prick out the seedlings when large enough to handle and grow them on in a cold frame for their first winter, planting out in late spring of the following year[K].

Division in spring just before active growth begins[200]. Plants can also be divided in the autumn[238].

Suppliers

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Apocynum venetum

Common name:		Family:	Apocynaceae
Author:	L.	Botanical references:	50, 200
Synonyms:	Trachomitum venetum ((L.)Woodson.), Apocynum sibiricum (Jacq.)		
Known Hazards:	All parts of the plant are poisonous[1, 62].		
Range:	S. Europe. N. Africa - Syria.		
Habitat:	Swamps, wet places and maritime sands[1, 50].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. album var. hypericifolium[P] A. cannabinum[B,CPHOTO,CAL,CAL,E,G,H,HORTIPLEX,L,Sa,Sill,Smap,Sn3,P] A. cannabinum var. angustifolium[B,P] A. cannabinum var. glaberrimum[B,P] A. cannabinum var. greeneanum[B,P] A. cannabinum var. hypericifolium[B,P] A. cannabinum var. nemorale[B,P] A. cannabinum var. pubescens[B,P] A. cannabinum var. suksdorfii[B,P] A. hypericifolium[B,P] A. pubescens[B,P] A. sibiricum var. cordigerum[B,P] A. sibiricum var. farwellii[B,P] A. sibiricum var. salignum[B,P] A. suksdorfii[B,P] A. suksdorfii var. angustifolium[B,P]
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Systematics:	From a UDSA Plants Database

	Order: Gentianales . Dogbane family
Other Range Info:	From the Ethnobotany Database
	China; Turkey; Us; Us(Blackfoot); Us(Indian)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.

Physical Characteristics

Perennial growing to 0.3m by 1m . It is hardy to zone 4. It is in flower in August. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cardiotonic; Diuretic; Hypotensive.

The leaves or the whole herb is cardiotonic, diuretic and hypotensive[176, 218]. It is used in the treatment of hypertensive headache, dizziness, insomnia, irritability, oliguria and nephritic oedema[176]. It increases the renal blood flow and can be used for renal and cardiac oedema and ascites of liver cirrhosis[176].

Other Uses

Fibre.

The bark yields a fibre that is used for making twine, bags, linen etc[46, 61]. It can be harvested after the leaves fall in autumn but is probably at its best as the seed pods are forming[169].

Cultivation details

Succeeds in sun or shade in most well-drained but moisture-retentive soils[1, 200].

Plants can be invasive[200].

The flowers are attractive to bees.

Propagation

Seed - best sown as soon as it is ripe in late summer and overwintered outdoors. The seed requires a period of cold stratification if it is to germinate well[238]. Prick out the seedlings when large enough to handle and grow them on in a cold frame for their first winter, planting out in late spring of the following year[K].

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Suppliers

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References

[K] **Ken Fern**
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Name of Site:

URL for Site: http://

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Plants For A Future: Database Search Results

Apocynum venetum

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Synonyms:	Trachomitum venetum ((L.)Woodson.), Apocynum sibiricum (Jacq.)		
Known Hazards:	All parts of the plant are poisonous[1, 62].		
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Habitat:	Swamps, wet places and maritime sands[1, 50].		
Plants For A Future Rating (1-5):	2		

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Systematics:	From a UDSA Plants Database
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Injurious Weeds	Listed as noxious/invasive for: Nevada.

Physical Characteristics

Perennial growing to 0.3m by 1m . It is hardy to zone 4. It is in flower in August. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cardiotonic; Diuretic; Hypotensive.

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Subject:

Apocynum venetum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Apocynum venetum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

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Plants For A Future: Database Search

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Search for Latin Name: Apocynum cannabinum

New Search: Apocynum cannabinum Search

Latin Name	Common Name	Family	Synonyms	Rating
Apocynum cannabinum	Indian hemp	Apocynaceae	A. album var. hypericifolium; A. cannabinum var. angustifolium; A. cannabinum var. glaberrimum; A. cannabinum var. greeneanum; A. cannabinum var. hypericifolium; A. cannabinum var. nemorale; A. cannabinum var. pubescens; A. cannabinum var. suksdorfii; A. hypericifolium; A. pubescens; A. sibiricum; A. sibiricum var. cordigerum; A. sibiricum var. farwellii; A. sibiricum var. salignum; A. suksdorfii; A. suksdorfii var. angustifolium	3

Apocynum venetum		Apocynaceae	A. sibiricum. Trachomitum venetum. (L.)Woodson.; A. cannabinum; A. cannabinum var. angustifolium; A. cannabinum var. glaberrimum; A. cannabinum var. greeneanum; A. cannabinum var. hypericifolium; A. cannabinum var. nemorale; A. cannabinum var. pubescens; A. cannabinum var. suksdorfii	2

New Search

Latin Name Apocynum cannabinum

Common Name

Family

Rating 1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

Submit

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/find_lat?LAT=Apocynum+cannabinum`
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Cannabis sativa Apocynum cannabinum

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Plants For A Future: Database Search Results

Phormium tenax

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	New Zealand flax	Family:	Agavaceae
Author:	Forst. & Forst. f.	Botanical references:	11, 44, 200
Synonyms:			
Known Hazards:	None known		
Range:	New Zealand. Naturalized in Britain in S.W. England[17].		
Habitat:	Lowland swamps and intermittently flooded land, North South Stewart, Chatham and Auckland Islands[44].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Flax,New Zealand [E], Korare [E], New Zealand Flax [H,P,MS], New Zealand-flax [B],
Epithets:	From a Dictionary of Botanical Epithets
	tenax = tenacious;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Century-plant family
Other Range Info:	From the Ethnobotany Database
	Germany; New Zealand(Maori)

Physical Characteristics

An evergreen perennial growing to 3m by 2m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Coffee; Gum; Nectar.

The roasted seed is used as a coffee substitute[153, 173].

An edible nectar is obtained from the flowers[173]. Very wholesome eating[183]. A long hollow grass-stalk or straw is used to suck it out of the flowers[183].

An edible gum is obtained from the base of the leaves[173].

Medicinal Uses

Disclaimer

None known

Other Uses

Adhesive; Alcohol; Basketry; Dye; Fibre; Gum; Paper; Tannin.

A very high quality pliable fibre is obtained from the leaves[11, 57, 61, 128, 153]. It is used in the manufacture of ropes (they are not very strong[46]), twine, fine cloth etc. The fibre can also be used for making paper[189] The leaves are harvested in summer, they are scraped to remove the outer skin and are then soaked in water for 2 hours prior to cooking. The fibres are cooked for 24 hours with lye and then beaten in a ball mill for 4 hours. They make a cream paper[189].

The split leaves can be used to make nets, cloaks, sandals, straps etc[153]. They are also used in making paper and basket making[153, 169]. A strip of a leaf is an excellent emergency string substitute for tying up plants in the garden, it can be tied into a knot without breaking[128].

The leaf pulp, after the fibre has been removed, can be fermented to make alcohol[153].

A gum found in the leaves is used as a paper glue[173].

A brown dye is obtained from the flowers[168], it does not require a mordant[169].

A terra-cotta dye is obtained from the seedpods[168]. A mauve can also be obtained[168].

The flowers are rich in tannin[168].

Cultivation details

Prefers a rich loamy soil[1] but is not too fussy, succeeding in peaty soils and in boggy moorland[11]. Tolerates light shade[1] but prefers full sun[200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233]. Prefers a sheltered position[42] but tolerates maritime exposure[75]. Plants tolerate occasional flooding with saline water[200].

Plants can withstand temperatures down to about -11°c[42], but they can be killed in very severe winters in Britain[11].

A polymorphic species[78], there are many named varieties grown in Britain[11, 200]. This species hybridizes readily with P. colensoi and there are many named forms that may be hybrids with that species[11].

This plant has been considered for commercial cultivation for its fibre, though there is some difficulty in mechanically extracting the fibres due to the presence of a gum in the leaves. An alkali has been successfully used to break down the gum but this weakens the fibre. The Maoris had selected many different cultivars for different uses[153].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

The seed is best sown as soon as it is ripe in a cold frame. Sow stored seed in February in a cold frame. Germination is sometimes poor but should take place in 1 - 6 months at 15°c. The seedlings are very variable. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. The seed remains viable for about 12 months in normal storage[1].

Division in spring as growth commences. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Cultivars

'Yellow Wave'

> This cultivar is somewhat smaller growing than the type species and has attractively variegated leaves. It might be a hybrid with P. colensoi.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Phormium+tenax`
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Enter your comment about this plant here.

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Phormium tenax

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Pseudotsuga menziesii

Common name:	Douglas fir	Family:	Pinaceae
Author:	(Mirbel.) Franko.	Botanical references:	11, 60, 200
Synonyms:	Pseudotsuga taxifolia ((Lamb.)Britton. ex Sudw.), Pseudotsuga douglasii ((Lindl.)Carrière.), Pinus taxifolia (Lamb.), Abies menziesii (Mirb.), Abies douglasii (Lindl.)		
Known Hazards:	None known		
Range:	Western N. America - Canada to California. Occasionally self-sows in Britain[17].		
Habitat:	Moist to very dry areas from sea level to near the tree-line in the Rocky mountains[60]. The best specimens are found on well-drained deep loamy soils with plenty of moisture[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Abies mucronata[G] Abies taxifolia[G] P. menziesii var. menziesii[B,CPHOTO,CAL,,G,P] P. mucronata[G,P] P. tascifolia[H] P. taxifolia var. viridis[G] Pinus douglasii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Coast Douglas-fir [FEIS], Douglas Fir [H,P,E], Douglas-fir [B,DEN1], Douglasspar [D],
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Us; Us(Blackfoot); Us(Flathead)

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 75m by 20m at a fast rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from March to May, and the seeds ripen from September to November. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Condiment; Gum; Inner bark; Manna; Tea.

Young shoot tips - used as a flavouring in cooked foods[15, 177]. A subtle woodsy flavour[183].

A refreshing tea is made from the young leaves and twigs[14, 46, 177, 257]. Rich in vitamin C[183]. It is used as a coffee substitute according to some reports[92, 95, 161, 257]. The fresh leaves have a pleasant balsamic odour and are used as a coffee substitute[213].

Inner bark - dried, ground into a meal and mixed with cereals for making bread etc[161, 213]. A famine food used when all else fails[177].

A sweet manna-like substance is exuded from the bark[177, 183]. This report possibly refers to the resin that is obtained from the trunk[K], and is used as a chewing gum by various native North American Indian tribes[226]. Alternatively, the report could be referring to the sap which is used as a sugar-like food[257].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Kidney; Mouthwash; Poultice; Skin.

Douglas fir was often employed medicinally by various native North American Indian tribes who used it to treat a variety of complaints[257]. It is little, if at all, used in modern herbalism.

An antiseptic resin is obtained from the trunk. It is used as a poultice to treat cuts, burns, wounds and other skin ailments[226, 257]. The poultice is also used to treat injured or dislocated bones[257]. The resin is used in the treatment of coughs and can be chewed as a treatment for sore throats[257].

An infusion of the green bark has been used in the treatment of excessive menstruation, bleeding bowels and stomach problems[257].

An infusion of the leaves has been used as a wash and a sweat bath for rheumatic and paralyzed joints[257].

An infusion of the young sprouts has been used in the treatment of colds[257].

An infusion of the twigs or shoots has been used in the treatment of kidney and bladder problems[257].

A decoction of the buds has been used in the treatment of venereal disease[257].

Young shoots have been placed in the tips of shoes to keep the feet from perspiring and to prevent athletes foot[257].

A mouthwash is made by soaking the shoots in cold water[15].

Other Uses

Basketry; Cork; Dye; Fertilizer; Fuel; Insecticide; Resin; Shelterbelt; Tannin; Wood.

A light brown dye is obtained from the bark[118, 257].

The bark is a source of tannins[46, 82].

The bark can be used as a cork substitute[171] and is also used to make fertilizer[226].

The bark contains pitch, it burns with a lot of heat and almost no smoke, so it is prized as a fuel[226, 257].

The small roots have been used to make baskets[257].

The plant has insecticidal properties[171].

A resin is obtained from the trunk, similar to Abies balsamea[61, 64] which is used in the manufacture of glues, candles, as a cement for microscopes and slides and also as a fixative in soaps and perfumery[171]. The resin can also be used as a caulking material on boats[257].

A fast growing and fairly wind-resistant tree, it is often used in shelterbelt plantings[185].

Wood - heavy, strong, fine grained, durable, though it can be of variable quality. It dries quickly, does not warp and is easily worked, it is used for heavy construction, telegraph poles, furniture etc[21, 46, 61, 82, 99, 171, 200, 226]. It is also used as a good quality fuel[46, 99, 257].

Cultivation details

Prefers a moist but not water-logged alluvial soil[1]. Dislikes calcareous soils[1]. Trees are a failure on dry hungry soils.[11]. Whilst they are moderately wind resistant[166], tall specimens are likely to lose their crowns once they are more than 30 metres tall in all but the most sheltered areas[185].

A very ornamental tree[1], it is the most cultivated timber tree in the world and is extensively used for re-afforestation in Britain[200]. There are several named varieties selected for their ornamental value[188].

Trees can be established in light shade but this must be removed in the first few years or growth will suffer[185].

Very slow growing for its first few years, growth soon becomes extremely fast with new shoots of up to 1.2 metres a year[185]. This annual increase can be maintained for many years[185]. Trees in sheltered Scottish valleys have reached 55 metres in 100 years[200]. New growth takes place from May to July[185]. The trees require abundant rainfall for good growth[11, 49].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Trees are very long-lived, specimens over 1,000 years old are known[226]. Seed production commences when trees are about 10 years old, though good production takes another 15 - 20 years[229]. Good crops are produced about every 6 years[229].

This tree is a pioneer species because it cannot reproduce under its own canopy[226].

The bark on mature trees can be 30cm thick, and this insulates the trunks from the heat of forest fires[213].

This species is notably resistant to honey fungus[81, 200]. Young growth can be damaged by late frosts[81].

The leaves have a strong sweet fruity aroma[185].

Propagation

Seed - best sown in the autumn to winter in a cold frame so that it is stratified[80]. The seed can also be stored dry and sown in late winter. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Seedlings tolerate light shade for their first few years of growth. Cones often fall from the tree with their seed still inside[80].

If you have plenty of seed then it can be sown in an outdoor seedbed in early spring[80]. Grow the plants on for at least two years in the seedbed before planting them out in late autumn or early spring.

Scent

Leaves: Crushed

> The leaves have a strong sweet fruity aroma.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: P
- Trees and Shrubs for Shelterbelts: P
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Pseudotsuga menziesii var. menziesii* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Pseudotsuga tascifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Pseudotsuga taxifolia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for

casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[118] **Gunther. E.** *Ethnobotany of Western Washington.* University of Washington Press 1981 ISBN 0-295-95258-X
A small book, it is a good guide to useful plants in Western N. America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9

A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Pseudotsuga menziesii

Common name:	Douglas fir	Family:	Pinaceae
Author:	(Mirbel.) Franko.	Botanical references:	11, 60, 200
Synonyms:	Pseudotsuga taxifolia ((Lamb.)Britton. ex Sudw.), Pseudotsuga douglasii ((Lindl.)Carrière.), Pinus taxifolia (Lamb.), Abies menziesii (Mirb.), Abies douglasii (Lindl.)		
Known Hazards:	None known		
Range:	Western N. America - Canada to California. Occasionally self-sows in Britain[17].		
Habitat:	Moist to very dry areas from sea level to near the tree-line in the Rocky mountains[60]. The best specimens are found on well-drained deep loamy soils with plenty of moisture[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Abies mucronata[G] Abies taxifolia[G] P. menziesii var. menziesii[B,CPHOTO,CAL,,G,P] P. mucronata[G,P] P. tascifolia[H] P. taxifolia var. viridis[G] Pinus douglasii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Coast Douglas-fir [FEIS], Douglas Fir [H,P,E], Douglas-fir [B,DEN1], Douglasspar [D],
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Us; Us(Blackfoot); Us(Flathead)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 75m by 20m at a fast rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from March to May, and the seeds ripen from September to November. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Condiment; Gum; Inner bark; Manna; Tea.

Young shoot tips - used as a flavouring in cooked foods[15, 177]. A subtle woodsy flavour[183].

A refreshing tea is made from the young leaves and twigs[14, 46, 177, 257]. Rich in vitamin C[183]. It is used as a coffee substitute according to some reports[92, 95, 161, 257]. The fresh leaves have a pleasant balsamic odour and are used as a coffee substitute[213].

Inner bark - dried, ground into a meal and mixed with cereals for making bread etc[161, 213]. A famine food used when all else fails[177].

A sweet manna-like substance is exuded from the bark[177, 183]. This report possibly refers to the resin that is obtained from the trunk[K], and is used as a chewing gum by various native North American Indian tribes[226]. Alternatively, the report could be referring to the sap which is used as a sugar-like food[257].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Kidney; Mouthwash; Poultice; Skin.

Douglas fir was often employed medicinally by various native North American Indian tribes who used it to treat a variety of complaints[257]. It is little, if at all, used in modern herbalism.

An antiseptic resin is obtained from the trunk. It is used as a poultice to treat cuts, burns, wounds and other skin ailments[226, 257]. The poultice is also used to treat injured or dislocated bones[257]. The resin is used in the treatment of coughs and can be chewed as a treatment for sore throats[257].

An infusion of the green bark has been used in the treatment of excessive menstruation, bleeding bowels and stomach problems[257].

An infusion of the leaves has been used as a wash and a sweat bath for rheumatic and paralyzed joints[257].

An infusion of the young sprouts has been used in the treatment of colds[257].

An infusion of the twigs or shoots has been used in the treatment of kidney and bladder problems[257].

A decoction of the buds has been used in the treatment of venereal disease[257].

Young shoots have been placed in the tips of shoes to keep the feet from perspiring and to prevent athletes foot[257].

A mouthwash is made by soaking the shoots in cold water[15].

Other Uses

Basketry; Cork; Dye; Fertilizer; Fuel; Insecticide; Resin; Shelterbelt; Tannin; Wood.

A light brown dye is obtained from the bark[118, 257].

The bark is a source of tannins[46, 82].

The bark can be used as a cork substitute[171] and is also used to make fertilizer[226].

The bark contains pitch, it burns with a lot of heat and almost no smoke, so it is prized as a fuel[226, 257].

The small roots have been used to make baskets[257].

The plant has insecticidal properties[171].

A resin is obtained from the trunk, similar to Abies balsamea[61, 64] which is used in the manufacture of glues, candles, as a cement for microscopes and slides and also as a fixative in soaps and perfumery[171]. The resin can also be used as a caulking material on boats[257].

A fast growing and fairly wind-resistant tree, it is often used in shelterbelt plantings[185].

Wood - heavy, strong, fine grained, durable, though it can be of variable quality. It dries quickly, does not warp and is easily worked, it is used for heavy construction, telegraph poles, furniture etc[21, 46, 61, 82, 99, 171, 200, 226]. It is also used as a good quality fuel[46, 99, 257].

Cultivation details

Prefers a moist but not water-logged alluvial soil[1]. Dislikes calcareous soils[1]. Trees are a failure on dry hungry soils.[11]. Whilst they are moderately wind resistant[166], tall specimens are likely to lose their crowns once they are more than 30 metres tall in all but the most sheltered areas[185].

A very ornamental tree[1], it is the most cultivated timber tree in the world and is extensively used for re-afforestation in Britain[200]. There are several named varieties selected for their ornamental value[188].

Trees can be established in light shade but this must be removed in the first few years or growth will suffer[185].

Very slow growing for its first few years, growth soon becomes extremely fast with new shoots of up to 1.2 metres a year[185]. This annual increase can be maintained for many years[185]. Trees in sheltered Scottish valleys have reached 55 metres in 100 years[200]. New growth takes place from May to July[185]. The trees require abundant rainfall for good growth[11, 49].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Trees are very long-lived, specimens over 1,000 years old are known[226]. Seed production commences when trees are about 10 years old, though good production takes another 15 - 20 years[229]. Good crops are produced about every 6 years[229].

This tree is a pioneer species because it cannot reproduce under its own canopy[226].

The bark on mature trees can be 30cm thick, and this insulates the trunks from the heat of forest fires[213].

This species is notably resistant to honey fungus[81, 200]. Young growth can be damaged by late frosts[81].

The leaves have a strong sweet fruity aroma[185].

Propagation

Seed - best sown in the autumn to winter in a cold frame so that it is stratified[80]. The seed can also be stored dry and sown in late winter. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Seedlings tolerate light shade for their first few years of growth. Cones often fall from the tree with their seed still inside[80].

If you have plenty of seed then it can be sown in an outdoor seedbed in early spring[80]. Grow the plants on for at least two years in the seedbed before planting them out in late autumn or early spring.

Scent

Leaves: Crushed

> The leaves have a strong sweet fruity aroma.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: P
- Trees and Shrubs for Shelterbelts: P
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Pseudotsuga menziesii var. menziesii* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Pseudotsuga tascifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Pseudotsuga taxifolia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for

casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[118] **Gunther. E.** *Ethnobotany of Western Washington.* University of Washington Press 1981 ISBN 0-295-95258-X
A small book, it is a good guide to useful plants in Western N. America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9

A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Condiment; Gum; Inner bark; Manna; Tea.

Young shoot tips - used as a flavouring in cooked foods[15, 177]. A subtle woodsy flavour[183].

A refreshing tea is made from the young leaves and twigs[14, 46, 177, 257]. Rich in vitamin C[183]. It is used as a coffee substitute according to some reports[92, 95, 161, 257]. The fresh leaves have a pleasant balsamic odour and are used as a coffee substitute[213].

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Basketry; Cork; Dye; Fertilizer; Fuel; Insecticide; Resin; Shelterbelt; Tannin; Wood.

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The leaves have a strong sweet fruity aroma[185].

Propagation

Seed - best sown in the autumn to winter in a cold frame so that it is stratified[80]. The seed can also be stored dry and sown in late winter. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Seedlings tolerate light shade for their first few years of growth. Cones often fall from the tree with their seed still inside[80].

If you have plenty of seed then it can be sown in an outdoor seedbed in early spring[80]. Grow the plants on for at least two years in the seedbed before planting them out in late autumn or early spring.

Scent

Leaves: Crushed

> The leaves have a strong sweet fruity aroma.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Pseudotsuga menziesii*

Subject:

Pseudotsuga menziesii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Pseudotsuga menziesii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:50:30 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Psophocarpus tetragonolobus

Common name:	Winged bean	Family:	Leguminosae
Author:	DC.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Botor tetragonolobus[G] Dolichos tetragonolobus[G]
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	Biraro [E], Chipir [E], Kachang Botor [E], Kachang Embing [E], Katjang Belimbing [E], Kelongkang [E], Winged Bean [P],
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Burma; Java; Malaya

Physical Characteristics

Perennial growing to 2m. It is hardy to zone 10 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Day Neutral'**: Cultivated Beds.

Edible Uses

Coffee; Colouring; Flowers; Leaves; Oil; Root; Seed; Seedpod; Stem.

Young seedpods - cooked for a few minutes[2, 46, 61, 116]. They tastes like French beans (Phaseolus vulgaris)[183]. The pods are harvested when about 15 - 20 cm long and 2cm wide[200]. They will store for up to 21 days at 10°c with a relative humidity of 90%[200]. The yields of pods average 250 - 500g per m^2[200].

Immature seeds are used in soups etc[183].

Mature seeds are eaten cooked[2, 46, 61, 116]. They are very nutritious, being rich in oil (up to 17%)[160], protein, vitamin E and calcium. The seed can also be roasted and eaten like peanuts or fermented and used as tempeh[183].

An edible oil is obtained from the seed[183].

Root - raw or cooked like potatoes[160, 183]. Slightly sweet, it contains 20% or more protein, which is about 12 times that of potatoes[116, 183].

Leaves and young shoots - cooked. They are used like spinach[61, 116, 183].

Flowers and flower buds - raw or cooked[183]. They have a flavour similar to mushrooms when sautéed[116]. The light blue flowers are also used as a colouring in foods[183].

The roasted seed is a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Green manure; Oil; Soil reclamation.

A very good green manure with exceptional nitrogen-fixing properties, producing a greater weight of nodules per plant than any other member of the Leguminosae[200]. It is used for soil improvement and restoration[200].

Cultivation details

Prefers a loamy slightly acidic soil, but there are cultivars suitable for many soil types[200]. Tolerates heavy soils[116] but dislikes wet soils[200]. Dislikes drought[200].

Very widely cultivated as a food plant in the tropics and sub-tropics, there are many named varieties[183]. It is usually treated as an annual. In temperate zones it has to be grown as an annual crop. Most varieties will only flower when daylight hours are around 12 per day[116] but day-neutral varieties are being developed that will flower in the summer in northerly and southerly latitudes[200]. Temperatures in the range of 25 - 30°c are necessary for optimum growth[200]. Plants take 60 - 80 days from sowing to the first harvest of seedpods[200]. Mature tubers can be harvested 120 - 240 days from sowing[200].

The plant is very disease resistant[160].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Pre-soak the seed for 12 hours in warm water and sow in early spring in a warm greenhouse. Place two or three seeds in each pot, thinning to the strongest plant. Plant them out in late spring or early summer, after the last expected frosts and give them the protection of a cloche or cold frame until they are growing away strongly[240].

Cultivars

'Day Neutral'

> Unlke most forms of this species, this cultivar will flower and produce seeds regardless of day length[183]. It can therefore potentially be grown considerably north and south of its current range[183]. The seed needs to be scarified in order to ensure good germination[183].

Suppliers

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Web References

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Habitat:	Not known in the wild.		
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Perennial growing to 2m. It is hardy to zone 10 and is frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

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Disclaimer

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Psophocarpus tetragonolobus

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Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Psophocarpus tetragonolobus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus species

Common name:		Family:	Fagaceae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A collection of garden hybrids.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. species[HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree. It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed probably contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed. This is a hybrid species and will not breed true from seed. However, if you want to sow the seed then this should be done as soon as possible since it quickly loses viability if allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed but must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Families

- PFAF: Edible Trees and Shrubs Hardy in Britain
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: Q-R
- Checklist of plants suitable for hedging and windbreaks.
- Trees and Shrubs for Shelterbelts: Q-U
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain
- Woodland Garden Plants
- Why Perennials
- Staple seed crops from perennials.
- Obtaining plants.
- PFAF Database Common names
- PFAF Database Families

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]

References for *Quercus species* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted?

or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the

details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus++species`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus++species`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Quercus species

Common name:		Family:	Fagaceae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A collection of garden hybrids.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

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	Order: Fagales . Beech family
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Physical Characteristics

A decidious tree. It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed probably contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Suppliers

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- PFAF Database Common names
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Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus++species`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus++species`

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email webmaster@pfaf.org to report bugs.

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`www.pfaf.org`

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Obtaining plants.*

Subject:

Obtaining plants.

Group:
Comments on Web-Pages

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

obtain_plants.html

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:50:51 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus macrocarpa

Common name:	Burr oak	Family:	Fagaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Manitoba, Wyoming, Massachusetts, Georgia, Kansas and Texas.		
Habitat:	Found in a variety of habitats from dry hillsides to moist bottomlands, rich woods and fertile slopes, mainly on limestone soils[43, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bur Oak [P,DEN1,FEIS,L], Burr Oak [B],
Epithets:	From a Dictionary of Botanical Epithets
	macrocarpa = large fruited;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 8m at a slow rate. It is hardy to zone 3 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Ashworth'**: Woodland, Canopy.
Cultivar **'Sweet Idaho'**: Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[101, 105, 161, 257]. Very large, the seed can be up to 5cm x 4cm[82, 200], though it is somewhat variable in size and shape[227]. The seed can be ground into a powder and used in making bread, dumplings etc and as a thickener in soups[183]. The seed of this species is considered to be one of the most palatable of all the oaks[159, 183]. Many trees have sweet seeds with little tannin and the seed can be eaten raw or cooked. If the seed is bitter then this is due to the presence of tannins, these can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Tonic.

The bark is astringent and tonic[61]. An infusion has been used in the treatment of diarrhoea[257].

A decoction of the root or inner bark has been used in the treatment of cramps[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Mordant; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark has been used as a mordant for fixing dyes[257].

Wood - hard, heavy, strong, tough, very durable, close grained. It weighs about 46lb per cubic metre[227]. Of considerable importance as a timber tree, it is used for all types of construction, in making baskets, flooring, cabinet making, ship building etc[46, 61, 82, 149, 171, 227, 229]. It is also a good fuel[82].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Succeeds in a hot dry position. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. A slow-growing tree[188]. Established plants are drought resistant[229] and tolerant of atmospheric pollution[226].

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+macrocarpa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+macrocarpa`

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Plants For A Future: Database Search Results

Quercus macrocarpa

Common name:	Burr oak	Family:	Fagaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Manitoba, Wyoming, Massachusetts, Georgia, Kansas and Texas.		
Habitat:	Found in a variety of habitats from dry hillsides to moist bottomlands, rich woods and fertile slopes, mainly on limestone soils[43, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bur Oak [P,DEN1,FEIS,L], Burr Oak [B],
Epithets:	From a Dictionary of Botanical Epithets
	macrocarpa = large fruited;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 8m at a slow rate. It is hardy to zone 3 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The

plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Ashworth'**: Woodland, Canopy.
Cultivar **'Sweet Idaho'**: Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[101, 105, 161, 257]. Very large, the seed can be up to 5cm x 4cm[82, 200], though it is somewhat variable in size and shape[227]. The seed can be ground into a powder and used in making bread, dumplings etc and as a thickener in soups[183]. The seed of this species is considered to be one of the most palatable of all the oaks[159, 183]. Many trees have sweet seeds with little tannin and the seed can be eaten raw or cooked. If the seed is bitter then this is due to the presence of tannins, these can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Tonic.

The bark is astringent and tonic[61]. An infusion has been used in the treatment of diarrhoea[257].

A decoction of the root or inner bark has been used in the treatment of cramps[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Mordant; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can

inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

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Search for Latin Name: Quercus

New Search: Quercus Search

Latin Name	**Common Name**	**Family**	**Synonyms**	**Rating**
Castanopsis cuspidata	Japanese chinquapin	Fagaceae	Quercus cuspidata.; Quercus cuspidata	2
Castanopsis sclerophylla		Fagaceae	Quercus chinensis; Quercus sclerophylla	2
Castanopsis tribuloides		Fagaceae	Quercus tribuloides	2
Lithocarpus corneus		Fagaceae	Quercus cornea	1
Lithocarpus densiflorus	Tanbark oak	Fagaceae	Pasania densiflora. Quercus densiflora.; Quercus densiflora; Quercus densiflora var. montana	2
Lithocarpus edulis		Fagaceae	Pasania edulis. Quercus edulis. Q. glabra. non Thunb. Q. laevigata. non Bl.; Quercus laevigata; Quercus glabra; Quercus edulis	1
Lithocarpus glaber	Japanese oak	Fagaceae	Pasania glabra. (Thunb.)Oerst. Quercus glabra. Thunb.; Quercus glabra	1
Lithocarpus pachyphyllus		Fagaceae	Quercus pachyphylla	2
Quercus species		Fagaceae	Q. species	3
Quercus acuta	Japanese evergreen oak	Fagaceae	Cyclobalanopsis acuta.; Cyclobalanopsis acuta	2

Quercus acutissima	Sawthorn oak	Fagaceae	Q. serrata. non Thunb.; Quercus serrata; Q. glandulifera; Q. glandulifera var. brevipetiolata; Q. urticifolia var. brevipetiolata	2
Quercus agrifolia	Encina	Fagaceae		3
Quercus alba	White oak	Fagaceae	Q. alba var. subcaerulea; Q. alba var. subflavea	3
Quercus aliena	Oriental white oak	Fagaceae		2
Quercus aucheri	Boz-pirnal oak	Fagaceae		4
Quercus bicolor	Swamp white oak	Fagaceae		4
Quercus cerris	Turkey oak	Fagaceae	Q. lanuginosa.; Quercus lanuginosa; Q. humilis; Q. pubescens	3
Quercus chrysolepis	Live oak	Fagaceae		2
Quercus coccifera	Kermes oak	Fagaceae	Q. pseudococcifera.; Quercus pseudococcifera; Q. calliprinos; Q. coccinea	3
Quercus coccinea	Scarlet oak	Fagaceae		2
Quercus dentata	Japanese emperor oak	Fagaceae	Q. daimio.; Quercus daimio	2
Quercus dilatata		Fagaceae		2
Quercus douglasii	Blue oak	Fagaceae		3
Quercus dumosa revoluta	California scrub oak	Fagaceae		2
Quercus ellipsoidalis	Northern pin oak	Fagaceae		2
Quercus emoryi	Black oak	Fagaceae		3
Quercus engelmannii	Evergreen oak	Fagaceae		2
Quercus falcata	Southern red oak	Fagaceae	Q. falcata var. triloba; Q. triloba	1

Quercus frainetto	Hungarian oak	Fagaceae	Q. conferta. Kit.; Quercus conferta; Q. farnetto	4
Quercus fruticosa		Fagaceae	Q. humilis.; Quercus humilis; Q. lanuginosa; Q. pubescens	3
Quercus gambelii	Shin oak	Fagaceae	Q. utahensis. (ADC.)Rydb.; Quercus utahensis; Q. eastwoodiae; Q. gambelii var. gambelii; Q. gunnisonii; Q. leptophylla; Q. nitescens; Q. novomexicana; Q. submollis; Q. vreelandii	3
Quercus garryana	Oregon white oak	Fagaceae		2
Quercus glauca		Fagaceae	Q. annulata. Cyclobalanopsis glauca.; Quercus annulata; Cyclobalanopsis glauca; Q. breviloba; Q. durandii; Q. durandii var. breviloba; Q. myrsinifolia; Q. obtusifolia var. breviloba; Q. san-sabeana; Q. sinuata var. breviloba; Q. sinuata var. san-sabeana	3
Quercus hispanica		Fagaceae		3
Quercus ilex	Holly oak	Fagaceae		5
Quercus ilex ballota	Holm oak	Fagaceae	Q. ballota. Q. rotundifolia.; Quercus rotundifolia; Quercus ballota; Q. ilex subsp. ballota; Q. ilex subsp. rotundifolia	5
Quercus imbricaria	Shingle oak	Fagaceae		2
Quercus infectoria	Aleppo oak	Fagaceae		2

Quercus ithaburensis macrolepis	Valonia oak	Fagaceae	Q. aegilops macrolepis. Q. graeca. Q. macrolepis. Kotschy.; Quercus macrolepis; Quercus graeca; Quercus aegilops macrolepis; Q. aegilops; Q. ithaburensis subsp. macrolepis	4
Quercus kelloggii	Californian black oak	Fagaceae	Q. californica. Q. sonomensis. Q. tinctoria californica.; Quercus tinctoria californica; Quercus sonomensis; Quercus californica	3
Quercus laevis	American turkey oak	Fagaceae	Q. catesbaei.; Quercus catesbaei	2
Quercus lamellosa		Fagaceae		3
Quercus leucotrichophora		Fagaceae	Q. incana. Roxb.; Quercus incana; Q. cinerea	2
Quercus libani	Lebanon oak	Fagaceae		2
Quercus lineata		Fagaceae		2
Quercus lobata	Californian white oak	Fagaceae	Q. hindsii.; Quercus hindsii; Q. lobata var. argillara; Q. lobata var. insperata; Q. lobata var. turbinata; Q. lobata var. walteri	2
Quercus lyrata	Overcup oak	Fagaceae		3
Quercus macrocarpa	Burr oak	Fagaceae		3
Quercus marilandica	Blackjack oak	Fagaceae	Q. cuneata. Q. nigra. non L.; Quercus nigra; Quercus cuneata; Q. marylandica; Q. microcarya; Q. neoashei; Q. nigra var. heterophylla	2
Quercus michauxii	Swamp chestnut oak	Fagaceae	Q. houstoniana; Q. prinus; Q. prinus auct. p. p. non	2

Quercus mongolica		Fagaceae		2
Quercus mongolica grosseserrata		Fagaceae	Q. crispula.; Quercus crispula; Q. grosseserrata; Q. mongolica subsp. crispula; Q. mongolica var. grosseserrata	2
Quercus muehlenbergii	Yellow chestnut oak	Fagaceae	Q. acuminata. non Roxb. Q. prinus acuminata.; Quercus prinus acuminata; Quercus acuminata; Q. alexanderi; Q. prinoides; Q. prinoides var. acuminata	3
Quercus myrsinaefolia		Fagaceae	Cyclobalanopsis myrsinaefolia; Cyclobalanopsis glauca; Q. glauca; Q. myrsinifolia	2
Quercus nigra	Water oak	Fagaceae	Q. aquatica.; Quercus aquatica; Q. microcarya; Q. nigra var. heterophylla	2
Quercus oblongifolia	Mexican blue oak	Fagaceae		3
Quercus palustris	Pin oak	Fagaceae		3
Quercus petraea	Sessile oak	Fagaceae	Q. sessiliflora. Q. sessilis.; Quercus sessilis; Quercus sessiliflora; Q. robur var. petraea	4
Quercus phellos	Willow oak	Fagaceae		2
Quercus phillyreoides		Fagaceae	Q. phillyraeoides; Q. wrightii	3
Quercus prinoides	Dwarf chinkapin oak	Fagaceae	Q. acuminata; Q. alexanderi; Q. muehlenbergii; Q. prinoides var. acuminata; Q. prinoides var. rufescens	2

Quercus prinus	Rock chestnut oak	Fagaceae	Q. montana. Willd.; Quercus montana; Q. houstoniana; Q. michauxii; Q. prinus auct. p. p. non	4
Quercus pubescens	Downy oak	Fagaceae	Q. lanuginosa.; Quercus lanuginosa; Quercus humilis	3
Quercus pungens	Sandpaper oak	Fagaceae		2
Quercus robur	Pedunculate oak	Fagaceae	Q. pedunculata.; Quercus pedunculata; Q. robur f. atropurpurea; Q. robur f. fastigiata; Q. robur f. pectinata; Q. robur f. pendula	4
Quercus rubra	Red oak	Fagaceae	Q. borealis. Q. digitata.; Quercus borealis; Q. borealis var. maxima; Q. rubra var. ambigua; Q. rubra var. borealis	3
Quercus semecarpifolia		Fagaceae	Q. aquifolioides.; Quercus aquifolioides	2
Quercus serrata		Fagaceae	Quercus glandulifera; Q. glandulifera; Q. glandulifera var. brevipetiolata; Q. urticifolia var. brevipetiolata	2
Quercus shumardii	Shumard oak	Fagaceae	Q. schneckii. Q. texana. non Buckl.; Quercus texana; Quercus schneckii; Q. buckleyi; Q. nuttallii; Q. nuttallii var. cachensis; Q. rubra var. texana; Q. shumardii var. microcarpa; Q. shumardii var. schneckii; Q. shumardii var. texana; Q. texana auct. non	2

Quercus stellata	Post oak	Fagaceae	Q. minor. Q. obtusiloba.; Quercus obtusiloba; Quercus minor; Q. stellata var. attenuata; Q. stellata var. parviloba	3
Quercus suber	Cork oak	Fagaceae		3
Quercus suber occidentalis	Cork oak	Fagaceae	Q. occidentalis.; Quercus occidentalis	3
Quercus undulata	Wavyleaf oak	Fagaceae	Q. x pauciloba. Rydb.; Quercus x pauciloba; Q. fendleri; Q. venustula; Q. x andrewsii	2
Quercus variabilis	Chinese cork oak	Fagaceae	Q. bungeana. Q. chinensis. non Abel.; Quercus chinensis; Quercus bungeana; Castanopsis sclerophylla; Q. moulei; Q. sclerophylla	2
Quercus velutina	Black oak	Fagaceae	Q. tinctoria.; Quercus tinctoria; Q. velutina var. missouriensis	2
Quercus virginiana	Live oak	Fagaceae		3
Quercus wislizenii	Live oak	Fagaceae	Q. wislizeni	3
Quercus x bebbiana		Fagaceae		3

New Search

Latin Name	Quercus
Common Name	
Family	
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Castanopsis cuspidata

Common name:	Japanese chinquapin	Family:	Fagaceae
Author:	(Thunb.) Schott.	Botanical references:	11, 58, 200
Synonyms:	Quercus cuspidata (Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Woods and ravines, especially near the sea in western China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pasania cuspidata[G] Pasaniopsis cuspidata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ko Shu [E],
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless; cuspidata = with stiff point;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen tree growing to 25m by 10m . It is hardy to zone 7. It is in leaf all year. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind and midges. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[2, 46, 63, 105, 177]. The cotyledon of the nut is eaten boiled or roasted[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good deep medium to stiff loam[1]. Requires a sheltered position in semi-shade and a lime-free soil[138].

Although cold hardy in Britain, this species really requires a warm continental climate if it is to prosper and it does not do well in the maritime climate of this country[200]. It succeeds in the London area but does not attain its full size there[11]. It grows well in S.W. England[11].

The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination[245].

Propagation

Seed - requires a period of cold stratification and is best sown as soon as it is ripe in a cold frame[138]. The seed has a short viability and should not be allowed to dry out. It can be stored for a few months if kept cool and moist (putting it in a plastic bag that is placed in the salad compartment of a fridge works well). Stored seed should be soaked in warm water for 24 - 48 hours prior to sowing[138]. Germination usually takes place within 1 - 3 months at 15°c[138]. As soon as they are large enough to handle, prick out the seedlings into individual pots and plant them out in mid summer if possible, otherwise grow them on in a cold frame for their first winter and plant them out in late spring. Give the young plants some protection from cold for their first few winters outdoors.

Scent

Flowers: Fresh

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus cuspidata* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Plants For A Future Rating (1-5):	2		

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Castanopsis cuspidata

Common name:	Japanese chinquapin	Family:	Fagaceae
Author:	(Thunb.) Schott.	Botanical references:	11, 58, 200
Synonyms:	Quercus cuspidata (Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Woods and ravines, especially near the sea in western China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pasania cuspidata[G] Pasaniopsis cuspidata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ko Shu [E],
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless; cuspidata = with stiff point;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen tree growing to 25m by 10m . It is hardy to zone 7. It is in leaf all year. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind and midges. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[2, 46, 63, 105, 177]. The cotyledon of the nut is eaten boiled or roasted[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a good deep medium to stiff loam[1]. Requires a sheltered position in semi-shade and a lime-free soil[138].

Although cold hardy in Britain, this species really requires a warm continental climate if it is to prosper and it does not do well in the maritime climate of this country[200]. It succeeds in the London area but does not attain its full size there[11]. It grows well in S.W. England[11].

The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination[245].

Propagation

Seed - requires a period of cold stratification and is best sown as soon as it is ripe in a cold frame[138]. The seed has a short viability and should not be allowed to dry out. It can be stored for a few months if kept cool and moist (putting it in a plastic bag that is placed in the salad compartment of a fridge works well). Stored seed should be soaked in warm water for 24 - 48 hours prior to sowing[138]. Germination usually takes place within 1 - 3 months at 15°c[138]. As soon as they are large enough to handle, prick out the seedlings into individual pots and plant them out in mid summer if possible, otherwise grow them on in a cold frame for their first winter and plant them out in late spring. Give the young plants some protection from cold for their first few winters outdoors.

Scent

Flowers: Fresh

The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Castanopsis cuspidata*

Subject:

Castanopsis cuspidata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Castanopsis cuspidata

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Castanopsis sclerophylla

Common name:		Family:	Fagaceae
Author:	(Lindl. & Paxt.) Schott. & Kotschy.	Botanical references:	266
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - E. and C. China.		
Habitat:	Woods, at an altitude of 600 - 1500 metres in W. Hupeh[109]. Broad-leaved evergreen forests at elevations of 200 - 1000 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Quercus chinensis[G] Quercus sclerophylla[G]
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree. . It is in leaf all year. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind and midges. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - raw[61, 171]. Small but sweet, it tastes like the N. American chinquapin, Castanea pumila[109]. The seed can be crushed and converted into a paste known as 'tou-fu', it resembles bean curd[109]. (This probably means that the crushed seed is also fermented[K]).

Medicinal Uses

Disclaimer

Astringent.

The leaves are used to arrest puerperal haemorrhage and are also applied to chronic ulcers[218].

The seed is used in the treatment of diarrhoea[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a good deep medium to stiff loam[1]. Requires a sheltered position in semi-shade and a lime-free soil[138].

Although cold hardy in Britain, this species really requires a warm continental climate if it is to prosper and it does not do well in the maritime climate of this country[200].

The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination[245].

Propagation

Seed - requires a period of cold stratification and is best sown as soon as it is ripe in a cold frame[138]. The seed has a short viability and should not be allowed to dry out. It can be stored for a few months if kept cool and moist (putting it in a plastic bag that is placed in the salad compartment of a fridge works well). Stored seed should be soaked in warm water for 24 - 48 hours prior to sowing[138]. Germination usually takes place within 1 - 3 months at 15°c[138]. As soon as they are large enough to handle, prick out the seedlings into individual pots and plant them out in mid summer if possible, otherwise grow them on in a cold frame for their first winter and plant them out in late spring. Give the young plants some protection from cold for their first few winters outdoors.

Scent

Flowers: Fresh

> The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Castanopsis sclerophylla

Common name:		Family:	Fagaceae
Author:	(Lindl. & Paxt.) Schott. & Kotschy.	Botanical references:	266
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - E. and C. China.		
Habitat:	Woods, at an altitude of 600 - 1500 metres in W. Hupeh[109]. Broad-leaved evergreen forests at elevations of 200 - 1000 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Quercus chinensis[G] Quercus sclerophylla[G]
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree. . It is in leaf all year. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind and midges. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - raw[61, 171]. Small but sweet, it tastes like the N. American chinquapin, Castanea pumila[109]. The seed can be crushed and converted into a paste known as 'tou-fu', it resembles bean curd[109]. (This probably means that the crushed seed is also fermented[K]).

Medicinal Uses

Disclaimer

Astringent.

The leaves are used to arrest puerperal haemorrhage and are also applied to chronic ulcers[218].

The seed is used in the treatment of diarrhoea[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a good deep medium to stiff loam[1]. Requires a sheltered position in semi-shade and a lime-free soil[138].

Although cold hardy in Britain, this species really requires a warm continental climate if it is to prosper and it does not do well in the maritime climate of this country[200].

The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination[245].

Propagation

Seed - requires a period of cold stratification and is best sown as soon as it is ripe in a cold frame[138]. The seed has a short viability and should not be allowed to dry out. It can be stored for a few months if kept cool and moist (putting it in a plastic bag that is placed in the salad compartment of a fridge works well). Stored seed should be soaked in warm water for 24 - 48 hours prior to sowing[138]. Germination usually takes place within 1 - 3 months at 15°c[138]. As soon as they are large enough to handle, prick out the seedlings into individual pots and plant them out in mid summer if possible, otherwise grow them on in a cold frame for their first winter and plant them out in late spring. Give the young plants some protection from cold for their first few winters outdoors.

Scent

Flowers: Fresh

> The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination.

Suppliers

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Castanopsis sclerophylla

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Habitat:	Woods, at an altitude of 600 - 1500 metres in W. Hupeh[109]. Broad-leaved evergreen forests at elevations of 200 - 1000 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

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Woodland, Canopy.

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Medicinal Uses

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The leaves are used to arrest puerperal haemorrhage and are also applied to chronic ulcers[218].

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Other Uses

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Cultivation details

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Scent

Flowers: Fresh

> The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination.

Suppliers

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Add a comment on: *Castanopsis sclerophylla*

Subject:

Castanopsis sclerophylla

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Castanopsis sclerophylla

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:51:22 2004

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Add Comment Reset

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Castanopsis tribuloides

Common name:		Family:	Fagaceae
Author:	A. DC.	Botanical references:	266
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas to China.		
Habitat:	Broad-leaved evergreen forests around 1300 metres in western China[266]. Found at elevations up to 1800 metres in the Himalayas[146].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Quercus tribuloides[G]
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 8m. . It is in leaf all year, in flower from May to June, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind and midges. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils.

It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[177]. Resembles a filbert (Corylus maxima) in size and flavour[146]. The seeds are about 16mm in diameter[266].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - moderately hard, not durable. Used for shingles and shading[146].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. It coppices well[146]. The following notes are based on the general needs of the genus.

Prefers a good deep medium to stiff loam[1]. Requires a sheltered position in semi-shade and a lime-free soil[138].

Although cold hardy in Britain, this species really requires a warm continental climate if it is to prosper and it does not do well in the maritime climate of this country[200].

The seed takes two growing seasons from fertilization to maturity[266]. The catkins have an unpleasant hawthorn-like smell to attract midges for their pollination[245].

Propagation

Seed - requires a period of cold stratification and is best sown as soon as it is ripe in a cold frame[138]. The seed has a short viability and should not be allowed to dry out. It can be stored for a few months if kept cool and moist (putting it in a plastic bag that is placed in the salad compartment of a fridge works well). Stored seed should be soaked in warm water for 24 - 48 hours prior to sowing[138]. Germination usually takes place within 1 - 3 months at 15°c[138]. As soon as they are large enough to handle, prick out the seedlings into individual pots and plant them out in mid summer if possible, otherwise grow them on in a cold frame for their first winter and plant them out in late spring. Give the young plants some protection from cold for their first few winters outdoors.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future: Database Search Results

Castanopsis tribuloides

Common name:		Family:	Fagaceae
Author:	A. DC.	Botanical references:	266
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas to China.		
Habitat:	Broad-leaved evergreen forests around 1300 metres in western China[266]. Found at elevations up to 1800 metres in the Himalayas[146].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Quercus tribuloides[G]
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 8m. . It is in leaf all year, in flower from May to June, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind and midges. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[177]. Resembles a filbert (Corylus maxima) in size and flavour[146]. The seeds are about 16mm in diameter[266].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - moderately hard, not durable. Used for shingles and shading[146].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of this country. It coppices well[146]. The following notes are based on the general needs of the genus.

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Plants For A Future: Database Search Results

Castanopsis tribuloides

Common name:		Family:	Fagaceae
Author:	A. DC.	Botanical references:	266
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas to China.		
Habitat:	Broad-leaved evergreen forests around 1300 metres in western China[266]. Found at elevations up to 1800 metres in the Himalayas[146].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Quercus tribuloides[G]
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 8m. . It is in leaf all year, in flower from May to June, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind and midges. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[177]. Resembles a filbert (Corylus maxima) in size and flavour[146]. The seeds are about 16mm in diameter[266].

Medicinal Uses

Disclaimer

None known

Other Uses

Wood.

Wood - moderately hard, not durable. Used for shingles and shading[146].

Cultivation details

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Castanopsis tribuloides*

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Castanopsis tribuloides

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Plant Information

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Enter your comment about this plant here.

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Optional web-link:

Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Castanopsis tribuloides

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Lithocarpus corneus

Common name:		Family:	Fagaceae
Author:	(Oerst.)Rehder.	Botanical references:	266
Synonyms:	Lithocarpus tsangii (A.Camus.)		
Known Hazards:	None known		
Range:	E. Asia - southern China to Vietnam.		
Habitat:	Broad-leaved evergreen forests, frequent on sunny slopes and in dry places, coastal regions usually below 1000 metres[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. cornea[HORTIPLEX] Pasania cornea[G] Quercus cornea[G]
Epithets:	From a Dictionary of Botanical Epithets
	corneus = the color of horn;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 15m. . It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - raw or cooked. The seed can also be ground into a meal and used as a thickener in soups or be added to cereal flours when making bread etc[177]. The seed probably contains bitter-tasting tannins. These can be removed by soaking the seed in water for a few days, changing the soak water regularly. The process can be speeded up by grinding the seed into a powder prior to soaking[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. A very variable species with a wide range[266]. The following notes are based on the general needs of the genus.

Prefers a deep fertile soil with medium drainage[200].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors. If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Lithocarpus cornea* (a possible synonym).

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Other Uses

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Plants For A Future: Database Search Results

Lithocarpus corneus

Common name:		Family:	Fagaceae
Author:	(Oerst.)Rehder.	Botanical references:	266
Synonyms:	Lithocarpus tsangii (A.Camus.)		
Known Hazards:	None known		
Range:	E. Asia - southern China to Vietnam.		
Habitat:	Broad-leaved evergreen forests, frequent on sunny slopes and in dry places, coastal regions usually below 1000 metres[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. cornea[HORTIPLEX] Pasania cornea[G] Quercus cornea[G]
Epithets:	From a Dictionary of Botanical Epithets
	corneus = the color of horn;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 15m. . It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - raw or cooked. The seed can also be ground into a meal and used as a thickener in soups or be added to cereal flours when making bread etc[177]. The seed probably contains bitter-tasting tannins. These can be removed by soaking the seed in water for a few days, changing the soak water regularly. The process can be speeded up by grinding the seed into a powder prior to soaking[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. A very variable species with a wide range[266]. The following notes are based on the general needs of the genus.

Prefers a deep fertile soil with medium drainage[200].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors. If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Lithocarpus+corneus`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Lithocarpus corneus*

Subject:

Lithocarpus corneus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lithocarpus corneus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:51:43 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Lithocarpus densiflorus

Common name:	Tanbark oak	Family:	Fagaceae
Author:	(Hook. & Arn.) Rehd.	Botanical references:	11, 71, 200
Synonyms:	Quercus densiflora (Hook.&Arn.), Pasania densiflora ((Hook.&Arn.)Oerst.)		
Known Hazards:	None known		
Range:	South-western N. America - Oregon and California.		
Habitat:	Woody slopes below 1500 metres[71] on fertile mountain slopes[229]. It is found on a variety of soil types, but requires a humid atmosphere if it is to thrive[82, 229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. densiflorus var. montanus[G] Quercus densiflora var. montana[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	densiflorus = densely flowered; florus = flowered;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 10m by 10m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from April to May. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Oil; Seed.

Seed - cooked[94, 95]. The seed was a staple food for several native North American Indian tribes[257]. It contains bitter-tasting tannins and there are various ways of removing them. The fastest is by soaking the ground-up seed in hot water - if the water is changed at least once the tannins should be removed within 12 hours. Traditionally, the seeds were placed in a cloth bag and either buried in swampy ground or suspended in a running stream for a few months. Once the tannins have been removed, the seed is then dried, ground into a powder and can be used as a porridge or can be mixed with cereal flours in baking bread etc[183, 257]. It has a pleasant taste after it has been leached[161]. The seed is up to 25mm long and wide[82, 229].

The seed is valued for its oil[161].

Medicinal Uses

Disclaimer

Astringent; Odontalgic; Skin.

The bark is very astringent. An infusion is used as a wash for face sores[257]. The infusion can also be held in the mouth to tighten loose teeth[257].

Other Uses

Dye; Fuel; Preservative; Tannin; Wood.

The bark is exceedingly rich in tannin, yielding up to 29%[11, 82, 123, 171]. It has been used as a brown dye and also to preserve rope that is being used in water[257, K].

Wood - hard, strong, close grained, brittle. It is not commercially important and is used mainly for fuel[82, 229].

Cultivation details

Prefers a deep fertile soil with medium drainage[200].

Perfectly hardy at Kew[11], trees produced seed at Kew in the very hot summer of 1989[K].

A slow-growing tree in the wild, living up to 300 - 350 years old[229].

Plants usually flower in the spring and sometimes again in the autumn[188]. The seeds take two seasons to ripen[229]. Prolific crops are usually produced every other year in the wild[229].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors. If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

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References for the family Fagaceae.

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References

[K] **Ken Fern**
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Synonyms:	Quercus densiflora (Hook.&Arn.), Pasania densiflora ((Hook.&Arn.)Oerst.)		
Known Hazards:	None known		
Range:	South-western N. America - Oregon and California.		
Habitat:	Woody slopes below 1500 metres[71] on fertile mountain slopes[229]. It is found on a variety of soil types, but requires a humid atmosphere if it is to thrive[82, 229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Oil; Seed.

Seed - cooked[94, 95]. The seed was a staple food for several native North American Indian tribes[257]. It contains bitter-tasting tannins and there are various ways of removing them. The fastest is by soaking the ground-up seed in hot water - if the water is changed at least once the tannins should be removed within 12 hours. Traditionally, the seeds were placed in a cloth bag and either buried in swampy ground or suspended in a running stream for a few months. Once the tannins have been removed, the seed is then dried, ground into a powder and can be used as a porridge or can be mixed with cereal flours in baking bread etc[183, 257]. It has a pleasant taste after it has been leached[161]. The seed is up to 25mm long and wide[82, 229].

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Disclaimer

Astringent; Odontalgic; Skin.

The bark is very astringent. An infusion is used as a wash for face sores[257]. The infusion can also be held in the mouth to tighten loose teeth[257].

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Dye; Fuel; Preservative; Tannin; Wood.

The bark is exceedingly rich in tannin, yielding up to 29%[11, 82, 123, 171]. It has been used as a brown dye and also to preserve rope that is being used in water[257, K].

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A slow-growing tree in the wild, living up to 300 - 350 years old[229].

Plants usually flower in the spring and sometimes again in the autumn[188]. The seeds take two seasons to ripen[229]. Prolific crops are usually produced every other year in the wild[229].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors. If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Lithocarpus+densiflorus`
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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Lithocarpus+densiflorus`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Lithocarpus densiflorus*

Subject:

Lithocarpus densiflorus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lithocarpus densiflorus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:51:55 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Lithocarpus edulis

Common name:		Family:	Fagaceae
Author:	(Mak.) Nak.	Botanical references:	11, 58, 200
Synonyms:	Quercus laevigata (non Blume.), Quercus glabra (non Thunb.), Quercus edulis (Makino.), Pasania edulis (Makino.)		
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. glaber[G,HORTIPLEX] Pasania glabra[G]
Epithets:	From a Dictionary of Botanical Epithets
	edulis = edible;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 7. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It

requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - raw or cooked[123, 177, 183]. Not of a good taste[105]. The poor taste is probably due, at least in part, to the presence of tannins. These can be removed by soaking the seed in water for a few days, changing the soak water regularly. The process can be speeded up by grinding the seed into a powder prior to soaking[K]. The seed is an acorn about 25mm long and 8mm wide[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a deep fertile soil with medium drainage[200].

This species is only hardy in the southern half of England[11]. A tree growing in deep shade did not produce seed at Kew in the very hot summer of 1989[K]. A tree at Hilliers produced lots of seed in 1994, but they were not fertile and did not contain endosperm[K].

Plants are often confused with L. glabra[1].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors. If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Lithocarpus glaber* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[123] **?** *Encyclopaedia Britannica. 15th edition.*
It contains a few things of interest to the plant project.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Lithocarpus edulis

Common name:		Family:	Fagaceae
Author:	(Mak.) Nak.	Botanical references:	11, 58, 200
Synonyms:	Quercus laevigata (non Blume.), Quercus glabra (non Thunb.), Quercus edulis (Makino.), Pasania edulis (Makino.)		
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. glaber[G,HORTIPLEX] Pasania glabra[G]
Epithets:	From a Dictionary of Botanical Epithets
	edulis = edible;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 7. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - raw or cooked[123, 177, 183]. Not of a good taste[105]. The poor taste is probably due, at least in part, to the presence of tannins. These can be removed by soaking the seed in water for a few days, changing the soak water regularly. The process can be speeded up by grinding the seed into a powder prior to soaking[K]. The seed is an acorn about 25mm long and 8mm wide[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a deep fertile soil with medium drainage[200].

This species is only hardy in the southern half of England[11]. A tree growing in deep shade did not produce seed at Kew in the very hot summer of 1989[K]. A tree at Hilliers produced lots of seed in 1994, but they were not fertile and did not contain endosperm[K].

Plants are often confused with L. glabra[1].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors.

If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Lithocarpus glaber* (a possible synonym).

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References for the family Fagaceae.

See the PFAF Links Pages for other sources

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Plants For A Future: Database Search Results

Lithocarpus edulis

Common name:		Family:	Fagaceae
Author:	(Mak.) Nak.	Botanical references:	11, 58, 200
Synonyms:	Quercus laevigata (non Blume.), Quercus glabra (non Thunb.), Quercus edulis (Makino.), Pasania edulis (Makino.)		
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. glaber[G,HORTIPLEX] Pasania glabra[G]
Epithets:	From a Dictionary of Botanical Epithets
	edulis = edible;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 7. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - raw or cooked[123, 177, 183]. Not of a good taste[105]. The poor taste is probably due, at least in part, to the presence of tannins. These can be removed by soaking the seed in water for a few days, changing the soak water regularly. The process can be speeded up by grinding the seed into a powder prior to soaking[K]. The seed is an acorn about 25mm long and 8mm wide[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a deep fertile soil with medium drainage[200].

This species is only hardy in the southern half of England[11]. A tree growing in deep shade did not produce seed at Kew in the very hot summer of 1989[K]. A tree at Hilliers produced lots of seed in 1994, but they were not fertile and did not contain endosperm[K].

Plants are often confused with L. glabra[1].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors.

If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Lithocarpus+edulis`
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Add a comment on: *Lithocarpus edulis*

Subject:

Lithocarpus edulis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lithocarpus edulis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Lithocarpus glaber

Common name:	Japanese oak	Family:	Fagaceae
Author:	(Thunb.) Nak.	Botanical references:	11, 58, 200
Synonyms:	Quercus glabra (Thunb.), Pasania glabra ((Thunb.)Oerst.)		
Known Hazards:	None known		
Range:	E. Asia - E. China, Japan.		
Habitat:	Mixed mesophytic forests, frequent on sunny slopes; below 1500 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Taiwan, Zhejiang[266]		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	glaber = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 7m. It is hardy to zone 7. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Seed.

Seed - cooked[177]. The seed probably contains bitter-tasting tannins. These can be removed by soaking the seed in water for a few days, changing the soak water regularly. The process can be speeded up by grinding the seed into a powder prior to soaking[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a deep fertile soil with medium drainage[200].

Plants are often confused with L. edulis[11]. The botanical name of this species is confusing - glaber means smooth but the young shoots of this species are hairy whilst the young shoots of L. edulis are smooth[11].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors. If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

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Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future: Database Search Results

Lithocarpus glaber

Common name:	Japanese oak	Family:	Fagaceae
Author:	(Thunb.) Nak.	Botanical references:	11, 58, 200
Synonyms:	Quercus glabra (Thunb.), Pasania glabra ((Thunb.)Oerst.)		
Known Hazards:	None known		
Range:	E. Asia - E. China, Japan.		
Habitat:	Mixed mesophytic forests, frequent on sunny slopes; below 1500 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Taiwan, Zhejiang[266]		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	glaber = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 7m. It is hardy to zone 7. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Seed.

Seed - cooked[177]. The seed probably contains bitter-tasting tannins. These can be removed by soaking the seed in water for a few days, changing the soak water regularly. The process can be speeded up by grinding the seed into a powder prior to soaking[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a deep fertile soil with medium drainage[200].

Plants are often confused with L. edulis[11]. The botanical name of this species is confusing - glaber means smooth but the young shoots of this species are hairy whilst the young shoots of L. edulis are smooth[11].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors. If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future: Database Search Results

Lithocarpus glaber

Common name:	Japanese oak	Family:	Fagaceae
Author:	(Thunb.) Nak.	Botanical references:	11, 58, 200
Synonyms:	Quercus glabra (Thunb.), Pasania glabra ((Thunb.)Oerst.)		
Known Hazards:	None known		
Range:	E. Asia - E. China, Japan.		
Habitat:	Mixed mesophytic forests, frequent on sunny slopes; below 1500 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Taiwan, Zhejiang[266]		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	glaber = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family

Physical Characteristics

An evergreen tree growing to 7m. It is hardy to zone 7. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Seed.

Seed - cooked[177]. The seed probably contains bitter-tasting tannins. These can be removed by soaking the seed in water for a few days, changing the soak water regularly. The process can be speeded up by grinding the seed into a powder prior to soaking[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a deep fertile soil with medium drainage[200].

Plants are often confused with L. edulis[11]. The botanical name of this species is confusing - glaber means smooth but the young shoots of this species are hairy whilst the young shoots of L. edulis are smooth[11].

Propagation

The seed is best sown as soon as it is ripe in the autumn in a cold frame[200]. It needs to be protected from mice, squirrels and other seed eaters. The seed has a short viability but can be stored for a few months if kept cool and slightly damp - the salad compartment of a fridge is a good storage place. Germination takes place in the winter or early spring. When they are large enough to handle, prick the seedlings out into individual pots. If the plants are 15cm or more tall by the summer they can be planted out into their permanent positions. Give them a good weed-excluding mulch and some protection from the cold for their first couple of years outdoors. If growth is not sufficient then grow them on in the greenhouse for their first winter and plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Suppliers

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Plants For A Future: Database Search Results

Quercus species

Common name:		Family:	Fagaceae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A collection of garden hybrids.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. species[HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree. It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed probably contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed. This is a hybrid species and will not breed true from seed. However, if you want to sow the seed then this should be done as soon as possible since it quickly loses viability if allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed but must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Plants For A Future: Database Search Results

Quercus macrocarpa

Common name:	Burr oak	Family:	Fagaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Manitoba, Wyoming, Massachusetts, Georgia, Kansas and Texas.		
Habitat:	Found in a variety of habitats from dry hillsides to moist bottomlands, rich woods and fertile slopes, mainly on limestone soils[43, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bur Oak [P,DEN1,FEIS,L], Burr Oak [B],
Epithets:	From a Dictionary of Botanical Epithets
	macrocarpa = large fruited;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 8m at a slow rate. It is hardy to zone 3 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The

plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Ashworth'**: Woodland, Canopy.
Cultivar **'Sweet Idaho'**: Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[101, 105, 161, 257]. Very large, the seed can be up to 5cm x 4cm[82, 200], though it is somewhat variable in size and shape[227]. The seed can be ground into a powder and used in making bread, dumplings etc and as a thickener in soups[183]. The seed of this species is considered to be one of the most palatable of all the oaks[159, 183]. Many trees have sweet seeds with little tannin and the seed can be eaten raw or cooked. If the seed is bitter then this is due to the presence of tannins, these can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Tonic.

The bark is astringent and tonic[61]. An infusion has been used in the treatment of diarrhoea[257].

A decoction of the root or inner bark has been used in the treatment of cramps[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Mordant; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can

inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark has been used as a mordant for fixing dyes[257].

Wood - hard, heavy, strong, tough, very durable, close grained. It weighs about 46lb per cubic metre[227]. Of considerable importance as a timber tree, it is used for all types of construction, in making baskets, flooring, cabinet making, ship building etc[46, 61, 82, 149, 171, 227, 229]. It is also a good fuel[82].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Succeeds in a hot dry position. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. A slow-growing tree[188]. Established plants are drought resistant[229] and tolerant of atmospheric pollution[226].

Occasionally cultivated for its edible seed, there are some named varieties[183]. Slow growing in the wild, it takes about 30 years to start producing seed, though it then continues to crop for the next 200 - 300 years with large crops being produced every 2 - 3 years[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Prefers warmer summers than are usually experienced in Britain, often growing poorly in this country and failing to properly ripen its wood, resulting in frost damage overwinter[11, 200]. A tree at the Hillier Arboretum in Hampshire was growing well in September 1993. It was 9 metres tall but had a lot of mildew, there was no sign of seeds[K].

There is a dwarf form of this species:- Q. macrocarpa depressa (Nutt.)Engelm. grows about 2 metres tall with corky branches and smaller seeds than the species, usually about 1cm long[227].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as

possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

'Sweet Idaho'

Eaten dry or still fresh, the seeds are not just non-bitter, they are actually sweet[183]. They are best used ground into a flour in cakes and breads[183]. This cultivar was found growing wild in N. Idaho[183].

'Ashworth'

A precocious producer of small to medium, high quality seeds that contain little tannin[183]. A biennial bearer[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Quercus acuta

Common name:	Japanese evergreen oak	Family:	Fagaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Cyclobalanopsis acuta		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, N. Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	acuta = sharpened to a point;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 7 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[105, 177]. About 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Unsuitable for chalky soils[1]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A very ornamental tree[1], it grows best in the milder areas of the country[11].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - quickly loses viability if allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed but must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the

following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Quercus acuta

Common name:	Japanese evergreen oak	Family:	Fagaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Cyclobalanopsis acuta		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, N. Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	acuta = sharpened to a point;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 7 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[105, 177]. About 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Unsuitable for chalky soils[1]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A very ornamental tree[1], it grows best in the milder areas of the country[11].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

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Propagation

Seed - quickly loses viability if allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed but must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Quercus acuta

Common name:	Japanese evergreen oak	Family:	Fagaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Cyclobalanopsis acuta		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, N. Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	acuta = sharpened to a point;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 7 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

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The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

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Plants in this genus are notably resistant to honey fungus[200].

Propagation

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus acuta*

Subject:

Quercus acuta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus acuta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Quercus acutissima

Common name:	Sawthorn oak	Family:	Fagaceae
Author:	Carruth.	Botanical references:	11, 58, 200
Synonyms:	Quercus serrata (Siebold.&Zucc. non Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Often forming pure forests or growing with Pinus species, to 1000 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. glandulifera[G] Q. glandulifera var. brevipetiolata[G] Q. urticifolia var. brevipetiolata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Konara [E], Kunugi [E], Saw-tooth Oak [B], Sawtooth Oak [P,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	acutissima = sharply pointed;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 5m by 15m . It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Leaves; Seed.

Seed - cooked[105, 177]. The seed is up to 25mm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

Young leaves - cooked. A famine food when all else fails[177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The stem bark is used to clean foul sores[218].

The seeds are used in the treatment of diarrhoea, menorrhagia and gastrointestinal hypertrophy[218].

The cupule (seed cup) is astringent[218].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Dye; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A black dye is obtained from the seed cups[109].

Wood - used for boat building and construction[109]. The wood is also used for fuel and charcoal[11, 109].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

The seed ripens in its second year[200].

This species is closely related to Q. variabilis[1].

Often cultivated in China as a coppiced tree for fuel and charcoal[109].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - quickly loses viability if allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed but must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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References for *Quercus serrata* (a possible synonym).

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References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus acutissima

Common name:	Sawthorn oak	Family:	Fagaceae
Author:	Carruth.	Botanical references:	11, 58, 200
Synonyms:	Quercus serrata (Siebold.&Zucc. non Thunb.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Often forming pure forests or growing with Pinus species, to 1000 metres in W. China[109].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. glandulifera[G] Q. glandulifera var. brevipetiolata[G] Q. urticifolia var. brevipetiolata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Konara [E], Kunugi [E], Saw-tooth Oak [B], Sawtooth Oak [P,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	acutissima = sharply pointed;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 5m by 15m . It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Leaves; Seed.

Seed - cooked[105, 177]. The seed is up to 25mm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

Young leaves - cooked. A famine food when all else fails[177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The stem bark is used to clean foul sores[218].

The seeds are used in the treatment of diarrhoea, menorrhagia and gastrointestinal hypertrophy[218].

The cupule (seed cup) is astringent[218].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Dye; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A black dye is obtained from the seed cups[109].

Wood - used for boat building and construction[109]. The wood is also used for fuel and charcoal[11, 109].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

The seed ripens in its second year[200].

This species is closely related to Q. variabilis[1].

Often cultivated in China as a coppiced tree for fuel and charcoal[109].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - quickly loses viability if allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed but must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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References

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Subject:

Quercus acutissima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus acutissima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus agrifolia

Common name:	Encina	Family:	Fagaceae
Author:	Née	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Forming open groves of great extent in valleys and on not too dry slopes in woods below 1000 metres, it is also found on coastal sand dunes[71, 82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Live Oak [P], Coast Live Oak [FEIS,DEN2,L], Coastal Live Oak [B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

An evergreen tree growing to 15m by 8m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[2, 63, 84, 92, 95]. Used as a staple food by several native North American Indian tribes[257]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 4cm long and 2cm wide[82, 229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Skin.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

A decoction of the chipped bark has been used as a wash on skin sores[257].

Other Uses

Buttons; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The seed cups are used as buttons[95].

Wood - coarse grained, hard, very heavy, very brittle. It is not exploited commercially as a wood, though it is valued as a fuel[82, 229, 257].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Plants are lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Trees are hardy in Britain if they are not too exposed[1, 11], though another report says that they are wind-resistant[49]. Trees grow well in S.W. England[49, 59].

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This species is notably resistant to honey fungus[88, 200].

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Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus agrifolia

Common name:	Encina	Family:	Fagaceae
Author:	Née	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
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Woodland, Canopy.

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Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+agrifolia`
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Plants For A Future: Database Search Results

Quercus agrifolia

Common name:	Encina	Family:	Fagaceae
Author:	Née	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Forming open groves of great extent in valleys and on not too dry slopes in woods below 1000 metres, it is also found on coastal sand dunes[71, 82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Live Oak [P], Coast Live Oak [FEIS,DEN2,L], Coastal Live Oak [B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m by 8m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[2, 63, 84, 92, 95]. Used as a staple food by several native North American Indian tribes[257]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 4cm long and 2cm wide[82, 229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Skin.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

A decoction of the chipped bark has been used as a wash on skin sores[257].

Other Uses

Buttons; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The seed cups are used as buttons[95].

Wood - coarse grained, hard, very heavy, very brittle. It is not exploited commercially as a wood, though it is valued as a fuel[82, 229, 257].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Plants are lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Trees are hardy in Britain if they are not too exposed[1, 11], though another report says that they are wind-resistant[49]. Trees grow well in S.W. England[49, 59].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

A slow-growing but long-lived tree in the wild[229]. Plants only fruit occasionally in Britain[11], though they fruited very heavily at Kew in the hot summer of 1989[K]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus agrifolia*

Subject:

Quercus agrifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus agrifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

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Date: Sun May 16 02:52:54 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus alba

Common name:	White oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Florida, west to Texas and Minnesota.		
Habitat:	Dry woods[43], gravelly ridges, sandy plains, rich uplands and moist bottoms[82]. The best specimens are found in deep rich well-drained loamy soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. alba var. subcaerulea[B,P] Q. alba var. subflavea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chene Blanc [E], Northern White Oak [B], Oak,White [E], Quebec Oak [H], Roble [E], Weisse Eiche [E], White Oak [H,P,E,DEN1,FEIS,S,L], Witte Eik [E],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database

	France; Germany; Netherlands; Spain; Us; Us(Amerindian); Us(Appalachia); Us(Penobscot)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Lint'**: Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[226]. Somewhat sweet[229]. The seed is about 1 - 3cm long[200] and ripens in its first year[235]. It contains about 6% protein and 65% carbohydrates[213]. It is low in tannin and needs little if any leaching. It is said that those seeds with red or pink blotches on the shell are the sweetest[183]. Any bitter tannins can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency. The seed can be roasted and then eaten, its taste is something like a cross between sunflower seeds and popcorn[183].

The roasted seed is a coffee substitute that is free from caffeine[226].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Tonic.

White oak was often used medicinally by several native North American Indian tribes, who valued it especially for its antiseptic and astringent properties and used it in the treatment of many complaints[257]. It is little, if at all, used in modern herbalism.

The inner bark contains 6 - 11% tannin, it has powerful antiseptic and astringent properties and is also expectorant and tonic[61, 102, 213, 257]. The bark is boiled and the liquid drunk in the treatment of bleeding piles and diarrhoea, intermittent fevers, coughs and colds, consumption, asthma, lost voice etc[213, 257]. The bark has been chewed as a treatment for mouth sores[257]. Externally, it is used as a wash for skin eruptions, burns, rashes, bruises, ulcers etc and as a vaginal douche[222, 257]. It has also been used as a wash for muscular pains[257]. The bark is best collected in the spring[213].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

The bark is a rich source of tannin[171, 226].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A brown dye is obtained from the bark or from the galls, it does not require a mordant[226]. Yellow, chrome and gold can also be obtained if mordants are used[226].

Wood - strong, very heavy, hard, tough, close grained, durable[46, 82, 171, 213, 227]. It weighs about 46lb per cubic foot[227]. One of the most important timbers in N. America, it is used for cabinet making, construction, agricultural tools etc, and is also a good fuel[46, 82, 171, 213].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

The white oak prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage over the winter[200]. There are, however, a number of trees 20 metres tall in Britain, mainly in the south-east of the country[11].

Sometimes cultivated for its edible seed, there are some named varieties[183]. Trees take about 30 years before they start to bear good crops of seed, they then have heavy crops about every 3 years with light crops in the other years[227]. They continue to yield commercial crops for about 120 years[227]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young, though they may require protection for the first winter or two[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

'Lint'

An old cultivar, selected for its very heavy production of acorns[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus alba

Common name:	White oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Florida, west to Texas and Minnesota.		
Habitat:	Dry woods[43], gravelly ridges, sandy plains, rich uplands and moist bottoms[82]. The best specimens are found in deep rich well-drained loamy soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. alba var. subcaerulea[B,P] Q. alba var. subflavea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chene Blanc [E], Northern White Oak [B], Oak,White [E], Quebec Oak [H], Roble [E], Weisse Eiche [E], White Oak [H,P,E,DEN1,FEIS,S,L], Witte Eik [E],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Netherlands; Spain; Us; Us(Amerindian); Us(Appalachia); Us(Penobscot)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Lint'**: Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[226]. Somewhat sweet[229]. The seed is about 1 - 3cm long[200] and ripens in its first year[235]. It contains about 6% protein and 65% carbohydrates[213]. It is low in tannin and needs little if any leaching. It is said that those seeds with red or pink blotches on the shell are the sweetest[183]. Any bitter tannins can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency. The seed can be roasted and then eaten, its taste is something like a cross between sunflower seeds and popcorn[183].

The roasted seed is a coffee substitute that is free from caffeine[226].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Tonic.

White oak was often used medicinally by several native North American Indian tribes, who valued it especially for its antiseptic and astringent properties and used it in the treatment of many complaints[257]. It is little, if at all, used in modern herbalism.

The inner bark contains 6 - 11% tannin, it has powerful antiseptic and astringent properties and is also expectorant and tonic[61, 102, 213, 257]. The bark is boiled and the liquid drunk in the treatment of bleeding piles and diarrhoea, intermittent fevers, coughs and colds, consumption, asthma, lost voice etc[213, 257]. The bark has been chewed as a treatment for mouth sores[257]. Externally, it is used as a wash for skin eruptions, burns, rashes, bruises, ulcers etc and as a vaginal douche[222, 257]. It has also been used as a wash for muscular pains[257]. The bark is best collected in the spring[213].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

The bark is a rich source of tannin[171, 226].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A brown dye is obtained from the bark or from the galls, it does not require a mordant[226]. Yellow, chrome and gold can also be obtained if mordants are used[226].

Wood - strong, very heavy, hard, tough, close grained, durable[46, 82, 171, 213, 227]. It weighs about 46lb per cubic foot[227]. One of the most important timbers in N. America, it is used for cabinet making, construction, agricultural tools etc, and is also a good fuel[46, 82, 171, 213].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

The white oak prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage over the winter[200]. There are, however, a number of trees 20 metres tall in Britain, mainly in the south-east of the country[11].

Sometimes cultivated for its edible seed, there are some named varieties[183]. Trees take about 30 years before they start to bear good crops of seed, they then have heavy crops about every 3 years with light crops in the other years[227]. They continue to yield commercial crops for about 120 years[227]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young, though they may require protection for the first winter or two[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

'Lint'

An old cultivar, selected for its very heavy production of acorns[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959

An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206

A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+alba`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+alba`

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Plants For A Future: Database Search Results

Quercus alba

Common name:	White oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Florida, west to Texas and Minnesota.		
Habitat:	Dry woods[43], gravelly ridges, sandy plains, rich uplands and moist bottoms[82]. The best specimens are found in deep rich well-drained loamy soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. alba var. subcaerulea[B,P] Q. alba var. subflavea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chene Blanc [E], Northern White Oak [B], Oak,White [E], Quebec Oak [H], Roble [E], Weisse Eiche [E], White Oak [H,P,E,DEN1,FEIS,S,L], Witte Eik [E],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Netherlands; Spain; Us; Us(Amerindian); Us(Appalachia); Us(Penobscot)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Lint'**: Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[226]. Somewhat sweet[229]. The seed is about 1 - 3cm long[200] and ripens in its first year[235]. It contains about 6% protein and 65% carbohydrates[213]. It is low in tannin and needs little if any leaching. It is said that those seeds with red or pink blotches on the shell are the sweetest[183]. Any bitter tannins can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency. The seed can be roasted and then eaten, its taste is something like a cross between sunflower seeds and popcorn[183].

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Medicinal Uses

Disclaimer

Antiseptic; Astringent; Tonic.

White oak was often used medicinally by several native North American Indian tribes, who valued it especially for its antiseptic and astringent properties and used it in the treatment of many complaints[257]. It is little, if at all, used in modern herbalism.

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Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

The bark is a rich source of tannin[171, 226].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A brown dye is obtained from the bark or from the galls, it does not require a mordant[226]. Yellow, chrome and gold can also be obtained if mordants are used[226].

Wood - strong, very heavy, hard, tough, close grained, durable[46, 82, 171, 213, 227]. It weighs about 46lb per cubic foot[227]. One of the most important timbers in N. America, it is used for cabinet making, construction, agricultural tools etc, and is also a good fuel[46, 82, 171, 213].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

The white oak prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage over the winter[200]. There are, however, a number of trees 20 metres tall in Britain, mainly in the south-east of the country[11].

Sometimes cultivated for its edible seed, there are some named varieties[183]. Trees take about 30 years before they start to bear good crops of seed, they then have heavy crops about every 3 years with light crops in the other years[227]. They continue to yield commercial crops for about 120 years[227]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young, though they may require protection for the first winter or two[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

'Lint'

An old cultivar, selected for its very heavy production of acorns[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus alba*

Subject:

Quercus alba

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus alba

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:53:07 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus aliena

Common name:	Oriental white oak	Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods, 1000 - 1600 metres in W. China[109]. Mixed mesophytic forests at elevations of 100 - 2700 metres[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	aliena = unrelated;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 15m . It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is about 25mm long, it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood. Of local value, it is used mainly for boat building[61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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The seed ripens in its first year[200].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus aliena

Common name:	Oriental white oak	Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods, 1000 - 1600 metres in W. China[109]. Mixed mesophytic forests at elevations of 100 - 2700 metres[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	aliena = unrelated;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 15m . It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is about 25mm long, it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood. Of local value, it is used mainly for boat building[61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Quercus aliena

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Synonyms:			
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Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods, 1000 - 1600 metres in W. China[109]. Mixed mesophytic forests at elevations of 100 - 2700 metres[266].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	aliena = unrelated;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 15m . It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is about 25mm long, it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

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Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus aliena*

Subject:

Quercus aliena

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus aliena

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:53:18 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus aucheri

Common name:	Boz-pirnal oak	Family:	Fagaceae
Author:	Jaub. & Spach.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Mediterranean around Greece.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 5m by 4m at a slow rate. It is hardy to zone 8. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

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Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Plants For A Future: Database Search Results

Quercus aucheri

Common name:	Boz-pirnal oak	Family:	Fagaceae
Author:	Jaub. & Spach.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Mediterranean around Greece.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Systematics:	From a UDSA Plants Database
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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

An evergreen shrub growing to 5m by 4m at a slow rate. It is hardy to zone 8. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

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Coffee; Seed.

Seed - raw or cooked. A sweet flavour[200]. The seed is about 2cm long and 1.5cm wide[200]. It is low in tannin and needs little if any leaching. Any bitter tannins can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency. The seed can be roasted and then eaten, its taste is something like a cross between sunflower seeds and popcorn[183].

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Enter your comment about this plant here.

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus aucheri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:53:29 2004

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Quercus bicolor

Common name:	Swamp white oak	Family:	Fagaceae
Author:	Willd.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Minnesota, Georgia and Arkansas.		
Habitat:	Bottomlands, stream margins and swamps[43]. Tolerant of poorly drained sites, it is frequently found in heavy mucky soils[229].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below. Swamp White Oak [B,L,FEIS,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets bicolor = 2 colored;
Systematics:	From a UDSA Plants Database Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m. It is hardy to zone 4 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[105, 161, 226]. A rather sweet flavour[159, 235]. The seed is quite large, about 2 - 3cm long and 15 - 20mm wide[82, 200], and unlike most other oaks, is attached to the tree by a long stem[183]. It matures in its first year[235]. The seed can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The seed from some trees can contain bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

Roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Rust; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark has been boiled with hemlock (Tsuga sp.?) and soft maple bark (Acer spp), and the liquid used to remove rust. he mixture was also believed to prevent rust[257].

Wood - close-grained, strong, hard, tough, heavy[46, 82, 171, 229]. It weighs 48lb per cubic foot[235]. Trees do not self-prune and dead branches remain on the trees for many years. This does mean that the wood is usually quite knotty[226]. The wood is of some importance commercially, it is used for construction, furniture, interior finishes etc, as well as for fencing and fuel[46, 82, 171, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A relatively fast-growing tree in the wild, living 300 - 350 years[229], though it is relatively shallow-rooted and is considerably more susceptible to forest fires than most other oaks[226]. This species is one of the best of the white oaks for growing in this country[1]. However, it is said that the seed is rarely formed in Britain[105]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Trees do not commence bearing until about 25 - 30 years old, large crops being produced every 3 - 5 years[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

The seed of this species is attached to the tree by unusually long (by oak tree standards) stems[183].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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References

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

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Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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making flour from acorns

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Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus bicolor

Common name:	Swamp white oak	Family:	Fagaceae
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Bog Garden, Woodland, Canopy.

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References

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Plants For A Future: Database Search Results

Quercus bicolor

Common name:	Swamp white oak	Family:	Fagaceae
Author:	Willd.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Minnesota, Georgia and Arkansas.		
Habitat:	Bottomlands, stream margins and swamps[43]. Tolerant of poorly drained sites, it is frequently found in heavy mucky soils[229].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Swamp White Oak [B,L,FEIS,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets
	bicolor = 2 colored;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m. It is hardy to zone 4 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime

exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[105, 161, 226]. A rather sweet flavour[159, 235]. The seed is quite large, about 2 - 3cm long and 15 - 20mm wide[82, 200], and unlike most other oaks, is attached to the tree by a long stem[183]. It matures in its first year[235]. The seed can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The seed from some trees can contain bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

Roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Rust; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark has been boiled with hemlock (Tsuga sp.?) and soft maple bark (Acer spp), and the liquid used to remove rust. he mixture was also believed to prevent rust[257].

Wood - close-grained, strong, hard, tough, heavy[46, 82, 171, 229]. It weighs 48lb per cubic foot[235]. Trees do not self-prune and dead branches remain on the trees for many years. This does mean that the wood is usually quite knotty[226]. The wood is of some importance commercially, it is used for construction, furniture, interior finishes etc, as well as for fencing and fuel[46, 82, 171, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A relatively fast-growing tree in the wild, living 300 - 350 years[229], though it is relatively shallow-rooted and is considerably more susceptible to forest fires than most other oaks[226]. This species is one of the best of the white oaks for growing in this country[1]. However, it is said that the seed is rarely formed in Britain[105]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Trees do not commence bearing until about 25 - 30 years old, large crops being produced every 3 - 5 years[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

The seed of this species is attached to the tree by unusually long (by oak tree standards) stems[183].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very

badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+bicolor`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus bicolor*

Subject:

Quercus bicolor

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus bicolor

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:53:42 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus cerris

Common name:	Turkey oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Quercus lanuginosa (Lam.)		
Known Hazards:	None known		
Range:	Europe to S.W. Asia. Naturalized in Britain[17].		
Habitat:	Hedges, thickets and woods in acid soils[17, 100].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. humilis[G] Q. pubescens[G,HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	European Turkey Oak [P], Moseik [D], Oak [E], Turkey Oak [H],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 35m by 25m at a fast rate. It is hardy to zone 6. It is in flower in May, and the seeds ripen in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Manna; Seed.

Seed - cooked. Up to 2.5cm long. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

A sweet fluid exudes from insect damage on the stems and solidifies[2, 61, 105, 177]. This is edible and is sold as a manna in local markets in Iran[46]. It can be boiled down into a syrup and used for sweetening food[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Repellent; Tannin; Wood.

The seed cups are used as buttons[95].

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit the growth of young plants[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The leaves, bark and wood are used commercially as a source of tannins[223].

Wood. It is valued by wheelwrights, turners and cabinet makers[4]. Of little value[1, 11]. It does not weather well[100].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Grows well on chalk[98], even when the soil is shallow[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. Grows well near the coast[98].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

A very ornamental tree[1], it grows very well in Britain and is the fastest growing of the oaks in cultivation in this country[1].

The seed ripens in its second year[200].

Trees transplant badly unless they are moved regularly[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus pubescens* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not

removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

Enter your details here:

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Add a longer comment

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Plants For A Future: Database Search Results

Quercus cerris

Common name:	Turkey oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Quercus lanuginosa (Lam.)		
Known Hazards:	None known		
Range:	Europe to S.W. Asia. Naturalized in Britain[17].		
Habitat:	Hedges, thickets and woods in acid soils[17, 100].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. humilis[G] Q. pubescens[G,HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 35m by 25m at a fast rate. It is hardy to zone 6. It is in flower in May, and the seeds ripen in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Manna; Seed.

Seed - cooked. Up to 2.5cm long. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

A sweet fluid exudes from insect damage on the stems and solidifies[2, 61, 105, 177]. This is edible and is sold as a manna in local markets in Iran[46]. It can be boiled down into a syrup and used for sweetening food[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Repellent; Tannin; Wood.

The seed cups are used as buttons[95].

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit the growth of young plants[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The leaves, bark and wood are used commercially as a source of tannins[223].

Wood. It is valued by wheelwrights, turners and cabinet makers[4]. Of little value[1, 11]. It does not weather well[100].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Grows well on chalk[98], even when the soil is shallow[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. Grows well near the coast[98].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

A very ornamental tree[1], it grows very well in Britain and is the fastest growing of the oaks in cultivation in this country[1].

The seed ripens in its second year[200].

Trees transplant badly unless they are moved regularly[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus pubescens* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7

Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+cerris`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+cerris`

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Plants For A Future: Database Search Results

Quercus cerris

Common name:	Turkey oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Quercus lanuginosa (Lam.)		
Known Hazards:	None known		
Range:	Europe to S.W. Asia. Naturalized in Britain[17].		
Habitat:	Hedges, thickets and woods in acid soils[17, 100].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. humilis[G] Q. pubescens[G,HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	European Turkey Oak [P], Moseik [D], Oak [E], Turkey Oak [H],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 35m by 25m at a fast rate. It is hardy to zone 6. It is in flower in May, and the seeds ripen in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Manna; Seed.

Seed - cooked. Up to 2.5cm long. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

A sweet fluid exudes from insect damage on the stems and solidifies[2, 61, 105, 177]. This is edible and is sold as a manna in local markets in Iran[46]. It can be boiled down into a syrup and used for sweetening food[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Repellent; Tannin; Wood.

The seed cups are used as buttons[95].

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit the growth of young plants[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The leaves, bark and wood are used commercially as a source of tannins[223].

Wood. It is valued by wheelwrights, turners and cabinet makers[4]. Of little value[1, 11]. It does not weather well[100].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Grows well on chalk[98], even when the soil is shallow[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. Grows well near the coast[98].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

A very ornamental tree[1], it grows very well in Britain and is the fastest growing of the oaks in cultivation in this country[1].

The seed ripens in its second year[200].

Trees transplant badly unless they are moved regularly[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+cerris`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+cerris`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus cerris*

Subject:

Quercus cerris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus cerris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:53:54 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus chrysolepis

Common name:	Live oak	Family:	Fagaceae
Author:	Liebm.	Botanical references:	82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - Oregon to California, west to Arizona.		
Habitat:	Found in a variety of habitats, it is a tall tree in deep, cool, narrow canyons and is a low thicket-forming shrub on high windswept slopes[82, 229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Canyon Live Oak [L,FEIS,B,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets
	chrysolepis = golden scaled;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[161, 177]. A staple food for several native North American Indian tribes[257]. The seed is about 3cm long and wide[82, 200] and can be up to 5cm long and wide[82]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

The acorn cups, soaked in water containing iron, produce a black dye[257].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, tough, very strong, close grained, compact, shock resistant[61, 82, 229]. This tree produces the best western oak timber, it has a variety of uses including making agricultural implements and wagons[82, 229]. The wood is an excellent fuel[257].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing but long-lived tree in the wild[229]. When killed by forest fires it often resprouts from the roots[229]. Seed production is cyclic, occasional years of high yields being followed by several years of low yields[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants

produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants For A Future: Database Search Results

Quercus chrysolepis

Common name:	Live oak	Family:	Fagaceae
Author:	Liebm.	Botanical references:	82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - Oregon to California, west to Arizona.		
Habitat:	Found in a variety of habitats, it is a tall tree in deep, cool, narrow canyons and is a low thicket-forming shrub on high windswept slopes[82, 229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Canyon Live Oak [L,FEIS,B,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets
	chrysolepis = golden scaled;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The

plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[161, 177]. A staple food for several native North American Indian tribes[257]. The seed is about 3cm long and wide[82, 200] and can be up to 5cm long and wide[82]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

The acorn cups, soaked in water containing iron, produce a black dye[257].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich

source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, tough, very strong, close grained, compact, shock resistant[61, 82, 229]. This tree produces the best western oak timber, it has a variety of uses including making agricultural implements and wagons[82, 229]. The wood is an excellent fuel[257].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing but long-lived tree in the wild[229]. When killed by forest fires it often resprouts from the roots[229]. Seed production is cyclic, occasional years of high yields being followed by several years of low yields[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

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Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus chrysolepis

Common name:	Live oak	Family:	Fagaceae
Author:	Liebm.	Botanical references:	82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - Oregon to California, west to Arizona.		
Habitat:	Found in a variety of habitats, it is a tall tree in deep, cool, narrow canyons and is a low thicket-forming shrub on high windswept slopes[82, 229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Canyon Live Oak [L,FEIS,B,DEN1,P],
Epithets:	From a Dictionary of Botanical Epithets
	chrysolepis = golden scaled;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The

plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[161, 177]. A staple food for several native North American Indian tribes[257]. The seed is about 3cm long and wide[82, 200] and can be up to 5cm long and wide[82]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

The acorn cups, soaked in water containing iron, produce a black dye[257].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich

source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, tough, very strong, close grained, compact, shock resistant[61, 82, 229]. This tree produces the best western oak timber, it has a variety of uses including making agricultural implements and wagons[82, 229]. The wood is an excellent fuel[257].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing but long-lived tree in the wild[229]. When killed by forest fires it often resprouts from the roots[229]. Seed production is cyclic, occasional years of high yields being followed by several years of low yields[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus chrysolepis*

Subject:

Quercus chrysolepis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus chrysolepis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:54:05 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus coccifera

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Kermes oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Quercus pseudococcifera (Desf.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry places on limestone and siliceous rocks[89].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. calliprinos[G] Q. coccinea[B,G,HORTIPLEX,L,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Djidar [E], Kermes Oak [H], Scarlet Oak [DEN1,FEIS,P,B,L],
Epithets:	From a Dictionary of Botanical Epithets
	coccifer = berry bearing; coccifera = berry bearing;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 4m by 4m . It is hardy to zone 6. It is in leaf all year, in flower from April to June. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 63, 105]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is rich in tannin[148].

A black dye can be obtained from the bark[89] and also from the seeds[148].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental plant[1], it thrives in Britain[200].

A shrub growing in dappled woodland shade at Cambridge Botanical Gardens produced a few ripe seeds after the hot summer of 1989, though the vast majority of seeds were aborted[K]. The fruit ripens in its second year[11].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. Any transplanting should be done once growth has commenced in late May or in September[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very

badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus coccinea* (a possible synonym).

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

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[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+coccifera`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+coccifera`

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Plants For A Future: Database Search Results

Quercus coccifera

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Kermes oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Quercus pseudococcifera (Desf.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry places on limestone and siliceous rocks[89].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. calliprinos[G] Q. coccinea[B,G,HORTIPLEX,L,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Djidar [E], Kermes Oak [H], Scarlet Oak [DEN1,FEIS,P,B,L],
Epithets:	From a Dictionary of Botanical Epithets
	coccifer = berry bearing; coccifera = berry bearing;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 4m by 4m . It is hardy to zone 6. It is in leaf all year, in flower from April to June. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 63, 105]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is rich in tannin[148].

A black dye can be obtained from the bark[89] and also from the seeds[148].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental plant[1], it thrives in Britain[200].

A shrub growing in dappled woodland shade at Cambridge Botanical Gardens produced a few ripe seeds after the hot summer of 1989, though the vast majority of seeds were aborted[K]. The fruit ripens in its second year[11].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. Any transplanting should be done once growth has commenced in late May or in September[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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making flour from acorns

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Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus coccifera

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Kermes oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Quercus pseudococcifera (Desf.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry places on limestone and siliceous rocks[89].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Q. calliprinos[G] Q. coccinea[B,G,HORTIPLEX,L,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Djidar [E], Kermes Oak [H], Scarlet Oak [DEN1,FEIS,P,B,L],
Epithets:	From a Dictionary of Botanical Epithets coccifer = berry bearing; coccifera = berry bearing;
Systematics:	From a UDSA Plants Database Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 4m by 4m . It is hardy to zone 6. It is in leaf all year, in flower from April to June. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 63, 105]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

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Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental plant[1], it thrives in Britain[200].

A shrub growing in dappled woodland shade at Cambridge Botanical Gardens produced a few ripe seeds after the hot summer of 1989, though the vast majority of seeds were aborted[K]. The fruit ripens in its second year[11].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. Any transplanting should be done once growth has commenced in late May or in September[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus coccifera*

Subject:

Quercus coccifera

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus coccifera

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Plants For A Future: Database Search Results

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Quercus coccinea

Common name:	Scarlet oak	Family:	Fagaceae
Author:	Münchh	Botanical references:	43, 82, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Maine and Ontario to Minnesota, North Carolina and Missouri.		
Habitat:	Found on upland sites such as ridges and middle and upper slope, it grows in a variety of soils doing well on poor, dry, sandy, or gravelly soils[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Scarlet Oak [FEIS,P,B,DEN1,L],
Epithets:	From a Dictionary of Botanical Epithets
	coccinea = scarlet;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m by 15m . It is hardy to zone 4 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 25mm long and 15mm wide[82, 229], contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - strong, hard, heavy, coarse grained[46, 82, 171, 229]. It weighs 46lb per cubic foot[235]. Inferior to wood from the white oaks, it is used in construction, furniture etc[46, 82, 171, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A very ornamental tree[1], it is fast-growing but short-lived in the wild[229]. Seed production is cyclic, a year of high yields being followed by 3 - 4 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus coccinea

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Author:	Münchh	Botanical references:	43, 82, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Maine and Ontario to Minnesota, North Carolina and Missouri.		
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Physical Characteristics

A decidious tree growing to 25m by 15m . It is hardy to zone 4 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic

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Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - strong, hard, heavy, coarse grained[46, 82, 171, 229]. It weighs 46lb per cubic foot[235]. Inferior to wood from the white oaks, it is used in construction, furniture etc[46, 82, 171, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A very ornamental tree[1], it is fast-growing but short-lived in the wild[229]. Seed production is cyclic, a year of high yields being followed by 3 - 4 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus coccinea*

Subject:

Quercus coccinea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus coccinea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus dentata

Common name:	Japanese emperor oak	Family:	Fagaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Quercus daimio (K.Koch.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny slopes and thickets in lowland and mountains all over Japan[58]. Mixed mesophytic forests below 100 - 2700 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Kasiwa [E],
Epithets:	From a Dictionary of Botanical Epithets
	dentata = with teeth;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 12m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is up to 23mm long and 15mm wide[266]. Rich in starch[105]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[177].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

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Tannin is obtained from the bark[46].

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Trees are fast growing[200], but they prefer warmer summers than are usually experienced in Britain and often grow poorly in this country[11], failing to properly ripen their wood which results in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

The seed ripens in its first year[200].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

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Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
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Plants For A Future Rating (1-5):	2		

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Physical Characteristics

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Common name:	Japanese emperor oak	Family:	Fagaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Quercus daimio (K.Koch.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny slopes and thickets in lowland and mountains all over Japan[58]. Mixed mesophytic forests below 100 - 2700 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Kasiwa [E],
Epithets:	From a Dictionary of Botanical Epithets
	dentata = with teeth;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 12m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is up to 23mm long and 15mm wide[266]. Rich in starch[105]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[177].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Tannin is obtained from the bark[46].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Prefers an acid soil[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Trees are fast growing[200], but they prefer warmer summers than are usually experienced in Britain and often grow poorly in this country[11], failing to properly ripen their wood which results in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

The seed ripens in its first year[200].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Subject:

Quercus dentata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus dentata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Quercus dilatata

Common name:		Family:	Fagaceae
Author:	Lindl.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas from Afghanistan to Nepal.		
Habitat:	Forests, 2100 - 2700 metres[146]		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dilatata = expanded;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree. It is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Galls formed on the leaves are sweet and edible[177]. It is not clear from this report whether the gall still contains an insect or if it is eaten after the insect has left.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

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Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very hard, durable. Used for construction etc[146, 158].

Cultivation details

We have very little information on this species and do not know if it will be hardy in this country. Trees coppice well and seedlings are fairly shade tolerant[146, 158]. The following notes are based on the general needs of the genus.

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

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Coffee; Leaves; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Wood - very hard, durable. Used for construction etc[146, 158].

Cultivation details

We have very little information on this species and do not know if it will be hardy in this country. Trees coppice well and seedlings are fairly shade tolerant[146, 158]. The following notes are based on the general needs of the genus.

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Plants For A Future: Database Search Results

Quercus dilatata

Common name:		Family:	Fagaceae
Author:	Lindl.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas from Afghanistan to Nepal.		
Habitat:	Forests, 2100 - 2700 metres[146]		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dilatata = expanded;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree. It is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Galls formed on the leaves are sweet and edible[177]. It is not clear from this report whether the gall still contains an insect or if it is eaten after the insect has left.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very hard, durable. Used for construction etc[146, 158].

Cultivation details

We have very little information on this species and do not know if it will be hardy in this country. Trees coppice well and seedlings are fairly shade tolerant[146, 158]. The following notes are based on the general needs of the genus.

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+dilatata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+dilatata`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus dilatata*

Subject:

Quercus dilatata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus dilatata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:54:53 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus douglasii

Common name:	Blue oak	Family:	Fagaceae
Author:	Hook. & Arn.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Dry soils in valleys, rolling hills and lower mountain slopes to 1350 metres[62, 82], often forming extensive stands[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Oak [B,DEN1,L,FEIS,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 12m at a slow rate. It is hardy to zone 7 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[257]. The seed has been used as a staple food by some native North American Indian tribes[257]. Somewhat sweet[62, 4, 105, 161]. A good size, to 25mm long and wide[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Poultice; Skin.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4]. A poultice of the ground galls and salt has been used in the treatment of burns, sores and cuts[257]. It has also been used as a wash for sore eyes[257].

The leaves have been chewed as a treatment for sore throats[257].

Other Uses

Adhesive; Basketry; Buttons; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can

inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The branches have been used to make rims for twined work baskets[257].

The acorn meal has been used to mend cracks in clay pots[257].

The seed cups are used as buttons[5].

Wood - hard, heavy, strong, brittle. It has a strong cross-grain and is difficult to split[229]. Of little commercial value, it is used mainly for fuel[82, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing but long-lived tree. Seed production is cyclic, a year of high yields being followed by 2 - 4 years of low production[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

This species is notably resistant to honey fungus[88, 200].

Hybridizes freely with other members of the genus[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very

badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622

A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+douglasii`
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Plants For A Future: Database Search Results

Quercus douglasii

Common name:	Blue oak	Family:	Fagaceae
Author:	Hook. & Arn.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Dry soils in valleys, rolling hills and lower mountain slopes to 1350 metres[62, 82], often forming extensive stands[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Oak [B,DEN1,L,FEIS,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 12m at a slow rate. It is hardy to zone 7 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[257]. The seed has been used as a staple food by some native North American Indian tribes[257]. Somewhat sweet[62, 4, 105, 161]. A good size, to 25mm long and wide[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Poultice; Skin.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4]. A poultice of the ground galls and salt has been used in the treatment of burns, sores and cuts[257]. It has also been used as a wash for sore eyes[257].

The leaves have been chewed as a treatment for sore throats[257].

Other Uses

Adhesive; Basketry; Buttons; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls,

obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

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The seed cups are used as buttons[5].

Wood - hard, heavy, strong, brittle. It has a strong cross-grain and is difficult to split[229]. Of little commercial value, it is used mainly for fuel[82, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing but long-lived tree. Seed production is cyclic, a year of high yields being followed by 2 - 4 years of low production[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

This species is notably resistant to honey fungus[88, 200].

Hybridizes freely with other members of the genus[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully

referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus douglasii

Common name:	Blue oak	Family:	Fagaceae
Author:	Hook. & Arn.	Botanical references:	11, 82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Dry soils in valleys, rolling hills and lower mountain slopes to 1350 metres[62, 82], often forming extensive stands[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Oak [B,DEN1,L,FEIS,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 12m at a slow rate. It is hardy to zone 7 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[257]. The seed has been used as a staple food by some native North American Indian tribes[257]. Somewhat sweet[62, 4, 105, 161]. A good size, to 25mm long and wide[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Poultice; Skin.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4]. A poultice of the ground galls and salt has been used in the treatment of burns, sores and cuts[257]. It has also been used as a wash for sore eyes[257].

The leaves have been chewed as a treatment for sore throats[257].

Other Uses

Adhesive; Basketry; Buttons; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls,

obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The branches have been used to make rims for twined work baskets[257].

The acorn meal has been used to mend cracks in clay pots[257].

The seed cups are used as buttons[5].

Wood - hard, heavy, strong, brittle. It has a strong cross-grain and is difficult to split[229]. Of little commercial value, it is used mainly for fuel[82, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing but long-lived tree. Seed production is cyclic, a year of high yields being followed by 2 - 4 years of low production[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

This species is notably resistant to honey fungus[88, 200].

Hybridizes freely with other members of the genus[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus douglasii*

Subject:

Quercus douglasii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus douglasii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:55:05 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus dumosa revoluta

Common name:	California scrub oak	Family:	Fagaceae
Author:	Sarg.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Coastal ranges[11].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dumosa = bushy; revoluta = unrolled;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - cooked[161]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 35mm long and 15mm wide[82], contains bitter tannins. These can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

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Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

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Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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If you know of another site which has good information about this plant fill in the following the details here.

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Habitat:	Coastal ranges[11].		
Plants For A Future Rating (1-5):	2		

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	dumosa = bushy; revoluta = unrolled;
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	Order: Fagales . Beech family
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	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

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Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

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Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to

between -5 and -10°c[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Fairly good.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the

acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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Plants For A Future: Database Search Results

Quercus dumosa revoluta

Common name:	California scrub oak	Family:	Fagaceae
Author:	Sarg.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Coastal ranges[11].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dumosa = bushy; revoluta = unrolled;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - cooked[161]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 35mm long and 15mm wide[82], contains bitter tannins. These can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to

between -5 and -10°c[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus dumosa revoluta*

Subject:

Quercus dumosa revoluta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus dumosa revoluta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:55:16 2004

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus ellipsoidalis

Common name:	Northern pin oak	Family:	Fagaceae
Author:	E. J. Hill.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Northern Central N. America - west and north of the Great Lakes.		
Habitat:	Dry to moist siliceous to argillaceous woods[43]. Prairies and sandy hills in dry soils[82]. The best specimens are found in rich well-drained soils, especially those containing clay[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Northern Pin Oak [FEIS,B,P,L],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 13m at a medium rate. It is hardy to zone 4 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 2cm long[229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[161, 177, 257].

Medicinal Uses

Disclaimer

Astringent; Emmenagogue.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

A decoction of the inner bark has been used to treat suppressed menses caused by cold[257].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls,

obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy strong. It is cut occasionally for lumber, being used for flooring, furniture and interior finishes[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A moderately fast-growing tree in the wild[229]. Seed production is cyclic, with a year of high yields being followed by 2 - 3 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Hybridizes in the wild with Q. velutina[43].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

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Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus ellipsoidalis

Common name:	Northern pin oak	Family:	Fagaceae
Author:	E. J. Hill.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Northern Central N. America - west and north of the Great Lakes.		
Habitat:	Dry to moist siliceous to argillaceous woods[43]. Prairies and sandy hills in dry soils[82]. The best specimens are found in rich well-drained soils, especially those containing clay[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Northern Pin Oak [FEIS,B,P,L],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 13m at a medium rate. It is hardy to zone 4 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 2cm long[229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[161, 177, 257].

Medicinal Uses

Disclaimer

Astringent; Emmenagogue.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

A decoction of the inner bark has been used to treat suppressed menses caused by cold[257].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy strong. It is cut occasionally for lumber, being used for flooring, furniture and interior finishes[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A moderately fast-growing tree in the wild[229]. Seed production is cyclic, with a year of high yields being followed by 2 - 3 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Hybridizes in the wild with Q. velutina[43].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of

Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+ellipsoidalis`
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Plants For A Future: Database Search Results

Quercus ellipsoidalis

Common name:	Northern pin oak	Family:	Fagaceae
Author:	E. J. Hill.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Northern Central N. America - west and north of the Great Lakes.		
Habitat:	Dry to moist siliceous to argillaceous woods[43]. Prairies and sandy hills in dry soils[82]. The best specimens are found in rich well-drained soils, especially those containing clay[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Northern Pin Oak [FEIS,B,P,L],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 13m at a medium rate. It is hardy to zone 4 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 2cm long[229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[161, 177, 257].

Medicinal Uses

Disclaimer

Astringent; Emmenagogue.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

A decoction of the inner bark has been used to treat suppressed menses caused by cold[257].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy strong. It is cut occasionally for lumber, being used for flooring, furniture and interior finishes[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A moderately fast-growing tree in the wild[229]. Seed production is cyclic, with a year of high yields being followed by 2 - 3 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Hybridizes in the wild with Q. velutina[43].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+ellipsoidalis`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus ellipsoidalis*

Subject:

Quercus ellipsoidalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus ellipsoidalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:55:28 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus emoryi

Common name:	Black oak	Family:	Fagaceae
Author:	Torr.	Botanical references:	82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - W. Texas, New Mexico, Arizona and northern Mexico.		
Habitat:	Canyons, dry foothills and mountain slopes, 1350 - 2350 metres[229], growing best in sheltered valleys[82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Emory Oak [L,FEIS,DEN2], Emory's Oak [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 12m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and

are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[257]. A sweet taste[63, 85, 161], it is an important item of food for the Indians in S. Arizona and northern Mexico and is sold in the local markets there[46, 82, 85]. The seed is up to 2cm long and 1cm thick[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are

caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, brittle, close grained[82]. Of little value commercially, though it is an important fuel in its native range[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing tree in its native range[229]. Seed production is cyclical, with a year of high production followed by a few years of low production. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean

that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus emoryi

Common name:	Black oak	Family:	Fagaceae
Author:	Torr.	Botanical references:	82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - W. Texas, New Mexico, Arizona and northern Mexico.		
Habitat:	Canyons, dry foothills and mountain slopes, 1350 - 2350 metres[229], growing best in sheltered valleys[82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Emory Oak [L,FEIS,DEN2], Emory's Oak [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 12m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[257]. A sweet taste[63, 85, 161], it is an important item of food for the Indians in S. Arizona and northern Mexico and is sold in the local markets there[46, 82, 85]. The seed is up to 2cm long and 1cm thick[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, brittle, close grained[82]. Of little value commercially, though it is an important fuel in its native range[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing tree in its native range[229]. Seed production is cyclical, with a year of high production followed by a few years of low production. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959

An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus emoryi

Common name:	Black oak	Family:	Fagaceae
Author:	Torr.	Botanical references:	82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - W. Texas, New Mexico, Arizona and northern Mexico.		
Habitat:	Canyons, dry foothills and mountain slopes, 1350 - 2350 metres[229], growing best in sheltered valleys[82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Emory Oak [L,FEIS,DEN2], Emory's Oak [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 12m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[257]. A sweet taste[63, 85, 161], it is an important item of food for the Indians in S. Arizona and northern Mexico and is sold in the local markets there[46, 82, 85]. The seed is up to 2cm long and 1cm thick[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

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Cultivation details

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Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing tree in its native range[229]. Seed production is cyclical, with a year of high production followed by a few years of low production. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus emoryi*

Subject:

Quercus emoryi

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus emoryi

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:55:40 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus engelmannii

Common name:	Evergreen oak	Family:	Fagaceae
Author:	Greene.	Botanical references:	82
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Low hills and dry rolling mesas in well-drained soils, usually below 1350 metres[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Engelmann Oak [DEN2], Engelmann's Oak [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 10m. It is frost tender. It is in leaf all year, in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[161, 257]. Used when better foods were in short supply[257]. The seed is up to 25mm long and 12mm wide[82, 229]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

The bark gum can be pounded, washed and chewed like a chewing gum[257].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are

caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very heavy, hard, strong, close-grained, brittle. Of no commercial value, it is used only for fuel[82, 229].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus engelmannii

Common name:	Evergreen oak	Family:	Fagaceae
Author:	Greene.	Botanical references:	82
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Low hills and dry rolling mesas in well-drained soils, usually below 1350 metres[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Engelmann Oak [DEN2], Engelmann's Oak [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 10m. It is frost tender. It is in leaf all year, in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[161, 257]. Used when better foods were in short supply[257]. The seed is up to 25mm long and 12mm wide[82, 229]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

The bark gum can be pounded, washed and chewed like a chewing gum[257].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very heavy, hard, strong, close-grained, brittle. Of no commercial value, it is used only for fuel[82, 229].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

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Propagation

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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

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Unknown Fri Dec 1 22:52:15 2000

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Plants For A Future: Database Search Results

Quercus engelmannii

Common name:	Evergreen oak	Family:	Fagaceae
Author:	Greene.	Botanical references:	82
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Low hills and dry rolling mesas in well-drained soils, usually below 1350 metres[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Engelmann Oak [DEN2], Engelmann's Oak [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 10m. It is frost tender. It is in leaf all year, in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[161, 257]. Used when better foods were in short supply[257]. The seed is up to 25mm long and 12mm wide[82, 229]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder areas of the country. The following notes are based on the general needs of the genus.

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Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus engelmannii*

Subject:

Quercus engelmannii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus engelmannii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus falcata

Common name:	Southern red oak	Family:	Fagaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New York to Florida, west to Texas.		
Habitat:	Dry sandy or clay upland soils, to 600 metres[229]. It is also occasionally found on moister fertile bottomlands or near streams, where it achieves its greatest size[43, 229].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. falcata var. triloba[B,P] Q. triloba[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oak,Spanish [E], Southern Red Oak [L,B,FEIS,P,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	falcata = sickle shaped;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us(Sc); Us(Va)

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m at a medium rate. It is hardy to zone 6 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is about 12mm long[227], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Febrifuge; Salve; Tonic.

The bark is antiseptic, astringent, febrifuge and tonic[82, 227, 257]. An infusion has been used in the treatment of chronic dysentery, indigestion, asthma, lost voice and intermittent fevers[257].

The bark has been chewed as a treatment for mouth sores[257]. An infusion of the bark has been used as a wash on sore, chapped skin[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a good source of tannin[82, 227].

Wood - coarse-grained, durable, heavy, hard, strong[43, 227, 229]. It cracks badly when left in the sun and rots when in contact with the soil[229]. It weighs 43lb per cubic foot[227]. It is not a prime timber, but is used for rough lumber, tools, furniture etc and as fuel[43, 227, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A moderately fast-growing tree in its native range, where it lives about 100 - 10 years[229]. It prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Trees commence bearing seed when about 25 years old, production is cyclic with a year of high yields being followed by a few years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

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References for the family Fagaceae.

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References

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean

that it has a sweet taste and that you don't need strong jaws?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
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Plants For A Future Rating (1-5):	1		

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Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is about 12mm long[227], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Febrifuge; Salve; Tonic.

The bark is antiseptic, astringent, febrifuge and tonic[82, 227, 257]. An infusion has been used in the treatment of chronic dysentery, indigestion, asthma, lost voice and intermittent fevers[257]. The bark has been chewed as a treatment for mouth sores[257]. An infusion of the bark has been used as a wash on sore, chapped skin[257].

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Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Edible Uses

Coffee; Seed.

Seed - cooked. The seed is about 12mm long[227], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Febrifuge; Salve; Tonic.

The bark is antiseptic, astringent, febrifuge and tonic[82, 227, 257]. An infusion has been used in the treatment of chronic dysentery, indigestion, asthma, lost voice and intermittent fevers[257]. The bark has been chewed as a treatment for mouth sores[257]. An infusion of the bark has been used as a wash on sore, chapped skin[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a good source of tannin[82, 227].

Wood - coarse-grained, durable, heavy, hard, strong[43, 227, 229]. It cracks badly when left in the sun and rots when in contact with the soil[229]. It weighs 43lb per cubic foot[227]. It is not a prime timber, but is used for rough lumber, tools, furniture etc and as fuel[43, 227, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A moderately fast-growing tree in its native range, where it lives about 100 - 10 years[229]. It prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Trees commence bearing seed when about 25 years old, production is cyclic with a year of high yields being followed by a few years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants

produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+falcata`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus falcata*

Subject:

Quercus falcata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus falcata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:56:03 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus frainetto

Common name:	Hungarian oak	Family:	Fagaceae
Author:	Ten.	Botanical references:	11, 200
Synonyms:	Quercus conferta (Kit.)		
Known Hazards:	None known		
Range:	Europe - Hungary, S. Italy and the Balkans.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. farnetto[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Italian Oak [P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 6. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked. The seed is up to 3.5cm long and 1.2cm wide[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can

inhibit plant growth[20].

The seed cups are used as buttons[95].

The bark is a commercial source of tannin[46, 223]. Tannin is also found in the leaves and wood[223].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

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This species thrives in Britain, despite our cooler summers, but it only bears acorns occasionally[11]. The acorns ripen in their first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

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[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

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Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 6. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

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Coffee; Seed.

Seed - raw or cooked. The seed is up to 3.5cm long and 1.2cm wide[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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References

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+frainetto`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+frainetto`

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Plants For A Future: Database Search Results

Quercus frainetto

Common name:	Hungarian oak	Family:	Fagaceae
Author:	Ten.	Botanical references:	11, 200
Synonyms:	Quercus conferta (Kit.)		
Known Hazards:	None known		
Range:	Europe - Hungary, S. Italy and the Balkans.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. farnetto[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Italian Oak [P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 6. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked. The seed is up to 3.5cm long and 1.2cm wide[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

The seed cups are used as buttons[95].

The bark is a commercial source of tannin[46, 223]. Tannin is also found in the leaves and wood[223].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich

source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

This species thrives in Britain, despite our cooler summers, but it only bears acorns occasionally[11]. The acorns ripen in their first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus frainetto*

Subject:

Quercus frainetto

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus frainetto

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:56:15 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus fruticosa

Common name:		Family:	Fagaceae
Author:	Brot.	Botanical references:	11, 50, 200
Synonyms:	Quercus humilis (Lam. non Walter.)		
Known Hazards:	None known		
Range:	S.W. Europe.		
Habitat:	Sandy places in lowland and mountains.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. lanuginosa[G] Q. pubescens[G,HORTIPLEX]
Epithets:	From a Dictionary of Botanical Epithets
	fruticosa = shrubby;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is about 15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[200].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Prefers warmer summers than are usually experienced in Britain, but plants usually grow well in Britain[200].

Produces suckers[200]. Plants are often very low growing, to about 30cm tall, and spread out to form a carpet[200].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Division of suckers in the dormant season.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus pubescens* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus fruticosa

Common name:		Family:	Fagaceae
Author:	Brot.	Botanical references:	11, 50, 200
Synonyms:	Quercus humilis (Lam. non Walter.)		
Known Hazards:	None known		
Range:	S.W. Europe.		
Habitat:	Sandy places in lowland and mountains.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is about 15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Cultivation details

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This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

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The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

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Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus fruticosa

Common name:		Family:	Fagaceae
Author:	Brot.	Botanical references:	11, 50, 200
Synonyms:	Quercus humilis (Lam. non Walter.)		
Known Hazards:	None known		
Range:	S.W. Europe.		
Habitat:	Sandy places in lowland and mountains.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. lanuginosa[G] Q. pubescens[G,HORTIPLEX]
Epithets:	From a Dictionary of Botanical Epithets
	fruticosa = shrubby;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 8. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is about 15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[200].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Prefers warmer summers than are usually experienced in Britain, but plants usually grow well in Britain[200].

Produces suckers[200]. Plants are often very low growing, to about 30cm tall, and spread out to form a carpet[200].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Division of suckers in the dormant season.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus fruticosa*

Subject:

Quercus fruticosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus fruticosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:56:26 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus gambelii

Common name:	Shin oak	Family:	Fagaceae
Author:	Nutt.	Botanical references:	11, 82, 200
Synonyms:	Quercus utahensis ((ADC.)Rydb.)		
Known Hazards:	None known		
Range:	Western N. America - Rocky Mountains from Utah and Wyoming to Mexico.		
Habitat:	Dry foothills and lower mountain slopes, 1350 - 2800 metres[62].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. eastwoodiae[B,P] Q. gambelii var. gambelii[B,P] Q. gunnisonii[B,P] Q. leptophylla[B,P] Q. nitescens[B,P] Q. novomexicana[B,P] Q. submollis[B,P] Q. vreelandii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Encino [E], Gambel Oak [FEIS,L], Gambel's Oak [P,S,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us(Nm)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 4.5m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[257]. A staple food for several native North American Indian tribes[257]. A sweet taste[61, 62, 63, 85, 161]. The seed is about 2cm long and wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[85]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Astringent; Cathartic.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The acorns have been eaten to give greater sexual potency[257].

The root bark is analgesic and cathartic[257]. A decoction has been used to treat postpartum pain and facilitate delivery of the placenta[257].

Other Uses

Buttons; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The seed cups are used as buttons[5].

Wood - hard, heavy, close-grained. The trees are generally too small to be of use commercially, though the wood is used locally for lumber and also makes a good fuel[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

A slow growing shrub that often produces suckers and grows as a thicket[182, 229], it occasionally makes a small tree[229]. Seed production is cyclical, a year when good crops are produced is followed by several years of light production[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Division of suckers in the dormant season[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Quercus gambelii var. gambelii* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus gambelii

Common name:	Shin oak	Family:	Fagaceae
Author:	Nutt.	Botanical references:	11, 82, 200
Synonyms:	Quercus utahensis ((ADC.)Rydb.)		
Known Hazards:	None known		
Range:	Western N. America - Rocky Mountains from Utah and Wyoming to Mexico.		
Habitat:	Dry foothills and lower mountain slopes, 1350 - 2800 metres[62].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. eastwoodiae[B,P] Q. gambelii var. gambelii[B,P] Q. gunnisonii[B,P] Q. leptophylla[B,P] Q. nitescens[B,P] Q. novomexicana[B,P] Q. submollis[B,P] Q. vreelandii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Encino [E], Gambel Oak [FEIS,L], Gambel's Oak [P,S,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us(Nm)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 4.5m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[257]. A staple food for several native North American Indian tribes[257]. A sweet taste[61, 62, 63, 85, 161]. The seed is about 2cm long and wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[85]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Astringent; Cathartic.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The acorns have been eaten to give greater sexual potency[257].

The root bark is analgesic and cathartic[257]. A decoction has been used to treat postpartum pain and facilitate delivery of the placenta[257].

Other Uses

Buttons; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The seed cups are used as buttons[5].

Wood - hard, heavy, close-grained. The trees are generally too small to be of use commercially, though the wood is used locally for lumber and also makes a good fuel[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

A slow growing shrub that often produces suckers and grows as a thicket[182, 229], it occasionally makes a small tree[229]. Seed production is cyclical, a year when good crops are produced is followed by several years of light production[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Division of suckers in the dormant season[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Quercus gambelii var. gambelii* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the

following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+gambelii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+gambelii`

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Plants For A Future: Database Search Results

Quercus gambelii

Common name:	Shin oak	Family:	Fagaceae
Author:	Nutt.	Botanical references:	11, 82, 200
Synonyms:	Quercus utahensis ((ADC.)Rydb.)		
Known Hazards:	None known		
Range:	Western N. America - Rocky Mountains from Utah and Wyoming to Mexico.		
Habitat:	Dry foothills and lower mountain slopes, 1350 - 2800 metres[62].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. eastwoodiae[B,P] Q. gambelii var. gambelii[B,P] Q. gunnisonii[B,P] Q. leptophylla[B,P] Q. nitescens[B,P] Q. novomexicana[B,P] Q. submollis[B,P] Q. vreelandii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Encino [E], Gambel Oak [FEIS,L], Gambel's Oak [P,S,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us(Nm)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 4.5m at a slow rate. It is hardy to zone 4 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[257]. A staple food for several native North American Indian tribes[257]. A sweet taste[61, 62, 63, 85, 161]. The seed is about 2cm long and wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[85]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Astringent; Cathartic.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The acorns have been eaten to give greater sexual potency[257].

The root bark is analgesic and cathartic[257]. A decoction has been used to treat postpartum pain and facilitate delivery of the placenta[257].

Other Uses

Buttons; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The seed cups are used as buttons[5].

Wood - hard, heavy, close-grained. The trees are generally too small to be of use commercially, though the wood is used locally for lumber and also makes a good fuel[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

A slow growing shrub that often produces suckers and grows as a thicket[182, 229], it occasionally makes a small tree[229]. Seed production is cyclical, a year when good crops are produced is followed by several years of light production[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Division of suckers in the dormant season[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus gambelii*

Subject:

Quercus gambelii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus gambelii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:56:38 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus garryana

Common name:	Oregon white oak	Family:	Fagaceae
Author:	Hook.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Dry prairies and foothills to rocky bluffs[60].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Oregon White Oak [FEIS,L,B,P,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 18m by 10m at a slow rate. It is hardy to zone 6 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The

plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[226]. Up to 25mm long[200]. Up to 32mm long and 25mm wide according to other reports[82, 229], which also said that it has a sweet taste[229]. The seed is ground into a powder and used in making bread etc, it is a good thickener for soups and stews[183]. The seed has a high content of bitter tannins, these can be leached out by thoroughly washing the dried and ground up seed in water[183], though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; TB.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

A decoction of the bark has been used in the treatment of tuberculosis[257].

An infusion of the plant has been drunk by a mother before her first baby comes[257]. The pounded bark has been rubbed on the abdomen and sides of the mother before her first delivery[257].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy, strong, tough, close grained, durable, easy to split. Used for furniture, cabinet making, general construction etc and also for fence posts and fuel[46, 61, 82, 171, 226, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[11, 200].

A slow-growing and drought tolerant tree[188, 229], it can live for 500 years[229]. Seed production is cyclic, with a year of high production being followed by 2 - 3 years of lower yields[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very

badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951 Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9

Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

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---

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Quercus garryana

Common name:	Oregon white oak	Family:	Fagaceae
Author:	Hook.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Dry prairies and foothills to rocky bluffs[60].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Oregon White Oak [FEIS,L,B,P,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 18m by 10m at a slow rate. It is hardy to zone 6 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[226]. Up to 25mm long[200]. Up to 32mm long and 25mm wide according to other reports[82, 229], which also said that it has a sweet taste[229]. The seed is ground into a powder and used in making bread etc, it is a good thickener for soups and stews[183]. The seed has a high content of bitter tannins, these can be leached out by thoroughly washing the dried and ground up seed in water[183], though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; TB.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

A decoction of the bark has been used in the treatment of tuberculosis[257].

An infusion of the plant has been drunk by a mother before her first baby comes[257]. The pounded bark has been rubbed on the abdomen and sides of the mother before her first delivery[257].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are

caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy, strong, tough, close grained, durable, easy to split. Used for furniture, cabinet making, general construction etc and also for fence posts and fuel[46, 61, 82, 171, 226, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[11, 200].

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Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Quercus garryana

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Habitat:	Dry prairies and foothills to rocky bluffs[60].		
Plants For A Future Rating (1-5):	2		

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus garryana*

Subject:

Quercus garryana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus garryana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:56:50 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus glauca

Common name:		Family:	Fagaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Quercus annulata (Sm.), Cyclobalanopsis glauca ((Thunb.)Oerst.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Moist forests and ravines, not gregarious, 800 - 3000 metres from Pakistan to S.W. China[51]. Shady valleys[158].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. breviloba[B,G,P] Q. durandii[] Q. durandii var. breviloba[B,P] Q. myrsinifolia[G] Q. obtusifolia var. breviloba[G] Q. san-sabeana[B,P] Q. sinuata var. breviloba[B,G,P] Q. sinuata var. san-sabeana[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	glauca = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in	From DEFRA Plant passporting.

UK/EU	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Seed.

Seed - raw or cooked[61, 105]. A sweet taste[178]. The seed is about 15mm long[200]. it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

Leaves - cooked. A famine food[179].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - tough, very hard, takes a good polish but warps during seasoning. Used for general construction and fuel[46, 51, 61, 158].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Only suitable for the milder areas of Britain[11]. It prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A polymorphic species[11]. The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+glauca`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+glauca`

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Plants For A Future: Database Search Results

Quercus glauca

Common name:		Family:	Fagaceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:	Quercus annulata (Sm.), Cyclobalanopsis glauca ((Thunb.)Oerst.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Moist forests and ravines, not gregarious, 800 - 3000 metres from Pakistan to S.W. China[51]. Shady valleys[158].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

An evergreen tree growing to 15m. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Seed.

Seed - raw or cooked[61, 105]. A sweet taste[178]. The seed is about 15mm long[200]. it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - tough, very hard, takes a good polish but warps during seasoning. Used for general construction and fuel[46, 51, 61, 158].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Only suitable for the milder areas of Britain[11]. It prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A polymorphic species[11]. The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus glauca*

Subject:

Quercus glauca

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus glauca

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:57:02 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus hispanica

Common name:		Family:	Fagaceae
Author:	Lam.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A hybrid species of garden origin, Q. cerris x Q. suber.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	hispanica = Spanish;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 13m . It is hardy to zone 7. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked. Up to 2.5cm long. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

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Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Cork; Repellent; Tannin; Wood.

The bark is a source of cork, it can be used for heat and sound insulation, flooring, floats etc. The bark is harvested every 6 - 12 years, being carefully removed so as not to harm the tree.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood -

Cultivation details

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Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Grows fairly well in Britain, because of its hybrid parentage between the cork oak and the Turkey oak this tree is potentially a good source of cork for Britain.

There are a number of named forms. 'Diversifolia' has a bark that is more corky than the type[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

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Cultivars

'Diversifolia'

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Suppliers

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Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

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Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly. This is a cultivar and it will not breed true from seed.

Cultivars

'Diversifolia'

This form has a bark that is more corky than the type[11].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+hispanica`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+hispanica`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus hispanica*

Subject:

Quercus hispanica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus hispanica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:57:14 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus ilex

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Holly oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean. Occasionally naturalized in Britain in S. England[17].		
Habitat:	Arid places, maquis, woods and hills on limestone[89].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Encina [E], Encino [E], Evergreen Oak [H], Holly Oak [P], Pirnar Mesesi [E],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Argentina; Chile; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m by 20m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[1, 2, 46, 61]. It can be sweet or bitter[K]. The seed is up to 3cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

An edible oil is obtained from the seed[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Hedge; Repellent; Shelterbelt; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Very tolerant of maritime exposure and of trimming, it can be grown as a shelterbelt tree or hedge in maritime areas[11, 29, 49, 75].

Wood - strong, hard, durable. Used for furniture[46, 61, 89]. It makes a good charcoal[89] and a good fuel, burning well even if green[146].

The bark is a source of tannin[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Thrives on shallow chalky soils[188]. Succeeds in all soils except those that are cold and poorly drained[98]. Grows well in sandy soils[188]. Young plants tolerate reasonable levels of side shade[200]. Very resistant to maritime exposure[11, 49, 75].

A very ornamental tree[1] but it is quite slow-growing[75].

Transplants badly unless moved regularly and this should be done as growth commences in late May or in September[11].

Fruits very freely in Britain[K]. The seed ripens in its first year[200]. The sub-species Q. ilex ballota is cultivated for its sweet-tasting edible seed in Portugal and Spain[K].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants

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Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus ilex* (Holm Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Staple seed crops from perennials.
- Why Perennials
- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+ilex`
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Plants For A Future: Database Search Results

Quercus ilex

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Holly oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean. Occasionally naturalized in Britain in S. England[17].		
Habitat:	Arid places, maquis, woods and hills on limestone[89].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Encina [E], Encino [E], Evergreen Oak [H], Holly Oak [P], Pirnar Mesesi [E],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Argentina; Chile; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m by 20m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[1, 2, 46, 61]. It can be sweet or bitter[K]. The seed is up to 3cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

An edible oil is obtained from the seed[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Hedge; Repellent; Shelterbelt; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Very tolerant of maritime exposure and of trimming, it can be grown as a shelterbelt tree or hedge in maritime areas[11, 29, 49, 75].

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The bark is a source of tannin[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Thrives on shallow chalky soils[188]. Succeeds in all soils except those that are cold and poorly drained[98]. Grows well in sandy soils[188]. Young plants tolerate reasonable levels of side shade[200]. Very resistant to maritime exposure[11, 49, 75].

A very ornamental tree[1] but it is quite slow-growing[75].

Transplants badly unless moved regularly and this should be done as growth commences in late May or in September[11].

Fruits very freely in Britain[K]. The seed ripens in its first year[200]. The sub-species Q. ilex ballota is cultivated for its sweet-tasting edible seed in Portugal and Spain[K].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus ilex* (Holm Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Staple seed crops from perennials.
- Why Perennials
- Woodland Garden Plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
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References for the family Fagaceae.

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[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the

following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+ilex`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+ilex`

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Plants For A Future: Database Search Results

Quercus ilex

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Holly oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean. Occasionally naturalized in Britain in S. England[17].		
Habitat:	Arid places, maquis, woods and hills on limestone[89].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Encina [E], Encino [E], Evergreen Oak [H], Holly Oak [P], Pirnar Mesesi [E],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Argentina; Chile; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m by 20m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[1, 2, 46, 61]. It can be sweet or bitter[K]. The seed is up to 3cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

An edible oil is obtained from the seed[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Hedge; Repellent; Shelterbelt; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Very tolerant of maritime exposure and of trimming, it can be grown as a shelterbelt tree or hedge in maritime areas[11, 29, 49, 75].

Wood - strong, hard, durable. Used for furniture[46, 61, 89]. It makes a good charcoal[89] and a good fuel, burning well even if green[146].

The bark is a source of tannin[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Thrives on shallow chalky soils[188]. Succeeds in all soils except those that are cold and poorly drained[98]. Grows well in sandy soils[188]. Young plants tolerate reasonable levels of side shade[200]. Very resistant to maritime exposure[11, 49, 75].

A very ornamental tree[1] but it is quite slow-growing[75].

Transplants badly unless moved regularly and this should be done as growth commences in late May or in September[11].

Fruits very freely in Britain[K]. The seed ripens in its first year[200]. The sub-species Q. ilex ballota is cultivated for its sweet-tasting edible seed in Portugal and Spain[K].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus ilex* (Holm Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+ilex`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+ilex`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus ilex*

Subject:

Quercus ilex

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus ilex

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:57:26 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus ilex ballota

Common name:	Holm oak	Family:	Fagaceae
Author:	(Desf.) A. DC.	Botanical references:	11, 89, 200
Synonyms:	Quercus rotundifolia (Lam.), Quercus ballota (Desf.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Arid places, maquis, woods and hills on limestone[89].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. ilex subsp. ballota[G] Q. ilex subsp. rotundifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chene Ballote [E],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	French
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m by 20m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[1, 2, 46, 63, 200]. The seed of this variety is normally sweet. The seed is up to 3cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

An edible oil is obtained from the seed[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Hedge; Repellent; Shelterbelt; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Very tolerant of maritime exposure and of trimming, it can be grown as a shelterbelt tree or hedge in maritime areas[11, 29, 49, 75].

Wood - strong, hard, durable. Used for furniture[46, 61, 89]. It makes a good charcoal[89] and a good fuel, burning well even if green[146].

The bark is a source of tannin[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Thrives on shallow chalky soils[188]. Succeeds in all soils except those that are cold and poorly drained[98]. Grows well in sandy soils[188]. Young plants tolerate reasonable levels of side shade[200]. Very resistant to maritime exposure[11, 49, 75].

A very ornamental[1] though quite slow-growing tree[75].

Transplants badly unless moved regularly and this should be done as growth commences in late May or in September[11].

This plant is treated as a distinct species, Q. rotundifolia. Lam. by some botanists[50].

Cultivated for its edible seed in Spain[11, 63]. The tree grows well in Britain but is said to fruit poorly here[11], however a tree at Kew was bearing a very good crop at the end of the hot summer of 1989 and again in 1991[K]. The seed ripens in its first year[200].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Forever Trees Nursery

Phone 01803 814098
Denbury Road
Ipplepen
TQ12 5TR
Distribution: UK
How to order: Direct from Forever Trees
Last Updated: March 03
Item: *Quercus ilex ballota* (Holm Oak)
Size: 1,2,3 year old Price: £2/£3/£4

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus ilex* (Holm Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Staple seed crops from perennials.
- Woodland Garden Plants

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus ballota* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Quercus ilex subsp. rotundifolia* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+ilex+ballota`
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Plants For A Future: Database Search Results

Quercus ilex ballota

Common name:	Holm oak	Family:	Fagaceae
Author:	(Desf.) A. DC.	Botanical references:	11, 89, 200
Synonyms:	Quercus rotundifolia (Lam.), Quercus ballota (Desf.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Arid places, maquis, woods and hills on limestone[89].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. ilex subsp. ballota[G] Q. ilex subsp. rotundifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chene Ballote [E],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	French
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m by 20m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[1, 2, 46, 63, 200]. The seed of this variety is normally sweet. The seed is up to 3cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

An edible oil is obtained from the seed[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Hedge; Repellent; Shelterbelt; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are

caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Very tolerant of maritime exposure and of trimming, it can be grown as a shelterbelt tree or hedge in maritime areas[11, 29, 49, 75].

Wood - strong, hard, durable. Used for furniture[46, 61, 89]. It makes a good charcoal[89] and a good fuel, burning well even if green[146].

The bark is a source of tannin[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Thrives on shallow chalky soils[188]. Succeeds in all soils except those that are cold and poorly drained[98]. Grows well in sandy soils[188]. Young plants tolerate reasonable levels of side shade[200]. Very resistant to maritime exposure[11, 49, 75].

A very ornamental[1] though quite slow-growing tree[75].

Transplants badly unless moved regularly and this should be done as growth commences in late May or in September[11].

This plant is treated as a distinct species, Q. rotundifolia. Lam. by some botanists[50].

Cultivated for its edible seed in Spain[11, 63]. The tree grows well in Britain but is said to fruit poorly here[11], however a tree at Kew was bearing a very good crop at the end of the hot summer of 1989 and again in 1991[K]. The seed ripens in its first year[200].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Forever Trees Nursery

Phone 01803 814098
Denbury Road
Ipplepen
TQ12 5TR
Distribution: UK
How to order: Direct from Forever Trees
Last Updated: March 03
Item: *Quercus ilex ballota* (Holm Oak)
Size: 1,2,3 year old Price: £2/£3/£4

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus ilex* (Holm Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Staple seed crops from perennials.
- Woodland Garden Plants

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus ballota* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Quercus ilex subsp. rotundifolia* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is

very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[75] **Rosewarne experimental horticultural station.** *Shelter Trees and Hedges.* Ministry of Agriculture, Fisheries and Food 1984
A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus ilex ballota

Common name:	Holm oak	Family:	Fagaceae
Author:	(Desf.) A. DC.	Botanical references:	11, 89, 200
Synonyms:	Quercus rotundifolia (Lam.), Quercus ballota (Desf.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Arid places, maquis, woods and hills on limestone[89].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. ilex subsp. ballota[G] Q. ilex subsp. rotundifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chene Ballote [E],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	French
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m by 20m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[1, 2, 46, 63, 200]. The seed of this variety is normally sweet. The seed is up to 3cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

An edible oil is obtained from the seed[183].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Hedge; Repellent; Shelterbelt; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are

caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Very tolerant of maritime exposure and of trimming, it can be grown as a shelterbelt tree or hedge in maritime areas[11, 29, 49, 75].

Wood - strong, hard, durable. Used for furniture[46, 61, 89]. It makes a good charcoal[89] and a good fuel, burning well even if green[146].

The bark is a source of tannin[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Thrives on shallow chalky soils[188]. Succeeds in all soils except those that are cold and poorly drained[98]. Grows well in sandy soils[188]. Young plants tolerate reasonable levels of side shade[200]. Very resistant to maritime exposure[11, 49, 75].

A very ornamental[1] though quite slow-growing tree[75].

Transplants badly unless moved regularly and this should be done as growth commences in late May or in September[11].

This plant is treated as a distinct species, Q. rotundifolia. Lam. by some botanists[50].

Cultivated for its edible seed in Spain[11, 63]. The tree grows well in Britain but is said to fruit poorly here[11], however a tree at Kew was bearing a very good crop at the end of the hot summer of 1989 and again in 1991[K]. The seed ripens in its first year[200].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Forever Trees Nursery

Phone 01803 814098
Denbury Road
Ipplepen
TQ12 5TR
Distribution: UK
How to order: Direct from Forever Trees
Last Updated: March 03
Item: *Quercus ilex ballota* (Holm Oak)
Size: 1,2,3 year old Price: £2/£3/£4

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus ilex* (Holm Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus ilex ballota*

Subject:

Quercus ilex ballota

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus ilex ballota

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:57:39 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus imbricaria

Common name:	Shingle oak	Family:	Fagaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern and Central N. America - Pennsylvania to Alabama, west to Kansas.		
Habitat:	Found in a variety of habitats from dry upland ridges to rich and moist river bank soils[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Shingle Oak [B,P,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and

are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 18mm long and wide[82, 229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Emetic; Febrifuge; Tonic.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The bark is antiseptic, astringent, emetic, febrifuge and tonic[257]. It has been used in the treatment of chronic dysentery, indigestion, asthma and intermittent fevers[257]. The bark has been chewed in the treatment of mouth sores[257]. An infusion of the bark has been used as a wash for sore and chapped skin[257].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can

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Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy, rather coarse grained[46, 61, 82, 171, 235]. It weighs 47lb per cubic foot[235]. It is occasionally used in construction and for making furniture, clap boards and shingles[46, 61, 82, 171].

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Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

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Closely related to Q. phellos[1].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Quercus imbricaria

Thu Nov 29 18:59:08 2001

This was a very exciting article to read. It honestly made me respect plants better!

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Email Address:

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus imbricaria

Common name:	Shingle oak	Family:	Fagaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern and Central N. America - Pennsylvania to Alabama, west to Kansas.		
Habitat:	Found in a variety of habitats from dry upland ridges to rich and moist river bank soils[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Shingle Oak [B,P,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

A decidious tree growing to 20m by 15m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which is up to 18mm long and wide[82, 229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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References

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus imbricaria

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Author:	Michx.	Botanical references:	11, 43, 200
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Range:	Eastern and Central N. America - Pennsylvania to Alabama, west to Kansas.		
Habitat:	Found in a variety of habitats from dry upland ridges to rich and moist river bank soils[229].		
Plants For A Future Rating (1-5):	2		

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Systematics:	From a UDSA Plants Database
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Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich

source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy, rather coarse grained[46, 61, 82, 171, 235]. It weighs 47lb per cubic foot[235]. It is occasionally used in construction and for making furniture, clap boards and shingles[46, 61, 82, 171].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Closely related to Q. phellos[1].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus imbricaria*

Subject:

Quercus imbricaria

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus imbricaria

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:57:51 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus infectoria

Common name:	Aleppo oak	Family:	Fagaceae
Author:	Oliv.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - E. Mediterranean.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Fus [E], Aleppo Oak [P], Mazi [E], Mazu [E], Mishe Aghaji [E],
Systematics:	From a UDSA Plants Database
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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

An evergreen shrub growing to 1.8m. It is hardy to zone 6 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

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Astringent.

The bark and acorns are astringent[240]. They are used in the treatment of intertrigo, impetigo and eczema[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

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References for the family Fagaceae.

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References

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Physical Characteristics

An evergreen shrub growing to 1.8m. It is hardy to zone 6 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The bark and acorns are astringent[240]. They are used in the treatment of intertrigo, impetigo and eczema[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Ink; Tannin.

An ink is made from the tannin-rich galls[171]. The galls are caused by the activity of the Cynipid fly Cynips tinctoria[223]. The galls contain 36 - 58% tannin[223]. An extract of the galls is mixed with ferrous sulphate together with a gum and colouring in order to make the ink[171]. We are not sure if the galls are meant to be used before or after the insect has left them[K].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+infectoria`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+infectoria`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus infectoria*

Subject:

Quercus infectoria

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus infectoria

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:58:02 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus ithaburensis macrolepis

Common name:	Valonia oak	Family:	Fagaceae
Author:	(Kotschy.) Hedge. & Yaltirik.	Botanical references:	11, 45, 200
Synonyms:	Quercus macrolepis (Kotschy.), Quercus graeca (Kotschy.), Quercus aegilops macrolepis ((Kotschy.)Camus.)		
Known Hazards:	None known		
Range:	S.E. Europe to W. Asia.		
Habitat:	Open forests in the hills or as solitary trees[45, 89], usually in dry soils[100].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. aegilops[G,P] Q. ithaburensis subsp. macrolepis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oak [P],
Epithets:	From a Dictionary of Botanical Epithets
	macrolepis = large scales; urens = stinging;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 13m . It is hardy to zone 7. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Manna; Seed.

Seed - raw or cooked[2, 63, 89, 100]. The seed is quite big, about 4cm x 3cm[200] and is very low in tannin[183]. Any bitter seeds can be leached by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

Roasted seed is a coffee substitute.

A manna is obtained from the tree[183]. No further details.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

The acorn cups contain about 45% tannin[171, 223]. A black dye can be obtained from them[89] and it can be used as an ink[100].

Gall-like excretions on the plant are caused by damage from the insect Cynips calicis. These growths contain about 30% tannin[223].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, but trees usually grow well in Britain[200]. The seed takes two years to ripen but is seldom produced in this country[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus ithaburensis subsp. macrolepis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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A very readable pocket flora that is well illustrated. Gives some information on plant uses.

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An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

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Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it

does cover.

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Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

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Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus ithaburensis macrolepis

Common name:	Valonia oak	Family:	Fagaceae
Author:	(Kotschy.) Hedge. & Yaltirik.	Botanical references:	11, 45, 200
Synonyms:	Quercus macrolepis (Kotschy.), Quercus graeca (Kotschy.), Quercus aegilops macrolepis ((Kotschy.)Camus.)		
Known Hazards:	None known		
Range:	S.E. Europe to W. Asia.		
Habitat:	Open forests in the hills or as solitary trees[45, 89], usually in dry soils[100].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. aegilops[G,P] Q. ithaburensis subsp. macrolepis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oak [P],
Epithets:	From a Dictionary of Botanical Epithets
	macrolepis = large scales; urens = stinging;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 13m . It is hardy to zone 7. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Manna; Seed.

Seed - raw or cooked[2, 63, 89, 100]. The seed is quite big, about 4cm x 3cm[200] and is very low in tannin[183]. Any bitter seeds can be leached by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

Roasted seed is a coffee substitute.

A manna is obtained from the tree[183]. No further details.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

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Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus ithaburensis macrolepis

Common name:	Valonia oak	Family:	Fagaceae
Author:	(Kotschy.) Hedge. & Yaltirik.	Botanical references:	11, 45, 200
Synonyms:	Quercus macrolepis (Kotschy.), Quercus graeca (Kotschy.), Quercus aegilops macrolepis ((Kotschy.)Camus.)		
Known Hazards:	None known		
Range:	S.E. Europe to W. Asia.		
Habitat:	Open forests in the hills or as solitary trees[45, 89], usually in dry soils[100].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. aegilops[G,P] Q. ithaburensis subsp. macrolepis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Oak [P],
Epithets:	From a Dictionary of Botanical Epithets
	macrolepis = large scales; urens = stinging;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 13m . It is hardy to zone 7. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Manna; Seed.

Seed - raw or cooked[2, 63, 89, 100]. The seed is quite big, about 4cm x 3cm[200] and is very low in tannin[183]. Any bitter seeds can be leached by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

Roasted seed is a coffee substitute.

A manna is obtained from the tree[183]. No further details.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

The acorn cups contain about 45% tannin[171, 223]. A black dye can be obtained from them[89] and it can be used as an ink[100].

Gall-like excretions on the plant are caused by damage from the insect Cynips calicis. These growths contain about 30% tannin[223].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, but trees usually grow well in Britain[200]. The seed takes two years to ripen but is seldom produced in this country[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus ithaburensis macrolepis*

Subject:

Quercus ithaburensis macrolepis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus ithaburensis macrolepis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:58:13 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus kelloggii

Common name:	Californian black oak	Family:	Fagaceae
Author:	Newberry	Botanical references:	11, 71, 200
Synonyms:	Quercus tinctoria californica (Torr.), Quercus sonomensis (DC.), Quercus californica (Cooper.)		
Known Hazards:	None known		
Range:	South-western N. America - California to Oregon.		
Habitat:	Clay or gravelly soils in hills and mountains below 2500 metres[71, 229]. Sometimes forms groves of considerable extent in coniferous forests[82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Black Oak [B,P,FEIS,L,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m. It is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[94, 105, 161].Used as a staple food by several native North American Indian tribes[257]. A bitter taste[229]. The seed is 25 - 30mm long and 18mm wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Adhesive; Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. The galls have been used as a dark dye for the hair[257].

Acorn meal has been used to mend cracks in clay pots[257].

Wood - coarse-grained, heavy, hard, strong, very brittle, not very durable. It is of little economic importance, but is occasionally used for fence posts and as a fuel[82, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental plant[1], it grows well at Kew, occasionally producing fertile seed[11]. It prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a

nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Details:

Enter your details here:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Quercus kelloggii

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Author:	Newberry	Botanical references:	11, 71, 200
Synonyms:	Quercus tinctoria californica (Torr.), Quercus sonomensis (DC.), Quercus californica (Cooper.)		
Known Hazards:	None known		
Range:	South-western N. America - California to Oregon.		
Habitat:	Clay or gravelly soils in hills and mountains below 2500 metres[71, 229]. Sometimes forms groves of considerable extent in coniferous forests[82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Black Oak [B,P,FEIS,L,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m. It is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[94, 105, 161].Used as a staple food by several native North American Indian tribes[257]. A bitter taste[229]. The seed is 25 - 30mm long and 18mm wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Adhesive; Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. The galls have been used as a dark dye for the hair[257].

Acorn meal has been used to mend cracks in clay pots[257].

Wood - coarse-grained, heavy, hard, strong, very brittle, not very durable. It is of little economic importance, but is occasionally used for fence posts and as a fuel[82, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental plant[1], it grows well at Kew, occasionally producing fertile seed[11]. It prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life

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References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987

Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that

some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus kelloggii

Common name:	Californian black oak	Family:	Fagaceae
Author:	Newberry	Botanical references:	11, 71, 200
Synonyms:	Quercus tinctoria californica (Torr.), Quercus sonomensis (DC.), Quercus californica (Cooper.)		
Known Hazards:	None known		
Range:	South-western N. America - California to Oregon.		
Habitat:	Clay or gravelly soils in hills and mountains below 2500 metres[71, 229]. Sometimes forms groves of considerable extent in coniferous forests[82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	California Black Oak [B,P,FEIS,L,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m. It is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[94, 105, 161].Used as a staple food by several native North American Indian tribes[257]. A bitter taste[229]. The seed is 25 - 30mm long and 18mm wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Adhesive; Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. The galls have been used as a dark dye for the hair[257].

Acorn meal has been used to mend cracks in clay pots[257].

Wood - coarse-grained, heavy, hard, strong, very brittle, not very durable. It is of little economic importance, but is occasionally used for fence posts and as a fuel[82, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental plant[1], it grows well at Kew, occasionally producing fertile seed[11]. It prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus kelloggii*

Subject:

Quercus kelloggii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus kelloggii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:58:25 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus laevis

Common name:	American turkey oak	Family:	Fagaceae
Author:	Walt.	Botanical references:	11, 82, 200
Synonyms:	Quercus catesbaei (Michx.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida and west to Louisiana.		
Habitat:	Dry barren sandy ridges, sandy bluffs and hammocks[82], growing well in almost sterile soil[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Turkey Oak [P,FEIS,DEN1,L,B],
Epithets:	From a Dictionary of Botanical Epithets
	laevis = smooth;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 12m at a slow rate. It is hardy to zone 6 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is up to 27mm long and 18mm wide[82, 229]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

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Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, rather close-grained. Too small to be of commercial value, it makes an excellent fuel[82, 171, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A moderately fast-growing but short-lived species in the wild[229], trees are very slow-growing in Britain[11, 200]. They prefer warmer summers than are usually experienced in Britain, often growing poorly in this country and failing to properly ripen their wood, resulting in frost damage overwinter[200].

Seed production is cyclic, with a year of high yields being followed by 1 - 2 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a

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Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

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Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

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Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus laevis

Common name:	American turkey oak	Family:	Fagaceae
Author:	Walt.	Botanical references:	11, 82, 200
Synonyms:	Quercus catesbaei (Michx.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida and west to Louisiana.		
Habitat:	Dry barren sandy ridges, sandy bluffs and hammocks[82], growing well in almost sterile soil[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Turkey Oak [P,FEIS,DEN1,L,B],
Epithets:	From a Dictionary of Botanical Epithets
	laevis = smooth;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 12m at a slow rate. It is hardy to zone 6 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is up to 27mm long and 18mm wide[82, 229]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, rather close-grained. Too small to be of commercial value, it makes an excellent fuel[82, 171, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A moderately fast-growing but short-lived species in the wild[229], trees are very slow-growing in Britain[11, 200]. They prefer warmer summers than are usually experienced in Britain, often growing poorly in this country and failing to properly ripen their wood, resulting in frost damage overwinter[200].

Seed production is cyclic, with a year of high yields being followed by 1 - 2 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted?

or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus laevis

Common name:	American turkey oak	Family:	Fagaceae
Author:	Walt.	Botanical references:	11, 82, 200
Synonyms:	Quercus catesbaei (Michx.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida and west to Louisiana.		
Habitat:	Dry barren sandy ridges, sandy bluffs and hammocks[82], growing well in almost sterile soil[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Turkey Oak [P,FEIS,DEN1,L,B],
Epithets:	From a Dictionary of Botanical Epithets
	laevis = smooth;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 12m at a slow rate. It is hardy to zone 6 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is up to 27mm long and 18mm wide[82, 229]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, rather close-grained. Too small to be of commercial value, it makes an excellent fuel[82, 171, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A moderately fast-growing but short-lived species in the wild[229], trees are very slow-growing in Britain[11, 200]. They prefer warmer summers than are usually experienced in Britain, often growing poorly in this country and failing to properly ripen their wood, resulting in frost damage overwinter[200].

Seed production is cyclic, with a year of high yields being followed by 1 - 2 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus laevis*

Subject:

Quercus laevis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus laevis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:58:37 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus lamellosa

Common name:		Family:	Fagaceae
Author:	Sm.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Forms dense evergreen forests with Lithocarpus and Castanopsis species at altitudes up to 2700 metres[146, 258].		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 35m. It is hardy to zone 8. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed of this species is particularly large with four of them covering an adult hand[258]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The bark and acorns are astringent[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a source of tannin[146].

Wood - very hard, durable if it is not wet. Used for construction etc[146]. An excellent fuel[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental tree[1], it is somewhat tender in Britain but grows well on the Isle of Wight and in Cornwall[1]. It prefers warmer summers than are usually experienced in Britain[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[258] **RHS. Wisley, Surrey.** *The Garden. Volume 124. 1999.* RHS. Wisley, Surrey. 1999 ISBN 0308 5457
The monthly newsletter of the RHS, contains articles on Erythroniums.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Quercus lamellosa

Common name:		Family:	Fagaceae
Author:	Sm.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Forms dense evergreen forests with Lithocarpus and Castanopsis species at altitudes up to 2700 metres[146, 258].		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 35m. It is hardy to zone 8. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed of this species is particularly large with four of them covering an adult hand[258]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The bark and acorns are astringent[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a source of tannin[146].

Wood - very hard, durable if it is not wet. Used for construction etc[146]. An excellent fuel[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental tree[1], it is somewhat tender in Britain but grows well on the Isle of Wight and in Cornwall[1]. It prefers warmer summers than are usually experienced in Britain[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[258] **RHS. Wisley, Surrey.** *The Garden. Volume 124. 1999.* RHS. Wisley, Surrey. 1999 ISBN 0308 5457
The monthly newsletter of the RHS, contains articles on Erythroniums.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus lamellosa

Common name:		Family:	Fagaceae
Author:	Sm.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Himalayas.		
Habitat:	Forms dense evergreen forests with Lithocarpus and Castanopsis species at altitudes up to 2700 metres[146, 258].		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 35m. It is hardy to zone 8. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed of this species is particularly large with four of them covering an adult hand[258]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The bark and acorns are astringent[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a source of tannin[146].

Wood - very hard, durable if it is not wet. Used for construction etc[146]. An excellent fuel[146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A very ornamental tree[1], it is somewhat tender in Britain but grows well on the Isle of Wight and in Cornwall[1]. It prefers warmer summers than are usually experienced in Britain[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus lamellosa*

Subject:

Quercus lamellosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus lamellosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:58:48 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus leucotrichophora

Common name:		Family:	Fagaceae
Author:	A. Camus.	Botanical references:	11, 51, 200
Synonyms:	Quercus incana (Roxb.)		
Known Hazards:	None known		
Range:	E. Asia - Himalayas from Pakistan to C. Nepal.		
Habitat:	Forests where it is usually gregarious and common, 1200 - 2400 metres[51]. Prefers rather dry hillsides[146].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Q. cinerea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Bluejack Oak [P,DEN1,FEIS,B,L],
Systematics:	From a UDSA Plants Database Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 8 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[177]. The seed is about 2.5cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Diuretic.

The seeds are astringent and diuretic[240]. They are used in the treatment of gonorrhoea, indigestion, diarrhoea and asthma[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark contains up to 23% dry weight of tannin[146].

Wood - hard, red-brown in colour, warps and splits badly when seasoning. Used for furniture and agricultural implements[61, 146, 158]. It is also a good fuel[51, 146] and makes a good charcoal[61, 146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Trees can be coppiced if their trunks are up to 25cm in diameter[[146, 158].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus incana* (a possible synonym).

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
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[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
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[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur*. Forest Research Institute Press 1945
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Quercus leucotrichophora

() Thu Dec 25 10:25:57 2003

the common name for Q.leucotrichophora is banj oak. this is how it is known in the garhwal himalayas, india. mustafa ali kan, room no 51, tapti hostel, jnu, new delhi,110067, india. zeeisin@yahoo.co.uk

---

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Quercus leucotrichophora

Common name:		Family:	Fagaceae
Author:	A. Camus.	Botanical references:	11, 51, 200
Synonyms:	Quercus incana (Roxb.)		
Known Hazards:	None known		
Range:	E. Asia - Himalayas from Pakistan to C. Nepal.		
Habitat:	Forests where it is usually gregarious and common, 1200 - 2400 metres[51]. Prefers rather dry hillsides[146].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. cinerea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bluejack Oak [P,DEN1,FEIS,B,L],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 25m. It is hardy to zone 8 and is frost tender. It is in leaf all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[177]. The seed is about 2.5cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Diuretic.

The seeds are astringent and diuretic[240]. They are used in the treatment of gonorrhoea, indigestion, diarrhoea and asthma[240].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark contains up to 23% dry weight of tannin[146].

Wood - hard, red-brown in colour, warps and splits badly when seasoning. Used for furniture and agricultural implements[61, 146, 158]. It is also a good fuel[51, 146] and makes a good charcoal[61, 146].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Trees can be coppiced if their trunks are up to 25cm in diameter[[146, 158].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus incana* (a possible synonym).

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981

A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
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Plants For A Future: Database Search Results

Quercus leucotrichophora

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Plants For A Future Rating (1-5):	2		

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	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[177]. The seed is about 2.5cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Cultivation details

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This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

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The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Add a comment on: *Quercus leucotrichophora*

Subject:

Quercus leucotrichophora

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus leucotrichophora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Quercus libani

Common name:	Lebanon oak	Family:	Fagaceae
Author:	Olivier.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Turkey, Iran, Iraq.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 8m. It is hardy to zone 6. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is about 2.5cm in diameter[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200].

Prefers warmer summers than are usually experienced in Britain[200].

The seed ripens in its second year[200] and is frequently produced in Britain[11].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

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Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus libani

Common name:	Lebanon oak	Family:	Fagaceae
Author:	Olivier.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Turkey, Iran, Iraq.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

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	Order: Fagales . Beech family
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Physical Characteristics

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Author:	Olivier.	Botanical references:	11, 200
Synonyms:			
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Range:	W. Asia - Turkey, Iran, Iraq.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

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A decidious tree growing to 8m. It is hardy to zone 6. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

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Woodland, Canopy.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus libani*

Subject:

Quercus libani

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus libani

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 02:59:11 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus lineata

Common name:		Family:	Fagaceae
Author:	Bl.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - E. Himalayas.		
Habitat:	1800 - 2700 metres[146].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	lineata = linear;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
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Physical Characteristics

An evergreen tree. It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

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Wood - very hard, durable if it is not wet. Used for construction etc[146].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. This species is often confused with Q. glauca (syn Q. annulata)[146]. The following notes are based on the general needs of the genus.

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Quercus lineata

Common name:		Family:	Fagaceae
Author:	Bl.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - E. Himalayas.		
Habitat:	1800 - 2700 metres[146].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	lineata = linear;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree. It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very hard, durable if it is not wet. Used for construction etc[146].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. This species is often confused with Q. glauca (syn Q. annulata)[146]. The following notes are based on the general needs of the genus.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

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Habitat:	1800 - 2700 metres[146].		
Plants For A Future Rating (1-5):	2		

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Systematics:	From a UDSA Plants Database
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Physical Characteristics

An evergreen tree. It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

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The roasted seed is a coffee substitute.

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Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

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Wood - very hard, durable if it is not wet. Used for construction etc[146].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. This species is often confused with Q. glauca (syn Q. annulata)[146]. The following notes are based on the general needs of the genus.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus lineata*

Subject:

Quercus lineata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus lineata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 02:59:22 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus lobata

Common name:	Californian white oak	Family:	Fagaceae
Author:	Née.	Botanical references:	11, 82, 200
Synonyms:	Quercus hindsii (Benth.)		
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Fertile lowlands in deep rich soils in the valleys of W. California between the Sierra Nevada and the coast[82, 229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. lobata var. argillara[B,P] Q. lobata var. insperata[B,P] Q. lobata var. turbinata[B,P] Q. lobata var. walteri[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	California White Oak [P], Valley Oak [L,DEN1,FEIS,B],
Epithets:	From a Dictionary of Botanical Epithets
	lobata = lobed;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m at a slow rate. It is hardy to zone 7 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[257]. A staple food for several native North American Indian tribes[257]. Quite large, it is up to 5cm long and 15mm wide[82, 200]. The seed of this species is sweet and low in tannin and needs little if any leeching[183, 229]. Any bitter tannins can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency. The seed can be roasted and then eaten, its taste is something like a cross between sunflower seeds and popcorn[183]. The seed can also be ground into a powder and used in making bread etc[183].

Roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Poultice; Salve.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4]. A poultice of the ground galls and salt has been used as a treatment for burns, sores and cuts[257].

A decoction of the bark has been used as a cough medicine and a treatment for diarrhoea[257]. The pulverized bark has been used as a dusting powder to dry up running sores, it is particularly useful for babies with sore umbilicus[257].

Other Uses

Adhesive; Fuel; Repellent; Tannin; Wood.

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The acorn meal has been used to mend cracks in clay pots[257].

Wood - hard and fine grained but brittle and weak. Of no commercial value, it is used only for fuel[82, 229].

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Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

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- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
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References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus lobata

Common name:	Californian white oak	Family:	Fagaceae
Author:	Née.	Botanical references:	11, 82, 200
Synonyms:	Quercus hindsii (Benth.)		
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Fertile lowlands in deep rich soils in the valleys of W. California between the Sierra Nevada and the coast[82, 229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. lobata var. argillara[B,P] Q. lobata var. insperata[B,P] Q. lobata var. turbinata[B,P] Q. lobata var. walteri[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	California White Oak [P], Valley Oak [L,DEN1,FEIS,B],
Epithets:	From a Dictionary of Botanical Epithets
	lobata = lobed;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m at a slow rate. It is hardy to zone 7 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[257]. A staple food for several native North American Indian tribes[257]. Quite large, it is up to 5cm long and 15mm wide[82, 200]. The seed of this species is sweet and low in tannin and needs little if any leeching[183, 229]. Any bitter tannins can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency. The seed can be roasted and then eaten, its taste is something like a cross between sunflower seeds and popcorn[183]. The seed can also be ground into a powder and used in making bread etc[183].

Roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Poultice; Salve.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4]. A poultice of the ground galls and salt has been used as a treatment for burns, sores and cuts[257].

A decoction of the bark has been used as a cough medicine and a treatment for diarrhoea[257]. The pulverized bark has been used as a dusting powder to dry up running sores, it is particularly useful for babies with sore umbilicus[257].

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Plants For A Future: Database Search Results

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Range:	South-western N. America - California.		
Habitat:	Fertile lowlands in deep rich soils in the valleys of W. California between the Sierra Nevada and the coast[82, 229].		
Plants For A Future Rating (1-5):	2		

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+lobata`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus lobata*

Subject:

Quercus lobata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus lobata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:59:33 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus lyrata

Common name:	Overcup oak	Family:	Fagaceae
Author:	Walt.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Central and South-eastern N. America - New Jersey to Florida, west to Mississippi and Texas.		
Habitat:	Bottomlands and wet woods[43], usually on rich soils[82]. Wet, poorly-drained heavy clay soils[227, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Overcup Oak [P,E,B,L,FEIS,DEN1], Whiteoak,Water [E],
Epithets:	From a Dictionary of Botanical Epithets
	lyrata = lyre shaped;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us(Cherokee); Us(Choctaw); Us(Cree)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower in April, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is about 25mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed is fairly sweet and does not contain many bitter tannins[159]. It does not require much leaching but any bitterness can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The leaves and bark are astringent[46, 61].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - close-grained, hard, tough, strong, heavy, very durable in contact with the ground[82]. It weighs 51lb per cubic foot. Used for construction, tools, furniture etc[46, 82, 227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees are not well suited to the British climate and usually grow poorly here. They fail to properly ripen their wood which results in frost damage overwinter[200].

A slow-growing but long-lived tree[227], it takes 25 - 30 years before it starts to produce seeds[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Large crops are produced every 3 - 4 years with low production in the intervening years[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a

nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus lyrata

Common name:	Overcup oak	Family:	Fagaceae
Author:	Walt.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Central and South-eastern N. America - New Jersey to Florida, west to Mississippi and Texas.		
Habitat:	Bottomlands and wet woods[43], usually on rich soils[82]. Wet, poorly-drained heavy clay soils[227, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Overcup Oak [P,E,B,L,FEIS,DEN1], Whiteoak,Water [E],
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Systematics:	From a UDSA Plants Database
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	Us(Cherokee); Us(Choctaw); Us(Cree)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

A deciduous tree growing to 30m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower in April, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by

Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is about 25mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed is fairly sweet and does not contain many bitter tannins[159]. It does not require much leaching but any bitterness can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Hybridizes freely with other members of the genus[200].

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Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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References

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+lyrata`

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Plants For A Future: Database Search Results

Quercus lyrata

Common name:	Overcup oak	Family:	Fagaceae
Author:	Walt.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Central and South-eastern N. America - New Jersey to Florida, west to Mississippi and Texas.		
Habitat:	Bottomlands and wet woods[43], usually on rich soils[82]. Wet, poorly-drained heavy clay soils[227, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Overcup Oak [P,E,B,L,FEIS,DEN1], Whiteoak,Water [E],
Epithets:	From a Dictionary of Botanical Epithets
	lyrata = lyre shaped;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us(Cherokee); Us(Choctaw); Us(Cree)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower in April, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by

Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. The seed is about 25mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed is fairly sweet and does not contain many bitter tannins[159]. It does not require much leaching but any bitterness can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

The leaves and bark are astringent[46, 61].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - close-grained, hard, tough, strong, heavy, very durable in contact with the ground[82]. It weighs 51lb per cubic foot. Used for construction, tools, furniture etc[46, 82, 227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees are not well suited to the British climate and usually grow poorly here. They fail to properly ripen their wood which results in frost damage overwinter[200].

A slow-growing but long-lived tree[227], it takes 25 - 30 years before it starts to produce seeds[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Large crops are produced every 3 - 4 years with low production in the intervening years[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Add a comment on: *Quercus lyrata*

Subject:

Quercus lyrata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus lyrata

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 02:59:46 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus macrocarpa

Common name:	Burr oak	Family:	Fagaceae
Author:	Michx.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Manitoba, Wyoming, Massachusetts, Georgia, Kansas and Texas.		
Habitat:	Found in a variety of habitats from dry hillsides to moist bottomlands, rich woods and fertile slopes, mainly on limestone soils[43, 229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bur Oak [P,DEN1,FEIS,L], Burr Oak [B],
Epithets:	From a Dictionary of Botanical Epithets
	macrocarpa = large fruited;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 8m at a slow rate. It is hardy to zone 3 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Ashworth'**: Woodland, Canopy.
Cultivar **'Sweet Idaho'**: Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked[101, 105, 161, 257]. Very large, the seed can be up to 5cm x 4cm[82, 200], though it is somewhat variable in size and shape[227]. The seed can be ground into a powder and used in making bread, dumplings etc and as a thickener in soups[183]. The seed of this species is considered to be one of the most palatable of all the oaks[159, 183]. Many trees have sweet seeds with little tannin and the seed can be eaten raw or cooked. If the seed is bitter then this is due to the presence of tannins, these can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Tonic.

The bark is astringent and tonic[61]. An infusion has been used in the treatment of diarrhoea[257].

A decoction of the root or inner bark has been used in the treatment of cramps[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Mordant; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark has been used as a mordant for fixing dyes[257].

Wood - hard, heavy, strong, tough, very durable, close grained. It weighs about 46lb per cubic metre[227]. Of considerable importance as a timber tree, it is used for all types of construction, in making baskets, flooring, cabinet making, ship building etc[46, 61, 82, 149, 171, 227, 229]. It is also a good fuel[82].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Succeeds in a hot dry position. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. A slow-growing tree[188]. Established plants are drought resistant[229] and tolerant of atmospheric pollution[226].

Occasionally cultivated for its edible seed, there are some named varieties[183]. Slow growing in the wild, it takes about 30 years to start producing seed, though it then continues to crop for the next 200 - 300 years with large crops being produced every 2 - 3 years[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Prefers warmer summers than are usually experienced in Britain, often growing poorly in this country and failing to properly ripen its wood, resulting in frost damage overwinter[11, 200]. A tree at the Hillier Arboretum in Hampshire was growing well in September 1993. It was 9 metres tall but had a lot of mildew, there was no sign of seeds[K].

There is a dwarf form of this species:- Q. macrocarpa depressa (Nutt.)Engelm. grows about 2 metres tall with corky branches and smaller seeds than the species, usually about 1cm long[227].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

'Sweet Idaho'

> Eaten dry or still fresh, the seeds are not just non-bitter, they are actually sweet[183]. They are best used ground into a flour in cakes and breads[183]. This cultivar was found growing wild in N. Idaho[183].

'Ashworth'

> A precocious producer of small to medium, high quality seeds that contain little tannin[183]. A biennial bearer[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Obtaining plants.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National

Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Subject:

Quercus macrocarpa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus macrocarpa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Quercus marilandica

Common name:	Blackjack oak	Family:	Fagaceae
Author:	Münchh.	Botanical references:	11, 43, 200
Synonyms:	Quercus nigra (Wangenh. non L.), Quercus cuneata (Wangenh.)		
Known Hazards:	None known		
Range:	Central and South-eastern N. America - New York to Florida, west to Iowa and Texas.		
Habitat:	Dry siliceous or argillaceous barrens and sterile woods[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. marylandica[HORTIPLEX] Q. microcarya[B,P] Q. neoashei[P] Q. nigra var. heterophylla[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blackjack Oak [L,FEIS,DEN1,P,B], Water Oak [L,P,FEIS,DEN1,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Amerindian
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m by 7m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[63, 105]. Used in times of scarcity[257]. The seed is about 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Birthing aid.

An infusion of the tree bark coal has been taken to ease childbirth, remove the afterbirth and ease cramps[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

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Charcoal; Fuel; Repellent; Tannin; Wood.

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Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. Trees are tolerant of dry sandy sterile soils[229].

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Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

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b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+marilandica`
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Plants For A Future: Database Search Results

Quercus marilandica

Common name:	Blackjack oak	Family:	Fagaceae
Author:	Münchh.	Botanical references:	11, 43, 200
Synonyms:	Quercus nigra (Wangenh. non L.), Quercus cuneata (Wangenh.)		
Known Hazards:	None known		
Range:	Central and South-eastern N. America - New York to Florida, west to Iowa and Texas.		
Habitat:	Dry siliceous or argillaceous barrens and sterile woods[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. marylandica[HORTIPLEX] Q. microcarya[B,P] Q. neoashei[P] Q. nigra var. heterophylla[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blackjack Oak [L,FEIS,DEN1,P,B], Water Oak [L,P,FEIS,DEN1,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Amerindian
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m by 7m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

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Coffee; Seed.

Seed - cooked[63, 105]. Used in times of scarcity[257]. The seed is about 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Plants For A Future: Database Search Results

Quercus marilandica

Common name:	Blackjack oak	Family:	Fagaceae
Author:	Münchh.	Botanical references:	11, 43, 200
Synonyms:	Quercus nigra (Wangenh. non L.), Quercus cuneata (Wangenh.)		
Known Hazards:	None known		
Range:	Central and South-eastern N. America - New York to Florida, west to Iowa and Texas.		
Habitat:	Dry siliceous or argillaceous barrens and sterile woods[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. marylandica[HORTIPLEX] Q. microcarya[B,P] Q. neoashei[P] Q. nigra var. heterophylla[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blackjack Oak [L,FEIS,DEN1,P,B], Water Oak [L,P,FEIS,DEN1,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Amerindian
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 10m by 7m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[63, 105]. Used in times of scarcity[257]. The seed is about 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Birthing aid.

An infusion of the tree bark coal has been taken to ease childbirth, remove the afterbirth and ease cramps[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, close grained[82]. It weighs 46lb per cubic foot[227], but is too small to be of commercial value and is only used for fence posts, charcoal and fuel[82, 149, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. Trees are tolerant of dry sandy sterile soils[229].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing and short-lived tree[200, 229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+marilandica`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus marilandica*

Subject:

Quercus marilandica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus marilandica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus michauxii

Common name:	Swamp chestnut oak	Family:	Fagaceae
Author:	Nutt.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Delaware to Indiana, Missouri, Florida and Texas.		
Habitat:	Inundated bottoms, stream borders and swamps[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. houstoniana[B,P] Q. prinus[B] Q. prinus auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Swamp Chestnut Oak [L,B,FEIS,DEN1,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 6 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 46, 161]. The seed is large, up to 35mm long and 30mm wide[82], but contains bitter tannins[183]. Other reports say that the acorns are sweet and edible[82, 235]. The seed can be roasted then dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The bitter tannins can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, very strong, tough, dense, durable, easy to split[82, 171, 235]. It weighs 50lb per cubic foot[235]. It is largely used for flooring and veneer[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Closely related to Q. prinus[11]. This species is often confused with Q. prinus, Q. prinoides and Q. muehlenbergii[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very

badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus michauxii

Common name:	Swamp chestnut oak	Family:	Fagaceae
Author:	Nutt.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Delaware to Indiana, Missouri, Florida and Texas.		
Habitat:	Inundated bottoms, stream borders and swamps[43].		
Plants For A Future Rating (1-5):	2		

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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 6 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic

(alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

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Coffee; Seed.

Seed - cooked[2, 46, 161]. The seed is large, up to 35mm long and 30mm wide[82], but contains bitter tannins[183]. Other reports say that the acorns are sweet and edible[82, 235]. The seed can be roasted then dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The bitter tannins can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Disclaimer

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Repellent; Tannin; Wood.

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Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+michauxii`

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Plants For A Future: Database Search Results

Quercus michauxii

Common name:	Swamp chestnut oak	Family:	Fagaceae
Author:	Nutt.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Delaware to Indiana, Missouri, Florida and Texas.		
Habitat:	Inundated bottoms, stream borders and swamps[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. houstoniana[B,P] Q. prinus[B] Q. prinus auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Swamp Chestnut Oak [L,B,FEIS,DEN1,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 6 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic

(alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 46, 161]. The seed is large, up to 35mm long and 30mm wide[82], but contains bitter tannins[183]. Other reports say that the acorns are sweet and edible[82, 235]. The seed can be roasted then dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The bitter tannins can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, very strong, tough, dense, durable, easy to split[82, 171, 235]. It weighs 50lb per cubic foot[235]. It is largely used for flooring and veneer[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Closely related to Q. prinus[11]. This species is often confused with Q. prinus, Q. prinoides and Q. muehlenbergii[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus michauxii*

Subject:

Quercus michauxii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus michauxii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:00:18 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus mongolica

Common name:		Family:	Fagaceae
Author:	Fisch.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Woods in the cooler areas of Japan[58]. Mixed mesophytic forests at elevations of 200 - 2500 metres in northern and eastern China[266].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 3 and is frost tender. It is in flower from May to June, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The

plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[63, 105]. The seed is about 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood. Used for construction and charcoal[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

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Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[63, 105]. The seed is about 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Wood. Used for construction and charcoal[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus mongolica

Common name:		Family:	Fagaceae
Author:	Fisch.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Woods in the cooler areas of Japan[58]. Mixed mesophytic forests at elevations of 200 - 2500 metres in northern and eastern China[266].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 3 and is frost tender. It is in flower from May to June, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[63, 105]. The seed is about 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood. Used for construction and charcoal[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus mongolica*

Subject:

Quercus mongolica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus mongolica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:00:31 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus mongolica grosseserrata

Common name:		Family:	Fagaceae
Author:	(Bl.) Rehd. & Wils.	Botanical references:	11, 58, 200
Synonyms:	Quercus crispula (Blume.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. grosseserrata[G] Q. mongolica subsp. crispula[G] Q. mongolica var. grosseserrata[G]
Epithets:	From a Dictionary of Botanical Epithets
	serra = toothed; serrata = saw toothed;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 15m . It is hardy to zone 3 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic

(alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, easily worked. Used for furniture, panelling, furniture etc[46].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus mongolica subsp. crispula* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

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grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Quercus mongolica grosseserrata

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Author:	(Bl.) Rehd. & Wils.	Botanical references:	11, 58, 200
Synonyms:	Quercus crispula (Blume.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. grosseserrata[G] Q. mongolica subsp. crispula[G] Q. mongolica var. grosseserrata[G]
Epithets:	From a Dictionary of Botanical Epithets
	serra = toothed; serrata = saw toothed;
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	Order: Fagales . Beech family
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	Plant Passport Required for commercial growers in the UK/Europe.

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The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, easily worked. Used for furniture, panelling, furniture etc[46].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus mongolica subsp. crispula* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants: Quercus macrocarpa. Genera: Quercus.*

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus mongolica grosseserrata

Common name:		Family:	Fagaceae
Author:	(Bl.) Rehd. & Wils.	Botanical references:	11, 58, 200
Synonyms:	Quercus crispula (Blume.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. grosseserrata[G] Q. mongolica subsp. crispula[G] Q. mongolica var. grosseserrata[G]
Epithets:	From a Dictionary of Botanical Epithets
	serra = toothed; serrata = saw toothed;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 15m . It is hardy to zone 3 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, easily worked. Used for furniture, panelling, furniture etc[46].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus mongolica grosseserrata*

Subject:

Quercus mongolica grosseserrata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus mongolica grosseserrata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:00:42 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus muehlenbergii

Common name:	Yellow chestnut oak	Family:	Fagaceae
Author:	Engelm.	Botanical references:	11, 43, 200
Synonyms:	Quercus prinus acuminata (Michx.), Quercus acuminata (non Roxb.)		
Known Hazards:	None known		
Range:	Eastern N. America - Vermont and Ontario to Minnesota, Nebraska, Alabama and Texas.		
Habitat:	Dry calcareous slopes and ridges, or on rich bottoms[43]. Well-drained uplands[227], favouring limestone soils and avoiding acid soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. alexanderi[B,P] Q. prinoides[B] Q. prinoides var. acuminata[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinkapin Oak [L,DEN1,FEIS,B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower from May to June, and the seeds ripen in November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It is up to 18mm long[227]. The seed contains very little bitter tannin, it is quite sweet and rather pleasant eating[183, 227]. Tastes nice when baked in an oven[183]. Any bitter seeds can be leached by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency

Roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiemetic; Astringent.

An infusion of the bark has been used in the treatment of vomiting[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, very hard, strong, close grained, durable. It weighs 53lb per cubic foot[227]. Not abundant enough to be used commercially, it is used for fencing, cooperage etc and makes an excellent fuel[82, 149, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Growth is fairly rapid for an oak[227], especially when the tree is young, though it slows down with age[229]. Seed production is cyclic, a year with high yields is followed by 2 - 3 years of light crops[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Q. muhlenbergii brayi (Small.)Sarg. has somewhat larger seeds than the type, sometimes 3cm long[227].

Closely related to Q. prinus[11]. Trees are often confused with Q. prinus, Q. prinoides and Q. michauxii[200].

Trees respond well to coppicing[149].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus muehlenbergii

Common name:	Yellow chestnut oak	Family:	Fagaceae
Author:	Engelm.	Botanical references:	11, 43, 200
Synonyms:	Quercus prinus acuminata (Michx.), Quercus acuminata (non Roxb.)		
Known Hazards:	None known		
Range:	Eastern N. America - Vermont and Ontario to Minnesota, Nebraska, Alabama and Texas.		
Habitat:	Dry calcareous slopes and ridges, or on rich bottoms[43]. Well-drained uplands[227], favouring limestone soils and avoiding acid soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. alexanderi[B,P] Q. prinoides[B] Q. prinoides var. acuminata[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinkapin Oak [L,DEN1,FEIS,B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower from May to June, and the seeds ripen in November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It is up to 18mm long[227]. The seed contains very little bitter tannin, it is quite sweet and rather pleasant eating[183, 227]. Tastes nice when baked in an oven[183]. Any bitter seeds can be leached by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency

Roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiemetic; Astringent.

An infusion of the bark has been used in the treatment of vomiting[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, very hard, strong, close grained, durable. It weighs 53lb per cubic foot[227]. Not abundant enough to be used commercially, it is used for fencing, cooperage etc and makes an excellent fuel[82, 149, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Growth is fairly rapid for an oak[227], especially when the tree is young, though it slows down with age[229]. Seed production is cyclic, a year with high yields is followed by 2 - 3 years of light crops[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Q. muhlenbergii brayi (Small.)Sarg. has somewhat larger seeds than the type, sometimes 3cm long[227].

Closely related to Q. prinus[11]. Trees are often confused with Q. prinus, Q. prinoides and Q. michauxii[200].

Trees respond well to coppicing[149].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus muehlenbergii

Common name:	Yellow chestnut oak	Family:	Fagaceae
Author:	Engelm.	Botanical references:	11, 43, 200
Synonyms:	Quercus prinus acuminata (Michx.), Quercus acuminata (non Roxb.)		
Known Hazards:	None known		
Range:	Eastern N. America - Vermont and Ontario to Minnesota, Nebraska, Alabama and Texas.		
Habitat:	Dry calcareous slopes and ridges, or on rich bottoms[43]. Well-drained uplands[227], favouring limestone soils and avoiding acid soils[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. alexanderi[B,P] Q. prinoides[B] Q. prinoides var. acuminata[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinkapin Oak [L,DEN1,FEIS,B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower from May to June, and the seeds ripen in November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. It is up to 18mm long[227]. The seed contains very little bitter tannin, it is quite sweet and rather pleasant eating[183, 227]. Tastes nice when baked in an oven[183]. Any bitter seeds can be leached by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency

Roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiemetic; Astringent.

An infusion of the bark has been used in the treatment of vomiting[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, very hard, strong, close grained, durable. It weighs 53lb per cubic foot[227]. Not abundant enough to be used commercially, it is used for fencing, cooperage etc and makes an excellent fuel[82, 149, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Growth is fairly rapid for an oak[227], especially when the tree is young, though it slows down with age[229]. Seed production is cyclic, a year with high yields is followed by 2 - 3 years of light crops[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Q. muhlenbergii brayi (Small.)Sarg. has somewhat larger seeds than the type, sometimes 3cm long[227].

Closely related to Q. prinus[11]. Trees are often confused with Q. prinus, Q. prinoides and Q. michauxii[200].

Trees respond well to coppicing[149].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus muehlenbergii*

Subject:

Quercus muehlenbergii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus muehlenbergii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:00:55 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus myrsinaefolia

Common name:		Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:	Cyclobalanopsis myrsinaefolia ((Blume.)Oersted.)		
Known Hazards:	None known		
Range:	E. Asia - S. China, Japan.		
Habitat:	Warmer areas of Japan[58]. Mixed mesophytic forests in mountain valleys at elevations of 200 - 2500 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyclobalanopsis glauca[G] Q. glauca[G,HORTIPLEX] Q. myrsinifolia[G]
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m by 8m . It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in June, and the seeds ripen in November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is up to 25mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich

source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The seed ripens in its first year[200].

Plants grown under this name in Britain are often Q. bambusifolia, Q. glauca, Q. salicina or Q. stenophylla[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's

Phytochemical Database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus glauca* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus myrsinaefolia

Common name:		Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:	Cyclobalanopsis myrsinaefolia ((Blume.)Oersted.)		
Known Hazards:	None known		
Range:	E. Asia - S. China, Japan.		
Habitat:	Warmer areas of Japan[58]. Mixed mesophytic forests in mountain valleys at elevations of 200 - 2500 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cyclobalanopsis glauca[G] Q. glauca[G,HORTIPLEX] Q. myrsinifolia[G]
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m by 8m . It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in June, and the seeds ripen in November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. The seed is up to 25mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The seed ripens in its first year[200].

Plants grown under this name in Britain are often Q. bambusifolia, Q. glauca, Q. salicina or Q. stenophylla[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus glauca* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m by 8m . It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in June, and the seeds ripen in November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

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Woodland, Canopy.

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Coffee; Seed.

Seed - cooked[105, 177]. The seed is up to 25mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

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Hybridizes freely with other members of the genus[200].

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Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus myrsinaefolia*

Subject:

Quercus myrsinaefolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus myrsinaefolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:01:07 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

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Quercus nigra

Common name:	Water oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Quercus aquatica (Walter.)		
Known Hazards:	None known		
Range:	South-eastern N. America - New Jersey to Florida, west to Oklahoma.		
Habitat:	Dry woods or borders of streams and bottomlands[43]. The best specimens are found in well-drained, silty clay or loamy soils[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. microcarya[B,P] Q. nigra var. heterophylla[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Water Oak [FEIS,P,DEN1,L,B],
Epithets:	From a Dictionary of Botanical Epithets
	nigra = black;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 8m . It is hardy to zone 6 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

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Coffee; Seed.

Seed - cooked[61, 105, 161]. A staple food for some native North American Indian tribes[257]. The seed is about 15cm long and wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[257].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, close-grained[61, 82, 227, 235]. It weighs 45lb per cubic foot[235]. It is used for cross-ties and poles[227], but is little valued except as a fuel[61, 82].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

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Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+nigra`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+nigra`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Quercus nigra

Common name:	Water oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Quercus aquatica (Walter.)		
Known Hazards:	None known		
Range:	South-eastern N. America - New Jersey to Florida, west to Oklahoma.		
Habitat:	Dry woods or borders of streams and bottomlands[43]. The best specimens are found in well-drained, silty clay or loamy soils[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	nigra = black;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

A decidious tree growing to 20m by 8m . It is hardy to zone 6 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[61, 105, 161]. A staple food for some native North American Indian tribes[257]. The seed is about 15cm long and wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus nigra

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Habitat:	Dry woods or borders of streams and bottomlands[43]. The best specimens are found in well-drained, silty clay or loamy soils[229].		
Plants For A Future Rating (1-5):	2		

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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Astringent.

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Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are

caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, close-grained[61, 82, 227, 235]. It weighs 45lb per cubic foot[235]. It is used for cross-ties and poles[227], but is little valued except as a fuel[61, 82].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A fast-growing tree in its native habitat, it does not bear seeds until about 20 years old[229]. Seed production is cyclic, a year of high yields being followed by a year of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+nigra`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus nigra*

Subject:

Quercus nigra

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus nigra

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:01:19 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus oblongifolia

Common name:	Mexican blue oak	Family:	Fagaceae
Author:	Torr.	Botanical references:	82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - Texas, New Mexico, Arizona, Mexico.		
Habitat:	A common tree of open oak woodlands in foothills, mountain slopes and in canyons, 1500 - 2000 metres[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Mexican Blue Oak [DEN2,L,B,P,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	longifolia = long leaved; oblongifolia = oblong leaves;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 8m. It is hardy to zone 7 and is frost tender. It is in flower in May, and the seeds ripen all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[161, 181]. A staple food for some native North American Indian tribes[257]. Very sweet[177, 200], it is up to 2cm long and 8mm wide[82, 200]. The seed can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If any seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

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Astringent.

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Wood - very heavy, hard, strong, brittle[82]. It is sometimes used as a fuel[82].

Cultivation details

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Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

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Hybridizes freely with other members of the genus[200].

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Propagation

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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the

following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

Enter your details here:

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Plants For A Future: Database Search Results

Quercus oblongifolia

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus oblongifolia

Common name:	Mexican blue oak	Family:	Fagaceae
Author:	Torr.	Botanical references:	82, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - Texas, New Mexico, Arizona, Mexico.		
Habitat:	A common tree of open oak woodlands in foothills, mountain slopes and in canyons, 1500 - 2000 metres[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Mexican Blue Oak [DEN2,L,B,P,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	longifolia = long leaved; oblongifolia = oblong leaves;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 8m. It is hardy to zone 7 and is frost tender. It is in flower in May, and the seeds ripen all year. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[161, 181]. A staple food for some native North American Indian tribes[257]. Very sweet[177, 200], it is up to 2cm long and 8mm wide[82, 200]. The seed can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If any seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very heavy, hard, strong, brittle[82]. It is sometimes used as a fuel[82].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus oblongifolia*

Subject:

Quercus oblongifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus oblongifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:01:31 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus palustris

Common name:	Pin oak	Family:	Fagaceae
Author:	Münchh	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	North-eastern and Central N. America - Massachusetts to Michigan, Virginia and Arkansas.		
Habitat:	Deep rich soils[227, 229] in swampy woods and bottoms at low elevations[43]. Often found in wet, poorly drained claypan soils typical of floodplains, tolerating short periods of spring flooding[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Moeraseik [D], Pin Oak [L,P,FEIS,DEN1,H,B],
Epithets:	From a Dictionary of Botanical Epithets
	palustris = in bogs;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m by 8m at a fast rate. . It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[159]. The seed is about 15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Stomachic.

An infusion of the inner bark has been used to treat intestinal pains[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A black ink is made from the galls[226].

Wood - strong, hard, coarse grained, heavy, often knotty owing to the persistence of many small limbs[46, 61, 82, 171, 227]. It weighs 43lb per cubic foot[227]. It is occasionally used for shingles, clap-boards, furniture, wooden nails etc and as a fuel[46, 61, 82, 171, 227, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Withstands atmospheric pollution[227]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A fairly fast growing tree[200], it is occasionally cultivated for timber in eastern central Europe[50]. It coppices fairly well[227]. The tree seldom lives longer than 150 - 200 years in the wild, commencing to bear seeds when 15 - 25 years old[229]. Seed production is cyclic, a year of high yields being followed by 2 - 3 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

There are some named varieties selected for their ornamental value[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. This species has a relatively shallow tap-root, making it easier to transplant[226].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Average germination rate is about 68%[227]. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus palustris

Common name:	Pin oak	Family:	Fagaceae
Author:	Münchh	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	North-eastern and Central N. America - Massachusetts to Michigan, Virginia and Arkansas.		
Habitat:	Deep rich soils[227, 229] in swampy woods and bottoms at low elevations[43]. Often found in wet, poorly drained claypan soils typical of floodplains, tolerating short periods of spring flooding[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Moeraseik [D], Pin Oak [L,P,FEIS,DEN1,H,B],
Epithets:	From a Dictionary of Botanical Epithets
	palustris = in bogs;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m by 8m at a fast rate. . It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[159]. The seed is about 15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Stomachic.

An infusion of the inner bark has been used to treat intestinal pains[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls,

obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A black ink is made from the galls[226].

Wood - strong, hard, coarse grained, heavy, often knotty owing to the persistence of many small limbs[46, 61, 82, 171, 227]. It weighs 43lb per cubic foot[227]. It is occasionally used for shingles, clap-boards, furniture, wooden nails etc and as a fuel[46, 61, 82, 171, 227, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Withstands atmospheric pollution[227]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A fairly fast growing tree[200], it is occasionally cultivated for timber in eastern central Europe[50]. It coppices fairly well[227]. The tree seldom lives longer than 150 - 200 years in the wild, commencing to bear seeds when 15 - 25 years old[229]. Seed production is cyclic, a year of high yields being followed by 2 - 3 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

There are some named varieties selected for their ornamental value[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. This species has a relatively shallow tap-root, making it easier to transplant[226].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Average germination rate is about 68%[227]. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0

Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a

few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+palustris`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+palustris`

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Plants For A Future: Database Search Results

Quercus palustris

Common name:	Pin oak	Family:	Fagaceae
Author:	Münchh	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	North-eastern and Central N. America - Massachusetts to Michigan, Virginia and Arkansas.		
Habitat:	Deep rich soils[227, 229] in swampy woods and bottoms at low elevations[43]. Often found in wet, poorly drained claypan soils typical of floodplains, tolerating short periods of spring flooding[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Moeraseik [D], Pin Oak [L,P,FEIS,DEN1,H,B],
Epithets:	From a Dictionary of Botanical Epithets
	palustris = in bogs;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m by 8m at a fast rate. . It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[159]. The seed is about 15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent; Stomachic.

An infusion of the inner bark has been used to treat intestinal pains[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls,

obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A black ink is made from the galls[226].

Wood - strong, hard, coarse grained, heavy, often knotty owing to the persistence of many small limbs[46, 61, 82, 171, 227]. It weighs 43lb per cubic foot[227]. It is occasionally used for shingles, clap-boards, furniture, wooden nails etc and as a fuel[46, 61, 82, 171, 227, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Withstands atmospheric pollution[227]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

A fairly fast growing tree[200], it is occasionally cultivated for timber in eastern central Europe[50]. It coppices fairly well[227]. The tree seldom lives longer than 150 - 200 years in the wild, commencing to bear seeds when 15 - 25 years old[229]. Seed production is cyclic, a year of high yields being followed by 2 - 3 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

There are some named varieties selected for their ornamental value[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. This species has a relatively shallow tap-root, making it easier to transplant[226].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Average germination rate is about 68%[227]. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+palustris`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+palustris`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus palustris*

Subject:

Quercus palustris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus palustris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:01:43 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus petraea

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Sessile oak	Family:	Fagaceae
Author:	(Mattuschaka.) Leibel.	Botanical references:	11, 17, 200
Synonyms:	Quercus sessilis (Ehrh.), Quercus sessiliflora (Salisb.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, especially on acid soils and in the western part of Britain, where it is often dominant[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. robur var. petraea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Durmast Oak [P,H], Eych [E], Sessile Oak [H], Wintereik [D],
Epithets:	From a Dictionary of Botanical Epithets
	petraea = growing with rocks;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Europe

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 40m by 25m at a slow rate. It is hardy to zone 4. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[2, 5, 8, 13]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[21, 61].

An edible gum is obtained from the bark[177].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Bach; Decongestant; Haemostatic; Tonic.

The oak tree has a long history of medicinal use. It is anti-inflammatory, antiseptic, astringent, decongestant, haemostatic and tonic[4, 7, 9, 13, 21, 165]. The bark is the part of the plant that is most commonly used[4], though other parts such as the galls, seeds and seed cups are also sometimes used[7]. A decoction of the bark is useful in the treatment of chronic diarrhoea, dysentery, intermittent fevers, haemorrhages etc[4]. Externally, it is used to bathe wounds, skin eruptions, sweaty feet, piles etc[9]. It is also used as a vaginal douche for genital inflammations and discharge, and also as a wash for throat and mouth infections[9]. The bark is harvested from branches 5 - 12 years old, and is dried for later use[9].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Despondency', 'Despair, but never ceasing effort'[209].

A homeopathic remedy is made from the bark. It is used in the treatment of disorders of the spleen and gall bladder[9].

Other Uses

Basketry; Charcoal; Compost; Fuel; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20, 201].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is an ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. The bark is very rich in calcium[13].

An ink is made from the oak galls, mixed with salts of iron[7, 66].

The wood is a source of tar, quaiacol, acetic acid, creosote and tannin[123]. Tannin is extracted commercially from the bark and is also found in the leaves[223].

Wood - hard, tough, durable even under water. It is highly valued for furniture, construction etc[4, 13, 66]. It is also a good fuel and charcoal[6, 61]. Trees can be coppiced to provide material for basket making, fuel, construction etc[23].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Dislikes heavy clay[98]. Young plants tolerate reasonable levels of side shade[200]. Found mainly on acid soils in the wild. Thrives in well drained soils but is also tolerant of periodic flooding[186]. Tolerates exposure and strong winds if these are not salt-laden[186].

A very important timber tree in Britain, it is also a food plant for the caterpillars of many species of butterfly[30], there are 284 insect species associated with this tree[24]. Trees were often coppiced or pollarded in the past for their wood[186], though this is best done on a long rotation of perhaps 50 years.

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Older trees have a thick corky bark and this can protect them from forest fires, young trees will often regenerate from the base if cut down or killed back by a fire[186].

Trees transplant badly unless moved regularly[11].

Hybridizes freely with other members of the genus[200].

Immune to attacks by the Tortix moth[1]. This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus petraea* (Durmast Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: Q-R
- Checklist of plants suitable for hedging and windbreaks.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus sessiliflora* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

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[209] **Chancellor. P. M.** *Handbook of the Bach Flower Remedies* C. W. Daniel Co. Ltd. 1985 ISBN 85207 002 0
Details the 38 remedies plus how and where to prescribe them.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+petraea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+petraea`

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Plants For A Future: Database Search Results

Quercus petraea

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Sessile oak	Family:	Fagaceae
Author:	(Mattuschaka.) Leibel.	Botanical references:	11, 17, 200
Synonyms:	Quercus sessilis (Ehrh.), Quercus sessiliflora (Salisb.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, especially on acid soils and in the western part of Britain, where it is often dominant[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. robur var. petraea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Durmast Oak [P,H], Eych [E], Sessile Oak [H], Wintereik [D],
Epithets:	From a Dictionary of Botanical Epithets
	petraea = growing with rocks;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Europe
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 40m by 25m at a slow rate. It is hardy to zone 4. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[2, 5, 8, 13]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[21, 61].

An edible gum is obtained from the bark[177].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Bach; Decongestant; Haemostatic; Tonic.

The oak tree has a long history of medicinal use. It is anti-inflammatory, antiseptic, astringent, decongestant, haemostatic and tonic[4, 7, 9, 13, 21, 165]. The bark is the part of the plant that is most commonly used[4], though other parts such as the galls, seeds and seed cups are also sometimes used[7]. A decoction of the bark is useful in the treatment of chronic diarrhoea, dysentery, intermittent fevers, haemorrhages etc[4]. Externally, it is used to bathe wounds, skin eruptions, sweaty feet, piles etc[9]. It is also used as a vaginal douche for genital inflammations and discharge, and also as a wash for throat and mouth infections[9]. The bark is harvested from branches 5 - 12 years old, and is dried for later use[9].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Despondency', 'Despair, but never ceasing effort'[209].

A homeopathic remedy is made from the bark. It is used in the treatment of disorders of the spleen and gall bladder[9].

Other Uses

Basketry; Charcoal; Compost; Fuel; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20, 201].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is an ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. The bark is very rich in calcium[13].

An ink is made from the oak galls, mixed with salts of iron[7, 66].

The wood is a source of tar, quaiacol, acetic acid, creosote and tannin[123]. Tannin is extracted commercially from the bark and is also found in the leaves[223].

Wood - hard, tough, durable even under water. It is highly valued for furniture, construction etc[4, 13, 66]. It is also a good fuel and charcoal[6, 61]. Trees can be coppiced to provide material for basket making, fuel, construction etc[23].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Dislikes heavy clay[98]. Young plants tolerate reasonable levels of side shade[200]. Found mainly on acid soils in the wild. Thrives in well drained soils but is also tolerant of periodic flooding[186]. Tolerates exposure and strong winds if these are not salt-laden[186].

A very important timber tree in Britain, it is also a food plant for the caterpillars of many species of butterfly[30], there are 284 insect species associated with this tree[24]. Trees were often coppiced or pollarded in the past for their wood[186], though this is best done on a long rotation of perhaps 50 years.

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Older trees have a thick corky bark and this can protect them from forest fires, young trees will often regenerate from the base if cut down or killed back by a fire[186].

Trees transplant badly unless moved regularly[11].

Hybridizes freely with other members of the genus[200].

Immune to attacks by the Tortix moth[1]. This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham

NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus petraea* (Durmast Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: Q-R
- Checklist of plants suitable for hedging and windbreaks.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus sessiliflora* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

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Range:	Britain.		
Habitat:	Woods, especially on acid soils and in the western part of Britain, where it is often dominant[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. robur var. petraea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Durmast Oak [P,H], Eych [E], Sessile Oak [H], Wintereik [D],
Epithets:	From a Dictionary of Botanical Epithets
	petraea = growing with rocks;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Europe
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 40m by 25m at a slow rate. It is hardy to zone 4. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[2, 5, 8, 13]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[21, 61].

An edible gum is obtained from the bark[177].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Bach; Decongestant; Haemostatic; Tonic.

The oak tree has a long history of medicinal use. It is anti-inflammatory, antiseptic, astringent, decongestant, haemostatic and tonic[4, 7, 9, 13, 21, 165]. The bark is the part of the plant that is most commonly used[4], though other parts such as the galls, seeds and seed cups are also sometimes used[7]. A decoction of the bark is useful in the treatment of chronic diarrhoea, dysentery, intermittent fevers, haemorrhages etc[4]. Externally, it is used to bathe wounds, skin eruptions, sweaty feet, piles etc[9]. It is also used as a vaginal douche for genital inflammations and discharge, and also as a wash for throat and mouth infections[9]. The bark is harvested from branches 5 - 12 years old, and is dried for later use[9].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Despondency', 'Despair, but never ceasing effort'[209].

A homeopathic remedy is made from the bark. It is used in the treatment of disorders of the spleen and gall bladder[9].

Other Uses

Basketry; Charcoal; Compost; Fuel; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20, 201].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is an ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. The bark is very rich in calcium[13].

An ink is made from the oak galls, mixed with salts of iron[7, 66].

The wood is a source of tar, quaiacol, acetic acid, creosote and tannin[123]. Tannin is extracted commercially from the bark and is also found in the leaves[223].

Wood - hard, tough, durable even under water. It is highly valued for furniture, construction etc[4, 13, 66]. It is also a good fuel and charcoal[6, 61]. Trees can be coppiced to provide material for basket making, fuel, construction etc[23].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Dislikes heavy clay[98]. Young plants tolerate reasonable levels of side shade[200]. Found mainly on acid soils in the wild. Thrives in well drained soils but is also tolerant of periodic flooding[186]. Tolerates exposure and strong winds if these are not salt-laden[186].

A very important timber tree in Britain, it is also a food plant for the caterpillars of many species of butterfly[30], there are 284 insect species associated with this tree[24]. Trees were often coppiced or pollarded in the past for their wood[186], though this is best done on a long rotation of perhaps 50 years.

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Older trees have a thick corky bark and this can protect them from forest fires, young trees will often regenerate from the base if cut down or killed back by a fire[186].

Trees transplant badly unless moved regularly[11].

Hybridizes freely with other members of the genus[200].

Immune to attacks by the Tortix moth[1]. This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham

NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus petraea* (Durmast Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+petraea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+petraea`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus petraea*

Subject:

Quercus petraea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus petraea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:01:57 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus phellos

Common name:	Willow oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Staten Island to Georgia, west to Texas.		
Habitat:	Low wet borders of swamps and streams, bottom lands and sandy uplands on rich soils[43, 82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Willow Oak [P,FEIS,DEN1,L,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a medium rate. It is hardy to zone 6. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 63, 105]. Rather small, it is only 1cm long[11, 200]. The seed can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Astringent; Salve.

A decoction of the wood chips or bark has been applied externally as an analgesic and as a bath for aches, pains, sores, cuts and haemorrhoids[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Charcoal; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are

caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark contains about 10% tannin and is a commercial source of that material[223]. Tannin is also found in the leaves and wood[223].

The seedcups are used as buttons[95].

Wood - close-grained, strong, not hard, heavy, not durable[46, 61, 82, 171, 227]. It weighs 46lb per cubic foot[227]. Of rather low quality for an oak but it is sufficiently abundant to be harvested commercially. The wood is used for construction, fellies of wheels and charcoal[46, 61, 82, 171, 227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Although it prefers warmer summers than are usually experienced in Britain[200], this species thrives in this country[11], though it rarely sets seed here[80]. Trees commence to bear seeds when about 20 years old in the wild and good crops are usually produced annually[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

A very ornamental plant[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants

it does cover.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Details:	

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Plants For A Future: Database Search Results

Quercus phellos

Common name:	Willow oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Staten Island to Georgia, west to Texas.		
Habitat:	Low wet borders of swamps and streams, bottom lands and sandy uplands on rich soils[43, 82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Willow Oak [P,FEIS,DEN1,L,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a medium rate. It is hardy to zone 6. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 63, 105]. Rather small, it is only 1cm long[11, 200]. The seed can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Astringent; Salve.

A decoction of the wood chips or bark has been applied externally as an analgesic and as a bath for aches, pains, sores, cuts and haemorrhoids[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Charcoal; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark contains about 10% tannin and is a commercial source of that material[223]. Tannin is also found in the leaves and wood[223].

The seedcups are used as buttons[95].

Wood - close-grained, strong, not hard, heavy, not durable[46, 61, 82, 171, 227]. It weighs 46lb per cubic foot[227]. Of rather low quality for an oak but it is sufficiently abundant to be harvested commercially. The wood is used for construction, fellies of wheels and charcoal[46, 61, 82, 171, 227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Although it prefers warmer summers than are usually experienced in Britain[200], this species thrives in this country[11], though it rarely sets seed here[80]. Trees commence to bear seeds when about 20 years old in the wild and good crops are usually produced annually[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

A very ornamental plant[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants

it does cover.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus phellos

Common name:	Willow oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Staten Island to Georgia, west to Texas.		
Habitat:	Low wet borders of swamps and streams, bottom lands and sandy uplands on rich soils[43, 82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Willow Oak [P,FEIS,DEN1,L,B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m by 10m at a medium rate. It is hardy to zone 6. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[2, 63, 105]. Rather small, it is only 1cm long[11, 200]. The seed can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Astringent; Salve.

A decoction of the wood chips or bark has been applied externally as an analgesic and as a bath for aches, pains, sores, cuts and haemorrhoids[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Charcoal; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark contains about 10% tannin and is a commercial source of that material[223]. Tannin is also found in the leaves and wood[223].

The seedcups are used as buttons[95].

Wood - close-grained, strong, not hard, heavy, not durable[46, 61, 82, 171, 227]. It weighs 46lb per cubic foot[227]. Of rather low quality for an oak but it is sufficiently abundant to be harvested commercially. The wood is used for construction, fellies of wheels and charcoal[46, 61, 82, 171, 227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Although it prefers warmer summers than are usually experienced in Britain[200], this species thrives in this country[11], though it rarely sets seed here[80]. Trees commence to bear seeds when about 20 years old in the wild and good crops are usually produced annually[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

A very ornamental plant[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+phellos`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus phellos*

Subject:

Quercus phellos

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus phellos

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:02:09 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus phillyreoides

Common name:		Family:	Fagaceae
Author:	A. Gray.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets and open woods near seashores in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. phillyraeoides[G] Q. wrightii[G]
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 9m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105]. Up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure[166], surviving well but being somewhat stunted[200].

Rarely fruits well in Britain[11]. Trees at Kew in the hot summer of 1989 carried large crops of seed[K]. The seed takes 2 years to ripen[200].

A very ornamental plant[1].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus phillyraeoides* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[166] **Taylor. J.** *The Milder Garden.* Dent 1990
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

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The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

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f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Plants For A Future: Database Search Results

Quercus phillyreoides

Common name:		Family:	Fagaceae
Author:	A. Gray.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets and open woods near seashores in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. phillyraeoides[G] Q. wrightii[G]
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 9m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105]. Up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure[166], surviving well but being somewhat stunted[200].

Rarely fruits well in Britain[11]. Trees at Kew in the hot summer of 1989 carried large crops of seed[K]. The seed takes 2 years to ripen[200].

A very ornamental plant[1].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus phillyraeoides* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not

removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

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grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

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Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus phillyreoides

Common name:		Family:	Fagaceae
Author:	A. Gray.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Thickets and open woods near seashores in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. phillyraeoides[G] Q. wrightii[G]
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 9m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105]. Up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure[166], surviving well but being somewhat stunted[200].

Rarely fruits well in Britain[11]. Trees at Kew in the hot summer of 1989 carried large crops of seed[K]. The seed takes 2 years to ripen[200].

A very ornamental plant[1].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus phillyreoides*

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Quercus phillyreoides

Group:
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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus phillyreoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Quercus prinoides

Common name:	Dwarf chinkapin oak	Family:	Fagaceae
Author:	Willd.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern and Central N. America - Maine to Minnesota, south to Alabama and Texas.		
Habitat:	Sunny sites, often in rocky or acid sandy soils[227] on dry plains, rocks, thickets and woodland edges[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. acuminata[B,P] Q. alexanderi[B,P] Q. muehlenbergii[B,G,HORTIPLEX,L,P] Q. prinoides var. acuminata[B,P] Q. prinoides var. rufescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinkapin Oak [FEIS,L,DEN1,B,P], Dwarf Chinkapin Oak [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 161, 177]. A sweet taste[227]. The seed is up to 15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed might contain bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Plants produce suckers[11] and often form thickets[229].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Trees produce heavy crops every year or every other year in the wild[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

This species is often confused with Q. michauxii, Q. muehlenbergii and Q. prinus[200].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus muehlenbergii* (a possible synonym).

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Quercus prinoides

Nicholas Blonigen Thu Oct 17 06:07:48 2002

I thought that I should inform you that there are at least 5 specimens of Q. prinoides at the Minnesota Landscape Arboretum that have grown very well. Their records indicate that they are 20-25 yrs old, and most are over 20 ft, with some approaching 30 ft. Therefore, I think the maximum height of 4m you list is a bit of an understatement. We are also a solid zone 4, but these trees have done quite well despite being listing as only zone 5 hardy and frost-susceptible.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+prinoides`

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Plants For A Future: Database Search Results

Quercus prinoides

Common name:	Dwarf chinkapin oak	Family:	Fagaceae
Author:	Willd.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern and Central N. America - Maine to Minnesota, south to Alabama and Texas.		
Habitat:	Sunny sites, often in rocky or acid sandy soils[227] on dry plains, rocks, thickets and woodland edges[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. acuminata[B,P] Q. alexanderi[B,P] Q. muehlenbergii[B,G,HORTIPLEX,L,P] Q. prinoides var. acuminata[B,P] Q. prinoides var. rufescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinkapin Oak [FEIS,L,DEN1,B,P], Dwarf Chinkapin Oak [B,P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 161, 177]. A sweet taste[227]. The seed is up to 15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed might contain bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Plants produce suckers[11] and often form thickets[229].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Trees produce heavy crops every year or every other year in the wild[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

This species is often confused with Q. michauxii, Q. muehlenbergii and Q. prinus[200].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus muehlenbergii* (a possible synonym).

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

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Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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Unknown Fri Dec 1 22:52:15 2000

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Quercus prinoides

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Plants For A Future: Database Search Results

Quercus prinoides

Common name:	Dwarf chinkapin oak	Family:	Fagaceae
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Range:	Eastern and Central N. America - Maine to Minnesota, south to Alabama and Texas.		
Habitat:	Sunny sites, often in rocky or acid sandy soils[227] on dry plains, rocks, thickets and woodland edges[43].		
Plants For A Future Rating (1-5):	2		

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Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 4m. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

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woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

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Woodland, Sunny Edge, Dappled Shade, Shady Edge.

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Coffee; Seed.

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The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin.

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Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

Plants produce suckers[11] and often form thickets[229].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Trees produce heavy crops every year or every other year in the wild[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

This species is often confused with Q. michauxii, Q. muehlenbergii and Q. prinus[200].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus prinoides*

Subject:

Quercus prinoides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus prinoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:02:39 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus prinus

Common name:	Rock chestnut oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Quercus montana (Willd.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Georgia and Alabama.		
Habitat:	Dry or rocky woods, mainly on siliceous soils[43] and on the borders of streams[82]. The best specimens are found on deep rich well-drained soils[229].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. houstoniana[B,P] Q. michauxii[B,G,HORTIPLEX,L,P] Q. prinus auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chestnut Oak [DEN1,FEIS,B,L,P], Swamp Chestnut Oak [FEIS,P,L,B,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m at a slow rate. It is hardy to zone 5. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[2, 46, 83, 159]. Somewhat sweet according to some reports[62, 82, 95, 229, 235] whilst another says that it contains bitter tannin[183]. The seed is quite large, up to 4cm long and 25mm wide[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

The seed cups are used as buttons[95].

The bark is a commercial source of tannin[46, 223]. On a 10% moisture basis, the bark contains 9.7% tannin[223]. Tannin is also found in the leaves and wood[223].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A red dye is obtained from the bark[4]. Tan-coloured according to another report[257].

Wood - close-grained, heavy, hard, rather tough, strong, durable in contact with the soil[46, 61, 82, 229]. It weighs 47lb per cubic foot[235]. Used commercially like Q. alba, it is used for furniture, cabinet making, interior finishes, fence posts and fuel[46, 61, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain[200], but trees still grow well in this country[1].

A slow-growing tree in the wild, though it can live 400 years[229]. The tree produces large crops of acorns every 4 - 7 years, with small crops in the intervening years[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

This species is often confused with Q. michauxii, Q. muehlenbergii and Q. prinoides[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
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References for *Quercus michauxii* (a possible synonym).

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Quercus montana* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950

A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[83] **Evans. R. L.** *Handbook of Cultivated Sedums.* Science Reviews 1983
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[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+prinus`
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Plants For A Future: Database Search Results

Quercus prinus

Common name:	Rock chestnut oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Quercus montana (Willd.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Georgia and Alabama.		
Habitat:	Dry or rocky woods, mainly on siliceous soils[43] and on the borders of streams[82]. The best specimens are found on deep rich well-drained soils[229].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. houstoniana[B,P] Q. michauxii[B,G,HORTIPLEX,L,P] Q. prinus auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chestnut Oak [DEN1,FEIS,B,L,P], Swamp Chestnut Oak [FEIS,P,L,B,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m at a slow rate. It is hardy to zone 5. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The

plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[2, 46, 83, 159]. Somewhat sweet according to some reports[62, 82, 95, 229, 235] whilst another says that it contains bitter tannin[183]. The seed is quite large, up to 4cm long and 25mm wide[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

The seed cups are used as buttons[95].

The bark is a commercial source of tannin[46, 223]. On a 10% moisture basis, the bark contains 9.7% tannin[223]. Tannin is also found in the leaves and wood[223].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A red dye is obtained from the bark[4]. Tan-coloured according to another report[257].

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Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain[200], but trees still grow well in this country[1].

A slow-growing tree in the wild, though it can live 400 years[229]. The tree produces large crops of acorns every 4 - 7 years, with small crops in the intervening years[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

This species is often confused with Q. michauxii, Q. muehlenbergii and Q. prinoides[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus prinus

Common name:	Rock chestnut oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Quercus montana (Willd.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Georgia and Alabama.		
Habitat:	Dry or rocky woods, mainly on siliceous soils[43] and on the borders of streams[82]. The best specimens are found on deep rich well-drained soils[229].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. houstoniana[B,P] Q. michauxii[B,G,HORTIPLEX,L,P] Q. prinus auct. p. p. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chestnut Oak [DEN1,FEIS,B,L,P], Swamp Chestnut Oak [FEIS,P,L,B,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m at a slow rate. It is hardy to zone 5. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The

plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[2, 46, 83, 159]. Somewhat sweet according to some reports[62, 82, 95, 229, 235] whilst another says that it contains bitter tannin[183]. The seed is quite large, up to 4cm long and 25mm wide[82, 200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Buttons; Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

The seed cups are used as buttons[95].

The bark is a commercial source of tannin[46, 223]. On a 10% moisture basis, the bark contains 9.7% tannin[223]. Tannin is also found in the leaves and wood[223].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A red dye is obtained from the bark[4]. Tan-coloured according to another report[257].

Wood - close-grained, heavy, hard, rather tough, strong, durable in contact with the soil[46, 61, 82, 229]. It weighs 47lb per cubic foot[235]. Used commercially like Q. alba, it is used for furniture, cabinet making, interior finishes, fence posts and fuel[46, 61, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain[200], but trees still grow well in this country[1].

A slow-growing tree in the wild, though it can live 400 years[229]. The tree produces large crops of acorns every 4 - 7 years, with small crops in the intervening years[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

This species is often confused with Q. michauxii, Q. muehlenbergii and Q. prinoides[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus prinus*

Subject:

Quercus prinus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus prinus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:02:52 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus pubescens

Common name:	Downy oak	Family:	Fagaceae
Author:	Willd.	Botanical references:	11, 50, 200
Synonyms:	Quercus lanuginosa (Lam. nom illegit), Quercus humilis (Mill.)		
Known Hazards:	None known		
Range:	Europe.		
Habitat:	Woods and dry hills[100] in both siliceous and limestone soils[11].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m. It is hardy to zone 5. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The

plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked. A famine food, used when all else fails[177]. The seed is up to 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, durable even under water, not very elastic. Used for furniture etc[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted.

The seed ripens in its first year.

Closely related to Q. petraea[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted?

or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the

details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus pubescens

Common name:	Downy oak	Family:	Fagaceae
Author:	Willd.	Botanical references:	11, 50, 200
Synonyms:	Quercus lanuginosa (Lam. nom illegit), Quercus humilis (Mill.)		
Known Hazards:	None known		
Range:	Europe.		
Habitat:	Woods and dry hills[100] in both siliceous and limestone soils[11].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m. It is hardy to zone 5. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked. A famine food, used when all else fails[177]. The seed is up to 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, durable even under water, not very elastic. Used for furniture etc[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted.

The seed ripens in its first year.

Closely related to Q. petraea[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus pubescens

Common name:	Downy oak	Family:	Fagaceae
Author:	Willd.	Botanical references:	11, 50, 200
Synonyms:	Quercus lanuginosa (Lam. nom illegit), Quercus humilis (Mill.)		
Known Hazards:	None known		
Range:	Europe.		
Habitat:	Woods and dry hills[100] in both siliceous and limestone soils[11].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m. It is hardy to zone 5. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Seed.

Seed - cooked. A famine food, used when all else fails[177]. The seed is up to 2cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, durable even under water, not very elastic. Used for furniture etc[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted.

The seed ripens in its first year.

Closely related to Q. petraea[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus pubescens*

Subject:

Quercus pubescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus pubescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:03:04 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus pungens

Common name:	Sandpaper oak	Family:	Fagaceae
Author:	Liebm.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - Texas, New Mexico, Arizona and Mexico.		
Habitat:	Dry limestone hills and canyons[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Pungent Oak [P], Sandpaper Oak [B,L,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	pungens = spiny, pungent;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 7 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[161, 177]. The seed is small, up to 1cm long[200]. Up to 22mm according to another report[229]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

A gum obtained from the bark can be used for chewing[257].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A tan-coloured dye is obtained from the bark[257].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
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References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

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The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Range:	South-western N. America - Texas, New Mexico, Arizona and Mexico.		
Habitat:	Dry limestone hills and canyons[229].		
Plants For A Future Rating (1-5):	2		

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An evergreen shrub growing to 2m. It is hardy to zone 7 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

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A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A tan-coloured dye is obtained from the bark[257].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+pungens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+pungens`

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Plants For A Future: Database Search Results

Quercus pungens

Common name:	Sandpaper oak	Family:	Fagaceae
Author:	Liebm.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - Texas, New Mexico, Arizona and Mexico.		
Habitat:	Dry limestone hills and canyons[229].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Pungent Oak [P], Sandpaper Oak [B,L,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	pungens = spiny, pungent;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 7 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[161, 177]. The seed is small, up to 1cm long[200]. Up to 22mm according to another report[229]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

A gum obtained from the bark can be used for chewing[257].

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Repellent; Tannin.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A tan-coloured dye is obtained from the bark[257].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+pungens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+pungens`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus pungens*

Subject:

Quercus pungens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus pungens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:03:17 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus robur

Common name:	Pedunculate oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Quercus pedunculata (Ehrh.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Often the dominant woodland tree, especially on clay soils and in the eastern half of Britain, but avoiding acid peat and shallow limestone soils[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. robur f. atropurpurea[G] Q. robur f. fastigiata[G] Q. robur f. pectinata[G] Q. robur f. pendula[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cervalho [E], Chene [E], Common Oak [H,L], Encina [E], English Oak [DEN2,E,P,B], Mese [E], Oak [E], Pedunculate Oak [H], Rovere [E], Zomereik [D],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database

	Britain; Chile; Europe; France; Germany; Portugal; Turkey; Ussr
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 30m at a slow rate. It is hardy to zone 4. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[2, 5, 8, 13]. Nourishing but indigestible[4]. Chopped and roasted, the seed is used as an almond substitute[8]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[63]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[21, 61].

An edible gum is obtained from the bark[177]. Another report says that an edible manna is obtained from the plant and that it is used instead of butter in cooking[183]. This report probably refers to the gum[K].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Bach; Decongestant; Haemostatic; Tonic.

The oak tree has a long history of medicinal use. It is anti-inflammatory, antiseptic, astringent, decongestant, haemostatic and tonic[4, 7, 9, 13, 21, 165]. The bark is the part of the plant that is most commonly used[4], though other parts such as the galls, seeds and seed cups are also sometimes used[7]. A decoction of the bark is useful in the treatment of chronic diarrhoea, dysentery, intermittent fevers, haemorrhages etc[4]. Externally, it is used to bathe wounds, skin eruptions, sweaty feet, piles etc[9]. It is also used as a vaginal douche for genital inflammations and discharge, and also as a wash for throat and mouth infections[9]. The bark is harvested from branches 5 - 12 years old, and is dried for later use[9].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Despondency', 'Despair, but never ceasing effort'[209].

A homeopathic remedy is made from the bark. It is used in the treatment of disorders of the spleen and gall bladder[9].

Other Uses

Basketry; Charcoal; Compost; Fuel; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20, 201].

The bark is an ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. The bark is very rich in calcium[18].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A black dye and an excellent long-lasting ink is made from the oak galls, mixed with salts of iron[4, 7, 66]. The colour is not very durable[4]. When mixed with alum, the dye is brown and with salts of tin it is yellow[4].

Trees can be coppiced to provide material for basket making, fuel, construction etc[23].

The wood is a source of tar, quaiacol, acetic acid, creosote and tannin[123].

Tannin is extracted commercially from the bark and is also found in the leaves[223]. On a 10% moisture basis, the bark contains11.6% tannin and the wood 9.2%[223]. The bark strips easily from the wood in April and May[4].

A purplish dye is obtained from an infusion of the bark with a small quantity of copperas[4]. It is not bright, but is said to be durable[4].

Wood - hard, tough, durable even under water - highly valued for furniture, construction etc[4, 13, 61, 66]. It is also a good fuel[6] and charcoal[61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Succeeds in heavy clay soils[13] and in wet soils so long as the ground is not water-logged for long periods[186]. Dislikes dry or shallow soils but is otherwise drought tolerant once it is established[186]. Tolerant of exposed sites though it dislikes salt-laden winds[186].

The oak is a very important timber tree in Britain, it is also a very important food plant for the caterpillars of many species of butterfly[30], there are 284 insect species associated with this tree[24]. It has often been coppiced or pollarded for its wood in the past[23], though this should not be done too frequently[186], about once every 50 years is the average.

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Older trees have a thick corky bark and this can protect them from forest fires, young trees will often regenerate from the base if cut down or killed back by a fire[186].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Immune to attacks by the tortix moth[1]. This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as

possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus robur* (Oak)
Item: *Quercus robur fastigiata* (Upright Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Quercus pedunculata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *quercus robur* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

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c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

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I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

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Unknown Fri Dec 1 22:52:15 2000

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Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Quercus robur

Lukasz Luczaj Tue Oct 23 21:24:12 2001

I found a simple way of removing bitter taste from acorns: cut acorns into a few mm cubes and cook them for ca. 1 hour with a few spoonfuls of deciduous tree ash. Then rinse carefully. It works!

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Enter your details here:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+robur`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+robur`

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Plants For A Future: Database Search Results

Quercus robur

Common name:	Pedunculate oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Quercus pedunculata (Ehrh.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Often the dominant woodland tree, especially on clay soils and in the eastern half of Britain, but avoiding acid peat and shallow limestone soils[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. robur f. atropurpurea[G] Q. robur f. fastigiata[G] Q. robur f. pectinata[G] Q. robur f. pendula[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cervalho [E], Chene [E], Common Oak [H,L], Encina [E], English Oak [DEN2,E,P,B], Mese [E], Oak [E], Pedunculate Oak [H], Rovere [E], Zomereik [D],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Britain; Chile; Europe; France; Germany; Portugal; Turkey; Ussr
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 30m at a slow rate. It is hardy to zone 4. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[2, 5, 8, 13]. Nourishing but indigestible[4]. Chopped and roasted, the seed is used as an almond substitute[8]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[63]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[21, 61].

An edible gum is obtained from the bark[177]. Another report says that an edible manna is obtained from the plant and that it is used instead of butter in cooking[183]. This report probably refers to the gum[K].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Bach; Decongestant; Haemostatic; Tonic.

The oak tree has a long history of medicinal use. It is anti-inflammatory, antiseptic, astringent, decongestant, haemostatic and tonic[4, 7, 9, 13, 21, 165]. The bark is the part of the plant that is most commonly used[4], though other parts such as the galls, seeds and seed cups are also sometimes used[7]. A decoction of the bark is useful in the treatment of chronic diarrhoea, dysentery, intermittent fevers, haemorrhages etc[4]. Externally, it is used to bathe wounds, skin eruptions, sweaty feet, piles etc[9]. It is also used as a vaginal douche for genital inflammations and discharge, and also as a wash for throat and mouth infections[9]. The bark is harvested from branches 5 - 12 years old, and is dried for later use[9].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Despondency', 'Despair, but never ceasing effort'[209].

A homeopathic remedy is made from the bark. It is used in the treatment of disorders of the spleen and gall bladder[9].

Other Uses

Basketry; Charcoal; Compost; Fuel; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20, 201].

The bark is an ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. The bark is very rich in calcium[18].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A black dye and an excellent long-lasting ink is made from the oak galls, mixed with salts of iron[4, 7, 66]. The colour is not very durable[4]. When mixed with alum, the dye is brown and with salts of tin it is yellow[4].

Trees can be coppiced to provide material for basket making, fuel, construction etc[23].

The wood is a source of tar, quaiacol, acetic acid, creosote and tannin[123].

Tannin is extracted commercially from the bark and is also found in the leaves[223]. On a 10% moisture basis, the bark contains11.6% tannin and the wood 9.2%[223]. The bark strips easily from the wood in April and May[4].

A purplish dye is obtained from an infusion of the bark with a small quantity of copperas[4]. It is not bright, but is said to be durable[4].

Wood - hard, tough, durable even under water - highly valued for furniture, construction etc[4, 13, 61, 66]. It is also a good fuel[6] and charcoal[61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Succeeds in heavy clay soils[13] and in wet soils so long as the ground is not water-logged for long periods[186]. Dislikes dry or shallow soils but is otherwise drought tolerant once it is established[186]. Tolerant of exposed sites though it dislikes salt-laden winds[186].

The oak is a very important timber tree in Britain, it is also a very important food plant for the caterpillars of many species of butterfly[30], there are 284 insect species associated with this tree[24]. It has often been coppiced or pollarded for its wood in the past[23], though this should not be done too frequently[186], about once every 50 years is the average.

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Older trees have a thick corky bark and this can protect them from forest fires, young trees will often regenerate from the base if cut down or killed back by a fire[186].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Immune to attacks by the tortix moth[1]. This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus robur* (Oak)
Item: *Quercus robur fastigiata* (Upright Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Quercus pedunculata* (a possible synonym).

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- [HP] PhotoFrom Henriette's plant pictures

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
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Lukasz Luczaj Tue Oct 23 21:24:12 2001

I found a simple way of removing bitter taste from acorns: cut acorns into a few mm cubes and cook them for ca. 1 hour with a few spoonfuls of deciduous tree ash. Then rinse carefully. It works!

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+robur`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+robur`

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Plants For A Future: Database Search Results

Quercus robur

Common name:	Pedunculate oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Quercus pedunculata (Ehrh.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Often the dominant woodland tree, especially on clay soils and in the eastern half of Britain, but avoiding acid peat and shallow limestone soils[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. robur f. atropurpurea[G] Q. robur f. fastigiata[G] Q. robur f. pectinata[G] Q. robur f. pendula[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cervalho [E], Chene [E], Common Oak [H,L], Encina [E], English Oak [DEN2,E,P,B], Mese [E], Oak [E], Pedunculate Oak [H], Rovere [E], Zomereik [D],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Britain; Chile; Europe; France; Germany; Portugal; Turkey; Ussr
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 30m at a slow rate. It is hardy to zone 4. It is in flower from April to May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Woodland, Canopy.

Edible Uses

Coffee; Gum; Seed.

Seed - cooked[2, 5, 8, 13]. Nourishing but indigestible[4]. Chopped and roasted, the seed is used as an almond substitute[8]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread[183]. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[63]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[21, 61].

An edible gum is obtained from the bark[177]. Another report says that an edible manna is obtained from the plant and that it is used instead of butter in cooking[183]. This report probably refers to the gum[K].

Medicinal Uses

Disclaimer

Antiseptic; Astringent; Bach; Decongestant; Haemostatic; Tonic.

The oak tree has a long history of medicinal use. It is anti-inflammatory, antiseptic, astringent, decongestant, haemostatic and tonic[4, 7, 9, 13, 21, 165]. The bark is the part of the plant that is most commonly used[4], though other parts such as the galls, seeds and seed cups are also sometimes used[7]. A decoction of the bark is useful in the treatment of chronic diarrhoea, dysentery, intermittent fevers, haemorrhages etc[4]. Externally, it is used to bathe wounds, skin eruptions, sweaty feet, piles etc[9]. It is also used as a vaginal douche for genital inflammations and discharge, and also as a wash for throat and mouth infections[9]. The bark is harvested from branches 5 - 12 years old, and is dried for later use[9].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Despondency', 'Despair, but never ceasing effort'[209].

A homeopathic remedy is made from the bark. It is used in the treatment of disorders of the spleen and gall bladder[9].

Other Uses

Basketry; Charcoal; Compost; Fuel; Ink; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20, 201].

The bark is an ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. The bark is very rich in calcium[18].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4]. A black dye and an excellent long-lasting ink is made from the oak galls, mixed with salts of iron[4, 7, 66]. The colour is not very durable[4]. When mixed with alum, the dye is brown and with salts of tin it is yellow[4].

Trees can be coppiced to provide material for basket making, fuel, construction etc[23].

The wood is a source of tar, quaiacol, acetic acid, creosote and tannin[123].

Tannin is extracted commercially from the bark and is also found in the leaves[223]. On a 10% moisture basis, the bark contains11.6% tannin and the wood 9.2%[223]. The bark strips easily from the wood in April and May[4].

A purplish dye is obtained from an infusion of the bark with a small quantity of copperas[4]. It is not bright, but is said to be durable[4].

Wood - hard, tough, durable even under water - highly valued for furniture, construction etc[4, 13, 61, 66]. It is also a good fuel[6] and charcoal[61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Young plants tolerate reasonable levels of side shade[200]. Succeeds in heavy clay soils[13] and in wet soils so long as the ground is not water-logged for long periods[186]. Dislikes dry or shallow soils but is otherwise drought tolerant once it is established[186]. Tolerant of exposed sites though it dislikes salt-laden winds[186].

The oak is a very important timber tree in Britain, it is also a very important food plant for the caterpillars of many species of butterfly[30], there are 284 insect species associated with this tree[24]. It has often been coppiced or pollarded for its wood in the past[23], though this should not be done too frequently[186], about once every 50 years is the average.

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Older trees have a thick corky bark and this can protect them from forest fires, young trees will often regenerate from the base if cut down or killed back by a fire[186].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Immune to attacks by the tortix moth[1]. This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Quercus robur* (Oak)
Item: *Quercus robur fastigiata* (Upright Oak)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Quercus robur*

Subject:

Quercus robur

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus robur

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:03:31 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus rubra

Common name:	Red oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Quercus borealis (F.Michx.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Georgia, west to Oklahoma and Minnesota.		
Habitat:	Dry or upland woods[43]. Found in a variety of soils, it grows best in those that are deep and fine textured, and the largest trees are found in protected ravines or on sheltered slopes[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. borealis var. maxima[G] Q. rubra var. ambigua[B,P] Q. rubra var. borealis[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amerikaanse Eik [D], Northern Red Oak [FEIS,P,B,L,DEN1], Oak,Red [E],
Epithets:	From a Dictionary of Botanical Epithets
	rubra = red;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database

	Us(Nc); Us(Potawatomi)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m by 18m at a fast rate. It is hardy to zone 3. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[161, 177, 257]. A staple food for several native North American Indian tribes[257]. Up to 3cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[183]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiseptic; Antiviral; Astringent; Cancer; Emetic; Febrifuge; Salve; Tonic.

The bark and inner bark is antiseptic, astringent, emetic, febrifuge and tonic[257]. It is used in the treatment of diarrhoea, chronic dysentery, indigestion, asthma, severe coughs, hoarseness, intermittent fevers, bleeding etc[222, 257]. Externally, it is used as a wash for skin eruptions, rashes, burns etc[222, 257]. The bark can be chewed as a treatment for mouth sores[257].

The bark contains tannins, experimentally these have been shown to be antiviral, antiseptic, anticancer and also carcinogenic[222].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Tannin is obtained from the bark[82, 171]. A reddish-brown dye can be obtained from the bark[257].

Wood - coarse-grained, hard, strong, heavy, not durable[46, 82, 171, 226]. It weighs 41lb per cubic foot[235]. An important lumber source in America, it is highly valued for flooring, furniture, veneer, construction etc[46, 82, 171, 226].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers a hotter summer than is usually experienced in Britain[200], but trees still grow well in Britain[11, 200]. A fairly fast-growing tree[188], it is cultivated for its timber in C. Europe. Trees normally require 20 - 25 years to reach flowering size, and may take another 20 years before heavy crops of seed are produced[229]. Seed production is cyclic, heavy crops being produced every 2 - 5 years in the wild[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Trees are able to regenerate from root suckers if the top is killed by a forest fire[226].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology

Deptarments' Tree Fact Sheets.

- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Quercus rubra var. ambigua* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN

3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean

that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Quercus rubra

osman aktepe (bossmanaktepe@hotmail.com) Sun Jul 27 16:20:13 2003

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+rubra`
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Plants For A Future: Database Search Results

Quercus rubra

Common name:	Red oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Quercus borealis (F.Michx.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Georgia, west to Oklahoma and Minnesota.		
Habitat:	Dry or upland woods[43]. Found in a variety of soils, it grows best in those that are deep and fine textured, and the largest trees are found in protected ravines or on sheltered slopes[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. borealis var. maxima[G] Q. rubra var. ambigua[B,P] Q. rubra var. borealis[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amerikaanse Eik [D], Northern Red Oak [FEIS,P,B,L,DEN1], Oak,Red [E],
Epithets:	From a Dictionary of Botanical Epithets
	rubra = red;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us(Nc); Us(Potawatomi)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m by 18m at a fast rate. It is hardy to zone 3. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[161, 177, 257]. A staple food for several native North American Indian tribes[257]. Up to 3cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[183]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiseptic; Antiviral; Astringent; Cancer; Emetic; Febrifuge; Salve; Tonic.

The bark and inner bark is antiseptic, astringent, emetic, febrifuge and tonic[257]. It is used in the treatment of diarrhoea, chronic dysentery, indigestion, asthma, severe coughs, hoarseness, intermittent fevers, bleeding etc[222, 257]. Externally, it is used as a wash for skin eruptions, rashes, burns etc[222, 257]. The bark can be chewed as a treatment for mouth sores[257].

The bark contains tannins, experimentally these have been shown to be antiviral, antiseptic, anticancer and also carcinogenic[222].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Tannin is obtained from the bark[82, 171]. A reddish-brown dye can be obtained from the bark[257].

Wood - coarse-grained, hard, strong, heavy, not durable[46, 82, 171, 226]. It weighs 41lb per cubic foot[235]. An important lumber source in America, it is highly valued for flooring, furniture, veneer, construction etc[46, 82, 171, 226].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers a hotter summer than is usually experienced in Britain[200], but trees still grow well in Britain[11, 200]. A fairly fast-growing tree[188], it is cultivated for its timber in C. Europe. Trees normally require 20 - 25 years to reach flowering size, and may take another 20 years before heavy crops of seed are produced[229]. Seed production is cyclic, heavy crops being produced every 2 - 5 years in the wild[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Trees are able to regenerate from root suckers if the top is killed by a forest fire[226].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Quercus rubra var. ambigua* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Quercus rubra

osman aktepe (bossmanaktepe@hotmail.com) Sun Jul 27 16:20:13 2003

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Plants For A Future: Database Search Results

Quercus rubra

Common name:	Red oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Quercus borealis (F.Michx.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia to Georgia, west to Oklahoma and Minnesota.		
Habitat:	Dry or upland woods[43]. Found in a variety of soils, it grows best in those that are deep and fine textured, and the largest trees are found in protected ravines or on sheltered slopes[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. borealis var. maxima[G] Q. rubra var. ambigua[B,P] Q. rubra var. borealis[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amerikaanse Eik [D], Northern Red Oak [FEIS,P,B,L,DEN1], Oak,Red [E],
Epithets:	From a Dictionary of Botanical Epithets
	rubra = red;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us(Nc); Us(Potawatomi)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 25m by 18m at a fast rate. It is hardy to zone 3. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[161, 177, 257]. A staple food for several native North American Indian tribes[257]. Up to 3cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[183]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiseptic; Antiviral; Astringent; Cancer; Emetic; Febrifuge; Salve; Tonic.

The bark and inner bark is antiseptic, astringent, emetic, febrifuge and tonic[257]. It is used in the treatment of diarrhoea, chronic dysentery, indigestion, asthma, severe coughs, hoarseness, intermittent fevers, bleeding etc[222, 257]. Externally, it is used as a wash for skin eruptions, rashes, burns etc[222, 257]. The bark can be chewed as a treatment for mouth sores[257].

The bark contains tannins, experimentally these have been shown to be antiviral, antiseptic, anticancer and also carcinogenic[222].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Tannin is obtained from the bark[82, 171]. A reddish-brown dye can be obtained from the bark[257].

Wood - coarse-grained, hard, strong, heavy, not durable[46, 82, 171, 226]. It weighs 41lb per cubic foot[235]. An important lumber source in America, it is highly valued for flooring, furniture, veneer, construction etc[46, 82, 171, 226].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers a hotter summer than is usually experienced in Britain[200], but trees still grow well in Britain[11, 200]. A fairly fast-growing tree[188], it is cultivated for its timber in C. Europe. Trees normally require 20 - 25 years to reach flowering size, and may take another 20 years before heavy crops of seed are produced[229]. Seed production is cyclic, heavy crops being produced every 2 - 5 years in the wild[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Trees are able to regenerate from root suckers if the top is killed by a forest fire[226].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus rubra*

Subject:

Quercus rubra

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus rubra

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus semecarpifolia

Common name:		Family:	Fagaceae
Author:	Sm.	Botanical references:	11, 200, 266
Synonyms:	Quercus aquifolioides (Rehder.&E.H.Wilson.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Often the dominant species on north-facing slopes in the Himalayas, from 2400 - 3600 metres[11, 146]. In China it grows right up to the tree-line, where it becomes a thicket-forming shrub[11].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 30m. It is hardy to zone 8 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The

plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. Up to 3cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

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Wood - very hard, close grained, splits in seasoning. An excellent fuel, it also yields a good charcoal[146, 158].

Cultivation details

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This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

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Trees respond well to coppicing[146, 158].

The seed ripens in its second year[200].

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Plants in this genus are notably resistant to honey fungus[200].

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Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

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f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus semecarpifolia

Common name:		Family:	Fagaceae
Author:	Sm.	Botanical references:	11, 200, 266
Synonyms:	Quercus aquifolioides (Rehder.&E.H.Wilson.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Often the dominant species on north-facing slopes in the Himalayas, from 2400 - 3600 metres[11, 146]. In China it grows right up to the tree-line, where it becomes a thicket-forming shrub[11].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 30m. It is hardy to zone 8 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. Up to 3cm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Charcoal; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Often the dominant species on north-facing slopes in the Himalayas, from 2400 - 3600 metres[11, 146]. In China it grows right up to the tree-line, where it becomes a thicket-forming shrub[11].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus semecarpifolia*

Subject:

Quercus semecarpifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus semecarpifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:03:55 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus serrata

Common name:		Family:	Fagaceae
Author:	Murray.	Botanical references:	11, 200, 266
Synonyms:	Quercus glandulifera (Blume.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea, Himalayas.		
Habitat:	Deciduous forests below 100 - 2000 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. glandulifera[G] Q. glandulifera var. brevipetiolata[G] Q. urticifolia var. brevipetiolata[G]
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Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves; Seed.

Seed - cooked. Highly nutritious[179]. The seed is about15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[179]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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The roasted seed is a coffee substitute.

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Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

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A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

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Wood - very hard, strong, red-brown in colour. Used for farm implements etc[61, 146].

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Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

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Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus serrata

Common name:		Family:	Fagaceae
Author:	Murray.	Botanical references:	11, 200, 266
Synonyms:	Quercus glandulifera (Blume.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea, Himalayas.		
Habitat:	Deciduous forests below 100 - 2000 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Woodland, Canopy.

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Coffee; Leaves; Seed.

Seed - cooked. Highly nutritious[179]. The seed is about15mm long[200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[179]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus serrata*

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Quercus serrata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus serrata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus shumardii

Common name:	Shumard oak	Family:	Fagaceae
Author:	Buckley.	Botanical references:	11, 82, 200
Synonyms:	Quercus texana (Sarg. non Buckl.), Quercus schneckii (Britton.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Michigan to Florida and west to Texas.		
Habitat:	Borders of streams and swamps in rich moist soils[82]. Usually found in clay soils[227].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. buckleyi[B,P] Q. nuttallii[B,G,P] Q. nuttallii var. cachensis[B,P] Q. rubra var. texana[B,P] Q. shumardii var. microcarpa[B,P] Q. shumardii var. schneckii[B,P] Q. shumardii var. texana[B,P] Q. texana auct. non[P]
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	Buckley's Oak [B,P], Nuttall Oak [P,DEN2], Schneck's Oak [P], Shumard Oak [L,DEN1,FEIS], Shumard's Oak [B,P], Texas Red Oak [B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. Up to 25mm long and wide[227], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

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Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, close grained[82, 149, 227]. It weighs 57lb per cubic foot[227]. A very valuable timber, it is used for lumber, flooring, furniture, veneers, cabinet making etc[82, 149, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A moderately fast-growing tree in the wild, it commences bearing seeds when about 25 years old[229]. Seed production is cyclic, a year of high yields being followed by 1 - 3 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Closely related to Q. rubra and Q. coccinea[11].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants

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References for the family Fagaceae.

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References

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

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b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted?

or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the

details here.

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URL for Site: http://

Details:

Enter your details here:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus shumardii

Common name:	Shumard oak	Family:	Fagaceae
Author:	Buckley.	Botanical references:	11, 82, 200
Synonyms:	Quercus texana (Sarg. non Buckl.), Quercus schneckii (Britton.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Michigan to Florida and west to Texas.		
Habitat:	Borders of streams and swamps in rich moist soils[82]. Usually found in clay soils[227].		
Plants For A Future Rating (1-5):	2		

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Physical Characteristics

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Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. Up to 25mm long and wide[227], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

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Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+shumardii`
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Plants For A Future: Database Search Results

Quercus shumardii

Common name:	Shumard oak	Family:	Fagaceae
Author:	Buckley.	Botanical references:	11, 82, 200
Synonyms:	Quercus texana (Sarg. non Buckl.), Quercus schneckii (Britton.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Michigan to Florida and west to Texas.		
Habitat:	Borders of streams and swamps in rich moist soils[82]. Usually found in clay soils[227].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. buckleyi[B,P] Q. nuttallii[B,G,P] Q. nuttallii var. cachensis[B,P] Q. rubra var. texana[B,P] Q. shumardii var. microcarpa[B,P] Q. shumardii var. schneckii[B,P] Q. shumardii var. texana[B,P] Q. texana auct. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Buckley's Oak [B,P], Nuttall Oak [P,DEN2], Schneck's Oak [P], Shumard Oak [L,DEN1,FEIS], Shumard's Oak [B,P], Texas Red Oak [B],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m at a medium rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked. Up to 25mm long and wide[227], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - heavy, hard, strong, close grained[82, 149, 227]. It weighs 57lb per cubic foot[227]. A very valuable timber, it is used for lumber, flooring, furniture, veneers, cabinet making etc[82, 149, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A moderately fast-growing tree in the wild, it commences bearing seeds when about 25 years old[229]. Seed production is cyclic, a year of high yields being followed by 1 - 3 years of low yields[229]. The tree flowers on new growth produced in spring, the seed taking two summers to ripen[229].

Closely related to Q. rubra and Q. coccinea[11].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants

produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus shumardii*

Subject:

Quercus shumardii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus shumardii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:04:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus stellata

Common name:	Post oak	Family:	Fagaceae
Author:	Wangenh.	Botanical references:	11, 43, 200
Synonyms:	Quercus obtusiloba (Michx.), Quercus minor ((Marshall.)Sarg.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Massachusetts to New York, Iowa, Florida and Texas.		
Habitat:	Rocky or sandy ridges and outcrops, also in dry woodlands in a variety of soils including gravelly, sandy, poor upland soils and heavy moist loamy soils, where it reaches its greatest height[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. stellata var. attenuata[B,P] Q. stellata var. parviloba[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Post Oak [DEN1,E,L,B,FEIS,P],
Epithets:	From a Dictionary of Botanical Epithets
	stellata = starry;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database

	Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[61, 63, 105]. A sweet taste[159]. The seed is up to 25mm long and 18mm wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees might contain bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[177, 257].

Medicinal Uses

Disclaimer

Antiaphonic; Astringent; Disinfectant; Emetic; Febrifuge; Tonic.

The bark is astringent, disinfectant, emetic, febrifuge and tonic[257]. An infusion is used in the treatment of chronic dysentery, indigestion, asthma, lost voice and intermittent fevers[257]. The bark can be chewed to treat mouth sores[257]. An infusion of the bark can be used as a wash on sore and chapped skin[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very heavy, hard, close grained, very durable in contact with the soil but difficult to cure. It weighs about 52lb per cubic foot. It is largely used for fencing, lumber, furniture and fuel[46, 61, 82, 149, 159, 171, 227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing drought resistant tree, it takes 20 - 30 years before it produces seed[229]. It then usually produces a good crop of seeds every 2 - 4 years[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the

acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Quercus stellata

Common name:	Post oak	Family:	Fagaceae
Author:	Wangenh.	Botanical references:	11, 43, 200
Synonyms:	Quercus obtusiloba (Michx.), Quercus minor ((Marshall.)Sarg.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Massachusetts to New York, Iowa, Florida and Texas.		
Habitat:	Rocky or sandy ridges and outcrops, also in dry woodlands in a variety of soils including gravelly, sandy, poor upland soils and heavy moist loamy soils, where it reaches its greatest height[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. stellata var. attenuata[B,P] Q. stellata var. parviloba[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	stellata = starry;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[61, 63, 105]. A sweet taste[159]. The seed is up to 25mm long and 18mm wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees might contain bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[177, 257].

Medicinal Uses

Disclaimer

Antiaphonic; Astringent; Disinfectant; Emetic; Febrifuge; Tonic.

The bark is astringent, disinfectant, emetic, febrifuge and tonic[257]. An infusion is used in the treatment of chronic dysentery, indigestion, asthma, lost voice and intermittent fevers[257]. The bark can be chewed to treat mouth sores[257]. An infusion of the bark can be used as a wash on sore and chapped skin[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very heavy, hard, close grained, very durable in contact with the soil but difficult to cure. It weighs about 52lb per cubic foot. It is largely used for fencing, lumber, furniture and fuel[46, 61, 82, 149, 159, 171, 227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing drought resistant tree, it takes 20 - 30 years before it produces seed[229]. It then usually produces a good crop of seeds every 2 - 4 years[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as

possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[63] **Howes. F. N.** *Nuts.* Faber 1948
Rather old but still a masterpiece. Has sections on tropical and temperate plants with edible nuts plus a section on nut plants in Britain. Very readable.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants

it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+stellata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+stellata`

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Plants For A Future: Database Search Results

Quercus stellata

Common name:	Post oak	Family:	Fagaceae
Author:	Wangenh.	Botanical references:	11, 43, 200
Synonyms:	Quercus obtusiloba (Michx.), Quercus minor ((Marshall.)Sarg.)		
Known Hazards:	None known		
Range:	South-eastern N. America - Massachusetts to New York, Iowa, Florida and Texas.		
Habitat:	Rocky or sandy ridges and outcrops, also in dry woodlands in a variety of soils including gravelly, sandy, poor upland soils and heavy moist loamy soils, where it reaches its greatest height[229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. stellata var. attenuata[B,P] Q. stellata var. parviloba[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Post Oak [DEN1,E,L,B,FEIS,P],
Epithets:	From a Dictionary of Botanical Epithets
	stellata = starry;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 20m at a slow rate. It is hardy to zone 5 and is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[61, 63, 105]. A sweet taste[159]. The seed is up to 25mm long and 18mm wide[82, 200], it can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed from some trees might contain bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[177, 257].

Medicinal Uses

Disclaimer

Antiaphonic; Astringent; Disinfectant; Emetic; Febrifuge; Tonic.

The bark is astringent, disinfectant, emetic, febrifuge and tonic[257]. An infusion is used in the treatment of chronic dysentery, indigestion, asthma, lost voice and intermittent fevers[257]. The bark can be chewed to treat mouth sores[257]. An infusion of the bark can be used as a wash on sore and chapped skin[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - very heavy, hard, close grained, very durable in contact with the soil but difficult to cure. It weighs about 52lb per cubic foot. It is largely used for fencing, lumber, furniture and fuel[46, 61, 82, 149, 159, 171, 227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A slow-growing drought resistant tree, it takes 20 - 30 years before it produces seed[229]. It then usually produces a good crop of seeds every 2 - 4 years[229]. The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as

possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus stellata*

Subject:

Quercus stellata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus stellata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:04:34 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus suber

Common name:	Cork oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe to N. Africa.		
Habitat:	Siliceous hills on the littoral[89].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cork Oak [P,DEN2],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 20m by 15m at a slow rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic

(alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105]. A famine food[177]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Cork; Repellent; Shelterbelt; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A fairly wind-tolerant tree, it can be used in shelterbelt plantings[200].

Bark is the source of cork, it is much used for heat and sound insulation, flooring, floats etc. Trees are first harvested when they are 25 - 30 years old[74], and then harvested every 6 - 12 years[117]. The bark must be removed carefully so as not to harm the tree. A large tree can yield up to 1 tonne of cork.

On a 10% moisture basis, the bark contains 16.9% tannin[223].

Wood.

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Cultivated for its bark in Europe, it is the main source of cork[50, 89]. Trees are first harvested when they are 25 - 30 years old and are then harvested on a 10 - 12 year rotation.

Only hardy in the milder areas of Britain[200], it is not very frost resistant[98]. Trees grow well in Cornwall where there are many large specimens[11, 49, 59]. Trees grow quite well at Kew[K].

Transplants badly unless it is moved regularly, it should only be moved in September or as growth commences in late spring[11].

Does not fruit well in Britain.

Most of the trees grown in Britain as Q. suber are in fact Q. suber occidentalis[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Trees and Shrubs for Shelterbelts: Q-U
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9

Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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0-333-47494-5
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A fairly detailed treatise on the major sources of vegetable tannins.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

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Plants For A Future: Database Search Results

Quercus suber

Common name:	Cork oak	Family:	Fagaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe to N. Africa.		
Habitat:	Siliceous hills on the littoral[89].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cork Oak [P,DEN2],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 20m by 15m at a slow rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105]. A famine food[177]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Cork; Repellent; Shelterbelt; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

A fairly wind-tolerant tree, it can be used in shelterbelt plantings[200].

Bark is the source of cork, it is much used for heat and sound insulation, flooring, floats etc. Trees are first harvested when they are 25 - 30 years old[74], and then harvested every 6 - 12 years[117]. The bark must be removed carefully so as not to harm the tree. A large tree can yield up to 1 tonne of cork.

On a 10% moisture basis, the bark contains 16.9% tannin[223].

Wood.

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Cultivated for its bark in Europe, it is the main source of cork[50, 89]. Trees are first harvested when they are 25 - 30 years old and are then harvested on a 10 - 12 year rotation.

Only hardy in the milder areas of Britain[200], it is not very frost resistant[98]. Trees grow well in Cornwall where there are many large specimens[11, 49, 59]. Trees grow quite well at Kew[K].

Transplants badly unless it is moved regularly, it should only be moved in September or as growth commences in late spring[11].

Does not fruit well in Britain.

Most of the trees grown in Britain as Q. suber are in fact Q. suber occidentalis[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Trees and Shrubs for Shelterbelts: Q-U
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9

Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
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Plants For A Future: Database Search Results

Quercus suber

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Add a comment on: *Quercus suber*

Subject:

Quercus suber

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus suber

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus suber occidentalis

Common name:	Cork oak	Family:	Fagaceae
Author:	(Gay.) Arcangeli.	Botanical references:	11, 50, 200
Synonyms:	Quercus occidentalis (Gay.)		
Known Hazards:	None known		
Range:	S. Europe to N. Africa.		
Habitat:	Siliceous hills on the littoral[89].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105]. A famine food[177]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

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Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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Only hardy in the milder areas of Britain[200], it is not very frost resistant[98]. This sub-species is somewhat hardier than the type[11]. Trees grow well in Cornwall where there are many large specimens[11, 49, 59]. There is at least one large healthy specimen of this tree at Kew, it produced some seeds in the hot summer of 1989[K].

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Most of the trees grown in Britain as Q. suber are in fact this sub-species[11].

Hybridizes freely with other members of the genus[200].

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Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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References

[K] **Ken Fern**
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the

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Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

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Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Quercus suber occidentalis

Common name:	Cork oak	Family:	Fagaceae
Author:	(Gay.) Arcangeli.	Botanical references:	11, 50, 200
Synonyms:	Quercus occidentalis (Gay.)		
Known Hazards:	None known		
Range:	S. Europe to N. Africa.		
Habitat:	Siliceous hills on the littoral[89].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	occidentalis = of the west;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

An evergreen tree growing to 18m by 13m at a slow rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

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Most of the trees grown in Britain as Q. suber are in fact this sub-species[11].

Hybridizes freely with other members of the genus[200].

This species is notably resistant to honey fungus[88, 200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus suber occidentalis*

Subject:

Quercus suber occidentalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus suber occidentalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:04:57 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus undulata

Common name:	Wavyleaf oak	Family:	Fagaceae
Author:	Torr.	Botanical references:	200, 228
Synonyms:	Quercus x pauciloba (Rydb.)		
Known Hazards:	None known		
Range:	South-western N. America - Colorado to Texas, south to Mexico.		
Habitat:	Sandstone soils and dry rocky slopes[228].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. fendleri[B,P] Q. venustula[B,P] Q. x andrewsii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	undulata = wavy edged;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[61, 105, 161, 257]. Up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[257].

Medicinal Uses

Disclaimer

Analgesic; Astringent.

A decoction of the root bark has been used to treat internal pains[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Tannin is obtained from the bark[46, 61].

Wood. Used mainly as a fuel[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Quercus x pauciloba* (a possible synonym).

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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A useful source of habitats.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Details:	

Enter your details here:

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Plants For A Future: Database Search Results

Quercus undulata

Common name:	Wavyleaf oak	Family:	Fagaceae
Author:	Torr.	Botanical references:	200, 228
Synonyms:	Quercus x pauciloba (Rydb.)		
Known Hazards:	None known		
Range:	South-western N. America - Colorado to Texas, south to Mexico.		
Habitat:	Sandstone soils and dry rocky slopes[228].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[61, 105, 161, 257]. Up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[257].

Medicinal Uses

Disclaimer

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Tannin is obtained from the bark[46, 61].

Wood. Used mainly as a fuel[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

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Propagation

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+undulata`
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Plants For A Future: Database Search Results

Quercus undulata

Common name:	Wavyleaf oak	Family:	Fagaceae
Author:	Torr.	Botanical references:	200, 228
Synonyms:	Quercus x pauciloba (Rydb.)		
Known Hazards:	None known		
Range:	South-western N. America - Colorado to Texas, south to Mexico.		
Habitat:	Sandstone soils and dry rocky slopes[228].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. fendleri[B,P] Q. venustula[B,P] Q. x andrewsii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Wavyleaf Oak [P],
Epithets:	From a Dictionary of Botanical Epithets
	undulata = wavy edged;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 5 and is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[61, 105, 161, 257]. Up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute[257].

Medicinal Uses

Disclaimer

Analgesic; Astringent.

A decoction of the root bark has been used to treat internal pains[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls,

obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Tannin is obtained from the bark[46, 61].

Wood. Used mainly as a fuel[46, 61].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

The seed ripens in its first year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus undulata*

Subject:

Quercus undulata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus undulata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:05:09 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus variabilis

Common name:	Chinese cork oak	Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:	Quercus chinensis (Bunge.), Quercus bungeana (Forbes.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Mixed woods, occasionally in pure stands, 800 - 1600 metres in W. China[109]. Evergreen and deciduous forests below 3000 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Castanopsis sclerophylla[G,HORTIPLEX] Q. moulei[G] Q. sclerophylla[G]
Epithets:	From a Dictionary of Botanical Epithets
	variabilis = variable; varia = variegated;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 4 and is frost tender. It is in flower from March to April, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. Very nutritious, but it needs to be leached[179]. The seed is up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Cork; Dye; Repellent; Roofing; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a source of cork[11, 123]. A 10 metre tall tree at Kew has less than 4cm thickness of cork on it[K].

A black dye is obtained from the seed cupules[61, 109].

The bark is used for roofing[109].

Wood. Used for boat making and construction[109].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A very ornamental tree[1].

Closely related to Q. acutissima[1].

Trees respond well to coppicing[109].

The seed ripens in its second year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Castanopsis sclerophylla* (a possible synonym).

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References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Not so modern (1930's?) but lots of information, mainly temperate plants.

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A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[123] **?** *Encyclopaedia Britannica. 15th edition.*
It contains a few things of interest to the plant project.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:	Quercus chinensis (Bunge.), Quercus bungeana (Forbes.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Mixed woods, occasionally in pure stands, 800 - 1600 metres in W. China[109]. Evergreen and deciduous forests below 3000 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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	Order: Fagales . Beech family
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Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 4 and is frost tender. It is in flower from March to April, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. Very nutritious, but it needs to be leached[179]. The seed is up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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Cork; Dye; Repellent; Roofing; Tannin; Wood.

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Wood. Used for boat making and construction[109].

Cultivation details

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Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A very ornamental tree[1].

Closely related to Q. acutissima[1].

Trees respond well to coppicing[109].

The seed ripens in its second year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[123] **?** *Encyclopaedia Britannica. 15th edition.*
It contains a few things of interest to the plant project.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that

some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* Quercus macrocarpa. *Genera:* Quercus.

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Plants For A Future: Database Search Results

Quercus variabilis

Common name:	Chinese cork oak	Family:	Fagaceae
Author:	Bl.	Botanical references:	11, 58, 200
Synonyms:	Quercus chinensis (Bunge.), Quercus bungeana (Forbes.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Mixed woods, occasionally in pure stands, 800 - 1600 metres in W. China[109]. Evergreen and deciduous forests below 3000 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Castanopsis sclerophylla[G,HORTIPLEX] Q. moulei[G] Q. sclerophylla[G]
Epithets:	From a Dictionary of Botanical Epithets
	variabilis = variable; varia = variegated;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m. It is hardy to zone 4 and is frost tender. It is in flower from March to April, and the seeds ripen from October to November. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 177]. Very nutritious, but it needs to be leached[179]. The seed is up to 2cm long[200]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Cork; Dye; Repellent; Roofing; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a source of cork[11, 123]. A 10 metre tall tree at Kew has less than 4cm thickness of cork on it[K].

A black dye is obtained from the seed cupules[61, 109].

The bark is used for roofing[109].

Wood. Used for boat making and construction[109].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200].

A very ornamental tree[1].

Closely related to Q. acutissima[1].

Trees respond well to coppicing[109].

The seed ripens in its second year[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus variabilis*

Subject:

Quercus variabilis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus variabilis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:05:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus velutina

Common name:	Black oak	Family:	Fagaceae
Author:	Lam.	Botanical references:	11, 43, 200
Synonyms:	Quercus tinctoria (Michx.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Ontario, Minnesota, Florida and Texas.		
Habitat:	Dry woods[43]. Often found on poor dry sandy, heavy clay soils or on gravelly uplands and ridges[82, 227].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Q. velutina var. missouriensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Black Oak [DEN1,FEIS,L,P,B], Oak,Black [E], Quercitron Bark [H], Staining Oak [E],
Systematics:	From a UDSA Plants Database Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database Us; Us(Amerindian); Us(Ks)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 25m at a medium rate. It is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 159, 161, 257]. The seed is up to 25mm long and wide[227]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiaphonic; Astringent; Disinfectant; Emetic; Febrifuge; Ophthalmic; Salve; Tonic.

The inner bark contains quercitannic acid and is used medicinally, mainly as a mild astringent[227]. It is inferior to the bark of white oaks because it contains large amounts of tannin[227].

The bark is astringent, disinfectant, emetic, febrifuge and tonic[257]. It is used in the treatment of chronic dysentery, intermittent fevers, indigestion, asthma and lost voice[257]. An infusion has been used as a gargle for sore throats, hoarseness colds etc[257]. The bark can be chewed as a treatment for mouth sores[257]. An infusion of the bark has been used as a wash for sore and chapped skin[257]. A decoction of the crushed bark has been used as a wash for sore eyes[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a source of tannin[46, 82, 171].

A yellow dye is obtained from this tree[229]. The bark is a rich source[11, 46, 82, 171] whilst the seed can also be used[1]. The dye is reddish-yellow according to one report and does not need a mordant[257].

Wood - heavy, hard, strong, coarse grained. It weighs 43lb per cubic foot[227]. Of little value except as a fuel[82, 171]. Commercially important according to another report[229]. The wood is used for rough lumber, cross-ties etc[227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200]. A fairly fast-growing tree[188]. Rather slow-growing according to another report which also says that trees rarely live longer than 200 years[227].

Trees commence bearing seeds when 15 - 20 years old. Production is cyclic with a year of high yields being followed by 1 - 2 years of low yields[229]. The seed takes 2 summers to ripen[226].

There are several named varieties selected for their ornamental value[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. Established trees often produce lots of suckers[226].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's

Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Quercus tinctoria* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each

species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+velutina`
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Plants For A Future: Database Search Results

Quercus velutina

Common name:	Black oak	Family:	Fagaceae
Author:	Lam.	Botanical references:	11, 43, 200
Synonyms:	Quercus tinctoria (Michx.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Ontario, Minnesota, Florida and Texas.		
Habitat:	Dry woods[43]. Often found on poor dry sandy, heavy clay soils or on gravelly uplands and ridges[82, 227].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. velutina var. missouriensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Oak [DEN1,FEIS,L,P,B], Oak,Black [E], Quercitron Bark [H], Staining Oak [E],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Ks)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 25m at a medium rate. It is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 159, 161, 257]. The seed is up to 25mm long and wide[227]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiaphonic; Astringent; Disinfectant; Emetic; Febrifuge; Ophthalmic; Salve; Tonic.

The inner bark contains quercitannic acid and is used medicinally, mainly as a mild astringent[227]. It is inferior to the bark of white oaks because it contains large amounts of tannin[227].

The bark is astringent, disinfectant, emetic, febrifuge and tonic[257]. It is used in the treatment of chronic dysentery, intermittent fevers, indigestion, asthma and lost voice[257]. An infusion has been used as a gargle for sore throats, hoarseness colds etc[257]. The bark can be chewed as a treatment for mouth sores[257]. An infusion of the bark has been used as a wash for sore and chapped skin[257]. A decoction of the crushed bark has been used as a wash for sore eyes[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a source of tannin[46, 82, 171].

A yellow dye is obtained from this tree[229]. The bark is a rich source[11, 46, 82, 171] whilst the seed can also be used[1]. The dye is reddish-yellow according to one report and does not need a mordant[257].

Wood - heavy, hard, strong, coarse grained. It weighs 43lb per cubic foot[227]. Of little value except as a fuel[82, 171]. Commercially important according to another report[229]. The wood is used for rough lumber, cross-ties etc[227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200]. A fairly fast-growing tree[188]. Rather slow-growing according to another report which also says that trees rarely live longer than 200 years[227].

Trees commence bearing seeds when 15 - 20 years old. Production is cyclic with a year of high yields being followed by 1 - 2 years of low yields[229]. The seed takes 2 summers to ripen[226].

There are several named varieties selected for their ornamental value[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. Established trees often produce lots of suckers[226].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Quercus tinctoria* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4

A nice pocket guide to this region of America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants For A Future: Database Search Results

Quercus velutina

Common name:	Black oak	Family:	Fagaceae
Author:	Lam.	Botanical references:	11, 43, 200
Synonyms:	Quercus tinctoria (Michx.)		
Known Hazards:	None known		
Range:	Eastern N. America - Maine to Ontario, Minnesota, Florida and Texas.		
Habitat:	Dry woods[43]. Often found on poor dry sandy, heavy clay soils or on gravelly uplands and ridges[82, 227].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. velutina var. missouriensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Oak [DEN1,FEIS,L,P,B], Oak,Black [E], Quercitron Bark [H], Staining Oak [E],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Ks)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 30m by 25m at a medium rate. It is frost tender. It is in flower from April to May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 159, 161, 257]. The seed is up to 25mm long and wide[227]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiaphonic; Astringent; Disinfectant; Emetic; Febrifuge; Ophthalmic; Salve; Tonic.

The inner bark contains quercitannic acid and is used medicinally, mainly as a mild astringent[227]. It is inferior to the bark of white oaks because it contains large amounts of tannin[227].

The bark is astringent, disinfectant, emetic, febrifuge and tonic[257]. It is used in the treatment of chronic dysentery, intermittent fevers, indigestion, asthma and lost voice[257]. An infusion has been used as a gargle for sore throats, hoarseness colds etc[257]. The bark can be chewed as a treatment for mouth sores[257]. An infusion of the bark has been used as a wash for sore and chapped skin[257]. A decoction of the crushed bark has been used as a wash for sore eyes[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Dye; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a source of tannin[46, 82, 171].

A yellow dye is obtained from this tree[229]. The bark is a rich source[11, 46, 82, 171] whilst the seed can also be used[1]. The dye is reddish-yellow according to one report and does not need a mordant[257].

Wood - heavy, hard, strong, coarse grained. It weighs 43lb per cubic foot[227]. Of little value except as a fuel[82, 171]. Commercially important according to another report[229]. The wood is used for rough lumber, cross-ties etc[227].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[200]. A fairly fast-growing tree[188]. Rather slow-growing according to another report which also says that trees rarely live longer than 200 years[227].

Trees commence bearing seeds when 15 - 20 years old. Production is cyclic with a year of high yields being followed by 1 - 2 years of low yields[229]. The seed takes 2 summers to ripen[226].

There are several named varieties selected for their ornamental value[200].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11]. Established trees often produce lots of suckers[226].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus velutina*

Subject:

Quercus velutina

Group:
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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus velutina

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Quercus virginiana

Common name:	Live oak	Family:	Fagaceae
Author:	Mill.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida and Texas.		
Habitat:	Sandy dry to wet soils, especially by the coast[43, 149]. Usually found in sandy-loam soils, but it is also found in heavy clays[227].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Live Oak [P,H,L,B,FEIS,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 20m at a medium rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in April. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[63, 161, 171]. Low in tannin, it has a sweet flavour[82]. The seed is usually produced in clusters of 3 - 5 and is about 25mm long and 10mm wide[82, 200]. It is about 12mm long according to another report[227]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

An edible oil obtained from the seed is used for cooking[149, 161, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Antihaemorrhoidal; Astringent.

The bark is astringent[257]. A decoction has been used in the treatment of dysentery[257].

A decoction of the wood chips or the bark has been applied externally as an astringent analgesic to treat aches and pains, sores and haemorrhoids[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a commercial source of tannin[149, 227].

Dyes of various colours can be obtained from the bark[257].

Wood - very heavy, hard, strong, tough, close grained but difficult to work. It weighs 59lb per cubic foot. It is used for making hubs, cogs, shipbuilding etc[46, 61, 82, 149, 171, 227]. A very good fuel[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Trees can stand considerable salinity, often growing close to the sea[227]. They tolerate moderate exposure, surviving well but being somewhat stunted[200].

This species seems to be susceptible to soil types, producing dwarf forms and diverse leaf forms under certain conditions[227].

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The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Abundant crops are usually produced in the wild[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

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Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

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References for the family Fagaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

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The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

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I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

---

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+virginiana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+virginiana`

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Plants For A Future: Database Search Results

Quercus virginiana

Common name:	Live oak	Family:	Fagaceae
Author:	Mill.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida and Texas.		
Habitat:	Sandy dry to wet soils, especially by the coast[43, 149]. Usually found in sandy-loam soils, but it is also found in heavy clays[227].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Live Oak [P,H,L,B,FEIS,DEN1],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 20m at a medium rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in April. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[63, 161, 171]. Low in tannin, it has a sweet flavour[82]. The seed is usually produced in clusters of 3 - 5 and is about 25mm long and 10mm wide[82, 200]. It is about 12mm long according to another report[227]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

An edible oil obtained from the seed is used for cooking[149, 161, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Antihaemorrhoidal; Astringent.

The bark is astringent[257]. A decoction has been used in the treatment of dysentery[257].

A decoction of the wood chips or the bark has been applied externally as an astringent analgesic to treat aches and pains, sores and haemorrhoids[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

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Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

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References

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Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+virginiana`
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Plants For A Future: Database Search Results

Quercus virginiana

Common name:	Live oak	Family:	Fagaceae
Author:	Mill.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Virginia to Florida and Texas.		
Habitat:	Sandy dry to wet soils, especially by the coast[43, 149]. Usually found in sandy-loam soils, but it is also found in heavy clays[227].		
Plants For A Future Rating (1-5):	3		

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Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

An evergreen tree growing to 20m at a medium rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in April. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Oil; Seed.

Seed - raw or cooked[63, 161, 171]. Low in tannin, it has a sweet flavour[82]. The seed is usually produced in clusters of 3 - 5 and is about 25mm long and 10mm wide[82, 200]. It is about 12mm long according to another report[227]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

An edible oil obtained from the seed is used for cooking[149, 161, 177].

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Analgesic; Antihaemorrhoidal; Astringent.

The bark is astringent[257]. A decoction has been used in the treatment of dysentery[257].

A decoction of the wood chips or the bark has been applied externally as an astringent analgesic to treat aches and pains, sores and haemorrhoids[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The bark is a commercial source of tannin[149, 227].

Dyes of various colours can be obtained from the bark[257].

Wood - very heavy, hard, strong, tough, close grained but difficult to work. It weighs 59lb per cubic foot. It is used for making hubs, cogs, shipbuilding etc[46, 61, 82, 149, 171, 227]. A very good fuel[229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Trees can stand considerable salinity, often growing close to the sea[227]. They tolerate moderate exposure, surviving well but being somewhat stunted[200].

This species seems to be susceptible to soil types, producing dwarf forms and diverse leaf forms under certain conditions[227].

Prefers warmer summers than are usually experienced in Britain, trees often grow poorly in this country and fail to properly ripen their wood resulting in frost damage overwinter[11, 200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229]. Abundant crops are usually produced in the wild[229].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+virginiana`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus virginiana*

Subject:

Quercus virginiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus virginiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Date: Sun May 16 03:05:47 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Quercus wislizenii

Common name:	Live oak	Family:	Fagaceae
Author:	A. DC.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Desert mountain slopes and valleys below 1600 metres[71, 229]. No more than a shrub in the desert, forming trees in the sheltered coastal valleys[82].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. wislizeni[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Interior Live Oak [DEN2,FEIS,P,B,L],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 20m by 30m at a slow rate. . It is in leaf all year, in flower in April, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 161]. A staple food of some native North American Indian tribes[257]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which can be up to 35mm long and 1cm wide[82, 229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiarthritic; Antiseptic; Astringent.

A decoction of the bark has been used as a cough medicine[257]. The pulverized outer bark has been used as an astringent and antiseptic dusting powder on burns and running sores and is particularly useful for babies with sore umbilicus[257].

A decoction of the inner bark has been used in the treatment of arthritis[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Adhesive; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The acorn meal has been used to mend cracks in clay pots[257].

Wood - heavy, very hard, strong, close grained[82]. Of no commercial value because the trunks are never tall or clear, it is used mainly as a fuel[82, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain[200], but this tree is perfectly hardy though slow growing in this country[1, 11].

The tree flowers on new growth produced in spring, the seed taking two summers to ripen[200, 229].

Closely related to Q. agrifolia[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
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References for *Quercus wislizeni* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
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[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Quercus wislizenii

Common name:	Live oak	Family:	Fagaceae
Author:	A. DC.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Desert mountain slopes and valleys below 1600 metres[71, 229]. No more than a shrub in the desert, forming trees in the sheltered coastal valleys[82].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Q. wislizeni[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Interior Live Oak [DEN2,FEIS,P,B,L],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

An evergreen tree growing to 20m by 30m at a slow rate. . It is in leaf all year, in flower in April, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic

(alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 161]. A staple food of some native North American Indian tribes[257]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which can be up to 35mm long and 1cm wide[82, 229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

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The tree flowers on new growth produced in spring, the seed taking two summers to ripen[200, 229].

Closely related to Q. agrifolia[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

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References for the family Fagaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the

acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted? or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+wislizenii`

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Plants For A Future: Database Search Results

Quercus wislizenii

Common name:	Live oak	Family:	Fagaceae
Author:	A. DC.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Desert mountain slopes and valleys below 1600 metres[71, 229]. No more than a shrub in the desert, forming trees in the sheltered coastal valleys[82].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Q. wislizeni[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Interior Live Oak [DEN2,FEIS,P,B,L],
Systematics:	From a UDSA Plants Database Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 20m by 30m at a slow rate. . It is in leaf all year, in flower in April, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic

(alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - cooked[105, 161]. A staple food of some native North American Indian tribes[257]. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. The seed, which can be up to 35mm long and 1cm wide[82, 229], contains bitter tannins - these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Antiarthritic; Antiseptic; Astringent.

A decoction of the bark has been used as a cough medicine[257]. The pulverized outer bark has been used as an astringent and antiseptic dusting powder on burns and running sores and is particularly useful for babies with sore umbilicus[257].

A decoction of the inner bark has been used in the treatment of arthritis[257].

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Adhesive; Fuel; Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can

inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

The acorn meal has been used to mend cracks in clay pots[257].

Wood - heavy, very hard, strong, close grained[82]. Of no commercial value because the trunks are never tall or clear, it is used mainly as a fuel[82, 229].

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[1, 11]. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200].

Prefers warmer summers than are usually experienced in Britain[200], but this tree is perfectly hardy though slow growing in this country[1, 11].

The tree flowers on new growth produced in spring, the seed taking two summers to ripen[200, 229].

Closely related to Q. agrifolia[1].

Intolerant of root disturbance, trees should be planted in their permanent positions whilst young[11].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus wislizenii*

Subject:

Quercus wislizenii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus wislizenii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Quercus x bebbiana

Common name:		Family:	Fagaceae
Author:	C. Schneid.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A hybrid of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bebb's Oak [P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 8m at a slow rate. It is hardy to zone 3 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The

plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Oikos'**: Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[183]. The large seeds are sweet and can be eaten out of hand[183]. The seed can be ground into a powder and used in making bread, dumplings etc and as a thickener in soups[183]. If the seed is bitter then this is due to the presence of tannins, these can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy, strong, tough, very durable, close grained.

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Succeeds in a hot dry position. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. A vigorous, fast-growing hybrid species, some forms are capable of reaching 1.5 metres tall in 2 years[183].]. Established plants are drought resistant[229] and tolerant of atmospheric pollution[226].

This species is occasionally cultivated for its edible seed, there are some named varieties[183]. It is a hybrid of garden origin, Q. alba x Q. macrocarpa[183]. Both of its parents prefer warmer summers than are usually experienced in Britain, often growing poorly in this country and failing to properly ripen their wood, resulting in frost damage overwinter[11, 200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly. This species is a hybrid and may not breed true from seed[K].

Cultivars

'Oikos'

> The seeds are sweet and can be eaten out of hand[183]. A vigorous, fast-growing selection that can reach 1.5 metres tall in 2 years[183].

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History*. Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

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Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

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making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Details:	

Enter your details here:

Your Name:	
Email Address:	

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Quercus x bebbiana

Common name:		Family:	Fagaceae
Author:	C. Schneid.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A hybrid of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

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The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Oikos'**: Woodland, Canopy.

Edible Uses

Coffee; Seed.

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Astringent.

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Repellent; Tannin; Wood.

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Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Succeeds in a hot dry position. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. A vigorous, fast-growing hybrid species, some forms are capable of reaching 1.5 metres tall in 2 years[183].]. Established plants are drought resistant[229] and tolerant of atmospheric pollution[226].

This species is occasionally cultivated for its edible seed, there are some named varieties[183]. It is a hybrid of garden origin, Q. alba x Q. macrocarpa[183]. Both of its parents prefer warmer summers than are usually experienced in Britain, often growing poorly in this country and failing to properly ripen their wood, resulting in frost damage overwinter[11, 200].

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Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly. This species is a hybrid and may not breed true from seed[K].

Cultivars

'Oikos'

> The seeds are sweet and can be eaten out of hand[183]. A vigorous, fast-growing selection that can reach 1.5 metres tall in 2 years[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Fagaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

Readers Comments

making flour from acorns

John Rutherford Mon Jan 24 10:49:48 2000

I was wondering if you could point me in the right direction in regard to processing acorns for food. your list mentions a number of preferred trees (american indians mainly) and i have tried the following: Q. palustris (pin oak), Q. lobata (valley oak), Q. macrocarpa (burr oak) and Q. robur (english oak).

Pin Oak (Q. palustris) was a waste of time because of the difficulty in shelling small acorns. the acorns also have the brown skin covering the kernal which apparantly adds a bitter taste if not removed.

Both the valley and burr oaks were quite successful. both trees supplied large acorns and both were free of the offending brown skin. The english oak was also worth the effort although I gather that some trees have sweet acorns and others produce acorns with a fair quantity of tannin.

Method: the shelled acorns were ground in a kitchen blender with enough water to help the blender go round. the slush was then put in a large metal dish and stirred thoroughly, then allowed to settle for 12 hours. the brown tannic water was poured off into another metal dish and more clear water was added to the slush and stirred. This was repeated about 4 times before the water remained relatively clean (pale light brown or fawn). this was strained through a tea towel and the resulting acorn meal was placed in a dish and allowed to dry out.

The resulting "flour" was used to make fairly basic scones (egg, salt, butter and "flour" mixed together) and made very pleasant eating. the processed acorns make a rather sweet tasting flour and if someone else did all the work i could make it my staple diet.

Disadvantages include: shelling the acorns. leaching the mush/slush for 2 or three days and getting so little acorn meal out of a lot of acorns.

Questions:

a. does tannin accumulate in the body? assuming that even the best leaching will leave some tannic acid - will a constant diet eventually damage the kidneys? (or is it the liver?).

b. does the tannic acid remove itself if the acorn is kept for a year? or if it is buried and sprouted?

or if it is roasted? - will roasting in some way destroy the tannin?

c. is the flour a good substitute for cereal flours for those allergic to grains (celiac? allergy)?

d. does anyone know a good way of shelling acorns?

e. are there any commercial suppliers of acorn flour?

f. when the comment in the pfaf list says of an acorn "can be eaten out of hand", does this mean that it has a sweet taste and that you don't need strong jaws?

I was interested to see that the initial water poured off (see para 5) when allowed to settle precipitated a reasonable amount of whitish sediment which I assume to be a variety of starch. I tasted a little bit of it (it was brittle) and it had a sweet taste and melted in the mouth. I rang the local university in the hope of getting it analysed but was told that it would cost me an arm and a leg for their trouble - therefore a further question:

Question g. can anyone tell me if acorns produce a known type of starch - is this starch nutritious - if not starch what is?

Would you be able to advise me in regard to a book on the preparation of acorns or a study of the nutritional value (and the dangers) of them. have you any contacts with someone who may be an expert in this regard?

grateful if you could help in some way.

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

making flour from acorns

Unknown Fri Dec 1 22:52:15 2000

Read j Russell smiths book Tree crops a permenant agriculture

Cross references: *Plants:* *Quercus macrocarpa*. *Genera:* *Quercus*.

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+x+bebbiana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+x+bebbiana`

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Plants For A Future: Database Search Results

Quercus x bebbiana

Common name:		Family:	Fagaceae
Author:	C. Schneid.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A hybrid of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bebb's Oak [P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Beech family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 8m at a slow rate. It is hardy to zone 3 and is frost tender. It is in flower in May, and the seeds ripen in October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Oikos'**: Woodland, Canopy.

Edible Uses

Coffee; Seed.

Seed - raw or cooked[183]. The large seeds are sweet and can be eaten out of hand[183]. The seed can be ground into a powder and used in making bread, dumplings etc and as a thickener in soups[183]. If the seed is bitter then this is due to the presence of tannins, these can be leached out by thoroughly washing the dried and ground up seed in water, though many minerals will also be lost. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency.

The roasted seed is a coffee substitute.

Medicinal Uses

Disclaimer

Astringent.

Any galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc[4].

Other Uses

Repellent; Tannin; Wood.

A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth[20].

Oak galls are excrescences that are sometimes produced in great numbers on the tree and are caused by the activity of the larvae of different insects. The insects live inside these galls, obtaining their nutrient therein. When the insect pupates and leaves, the gall can be used as a rich source of tannin, that can also be used as a dyestuff[4].

Wood - hard, heavy, strong, tough, very durable, close grained.

Cultivation details

Prefers a good deep fertile loam which can be on the stiff side[11]. Lime tolerant[188]. Succeeds in a hot dry position. Young plants tolerate reasonable levels of side shade[200]. Tolerates moderate exposure, surviving well but being somewhat stunted[200]. A vigorous, fast-growing hybrid species, some forms are capable of reaching 1.5 metres tall in 2 years[183].]. Established plants are drought resistant[229] and tolerant of atmospheric pollution[226].

This species is occasionally cultivated for its edible seed, there are some named varieties[183]. It is a hybrid of garden origin, Q. alba x Q. macrocarpa[183]. Both of its parents prefer warmer summers than are usually experienced in Britain, often growing poorly in this country and failing to properly ripen their wood, resulting in frost damage overwinter[11, 200].

The tree flowers on new growth produced in spring, the seed ripening in its first year[200, 229].

Hybridizes freely with other members of the genus[200].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - it quickly loses viability if it is allowed to dry out. It can be stored moist and cool overwinter but is best sown as soon as it is ripe in an outdoor seed bed, though it must be protected from mice, squirrels etc. Small quantities of seed can be sown in deep pots in a cold frame. Plants produce a deep taproot and need to be planted out into their permanent positions as soon as possible, in fact seed sown in situ will produce the best trees[11]. Trees should not be left in a nursery bed for more than 2 growing seasons without being moved or they will transplant very badly. This species is a hybrid and may not breed true from seed[K].

Cultivars

'Oikos'

> The seeds are sweet and can be eaten out of hand[183]. A vigorous, fast-growing selection that can reach 1.5 metres tall in 2 years[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Quercus+x+bebbiana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+x+bebbiana`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Quercus x bebbiana*

Subject:

Quercus x bebbiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Quercus x bebbiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:06:12 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Add a comment on: *Quercus species*

Subject:

Quercus species

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:	
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Plant names you would like this comment to be added to:

Quercus species

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Rhus integrifolia

Common name:	Lemonade berry	Family:	Anacardiaceae
Author:	(Nutt.) Benth. & Hook.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	There are some suggestions that the sap of this species can cause a skin rash in susceptible people, but this has not been substantiated. See also notes in 'Cultivation Details'.		
Range:	South-western N. America - California.		
Habitat:	Ocean bluffs, canyons and dry places below 800 metres[71], in sandy sterile soil[82]. Often forming close, impenetrable thickets[82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Lemonade Berry [E], Lemonade Sumac [DEN2,B,P], Lemonberry [H],
Epithets:	From a Dictionary of Botanical Epithets
	integrifolia = leaves entire;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Sumac family
Other Range Info:	From the Ethnobotany Database
	Us(Ca)

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower in May. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Drink; Fruit.

Fruit - raw or cooked[2, 62, 82, 161]. The fruit is covered with a pleasant acid-tasting exudation that can be sucked[84, 92]. The fruit is small, up to 10mm in diameter[229], with very little flesh, but it is produced in fairly large panicles and so is easily harvested. When soaked for 10 - 30 minutes in hot or cold water it makes a very refreshing lemonade-like drink (without any fizz of course)[84, 94, 95]. The mixture should not be boiled since this will release tannic acids and make the drink astringent[183].

The leaves have been chewed to assuage thirst[257].

The roasted fruit is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Fuel; Mordant; Oil; Tannin; Wood.

The leaves are rich in tannin. They can be collected as they fall in the autumn and used as a brown dye or as a mordant[169].

An oil is extracted from the seeds[4]. It attains a tallow-like consistency on standing and is used to make candles. These burn brilliantly, though they emit a pungent smoke[4].

Wood - hard, heavy[82]. It is valued and largely used as a fuel[82].

Cultivation details

Succeeds in a well-drained fertile soil in full sun[11, 200]. Succeeds in a hot dry position.

This species is not very hardy in Britain, it may not succeed outdoors even in the mildest areas of the country[200]. One report says they can tolerate temperatures down to about -5°c[260]. Older plants become somewhat hardier and so it is worthwhile growing them on for a few years in pots with some winter protection (such as a cold greenhouse)[K]. Some 4 year old plants were cut back to the base by temperatures below -5°c on our Cornish trial grounds, but they resprouted from the base in early summer[K]. The young growth in spring can be damaged by late frosts.

Plants usually form thickets in the wild[229].

Plants have brittle branches and these can be broken off in strong winds[200]. Plants are also susceptible to coral spot fungus[11]. Plants in this genus are notably resistant to honey fungus[200].

Many of the species in this genus are highly toxic and can also cause severe irritation to the skin of some people, whilst other species such as this one are not poisonous. It is relatively simple to distinguish which is which, the poisonous species have axillary panicles and smooth fruits whilst non-poisonous species have compound terminal panicles and fruits covered with acid crimson hairs[1, 4]. The toxic species are sometimes separated into their own genus, Toxicodendron, by some botanists[200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Pre-soak the seed for 24 hours in hot water (starting at a temperature of 80 - 90c and allowing it to cool) prior to sowing in order to leach out any germination inhibitors[200]. This soak water can be drunk and has a delicious lemon-flavour. The stored seed also needs hot water treatment and can be sown in early spring in a cold frame[200]. Prick out the seedlings into individual pots when they are large enough to handle. It might be wise to grow the plants on in pots for a few years before planting out - see notes in 'Cultivation Details'[K].

Cuttings of half-ripe wood, 10cm with a heel, July/August in a frame[200].

Root cuttings 4cm long taken in December and potted up vertically in a greenhouse. Good percentage[78, 200].

Suckers in late autumn to winter[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Anacardiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[84] **Coyle. J. and Roberts. N. C.** *A Field Guide to the Common and Interesting Plants of Baja California.* Natural History Publishing Co. 1975
A very readable pocket flora with good illustrations, it gives quite a few plant uses.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3

Useful wild plants of America. A pocket guide.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Enter your details here:

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Rhus+integrifolia`

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Plants For A Future: Database Search Results

Rhus integrifolia

Common name:	Lemonade berry	Family:	Anacardiaceae
Author:	(Nutt.) Benth. & Hook.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	There are some suggestions that the sap of this species can cause a skin rash in susceptible people, but this has not been substantiated. See also notes in 'Cultivation Details'.		
Range:	South-western N. America - California.		
Habitat:	Ocean bluffs, canyons and dry places below 800 metres[71], in sandy sterile soil[82]. Often forming close, impenetrable thickets[82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Lemonade Berry [E], Lemonade Sumac [DEN2,B,P], Lemonberry [H],
Epithets:	From a Dictionary of Botanical Epithets
	integrifolia = leaves entire;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Sumac family
Other Range Info:	From the Ethnobotany Database
	Us(Ca)

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower in May. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Drink; Fruit.

Fruit - raw or cooked[2, 62, 82, 161]. The fruit is covered with a pleasant acid-tasting exudation that can be sucked[84, 92]. The fruit is small, up to 10mm in diameter[229], with very little flesh, but it is produced in fairly large panicles and so is easily harvested. When soaked for 10 - 30 minutes in hot or cold water it makes a very refreshing lemonade-like drink (without any fizz of course)[84, 94, 95]. The mixture should not be boiled since this will release tannic acids and make the drink astringent[183].

The leaves have been chewed to assuage thirst[257].

The roasted fruit is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Fuel; Mordant; Oil; Tannin; Wood.

The leaves are rich in tannin. They can be collected as they fall in the autumn and used as a brown dye or as a mordant[169].

An oil is extracted from the seeds[4]. It attains a tallow-like consistency on standing and is used to make candles. These burn brilliantly, though they emit a pungent smoke[4].

Wood - hard, heavy[82]. It is valued and largely used as a fuel[82].

Cultivation details

Succeeds in a well-drained fertile soil in full sun[11, 200]. Succeeds in a hot dry position.

This species is not very hardy in Britain, it may not succeed outdoors even in the mildest areas of the country[200]. One report says they can tolerate temperatures down to about -5°c[260]. Older plants become somewhat hardier and so it is worthwhile growing them on for a few years in pots with some winter protection (such as a cold greenhouse)[K]. Some 4 year old plants were cut back to the base by temperatures below -5°c on our Cornish trial grounds, but they resprouted from the base in early summer[K]. The young growth in spring can be damaged by late frosts.

Plants usually form thickets in the wild[229].

Plants have brittle branches and these can be broken off in strong winds[200]. Plants are also susceptible to coral spot fungus[11]. Plants in this genus are notably resistant to honey fungus[200].

Many of the species in this genus are highly toxic and can also cause severe irritation to the skin of some people, whilst other species such as this one are not poisonous. It is relatively simple to distinguish which is which, the poisonous species have axillary panicles and smooth fruits whilst non-poisonous species have compound terminal panicles and fruits covered with acid crimson hairs[1, 4]. The toxic species are sometimes separated into their own genus, Toxicodendron, by some botanists[200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Pre-soak the seed for 24 hours in hot water (starting at a temperature of 80 - 90c and allowing it to cool) prior to sowing in order to leach out any germination inhibitors[200]. This soak water can be drunk and has a delicious lemon-flavour. The stored seed also needs hot water treatment and can be sown in early spring in a cold frame[200]. Prick out the seedlings into individual pots when they are large enough to handle. It might be wise to grow the plants on in pots for a few years before planting out - see notes in 'Cultivation Details'[K].

Cuttings of half-ripe wood, 10cm with a heel, July/August in a frame[200].

Root cuttings 4cm long taken in December and potted up vertically in a greenhouse. Good percentage[78, 200].

Suckers in late autumn to winter[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Anacardiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces

in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[84] **Coyle. J. and Roberts. N. C.** *A Field Guide to the Common and Interesting Plants of Baja California.* Natural History Publishing Co. 1975
A very readable pocket flora with good illustrations, it gives quite a few plant uses.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

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Plants For A Future: Database Search Results

Rhus integrifolia

Common name:	Lemonade berry	Family:	Anacardiaceae
Author:	(Nutt.) Benth. & Hook.	Botanical references:	11, 71, 200
Synonyms:			
Known Hazards:	There are some suggestions that the sap of this species can cause a skin rash in susceptible people, but this has not been substantiated. See also notes in 'Cultivation Details'.		
Range:	South-western N. America - California.		
Habitat:	Ocean bluffs, canyons and dry places below 800 metres[71], in sandy sterile soil[82]. Often forming close, impenetrable thickets[82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Lemonade Berry [E], Lemonade Sumac [DEN2,B,P], Lemonberry [H],
Epithets:	From a Dictionary of Botanical Epithets
	integrifolia = leaves entire;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Sumac family
Other Range Info:	From the Ethnobotany Database
	Us(Ca)

Physical Characteristics

An evergreen shrub growing to 2m. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower in May. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Coffee; Drink; Fruit.

Fruit - raw or cooked[2, 62, 82, 161]. The fruit is covered with a pleasant acid-tasting exudation that can be sucked[84, 92]. The fruit is small, up to 10mm in diameter[229], with very little flesh, but it is produced in fairly large panicles and so is easily harvested. When soaked for 10 - 30 minutes in hot or cold water it makes a very refreshing lemonade-like drink (without any fizz of course)[84, 94, 95]. The mixture should not be boiled since this will release tannic acids and make the drink astringent[183].

The leaves have been chewed to assuage thirst[257].

The roasted fruit is a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Fuel; Mordant; Oil; Tannin; Wood.

The leaves are rich in tannin. They can be collected as they fall in the autumn and used as a brown dye or as a mordant[169].

An oil is extracted from the seeds[4]. It attains a tallow-like consistency on standing and is used to make candles. These burn brilliantly, though they emit a pungent smoke[4].

Wood - hard, heavy[82]. It is valued and largely used as a fuel[82].

Cultivation details

Succeeds in a well-drained fertile soil in full sun[11, 200]. Succeeds in a hot dry position.

This species is not very hardy in Britain, it may not succeed outdoors even in the mildest areas of the country[200]. One report says they can tolerate temperatures down to about -5°c[260]. Older plants become somewhat hardier and so it is worthwhile growing them on for a few years in pots with some winter protection (such as a cold greenhouse)[K]. Some 4 year old plants were cut back to the base by temperatures below -5°c on our Cornish trial grounds, but they resprouted from the base in early summer[K]. The young growth in spring can be damaged by late frosts.

Plants usually form thickets in the wild[229].

Plants have brittle branches and these can be broken off in strong winds[200]. Plants are also susceptible to coral spot fungus[11]. Plants in this genus are notably resistant to honey fungus[200].

Many of the species in this genus are highly toxic and can also cause severe irritation to the skin of some people, whilst other species such as this one are not poisonous. It is relatively simple to distinguish which is which, the poisonous species have axillary panicles and smooth fruits whilst non-poisonous species have compound terminal panicles and fruits covered with acid crimson hairs[1, 4]. The toxic species are sometimes separated into their own genus, Toxicodendron, by some botanists[200].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Pre-soak the seed for 24 hours in hot water (starting at a temperature of 80 - 90c and allowing it to cool) prior to sowing in order to leach out any germination inhibitors[200]. This soak water can be drunk and has a delicious lemon-flavour. The stored seed also needs hot water treatment and can be sown in early spring in a cold frame[200]. Prick out the seedlings into individual pots when they are large enough to handle. It might be wise to grow the plants on in pots for a few years before planting out - see notes in 'Cultivation Details'[K].

Cuttings of half-ripe wood, 10cm with a heel, July/August in a frame[200].

Root cuttings 4cm long taken in December and potted up vertically in a greenhouse. Good percentage[78, 200].

Suckers in late autumn to winter[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Rhus integrifolia*

Subject:

Rhus integrifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Rhus integrifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Rosa canina

Common name:	Dog rose	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	There is a layer of hairs around the seeds just beneath the flesh of the fruit. These hairs can cause irritation to the mouth and digestive tract if ingested.		
Range:	Britain.		
Habitat:	Hedges, scrub, woods, roadsides, banks etc[9].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. canina var. dumetorum[B,P] R. lutetiana[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Brier Rose [H], Dog Rose [H,L,E,B,P], Eglantier [E], Eglantier Rose Sauvage [E], Escaramujo [E], Gul Mohammed [E], Hondsroos [D], Kusburnu [E], Oleum Roseum [E], Rosal Silvestre [E], Ward Barry [E], Wild Rose [H],
Epithets:	From a Dictionary of Botanical Epithets
	canina = of dogs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Other Range Info:	From the Ethnobotany Database
	Chile; Europe; Haiti; Iraq; Kurdistan; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: South Australia, Western Australia.

Physical Characteristics

A decidious shrub growing to 3m by 3m at a fast rate. It is hardy to zone 3. It is in flower from June to July, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles, Lepidoptera (Moths & Butterflies) and Apomictic (reproduce by seeds formed without sexual fusion). The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Flowers; Fruit; Seed; Tea.

Fruit - raw or cooked[2, 4, 13]. It can be used in making delicious jams, syrups etc[7]. The syrup is used as a nutritional supplement, especially for babies[238]. The fruit can also be dried and used as a tea[9, 12, 183]. Frost softens and sweetens the flesh[12]. The fruit is up to 30mm in diameter[200], but there is only a thin layer of flesh surrounding the many seeds[K]. Some care has to be taken when eating this fruit, see the notes above on known hazards.

The seed is a good source of vitamin E[102], it can be ground and mixed with flour or added to other foods as a supplement. Be sure to remove the seed hairs[102].

The dried leaves are used as a tea substitute[46, 61, 183]. A coffee substitute according to another report[7].

Petals - raw or cooked[177]. The base of the petal may be bitter so is best removed[183]. Eaten as a vegetable in China[66]. The petals are also used to make an unusual scented jam[7].

Medicinal Uses

Disclaimer

Astringent; Bach; Cancer; Carminative; Diuretic; Laxative; Ophthalmic; Tonic; Vermifuge.

The petals, hips and galls are astringent, carminative, diuretic, laxative, ophthalmic and tonic[7, 9, 14, 21, 165]. The hips are taken internally in the treatment of colds, influenza, minor infectious diseases, scurvy, diarrhoea and gastritis[238]. A syrup made from the hips is used as a pleasant flavouring in medicines and is added to cough mixtures[238].

A distilled water made from the plant is slightly astringent and is used as a lotion for delicate skins[7].

The seeds have been used as a vermifuge[7].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Resignation' and 'Apathy'[209].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Hedge.

Plants make a dense and stock-proof hedge, especially when trimmed[186].

Cultivation details

Succeeds in most soils[11, 200]. Grows well in heavy clay soils. Prefers a circumneutral soil and a sunny position with its roots in the shade[11, 200]. When grown in deep shade it usually fails to flower and fruit[186]. Succeeds in wet soils but dislikes water-logged soils or very dry sites[186]. Tolerates maritime exposure[186].

The fruit attracts many species of birds, several gall wasps and other insects use the plant as a

host[186]

A very polymorphic species, it is divided into a great number of closely related species by some botanists[1, 17].

The leaves, when bruised, have a delicious fragrance[245]. The flowers are also fragrant.

Grows well with alliums, parsley, mignonette and lupins[18, 20]. Garlic planted nearby can help protect the plant from disease and insect predation[18, 20]. Grows badly with boxwood[18].

Hybridizes freely with other members of this genus[80].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed. Rose seed often takes two years to germinate. This is because it may need a warm spell of weather after a cold spell in order to mature the embryo and reduce the seedcoat[80]. One possible way to reduce this time is to scarify the seed and then place it for 2 - 3 weeks in damp peat at a temperature of 27 - 32°c (by which time the seed should have imbibed). It is then kept at 3°c for the next 4 months by which time it should be starting to germinate[80]. Alternatively, it is possible that seed harvested 'green' (when it is fully developed but before it has dried on the plant) and sown immediately will germinate in the late winter. This method has not as yet(1988) been fully tested[80]. Seed sown as soon as it is ripe in a cold frame sometimes germinates in spring though it may take 18 months. Stored seed can be sown as early in the year as possible and stratified for 6 weeks at 5°c[200]. It may take 2 years to germinate[200]. Prick out the seedlings into individual pots when they are large enough to handle. Plant out in the summer if the plants are more than 25cm tall, otherwise grow on in a cold frame for the winter and plant out in late spring.

Cuttings of half-ripe wood with a heel, July in a shaded frame. Overwinter the plants in the frame and plant out in late spring[78]. High percentage[78].

Cuttings of mature wood of the current seasons growth. Select pencil thick shoots in early autumn that are about 20 - 25cm long and plant them in a sheltered position outdoors or in a cold frame[78, 200]. The cuttings can take 12 months to establish but a high percentage of them normally succeed[78].

Division of suckers in the dormant season. Plant them out direct into their permanent positions.

Layering. Takes 12 months[11].

Scent

Flowers: Fresh

The flowers are scented.

Leaves: Crushed

The leaves have a delicious fragrance[245].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Rosa canina* (Dog Rose)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
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Details the 38 remedies plus how and where to prescribe them.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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WEB search engine by Rich Morris - Home Page- Contact Info
Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Rosa+canina`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Rosa+canina`

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Plants For A Future: Database Search Results

Rosa canina

Common name:	Dog rose	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	There is a layer of hairs around the seeds just beneath the flesh of the fruit. These hairs can cause irritation to the mouth and digestive tract if ingested.		
Range:	Britain.		
Habitat:	Hedges, scrub, woods, roadsides, banks etc[9].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. canina var. dumetorum[B,P] R. lutetiana[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Brier Rose [H], Dog Rose [H,L,E,B,P], Eglantier [E], Eglantier Rose Sauvage [E], Escaramujo [E], Gul Mohammed [E], Hondsroos [D], Kusburnu [E], Oleum Roseum [E], Rosal Silvestre [E], Ward Barry [E], Wild Rose [H],
Epithets:	From a Dictionary of Botanical Epithets
	canina = of dogs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Chile; Europe; Haiti; Iraq; Kurdistan; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: South Australia, Western Australia.

Physical Characteristics

A decidious shrub growing to 3m by 3m at a fast rate. It is hardy to zone 3. It is in flower from June to July, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles, Lepidoptera (Moths & Butterflies) and Apomictic (reproduce by seeds formed without sexual fusion). The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Flowers; Fruit; Seed; Tea.

Fruit - raw or cooked[2, 4, 13]. It can be used in making delicious jams, syrups etc[7]. The syrup is used as a nutritional supplement, especially for babies[238]. The fruit can also be dried and used as a tea[9, 12, 183]. Frost softens and sweetens the flesh[12]. The fruit is up to 30mm in diameter[200], but there is only a thin layer of flesh surrounding the many seeds[K]. Some care has to be taken when eating this fruit, see the notes above on known hazards.

The seed is a good source of vitamin E[102], it can be ground and mixed with flour or added to other foods as a supplement. Be sure to remove the seed hairs[102].

The dried leaves are used as a tea substitute[46, 61, 183]. A coffee substitute according to another report[7].

Petals - raw or cooked[177]. The base of the petal may be bitter so is best removed[183]. Eaten as a vegetable in China[66]. The petals are also used to make an unusual scented jam[7].

Medicinal Uses

Disclaimer

Astringent; Bach; Cancer; Carminative; Diuretic; Laxative; Ophthalmic; Tonic; Vermifuge.

The petals, hips and galls are astringent, carminative, diuretic, laxative, ophthalmic and tonic[7, 9, 14, 21, 165]. The hips are taken internally in the treatment of colds, influenza, minor infectious diseases, scurvy, diarrhoea and gastritis[238]. A syrup made from the hips is used as a pleasant flavouring in medicines and is added to cough mixtures[238].

A distilled water made from the plant is slightly astringent and is used as a lotion for delicate skins[7].

The seeds have been used as a vermifuge[7].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Resignation' and 'Apathy'[209].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Hedge.

Plants make a dense and stock-proof hedge, especially when trimmed[186].

Cultivation details

Succeeds in most soils[11, 200]. Grows well in heavy clay soils. Prefers a circumneutral soil and a sunny position with its roots in the shade[11, 200]. When grown in deep shade it usually fails to flower and fruit[186]. Succeeds in wet soils but dislikes water-logged soils or very dry sites[186]. Tolerates maritime exposure[186].

The fruit attracts many species of birds, several gall wasps and other insects use the plant as a

host[186]

A very polymorphic species, it is divided into a great number of closely related species by some botanists[1, 17].

The leaves, when bruised, have a delicious fragrance[245]. The flowers are also fragrant.

Grows well with alliums, parsley, mignonette and lupins[18, 20]. Garlic planted nearby can help protect the plant from disease and insect predation[18, 20]. Grows badly with boxwood[18].

Hybridizes freely with other members of this genus[80].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed. Rose seed often takes two years to germinate. This is because it may need a warm spell of weather after a cold spell in order to mature the embryo and reduce the seedcoat[80]. One possible way to reduce this time is to scarify the seed and then place it for 2 - 3 weeks in damp peat at a temperature of 27 - 32°c (by which time the seed should have imbibed). It is then kept at 3°c for the next 4 months by which time it should be starting to germinate[80]. Alternatively, it is possible that seed harvested 'green' (when it is fully developed but before it has dried on the plant) and sown immediately will germinate in the late winter. This method has not as yet(1988) been fully tested[80]. Seed sown as soon as it is ripe in a cold frame sometimes germinates in spring though it may take 18 months. Stored seed can be sown as early in the year as possible and stratified for 6 weeks at 5°c[200]. It may take 2 years to germinate[200]. Prick out the seedlings into individual pots when they are large enough to handle. Plant out in the summer if the plants are more than 25cm tall, otherwise grow on in a cold frame for the winter and plant out in late spring.

Cuttings of half-ripe wood with a heel, July in a shaded frame. Overwinter the plants in the frame and plant out in late spring[78]. High percentage[78].

Cuttings of mature wood of the current seasons growth. Select pencil thick shoots in early autumn that are about 20 - 25cm long and plant them in a sheltered position outdoors or in a cold frame[78, 200]. The cuttings can take 12 months to establish but a high percentage of them normally succeed[78].

Division of suckers in the dormant season. Plant them out direct into their permanent positions.

Layering. Takes 12 months[11].

Scent

Flowers: Fresh

The flowers are scented.

Leaves: Crushed

The leaves have a delicious fragrance[245].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Rosa canina* (Dog Rose)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
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[K] **Ken Fern**
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Rosa+canina`
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Plants For A Future: Database Search Results

Rosa canina

Common name:	Dog rose	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	There is a layer of hairs around the seeds just beneath the flesh of the fruit. These hairs can cause irritation to the mouth and digestive tract if ingested.		
Range:	Britain.		
Habitat:	Hedges, scrub, woods, roadsides, banks etc[9].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. R. canina var. dumetorum[B,P] R. lutetiana[G]
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Epithets:	From a Dictionary of Botanical Epithets canina = of dogs;
Systematics:	From a UDSA Plants Database Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database Chile; Europe; Haiti; Iraq; Kurdistan; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: South Australia, Western Australia.

Physical Characteristics

A decidious shrub growing to 3m by 3m at a fast rate. It is hardy to zone 3. It is in flower from June to July, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles, Lepidoptera (Moths & Butterflies) and Apomictic (reproduce by seeds formed without sexual fusion). The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Bog Garden, Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Flowers; Fruit; Seed; Tea.

Fruit - raw or cooked[2, 4, 13]. It can be used in making delicious jams, syrups etc[7]. The syrup is used as a nutritional supplement, especially for babies[238]. The fruit can also be dried and used as a tea[9, 12, 183]. Frost softens and sweetens the flesh[12]. The fruit is up to 30mm in diameter[200], but there is only a thin layer of flesh surrounding the many seeds[K]. Some care has to be taken when eating this fruit, see the notes above on known hazards.

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Medicinal Uses

Disclaimer

Astringent; Bach; Cancer; Carminative; Diuretic; Laxative; Ophthalmic; Tonic; Vermifuge.

The petals, hips and galls are astringent, carminative, diuretic, laxative, ophthalmic and tonic[7, 9, 14, 21, 165]. The hips are taken internally in the treatment of colds, influenza, minor infectious diseases, scurvy, diarrhoea and gastritis[238]. A syrup made from the hips is used as a pleasant flavouring in medicines and is added to cough mixtures[238].

A distilled water made from the plant is slightly astringent and is used as a lotion for delicate skins[7].

The seeds have been used as a vermifuge[7].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Resignation' and 'Apathy'[209].

The fruit of many members of this genus is a very rich source of vitamins and minerals, especially in vitamins A, C and E, flavanoids and other bio-active compounds. It is also a fairly good source of essential fatty acids, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of cancer and also as a means of halting or reversing the growth of cancers[214].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Hedge.

Plants make a dense and stock-proof hedge, especially when trimmed[186].

Cultivation details

Succeeds in most soils[11, 200]. Grows well in heavy clay soils. Prefers a circumneutral soil and a sunny position with its roots in the shade[11, 200]. When grown in deep shade it usually fails to flower and fruit[186]. Succeeds in wet soils but dislikes water-logged soils or very dry sites[186]. Tolerates maritime exposure[186].

The fruit attracts many species of birds, several gall wasps and other insects use the plant as a

host[186]

A very polymorphic species, it is divided into a great number of closely related species by some botanists[1, 17].

The leaves, when bruised, have a delicious fragrance[245]. The flowers are also fragrant.

Grows well with alliums, parsley, mignonette and lupins[18, 20]. Garlic planted nearby can help protect the plant from disease and insect predation[18, 20]. Grows badly with boxwood[18].

Hybridizes freely with other members of this genus[80].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed. Rose seed often takes two years to germinate. This is because it may need a warm spell of weather after a cold spell in order to mature the embryo and reduce the seedcoat[80]. One possible way to reduce this time is to scarify the seed and then place it for 2 - 3 weeks in damp peat at a temperature of 27 - 32°c (by which time the seed should have imbibed). It is then kept at 3°c for the next 4 months by which time it should be starting to germinate[80]. Alternatively, it is possible that seed harvested 'green' (when it is fully developed but before it has dried on the plant) and sown immediately will germinate in the late winter. This method has not as yet(1988) been fully tested[80]. Seed sown as soon as it is ripe in a cold frame sometimes germinates in spring though it may take 18 months. Stored seed can be sown as early in the year as possible and stratified for 6 weeks at 5°c[200]. It may take 2 years to germinate[200]. Prick out the seedlings into individual pots when they are large enough to handle. Plant out in the summer if the plants are more than 25cm tall, otherwise grow on in a cold frame for the winter and plant out in late spring.

Cuttings of half-ripe wood with a heel, July in a shaded frame. Overwinter the plants in the frame and plant out in late spring[78]. High percentage[78].

Cuttings of mature wood of the current seasons growth. Select pencil thick shoots in early autumn that are about 20 - 25cm long and plant them in a sheltered position outdoors or in a cold frame[78, 200]. The cuttings can take 12 months to establish but a high percentage of them normally succeed[78].

Division of suckers in the dormant season. Plant them out direct into their permanent positions.

Layering. Takes 12 months[11].

Scent

Flowers: Fresh

The flowers are scented.

Leaves: Crushed

The leaves have a delicious fragrance[245].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Rosa canina* (Dog Rose)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Rosa+canina`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Rosa+canina`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Rosa canina*

Subject:

Rosa canina

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Rosa canina

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:07:07 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Rubus idaeus

Common name:	Raspberry	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Moist neglected land, hedgerows and woodland edges[7, 11, 244].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. R. buschii[G] R. idaeus var. vulgatus[G] R. vulgatus var. buschii[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Ahududu [E], American Red Raspberry [P], Common Red Raspberry [B], European Red Raspberry [L], Framboises [E], Framboos [D], Frambosia [E], Frambueso [E], Raspberry [L,H], Red Raspberry [DEN1,E,FEIS,S], Wild Raspberry [H],
Epithets:	From a Dictionary of Botanical Epithets idaeus = from Mt Ida;
Systematics:	From a UDSA Plants Database Order: Rosales . Rose family

Other Range Info:	From the Ethnobotany Database
	Europe; France; Haiti; Spain; Turkey; Us(Flathead)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Tasmaina.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 2m by 1.5m . It is hardy to zone 3 and is not frost tender. It is in leaf from April to November, in flower from June to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Fruit; Root; Stem; Tea.

Fruit - raw or cooked[2, 5, 7, 61]. Delicious when eaten out of hand, the fruit is also used in pies, preserves etc[183].

Root - cooked. The root, which should be neither too young nor too old, requires a lot of boiling[7].

Young shoots - peeled and eaten raw or cooked like asparagus[172]. They are harvested as they emerge through the ground in the spring and whilst they are still tender.

A herb tea is made from the dried leaves[21, 46, 183]. Another report says that a type of tea made from raspberry and blackberry leaves is an excellent coffee substitute[7].

Medicinal Uses

Disclaimer

Antiinflammatory; Astringent; Birthing aid; Cardiac; Decongestant; Oxytoxic.

Antiemetic[13, 165].

The leaves and roots are anti-inflammatory, astringent, decongestant, ophthalmic, oxytocic and stimulant[4, 13, 165, 222, 254]. A tea made from them is used in the treatment of diarrhoea, as a tonic for the uterus to strengthen pregnant women, and as an aid in childbirth[4, 222, 257]. The tea has also been shown as effective in relieving painful menstrual cramps[222]. The active ingredients both stimulate and relax the uterus[222]. They can be used during the last three months of pregnancy and during childbirth, but should not be used earlier[238]. Externally, the leaves and roots are used as a gargle to treat tonsillitis and mouth inflammations, as a poultice and wash to treat sores, conjunctivitis, minor wounds, burns and varicose ulcers[238, 257]. The leaves are harvested in the summer and dried for later use[9].

The fruit is antiscorbutic and diuretic[7]. Fresh raspberry juice, mixed with a little honey, makes an excellent refrigerant beverage to be taken in the heat of a fever[21]. Made into a syrup, it is said to have a beneficial effect on the heart[21].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Dye; Paper.

A purple to dull blue dye is obtained from the fruit[168].

A fibre obtained from the stems is used in making paper[189]. The stems are harvested in the summer after the fruit has been eaten, the leaves are removed and the stems are steamed until the fibres can be stripped. The fibres are cooked for 2 hours with lye and then hand beaten with mallets or ball milled for 3 hours. The paper is light brown in colour[189].

A decongestant face-mask made from the fruit is used cosmetically to soothe reddened skin[7].

Cultivation details

Prefers a good deep well-drained loamy soil on the acid side[1, 34]. Dislikes very heavy soils[1, 200], light soils[4] and alkaline soils[200]. Prefers an open position but tolerates some shade[1]. Plants crop less well when grown in the shade of trees though they do well in the open on a north-facing slope[200]. Requires a position sheltered from strong winds[200]. Prefers a pH between 6 and 6.5[200].

Raspberries are frequently cultivated in temperate regions of the world, both in the garden and commercially, for their edible fruit. There are many named varieties able to supply fresh fruit from mid-summer to the autumn[1, 200]. High costs of picking the fruit means that little is actually sold fresh, most of the commercially cultivated crops either being used for preserves or grown for the 'Pick Your Own' trade. All the cultivars are self-fertile[200].

This species has biennial stems, it produces a number of new stems each year from the perennial rootstock, these stems fruit in their second year and then die[200].

It is best not to grow raspberries near blackberries or potatoes[18].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed - requires stratification and is best sown in early autumn in a cold frame. Stored seed requires one month stratification at about 3°c and is best sown as early as possible in the year. Prick out the seedlings when they are large enough to handle and grow on in a cold frame. Plant them out into their permanent positions in late spring of the following year.

Cuttings of half-ripe wood, July/August in a frame[200].

Tip layering in July. Plant out in autumn.

Division in early spring or just before leaf-fall in the autumn[200].

Cultivars

'Zeva'

'Malling Promise'

'Malling Joy'

'Malling Jewel'

'Malling Delight'

'Malling Admiral'

'Lloyd George'

'Leo'

'Glen Cova'

'Autumn Bliss'

A large fruit with a firm flesh and a pleasant mild flavour[183]. It bridges the gap between late summer cultivars and the autumn bearing forms[183]. Canes are fairly erect and can be grown without support, they are resistant to some viruses[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Rubus idaeus* (Raspberry)
Varities: Autumn Bliss, Glen Clova, Glen Magna, Julia, Tullameen

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [S] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *rubus idaeus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good

photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species

(quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Rubus+idaeus`
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Plants For A Future: Database Search Results

Rubus idaeus

Common name:	Raspberry	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Moist neglected land, hedgerows and woodland edges[7, 11, 244].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. buschii[G] R. idaeus var. vulgatus[G] R. vulgatus var. buschii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ahududu [E], American Red Raspberry [P], Common Red Raspberry [B], European Red Raspberry [L], Framboises [E], Framboos [D], Frambosia [E], Frambueso [E], Raspberry [L,H], Red Raspberry [DEN1,E,FEIS,S], Wild Raspberry [H],
Epithets:	From a Dictionary of Botanical Epithets
	idaeus = from Mt Ida;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Europe; France; Haiti; Spain; Turkey; Us(Flathead)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Tasmaina.

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 2m by 1.5m . It is hardy to zone 3 and is not frost tender. It is in leaf from April to November, in flower from June to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Fruit; Root; Stem; Tea.

Fruit - raw or cooked[2, 5, 7, 61]. Delicious when eaten out of hand, the fruit is also used in pies, preserves etc[183].

Root - cooked. The root, which should be neither too young nor too old, requires a lot of boiling[7].

Young shoots - peeled and eaten raw or cooked like asparagus[172]. They are harvested as they emerge through the ground in the spring and whilst they are still tender.

A herb tea is made from the dried leaves[21, 46, 183]. Another report says that a type of tea made from raspberry and blackberry leaves is an excellent coffee substitute[7].

Medicinal Uses

Disclaimer

Antiinflammatory; Astringent; Birthing aid; Cardiac; Decongestant; Oxytoxic.

Antiemetic[13, 165].

The leaves and roots are anti-inflammatory, astringent, decongestant, ophthalmic, oxytocic and stimulant[4, 13, 165, 222, 254]. A tea made from them is used in the treatment of diarrhoea, as a tonic for the uterus to strengthen pregnant women, and as an aid in childbirth[4, 222, 257]. The tea has also been shown as effective in relieving painful menstrual cramps[222]. The active ingredients both stimulate and relax the uterus[222]. They can be used during the last three months of pregnancy and during childbirth, but should not be used earlier[238]. Externally, the leaves and roots are used as a gargle to treat tonsillitis and mouth inflammations, as a poultice and wash to treat sores, conjunctivitis, minor wounds, burns and varicose ulcers[238, 257]. The leaves are harvested in the summer and dried for later use[9].

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Other Uses

Cosmetic; Dye; Paper.

A purple to dull blue dye is obtained from the fruit[168].

A fibre obtained from the stems is used in making paper[189]. The stems are harvested in the summer after the fruit has been eaten, the leaves are removed and the stems are steamed until the fibres can be stripped. The fibres are cooked for 2 hours with lye and then hand beaten with mallets or ball milled for 3 hours. The paper is light brown in colour[189].

A decongestant face-mask made from the fruit is used cosmetically to soothe reddened skin[7].

Cultivation details

Prefers a good deep well-drained loamy soil on the acid side[1, 34]. Dislikes very heavy soils[1, 200], light soils[4] and alkaline soils[200]. Prefers an open position but tolerates some shade[1]. Plants crop less well when grown in the shade of trees though they do well in the open on a north-facing slope[200]. Requires a position sheltered from strong winds[200]. Prefers a pH between 6 and 6.5[200].

Raspberries are frequently cultivated in temperate regions of the world, both in the garden and commercially, for their edible fruit. There are many named varieties able to supply fresh fruit from mid-summer to the autumn[1, 200]. High costs of picking the fruit means that little is actually sold fresh, most of the commercially cultivated crops either being used for preserves or grown for the

'Pick Your Own' trade. All the cultivars are self-fertile[200].

This species has biennial stems, it produces a number of new stems each year from the perennial rootstock, these stems fruit in their second year and then die[200].

It is best not to grow raspberries near blackberries or potatoes[18].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed - requires stratification and is best sown in early autumn in a cold frame. Stored seed requires one month stratification at about 3°c and is best sown as early as possible in the year. Prick out the seedlings when they are large enough to handle and grow on in a cold frame. Plant them out into their permanent positions in late spring of the following year.

Cuttings of half-ripe wood, July/August in a frame[200].

Tip layering in July. Plant out in autumn.

Division in early spring or just before leaf-fall in the autumn[200].

Cultivars

'Zeva'

'Malling Promise'

'Malling Joy'

'Malling Jewel'

'Malling Delight'

'Malling Admiral'

'Lloyd George'

'Leo'

'Glen Cova'

'Autumn Bliss'

> A large fruit with a firm flesh and a pleasant mild flavour[183]. It bridges the gap between late summer cultivars and the autumn bearing forms[183]. Canes are fairly erect and can be grown without support, they are resistant to some viruses[183].

Suppliers

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Rubus idaeus* (Raspberry)
Varities: Autumn Bliss, Glen Clova, Glen Magna, Julia, Tullameen

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: Q-R
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [S] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *rubus idaeus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962

A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details

about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Rubus+idaeus`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Rubus idaeus

Common name:	Raspberry	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Moist neglected land, hedgerows and woodland edges[7, 11, 244].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. buschii[G] R. idaeus var. vulgatus[G] R. vulgatus var. buschii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ahududu [E], American Red Raspberry [P], Common Red Raspberry [B], European Red Raspberry [L], Framboises [E], Framboos [D], Frambosia [E], Frambueso [E], Raspberry [L,H], Red Raspberry [DEN1,E,FEIS,S], Wild Raspberry [H],
Epithets:	From a Dictionary of Botanical Epithets
	idaeus = from Mt Ida;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Europe; France; Haiti; Spain; Turkey; Us(Flathead)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Tasmaina.

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

A decidious shrub growing to 2m by 1.5m . It is hardy to zone 3 and is not frost tender. It is in leaf from April to November, in flower from June to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Fruit; Root; Stem; Tea.

Fruit - raw or cooked[2, 5, 7, 61]. Delicious when eaten out of hand, the fruit is also used in pies, preserves etc[183].

Root - cooked. The root, which should be neither too young nor too old, requires a lot of boiling[7].

Young shoots - peeled and eaten raw or cooked like asparagus[172]. They are harvested as they emerge through the ground in the spring and whilst they are still tender.

A herb tea is made from the dried leaves[21, 46, 183]. Another report says that a type of tea made from raspberry and blackberry leaves is an excellent coffee substitute[7].

Medicinal Uses

Disclaimer

Antiinflammatory; Astringent; Birthing aid; Cardiac; Decongestant; Oxytoxic.

Antiemetic[13, 165].

The leaves and roots are anti-inflammatory, astringent, decongestant, ophthalmic, oxytocic and stimulant[4, 13, 165, 222, 254]. A tea made from them is used in the treatment of diarrhoea, as a tonic for the uterus to strengthen pregnant women, and as an aid in childbirth[4, 222, 257]. The tea has also been shown as effective in relieving painful menstrual cramps[222]. The active ingredients both stimulate and relax the uterus[222]. They can be used during the last three months of pregnancy and during childbirth, but should not be used earlier[238]. Externally, the leaves and roots are used as a gargle to treat tonsillitis and mouth inflammations, as a poultice and wash to treat sores, conjunctivitis, minor wounds, burns and varicose ulcers[238, 257]. The leaves are harvested in the summer and dried for later use[9].

The fruit is antiscorbutic and diuretic[7]. Fresh raspberry juice, mixed with a little honey, makes an excellent refrigerant beverage to be taken in the heat of a fever[21]. Made into a syrup, it is said to have a beneficial effect on the heart[21].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Dye; Paper.

A purple to dull blue dye is obtained from the fruit[168].

A fibre obtained from the stems is used in making paper[189]. The stems are harvested in the summer after the fruit has been eaten, the leaves are removed and the stems are steamed until the fibres can be stripped. The fibres are cooked for 2 hours with lye and then hand beaten with mallets or ball milled for 3 hours. The paper is light brown in colour[189].

A decongestant face-mask made from the fruit is used cosmetically to soothe reddened skin[7].

Cultivation details

Prefers a good deep well-drained loamy soil on the acid side[1, 34]. Dislikes very heavy soils[1, 200], light soils[4] and alkaline soils[200]. Prefers an open position but tolerates some shade[1]. Plants crop less well when grown in the shade of trees though they do well in the open on a north-facing slope[200]. Requires a position sheltered from strong winds[200]. Prefers a pH between 6 and 6.5[200].

Raspberries are frequently cultivated in temperate regions of the world, both in the garden and commercially, for their edible fruit. There are many named varieties able to supply fresh fruit from mid-summer to the autumn[1, 200]. High costs of picking the fruit means that little is actually sold fresh, most of the commercially cultivated crops either being used for preserves or grown for the

'Pick Your Own' trade. All the cultivars are self-fertile[200].

This species has biennial stems, it produces a number of new stems each year from the perennial rootstock, these stems fruit in their second year and then die[200].

It is best not to grow raspberries near blackberries or potatoes[18].

Plants in this genus are notably susceptible to honey fungus[200].

Propagation

Seed - requires stratification and is best sown in early autumn in a cold frame. Stored seed requires one month stratification at about 3°c and is best sown as early as possible in the year. Prick out the seedlings when they are large enough to handle and grow on in a cold frame. Plant them out into their permanent positions in late spring of the following year.

Cuttings of half-ripe wood, July/August in a frame[200].

Tip layering in July. Plant out in autumn.

Division in early spring or just before leaf-fall in the autumn[200].

Cultivars

'Zeva'
'Malling Promise'
'Malling Joy'
'Malling Jewel'
'Malling Delight'
'Malling Admiral'
'Lloyd George'
'Leo'
'Glen Cova'
'Autumn Bliss'

> A large fruit with a firm flesh and a pleasant mild flavour[183]. It bridges the gap between late summer cultivars and the autumn bearing forms[183]. Canes are fairly erect and can be grown without support, they are resistant to some viruses[183].

Suppliers

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Rubus idaeus* (Raspberry)
Varities: Autumn Bliss, Glen Clova, Glen Magna, Julia, Tullameen

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Rubus+idaeus`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Rubus idaeus*

Subject:

Rubus idaeus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Rubus idaeus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:07:20 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Rumex brownii

Common name:	Swamp dock	Family:	Polygonaceae
Author:	Campd.	Botanical references:	154, 265
Synonyms:			
Known Hazards:	Plants can contain quite high levels of oxalic acid, which is what gives the leaves of many members of this genus an acid-lemon flavour. Perfectly alright in small quantities, the leaves should not be eaten in large amounts since the oxalic acid can lock-up other nutrients in the food, especially calcium, thus causing mineral deficiencies. The oxalic acid content will be reduced if the plant is cooked. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Australia - New South Wales, Queensland, South Australia, Tasmania, Victoria. Casual in Britain[17].		
Habitat:	Moist places such as the banks of creeks, often in clay soils, in the montane and sub-alpine zones[154]. Often found as a weed of damp lawns and pastures in Australia[193].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. brownei[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Browne's Dock [P,B],
Systematics:	From a UDSA Plants Database

	Order: Polygonales . Buckwheat family

Physical Characteristics

Perennial growing to 0.6m. . It is in flower from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Lawn, Bog Garden, Cultivated Beds.

Edible Uses

Coffee; Leaves.

Leaves - cooked[144]. The leaves can be up to 30cm long and, cooked with their midrib removed, they make a fine substitute for leaf beet[193].

The roasted root is a coffee substitute[193]

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A rich yellow dye is obtained from the root if it is fixed with alum[193].

Although no specific mention has been made for this species, dark green to brown and dark grey dyes can be obtained from the roots of many species in this genus, They do not need a mordant[168].

Cultivation details

Succeeds in most soils but prefers a deep fertile moderately heavy soil that is humus-rich, moisture-retentive but well-drained and a position in full-sun or part shade[200].

This species is sometimes introduced into Britain via bales of wool from Australia and it then persists for a few years[17].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Rumex brownei* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Polygonaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962 A very comprehensive flora, the standard reference book but it has no pictures.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4

A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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URL for Site: http://

Details:

Enter your details here:

Your Name:

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Plants For A Future: Database Search Results

Rumex brownii

Common name:	Swamp dock	Family:	Polygonaceae
Author:	Campd.	Botanical references:	154, 265
Synonyms:			
Known Hazards:	Plants can contain quite high levels of oxalic acid, which is what gives the leaves of many members of this genus an acid-lemon flavour. Perfectly alright in small quantities, the leaves should not be eaten in large amounts since the oxalic acid can lock-up other nutrients in the food, especially calcium, thus causing mineral deficiencies. The oxalic acid content will be reduced if the plant is cooked. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Australia - New South Wales, Queensland, South Australia, Tasmania, Victoria. Casual in Britain[17].		
Habitat:	Moist places such as the banks of creeks, often in clay soils, in the montane and sub-alpine zones[154]. Often found as a weed of damp lawns and pastures in Australia[193].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. brownei[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Browne's Dock [P,B],
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family

Physical Characteristics

Perennial growing to 0.6m. . It is in flower from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Lawn, Bog Garden, Cultivated Beds.

Edible Uses

Coffee; Leaves.

Leaves - cooked[144]. The leaves can be up to 30cm long and, cooked with their midrib removed, they make a fine substitute for leaf beet[193].

The roasted root is a coffee substitute[193]

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A rich yellow dye is obtained from the root if it is fixed with alum[193].

Although no specific mention has been made for this species, dark green to brown and dark grey dyes can be obtained from the roots of many species in this genus, They do not need a mordant[168].

Cultivation details

Succeeds in most soils but prefers a deep fertile moderately heavy soil that is humus-rich, moisture-retentive but well-drained and a position in full-sun or part shade[200].

This species is sometimes introduced into Britain via bales of wool from Australia and it then persists for a few years[17].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Rumex brownei* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Polygonaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4

A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[193] **Low. T.** *Wild Food Plants of Australia.* Angus and Robertson. 1989 ISBN 0-207-14383-8
Well presented, clear information and good photographs. An interesting read for the casual reader as well as the enthusiast

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

Readers Comments

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Plants For A Future: Database Search Results

Rumex brownii

Common name:	Swamp dock	Family:	Polygonaceae
Author:	Campd.	Botanical references:	154, 265
Synonyms:			
Known Hazards:	Plants can contain quite high levels of oxalic acid, which is what gives the leaves of many members of this genus an acid-lemon flavour. Perfectly alright in small quantities, the leaves should not be eaten in large amounts since the oxalic acid can lock-up other nutrients in the food, especially calcium, thus causing mineral deficiencies. The oxalic acid content will be reduced if the plant is cooked. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Australia - New South Wales, Queensland, South Australia, Tasmania, Victoria. Casual in Britain[17].		
Habitat:	Moist places such as the banks of creeks, often in clay soils, in the montane and sub-alpine zones[154]. Often found as a weed of damp lawns and pastures in Australia[193].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. brownei[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Browne's Dock [P,B],
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family

Physical Characteristics

Perennial growing to 0.6m. . It is in flower from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Lawn, Bog Garden, Cultivated Beds.

Edible Uses

Coffee; Leaves.

Leaves - cooked[144]. The leaves can be up to 30cm long and, cooked with their midrib removed, they make a fine substitute for leaf beet[193].

The roasted root is a coffee substitute[193]

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

A rich yellow dye is obtained from the root if it is fixed with alum[193].

Although no specific mention has been made for this species, dark green to brown and dark grey dyes can be obtained from the roots of many species in this genus, They do not need a mordant[168].

Cultivation details

Succeeds in most soils but prefers a deep fertile moderately heavy soil that is humus-rich, moisture-retentive but well-drained and a position in full-sun or part shade[200].

This species is sometimes introduced into Britain via bales of wool from Australia and it then persists for a few years[17].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Rumex brownii*

Subject:

Rumex brownii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Rumex brownii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Rumex crispus

Common name:	Curled dock	Family:	Polygonaceae
Author:	L.	Botanical references:	17
Synonyms:	Rumex elongatus (Guss.)		
Known Hazards:	Plants can contain quite high levels of oxalic acid, which is what gives the leaves of many members of this genus an acid-lemon flavour. Perfectly alright in small quantities, the leaves should not be eaten in large amounts since the oxalic acid can lock-up other nutrients in the food, especially calcium, thus causing mineral deficiencies. The oxalic acid content will be reduced if the plant is cooked. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Britain.		
Habitat:	Growing almost anywhere[5], it is found especially in grassy places, waste ground, roadsides and near sand dunes and is a serious weed of agriculture[17, 244].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below. Chin Ch'Iao Mai [E], Curled Dock [L,H], Curly Dock [E,L,B,P], Dock,Yellow [E], Hualtata [E], Hummaidh [E], Kivircik Labada [E], Krulzuring [D], Niu She T'Ou [E], Oseille Marron [E], Oseille Sauvage [E], Surale Di Bierdji [E], Yellow Dock [H,S],

Epithets:	From a Dictionary of Botanical Epithets crispus = curly;
Systematics:	From a UDSA Plants Database Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database Belgium; Brazil; Chile; China; Europe; Haiti; Iraq; Turkey; Us; Us(Appalachia); Us(Blackfoot)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Iowa, Minnesota, Tasmaina.
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: UK.

Physical Characteristics

Perennial growing to 0.6m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from June to October, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Leaves; Seed.

Leaves - raw or cooked[5, 85, 159]. They can also be dried for later use[12]. The leaves can be added to salads, cooked as a potherb or added to soups[183]. Only the very young leaves should be used, preferably before the stems have developed, and even these are likely to be bitter[12, 95, 257]. If used in early spring and in the autumn they can often be fairly pleasant tasting[85, 159, K]. The leaves are very rich in vitamins and minerals, especially iron and the vitamins A and C[183, 244]. A nutritional analysis is available[218].

Stems - raw or cooked[257]. They are best peeled and the inner portion eaten[257].

Seed - raw or cooked[172, 257]. It can be used as a piñole or can be ground into a powder and used as a flour for making pancakes etc[85, 102, 183, 257]. The seed is very fiddly to harvest and prepare[62].

The roasted seed has been used as a coffee substitute[207].

Composition

Leaves (Fresh weight)

In grammes per 100g weight of food:
Water: 92.6 Calories: 21 Protein: 1.5 Fat: 0.3 Carbohydrate: 4.1 Fibre: 0.9 Ash: 1.5
In milligrammes per 100g weight of food:
Calcium: 74 Phosphorus: 56 Iron: 5.6 VitaminA: 1.38 Thiamine: 0.06 Riboflavin: 0.08
Niacin: 0.4 VitaminC: 30
Source: [218]
Notes: The figure for vitamin A is in milligrammes.

Medicinal Uses

Disclaimer

Alterative; Antiscorbutic; Astringent; Cancer; Cholagogue; Depurative; Homeopathy; Laxative; Poultice; Salve; Tonic.

Curled dock has a long history of domestic herbal use. It is a gentle and safe laxative, less powerful than rhubarb in its action so it is particularly useful in the treatment of mild constipation[254]. The plant has valuable cleansing properties and is useful for treating a wide range of skin problems[254]. All parts of the plant can be used, though the root is most active medicinally.

The root is alterative, antiscorbutic, astringent, cholagogue, depurative, laxative and mildly tonic[4, 21, 46, 94, 165]. It used to be sold as a tonic and laxative[212]. It can cause or relieve diarrhoea according to the dose, harvest time and relative concentrations of tannin(astringent) and anthraquinones (laxative) that are present[222]. It is used internally in the treatment of constipation, diarrhoea, piles, bleeding of the lungs, various blood complaints and also chronic skin diseases[4, 238, 257]. Externally, the root can be mashed and used as a poultice and salve, or dried and used as a dusting powder, on sores, ulcers, wounds and various other skin problems[257].

The root has been used with positive effect to restrain the inroads made by cancer, being used as an alterative and tonic[4]. The root is harvested in early spring and dried for later use[4]. Some caution is advised in its use since excess doses can cause gastric disturbance, nausea and dermatitis[222, 238].

The seed is used in the treatment of diarrhoea[4, 218].

A homeopathic remedy is made from the fresh root, harvested in the autumn before frost has touched the plant[232]. It is only used in the treatment of a specific type of cough[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Dye.

Yellow, dark green to brown and dark grey dyes can be obtained from the roots. They do not need a mordant[168].

An alternative ingredient of 'QR' herbal compost activator[32]. (is it the flowers?) This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

Cultivation details

Succeeds in most soils, preferring a moist moderately fertile well-drained soil in a sunny position[200]. The plant does not need any help in growing, it is doing very nicely in Britain where it is a serious weed of agriculture.

A very important food plant for the caterpillars of many species of butterfly[30].

Propagation

Seed - this plant does not require any help in its propagation.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *rumex crispus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Polygonaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal*. Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free*. Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder*. David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN

0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Rumex crispus

Common name:	Curled dock	Family:	Polygonaceae
Author:	L.	Botanical references:	17
Synonyms:	Rumex elongatus (Guss.)		
Known Hazards:	Plants can contain quite high levels of oxalic acid, which is what gives the leaves of many members of this genus an acid-lemon flavour. Perfectly alright in small quantities, the leaves should not be eaten in large amounts since the oxalic acid can lock-up other nutrients in the food, especially calcium, thus causing mineral deficiencies. The oxalic acid content will be reduced if the plant is cooked. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Britain.		
Habitat:	Growing almost anywhere[5], it is found especially in grassy places, waste ground, roadsides and near sand dunes and is a serious weed of agriculture[17, 244].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Chin Ch'Iao Mai [E], Curled Dock [L,H], Curly Dock [E,L,B,P], Dock,Yellow [E], Hualtata [E], Hummaidh [E], Kivircik Labada [E], Krulzuring [D], Niu She T'Ou [E], Oseille Marron [E], Oseille Sauvage [E], Surale Di Bierdji [E], Yellow Dock [H,S],
Epithets:	From a Dictionary of Botanical Epithets
	crispus = curly;
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database

	Belgium; Brazil; Chile; China; Europe; Haiti; Iraq; Turkey; Us; Us(Appalachia); Us(Blackfoot)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota, Tasmaina.
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: UK.

Physical Characteristics

Perennial growing to 0.6m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from June to October, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Leaves; Seed.

Leaves - raw or cooked[5, 85, 159]. They can also be dried for later use[12]. The leaves can be added to salads, cooked as a potherb or added to soups[183]. Only the very young leaves should be used, preferably before the stems have developed, and even these are likely to be bitter[12, 95, 257]. If used in early spring and in the autumn they can often be fairly pleasant tasting[85, 159, K]. The leaves are very rich in vitamins and minerals, especially iron and the vitamins A and C[183, 244]. A nutritional analysis is available[218].

Stems - raw or cooked[257]. They are best peeled and the inner portion eaten[257].

Seed - raw or cooked[172, 257]. It can be used as a piñole or can be ground into a powder and used as a flour for making pancakes etc[85, 102, 183, 257]. The seed is very fiddly to harvest and prepare[62].

The roasted seed has been used as a coffee substitute[207].

Composition

Leaves (Fresh weight)

In grammes per 100g weight of food:
Water: 92.6 Calories: 21 Protein: 1.5 Fat: 0.3 Carbohydrate: 4.1 Fibre: 0.9 Ash: 1.5
In milligrammes per 100g weight of food:
Calcium: 74 Phosphorus: 56 Iron: 5.6 VitaminA: 1.38 Thiamine: 0.06 Riboflavin: 0.08
Niacin: 0.4 VitaminC: 30
Source: [218]
Notes: The figure for vitamin A is in milligrammes.

Medicinal Uses

Disclaimer

Alterative; Antiscorbutic; Astringent; Cancer; Cholagogue; Depurative; Homeopathy; Laxative; Poultice; Salve; Tonic.

Curled dock has a long history of domestic herbal use. It is a gentle and safe laxative, less powerful than rhubarb in its action so it is particularly useful in the treatment of mild constipation[254]. The plant has valuable cleansing properties and is useful for treating a wide range of skin problems[254]. All parts of the plant can be used, though the root is most active medicinally.

The root is alterative, antiscorbutic, astringent, cholagogue, depurative, laxative and mildly tonic[4, 21, 46, 94, 165]. It used to be sold as a tonic and laxative[212]. It can cause or relieve diarrhoea according to the dose, harvest time and relative concentrations of tannin(astringent) and anthraquinones (laxative) that are present[222]. It is used internally in the treatment of constipation, diarrhoea, piles, bleeding of the lungs, various blood complaints and also chronic skin diseases[4, 238, 257]. Externally, the root can be mashed and used as a poultice and salve, or dried and used as a dusting powder, on sores, ulcers, wounds and various other skin problems[257].

The root has been used with positive effect to restrain the inroads made by cancer, being used as an alterative and tonic[4]. The root is harvested in early spring and dried for later use[4]. Some caution is advised in its use since excess doses can cause gastric disturbance, nausea and dermatitis[222, 238].

The seed is used in the treatment of diarrhoea[4, 218].

A homeopathic remedy is made from the fresh root, harvested in the autumn before frost has touched the plant[232]. It is only used in the treatment of a specific type of cough[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Dye.

Yellow, dark green to brown and dark grey dyes can be obtained from the roots. They do not need a mordant[168].

An alternative ingredient of 'QR' herbal compost activator[32]. (is it the flowers?) This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

Cultivation details

Succeeds in most soils, preferring a moist moderately fertile well-drained soil in a sunny position[200]. The plant does not need any help in growing, it is doing very nicely in Britain where it is a serious weed of agriculture.

A very important food plant for the caterpillars of many species of butterfly[30].

Propagation

Seed - this plant does not require any help in its propagation.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *rumex crispus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Polygonaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4

Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Rumex+crispus`

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Plants For A Future: Database Search Results

Rumex crispus

Common name:	Curled dock	Family:	Polygonaceae
Author:	L.	Botanical references:	17
Synonyms:	Rumex elongatus (Guss.)		
Known Hazards:	Plants can contain quite high levels of oxalic acid, which is what gives the leaves of many members of this genus an acid-lemon flavour. Perfectly alright in small quantities, the leaves should not be eaten in large amounts since the oxalic acid can lock-up other nutrients in the food, especially calcium, thus causing mineral deficiencies. The oxalic acid content will be reduced if the plant is cooked. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Britain.		
Habitat:	Growing almost anywhere[5], it is found especially in grassy places, waste ground, roadsides and near sand dunes and is a serious weed of agriculture[17, 244].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Chin Ch'Iao Mai [E], Curled Dock [L,H], Curly Dock [E,L,B,P], Dock,Yellow [E], Hualtata [E], Hummaidh [E], Kivircik Labada [E], Krulzuring [D], Niu She T'Ou [E], Oseille Marron [E], Oseille Sauvage [E], Surale Di Bierdji [E], Yellow Dock [H,S],
Epithets:	From a Dictionary of Botanical Epithets
	crispus = curly;
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database

	Belgium; Brazil; Chile; China; Europe; Haiti; Iraq; Turkey; Us; Us(Appalachia); Us(Blackfoot)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Iowa, Minnesota, Tasmaina.
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: UK.

Physical Characteristics

Perennial growing to 0.6m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from June to October, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee; Leaves; Seed.

Leaves - raw or cooked[5, 85, 159]. They can also be dried for later use[12]. The leaves can be added to salads, cooked as a potherb or added to soups[183]. Only the very young leaves should be used, preferably before the stems have developed, and even these are likely to be bitter[12, 95, 257]. If used in early spring and in the autumn they can often be fairly pleasant tasting[85, 159, K]. The leaves are very rich in vitamins and minerals, especially iron and the vitamins A and C[183, 244]. A nutritional analysis is available[218].

Stems - raw or cooked[257]. They are best peeled and the inner portion eaten[257].

Seed - raw or cooked[172, 257]. It can be used as a piñole or can be ground into a powder and used as a flour for making pancakes etc[85, 102, 183, 257]. The seed is very fiddly to harvest and prepare[62].

The roasted seed has been used as a coffee substitute[207].

Composition

Leaves (Fresh weight)

In grammes per 100g weight of food:
Water: 92.6 Calories: 21 Protein: 1.5 Fat: 0.3 Carbohydrate: 4.1 Fibre: 0.9 Ash: 1.5
In milligrammes per 100g weight of food:
Calcium: 74 Phosphorus: 56 Iron: 5.6 VitaminA: 1.38 Thiamine: 0.06 Riboflavin: 0.08
Niacin: 0.4 VitaminC: 30
Source: [218]
Notes: The figure for vitamin A is in milligrammes.

Medicinal Uses

Disclaimer

Alterative; Antiscorbutic; Astringent; Cancer; Cholagogue; Depurative; Homeopathy; Laxative; Poultice; Salve; Tonic.

Curled dock has a long history of domestic herbal use. It is a gentle and safe laxative, less powerful than rhubarb in its action so it is particularly useful in the treatment of mild constipation[254]. The plant has valuable cleansing properties and is useful for treating a wide range of skin problems[254]. All parts of the plant can be used, though the root is most active medicinally.

The root is alterative, antiscorbutic, astringent, cholagogue, depurative, laxative and mildly tonic[4, 21, 46, 94, 165]. It used to be sold as a tonic and laxative[212]. It can cause or relieve diarrhoea according to the dose, harvest time and relative concentrations of tannin(astringent) and anthraquinones (laxative) that are present[222]. It is used internally in the treatment of constipation, diarrhoea, piles, bleeding of the lungs, various blood complaints and also chronic skin diseases[4, 238, 257]. Externally, the root can be mashed and used as a poultice and salve, or dried and used as a dusting powder, on sores, ulcers, wounds and various other skin problems[257].

The root has been used with positive effect to restrain the inroads made by cancer, being used as an alterative and tonic[4]. The root is harvested in early spring and dried for later use[4]. Some caution is advised in its use since excess doses can cause gastric disturbance, nausea and dermatitis[222, 238].

The seed is used in the treatment of diarrhoea[4, 218].

A homeopathic remedy is made from the fresh root, harvested in the autumn before frost has touched the plant[232]. It is only used in the treatment of a specific type of cough[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Dye.

Yellow, dark green to brown and dark grey dyes can be obtained from the roots. They do not need a mordant[168].

An alternative ingredient of 'QR' herbal compost activator[32]. (is it the flowers?) This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

Cultivation details

Succeeds in most soils, preferring a moist moderately fertile well-drained soil in a sunny position[200]. The plant does not need any help in growing, it is doing very nicely in Britain where it is a serious weed of agriculture.

A very important food plant for the caterpillars of many species of butterfly[30].

Propagation

Seed - this plant does not require any help in its propagation.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Rumex+crispus`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Rumex crispus*

Subject:

Rumex crispus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Rumex crispus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Ruscus aculeatus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Butcher's broom	Family:	Ruscaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	The berries are purgative[8].		
Range:	Britain.		
Habitat:	Outskirts of dry woods and in moist uncultivated ground especially on chalk[7, 17, 186].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Brusca [E], Butcher'S Broom [E], Butcher's Broom [H], Cobanpuskulu [E], Jew's Myrtle [H], Knee Holly [H], Kneeholm [H], Kneeholy [H], Pettigree [H], Rusco [E], Sweet Broom [H],
Epithets:	From a Dictionary of Botanical Epithets
	aculeatus = with prickles or stings;
Other Range Info:	From the Ethnobotany Database
	Egypt; Europe; France; Mediterranean; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 0.75m by 1m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from January to April, and the seeds ripen from August to March. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Coffee; Stem.

Young shoots - cooked[1, 2, 4, 5, 8, 11]. They are harvested in the spring as they grow through the soil and used as an asparagus substitute[7, 183]. The taste is pungent and rather bitter[132, 183].

The roasted seed is a coffee substitute[1, 105, 183].

Medicinal Uses

Disclaimer

Aperient; Deobstruent; Depurative; Diaphoretic; Diuretic; Vasoconstrictor.

Butcher's broom is little used in modern herbalism but, in view of its positive effect upon varicose veins and haemorrhoids, it could be due for a revival[254].

The root is aperient, deobstruent, depurative, diaphoretic, diuretic and vasoconstrictor[4, 7, 238]. It has been taken internally in the past in the treatment of jaundice, gout, and kidney and bladder stones, at the present time it is used to treat venous insufficiency and haemorrhoids[238]. It should not be prescribed for patients with hypertension[238]. It is also applied externally in the treatment of haemorrhoids[238]. The root is harvested in the autumn and dried for later use[4]. The whole plant is also sometimes used[4]. This remedy should not be given to people with high blood pressure[254].

The plant contains saponin glycosides, including ruscogenin and neoruscogenin. These substances are anti-inflammatory and cause the contraction of blood vessels, especially veins[254].

Other Uses

Broom; Ground cover; Scourer.

Mature shoots are bound into bunches and used as scourers or as besoms[4, 6, 8, 11, 100, 182].

Cultivation details

Tolerant of most soils[11], including chalky and heavy clay soils[200]. Prefers a shady position[1, 31], tolerating dense dry shade and bad growing conditions[186], including the drip-line of trees[182]. Dislikes much wetness at the roots[186]. Established plants are drought resistant[186].

A very hardy plant, when fully dormant it can tolerate temperatures down to about -25°c[187].

Plants have a slowly creeping tough rootstock and eventually form large clumps[187].

Plants in this genus are notably resistant to honey fungus[200].

Plants are unusual in that the flowers are produced from the middle of the leaf[4]. Although normally dioecious, some hermaphrodite forms are known[200]. One of these is called 'Sparkler'. Male and female plants must usually be grown if seed is required.

Propagation

Seed - sow the seed thinly in early spring in a cold frame in light shade. The seed germinates better if it is given a period of cold stratification. Germination can be rather slow, sometimes taking 12 months or more. Grow the seedlings on in the pot in light shade in the greenhouse for their first growing season, giving occasional liquid feeds to ensure they do not suffer nutrient deficiencies. Prick them out into individual pots in the following spring and grow them on for at least another year in the pots before planting them out in early summer. Be very sure to protect the seedlings from slugs[K].

Division as the plant comes into growth in early spring[186]. Larger divisions can be planted out direct into their permanent positions. We have found it best to pot up the smaller divisions and grow them on in a lightly shaded position in a cold frame, planting them out once they are well established in the summer.

Cultivars

'Sparkler'

A hermaphrodite, and therefore self-fertile form of the species[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: R-S
- Checklist of plants suitable for ground cover

Web References

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Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Ruscus aculeatus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Butcher's broom	Family:	Ruscaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	The berries are purgative[8].		
Range:	Britain.		
Habitat:	Outskirts of dry woods and in moist uncultivated ground especially on chalk[7, 17, 186].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Brusca [E], Butcher'S Broom [E], Butcher's Broom [H], Cobanpuskulu [E], Jew's Myrtle [H], Knee Holly [H], Kneeholm [H], Kneeholy [H], Pettigree [H], Rusco [E], Sweet Broom [H],
Epithets:	From a Dictionary of Botanical Epithets
	aculeatus = with prickles or stings;
Other Range Info:	From the Ethnobotany Database
	Egypt; Europe; France; Mediterranean; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 0.75m by 1m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from January to April, and the seeds ripen from August to March. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Coffee; Stem.

Young shoots - cooked[1, 2, 4, 5, 8, 11]. They are harvested in the spring as they grow through the soil and used as an asparagus substitute[7, 183]. The taste is pungent and rather bitter[132, 183].

The roasted seed is a coffee substitute[1, 105, 183].

Medicinal Uses

Disclaimer

Aperient; Deobstruent; Depurative; Diaphoretic; Diuretic; Vasoconstrictor.

Butcher's broom is little used in modern herbalism but, in view of its positive effect upon varicose veins and haemorrhoids, it could be due for a revival[254].

The root is aperient, deobstruent, depurative, diaphoretic, diuretic and vasoconstrictor[4, 7, 238]. It has been taken internally in the past in the treatment of jaundice, gout, and kidney and bladder stones, at the present time it is used to treat venous insufficiency and haemorrhoids[238]. It should not be prescribed for patients with hypertension[238]. It is also applied externally in the treatment of haemorrhoids[238]. The root is harvested in the autumn and dried for later use[4]. The whole plant is also sometimes used[4]. This remedy should not be given to people with high blood pressure[254].

The plant contains saponin glycosides, including ruscogenin and neoruscogenin. These substances are anti-inflammatory and cause the contraction of blood vessels, especially veins[254].

Other Uses

Broom; Ground cover; Scourer.

Mature shoots are bound into bunches and used as scourers or as besoms[4, 6, 8, 11, 100, 182].

Cultivation details

Tolerant of most soils[11], including chalky and heavy clay soils[200]. Prefers a shady position[1, 31], tolerating dense dry shade and bad growing conditions[186], including the drip-line of trees[182]. Dislikes much wetness at the roots[186]. Established plants are drought resistant[186].

A very hardy plant, when fully dormant it can tolerate temperatures down to about -25°c[187].

Plants have a slowly creeping tough rootstock and eventually form large clumps[187].

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Propagation

Seed - sow the seed thinly in early spring in a cold frame in light shade. The seed germinates better if it is given a period of cold stratification. Germination can be rather slow, sometimes taking 12 months or more. Grow the seedlings on in the pot in light shade in the greenhouse for their first growing season, giving occasional liquid feeds to ensure they do not suffer nutrient deficiencies. Prick them out into individual pots in the following spring and grow them on for at least another year in the pots before planting them out in early summer. Be very sure to protect the seedlings from slugs[K].

Division as the plant comes into growth in early spring[186]. Larger divisions can be planted out direct into their permanent positions. We have found it best to pot up the smaller divisions and grow them on in a lightly shaded position in a cold frame, planting them out once they are well established in the summer.

Cultivars

'Sparkler'

A hermaphrodite, and therefore self-fertile form of the species[200].

Suppliers

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Plants For A Future: Database Search Results

Ruscus aculeatus

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Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	The berries are purgative[8].		
Range:	Britain.		
Habitat:	Outskirts of dry woods and in moist uncultivated ground especially on chalk[7, 17, 186].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	aculeatus = with prickles or stings;
Other Range Info:	From the Ethnobotany Database
	Egypt; Europe; France; Mediterranean; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 0.75m by 1m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from January to April, and the seeds ripen from August to March. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Coffee; Stem.

Young shoots - cooked[1, 2, 4, 5, 8, 11]. They are harvested in the spring as they grow through the soil and used as an asparagus substitute[7, 183]. The taste is pungent and rather bitter[132, 183].

The roasted seed is a coffee substitute[1, 105, 183].

Medicinal Uses

Disclaimer

Aperient; Deobstruent; Depurative; Diaphoretic; Diuretic; Vasoconstrictor.

Butcher's broom is little used in modern herbalism but, in view of its positive effect upon varicose veins and haemorrhoids, it could be due for a revival[254].

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Other Uses

Broom; Ground cover; Scourer.

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Cultivation details

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A very hardy plant, when fully dormant it can tolerate temperatures down to about -25°c[187].

Plants have a slowly creeping tough rootstock and eventually form large clumps[187].

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Plants are unusual in that the flowers are produced from the middle of the leaf[4]. Although normally dioecious, some hermaphrodite forms are known[200]. One of these is called 'Sparkler'. Male and female plants must usually be grown if seed is required.

Propagation

Seed - sow the seed thinly in early spring in a cold frame in light shade. The seed germinates better if it is given a period of cold stratification. Germination can be rather slow, sometimes taking 12 months or more. Grow the seedlings on in the pot in light shade in the greenhouse for their first growing season, giving occasional liquid feeds to ensure they do not suffer nutrient deficiencies. Prick them out into individual pots in the following spring and grow them on for at least another year in the pots before planting them out in early summer. Be very sure to protect the seedlings from slugs[K].

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Cultivars

'Sparkler'

A hermaphrodite, and therefore self-fertile form of the species[200].

Suppliers

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Plant names you would like this comment to be added to:

Ruscus aculeatus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Scolymus hispanicus

Common name:	Spanish salsify	Family:	Compositae
Author:	L.	Botanical references:	45, 200
Synonyms:			
Known Hazards:	None known		
Range:	S.W. Europe. An occasional casual in Britain[17].		
Habitat:	Sandy places on cultivated and uncultivated ground[45].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. S. grandiflorus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Cardillo [E], Common Golden-thistle [B], Common Goldenthistle [P], Golden Thistle [L], Spanish Salsify [L],
Epithets:	From a Dictionary of Botanical Epithets hispanicus = Spanish;
Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: California, Victoria, Western Australia.

Physical Characteristics

Biennial/Perennial growing to 1m. It is hardy to zone 7. It is in flower in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Colouring; Leaves; Root; Stem.

Root - raw or cooked[2, 17, 27, 105, 148]. Fleshy[183]. As good as scorzonera[1]. The root has a sweet flavour[200], it makes an excellent vegetable though it is rather low yielding[K].

The roasted root is a coffee substitute[177, 183].

Young leaves and leafstalks - blanched and used in salads[1, 105, 148, 183, 200].

The flowers are used to adulterate saffron (Crocus sativus) as a food colouring[1, 105, 148, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Grows well in an ordinary garden soil in sun or semi-shade[200]. Prefers a rich soil[33].

This species has sometimes been cultivated in the past for its edible root[1, 2, 17, 61].

Propagation

Seed - sow spring or autumn in situ

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [C] Taxon data. from the CalFlora database.
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
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[45] **Polunin. O.** *Flowers of Greece and the Balkans.* Oxford University Press 1980 ISBN 0-19-217626-9
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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Plants For A Future: Database Search Results

Scolymus hispanicus

Common name:	Spanish salsify	Family:	Compositae
Author:	L.	Botanical references:	45, 200
Synonyms:			
Known Hazards:	None known		
Range:	S.W. Europe. An occasional casual in Britain[17].		
Habitat:	Sandy places on cultivated and uncultivated ground[45].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. grandiflorus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Victoria, Western Australia.

Physical Characteristics

Biennial/Perennial growing to 1m. It is hardy to zone 7. It is in flower in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Colouring; Leaves; Root; Stem.

Root - raw or cooked[2, 17, 27, 105, 148]. Fleshy[183]. As good as scorzonera[1]. The root has a sweet flavour[200], it makes an excellent vegetable though it is rather low yielding[K].

The roasted root is a coffee substitute[177, 183].

Young leaves and leafstalks - blanched and used in salads[1, 105, 148, 183, 200].

The flowers are used to adulterate saffron (Crocus sativus) as a food colouring[1, 105, 148, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Grows well in an ordinary garden soil in sun or semi-shade[200]. Prefers a rich soil[33].

This species has sometimes been cultivated in the past for its edible root[1, 2, 17, 61].

Propagation

Seed - sow spring or autumn in situ

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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Plants For A Future: Database Search Results

Scolymus hispanicus

Common name:	Spanish salsify	Family:	Compositae
Author:	L.	Botanical references:	45, 200
Synonyms:			
Known Hazards:	None known		
Range:	S.W. Europe. An occasional casual in Britain[17].		
Habitat:	Sandy places on cultivated and uncultivated ground[45].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. grandiflorus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	hispanicus = Spanish;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: California, Victoria, Western Australia.

Physical Characteristics

Biennial/Perennial growing to 1m. It is hardy to zone 7. It is in flower in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Colouring; Leaves; Root; Stem.

Root - raw or cooked[2, 17, 27, 105, 148]. Fleshy[183]. As good as scorzonera[1]. The root has a sweet flavour[200], it makes an excellent vegetable though it is rather low yielding[K].

The roasted root is a coffee substitute[177, 183].

Young leaves and leafstalks - blanched and used in salads[1, 105, 148, 183, 200].

The flowers are used to adulterate saffron (Crocus sativus) as a food colouring[1, 105, 148, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Grows well in an ordinary garden soil in sun or semi-shade[200]. Prefers a rich soil[33].

This species has sometimes been cultivated in the past for its edible root[1, 2, 17, 61].

Propagation

Seed - sow spring or autumn in situ

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Scolymus hispanicus*

Subject:

Scolymus hispanicus

Group:
Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Scolymus hispanicus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Scorzonera hispanica

Common name:	Scorzonera	Family:	Compositae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Cultivated ground, rocks and bushy places[50].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Salsify [H,L,P], Black-salsify [B], Escorzonera [E], Grote Schorseneer [D], Kara Iskorcina [E],
Epithets:	From a Dictionary of Botanical Epithets
	hispanica = Spanish;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 6 and is not frost tender. It is in flower from June to September, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Duplex'**: Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root.

Root - cooked[2, 27, 33, 37, 105]. A sweet agreeable flavour[1]. The root is usually eaten at the end of its first year of growth, but it can be grown on for a second year without becoming tough[200]. The root is rich in inulin[46] - this is a starch that is not easily digested by humans and so generally passes straight through the digestive system and is excreted. Inulin can cause flatulence in some people[K].

Leaves - raw[27, 33, 52]. The tender young shoots are usually eaten in early spring[183].

Flower buds - raw[57]. Added to salads[183]. The petals have their own distinctive flavour and can also be added to salads[183].

The roasted root is used as a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Repellent.

The growing plant is said to repel carrot root fly from carrots growing nearby[18].

Cultivation details

Succeeds in any soil in sun or light shade[200]. Prefers a light soil[37].

Occasionally cultivated for its edible root, there are some named varieties[183].

Propagation

Seed - sow spring in situ. If the weather is dry, it will be advisable to water the seed in well or germination will be delayed. The seed can also be sown in situ in August.

Division in autumn or as growth commences in spring. Larger divisions can be planted out direct into their permanent positions. We have found it best to pot up the smaller divisions and grow them on in a lightly shaded position in a cold frame, planting them out once they are well established in the summer.

Cultivars

'Duplex'

> The cylindrical roots are up to 25cm long. Theey have a deep black skin and a creamy white flesh with a delicious flavour and excellent quality[183]. A high yielding cultivar, it should be planted early in rich, deeply worked soil.

Suppliers

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Web References

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *scorzonera hispanica* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

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[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Your Name:	
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Scorzonera+hispanica`
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Plants For A Future: Database Search Results

Scorzonera hispanica

Common name:	Scorzonera	Family:	Compositae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Cultivated ground, rocks and bushy places[50].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Salsify [H,L,P], Black-salsify [B], Escorzonera [E], Grote Schorseneer [D], Kara Iskorcina [E],
Epithets:	From a Dictionary of Botanical Epithets
	hispanica = Spanish;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 6 and is not frost tender. It is in flower from June to September, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Duplex'**: Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root.

Root - cooked[2, 27, 33, 37, 105]. A sweet agreeable flavour[1]. The root is usually eaten at the end of its first year of growth, but it can be grown on for a second year without becoming tough[200]. The root is rich in inulin[46] - this is a starch that is not easily digested by humans and so generally passes straight through the digestive system and is excreted. Inulin can cause flatulence in some people[K].

Leaves - raw[27, 33, 52]. The tender young shoots are usually eaten in early spring[183].

Flower buds - raw[57]. Added to salads[183]. The petals have their own distinctive flavour and can also be added to salads[183].

The roasted root is used as a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Repellent.

The growing plant is said to repel carrot root fly from carrots growing nearby[18].

Cultivation details

Succeeds in any soil in sun or light shade[200]. Prefers a light soil[37].

Occasionally cultivated for its edible root, there are some named varieties[183].

Propagation

Seed - sow spring in situ. If the weather is dry, it will be advisable to water the seed in well or germination will be delayed. The seed can also be sown in situ in August.

Division in autumn or as growth commences in spring. Larger divisions can be planted out direct into their permanent positions. We have found it best to pot up the smaller divisions and grow them on in a lightly shaded position in a cold frame, planting them out once they are well established in the summer.

Cultivars

'Duplex'

> The cylindrical roots are up to 25cm long. Theey have a deep black skin and a creamy white flesh with a delicious flavour and excellent quality[183]. A high yielding cultivar, it should be planted early in rich, deeply worked soil.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *scorzonera hispanica* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Cultivated ground, rocks and bushy places[50].		
Plants For A Future Rating (1-5):	4		

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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 6 and is not frost tender. It is in flower from June to September, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Duplex'**: Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root.

Root - cooked[2, 27, 33, 37, 105]. A sweet agreeable flavour[1]. The root is usually eaten at the end of its first year of growth, but it can be grown on for a second year without becoming tough[200]. The root is rich in inulin[46] - this is a starch that is not easily digested by humans and so generally passes straight through the digestive system and is excreted. Inulin can cause flatulence in some people[K].

Leaves - raw[27, 33, 52]. The tender young shoots are usually eaten in early spring[183].

Flower buds - raw[57]. Added to salads[183]. The petals have their own distinctive flavour and can also be added to salads[183].

The roasted root is used as a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Repellent.

The growing plant is said to repel carrot root fly from carrots growing nearby[18].

Cultivation details

Succeeds in any soil in sun or light shade[200]. Prefers a light soil[37].

Occasionally cultivated for its edible root, there are some named varieties[183].

Propagation

Seed - sow spring in situ. If the weather is dry, it will be advisable to water the seed in well or germination will be delayed. The seed can also be sown in situ in August.

Division in autumn or as growth commences in spring. Larger divisions can be planted out direct into their permanent positions. We have found it best to pot up the smaller divisions and grow them on in a lightly shaded position in a cold frame, planting them out once they are well established in the summer.

Cultivars

'Duplex'

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Scorzonera hispanica*

Subject:

Scorzonera hispanica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Scorzonera hispanica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Secale cereale

Common name:	Rye	Family:	Gramineae
Author:	L.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia? Original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. S. montanum[B] Triticum cereale[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Centeno [E], Cultivated Rye [P,B], Rogge [D], Rye [L,E], Swale [E],
Epithets:	From a Dictionary of Botanical Epithets cerea = waxen;
Systematics:	From a UDSA Plants Database Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database Belgium; Spain; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Washington.

Physical Characteristics

Annual growing to 1.8m by 0.1m . It is hardy to zone 3 and is not frost tender. It is in flower from May to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed; Sweetener.

Seed - cooked[2, 13, 34, 46]. A common cereal, it is used especially in N. Europe to make bread[183]. The seed contains about 13% protein[61]. The grain also contains some gluten, though not as much as wheat, so it makes a heavier bread than wheat. It can also be used to make cakes etc. The seed can be sprouted and added to salads[183]. A nutritional analysis is available[218].

Malt, a sweet substance produced by germinating the seed, is extracted from the roasted germinated seed and used as a sweetening agent and in making beer etc[13].

The roasted (ungerminated) seed is used as a coffee substitute[46, 183].

Composition

Seed (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 380 Protein: 13.2 Fat: 2.5 Carbohydrate: 82.5 Fibre: 2.2 Ash: 2
In milligrammes per 100g weight of food:
Calcium: 44 Phosphorus: 400 Iron: 4 Sodium: 4 Potassium: 524 VitaminA: 0 Thiamine: 0.4 Riboflavin: 0.24 Niacin: 1.8 VitaminC: 0
Source: [218]
Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Poultice.

The seed is made into a poultice and applied to tumours[218].

Other Uses

Biomass; Green manure; Oil; Soil stabilization; Thatching.

The straw is used as a fuel or as a biomass in industry[141]. It is quite strong[100] and can also be used in thatching, for paper making, weaving mats and hats etc[13, 34, 46, 61, 171].

The plant is a good green manure crop. It is fast growing with an extensive and deep root system[46]. It is especially useful if sown in late autumn. Its growth over the winter will prevent soil erosion and the leaching of nutrients from the soil, it can then be incorporated into the soil in the spring[171]. The extensive root system also makes this a good plant to use for soil stabilization, especially on sandy soils[171].

Cultivation details

Succeeds in most soils but prefers a well-drained light soil in a sunny position[1, 132]. Established plants are drought tolerant[1].

Rye is a widely cultivated temperate zone cereal crop. It is able to withstand severe climatic conditions and can be grown much further north and at higher altitudes than wheat[13, 34, 57]. There are many named varieties[183]. Rye is a rather variable species and botanists have divided it into a number of sub-species, all of which could be of value in breeding programmes. These sub-species are briefly listed below:-

S. cereale afghanicum (Vavilov.)K.Hammer. Native to the Caucasus, western Asia and India.

S. cereale ancestrale Zhuk. Native to western Asia.

S. cereale dighoricum Vavilov. Native to the Caucasus and eastern europe.

S. cereale segetale Zhuk. Native to temperate Asia.

Rye grows well with cornflowers and pansies[18, 20], though it inhibits the growth of poppies and couch grass[18, 20].

Propagation

Seed - sow March or October in situ and only just cover the seed. Germination should take place within 2 weeks.

Cultivars

"

> There are many named varieties of this annual cereal, with new forms being developed each year. At present there is not time to enter these in the database.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Plant Catalogue (S)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University

study group.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Details:	

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Range:	W. Asia? Original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. montanum[B] Triticum cereale[B,P]
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Cultivated Beds.

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Coffee; Seed; Sweetener.

Seed - cooked[2, 13, 34, 46]. A common cereal, it is used especially in N. Europe to make bread[183]. The seed contains about 13% protein[61]. The grain also contains some gluten, though not as much as wheat, so it makes a heavier bread than wheat. It can also be used to make cakes etc. The seed can be sprouted and added to salads[183]. A nutritional analysis is available[218].

Malt, a sweet substance produced by germinating the seed, is extracted from the roasted germinated seed and used as a sweetening agent and in making beer etc[13].

The roasted (ungerminated) seed is used as a coffee substitute[46, 183].

Composition

Seed (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Calories: 380 Protein: 13.2 Fat: 2.5 Carbohydrate: 82.5 Fibre: 2.2 Ash: 2
> In milligrammes per 100g weight of food:
> Calcium: 44 Phosphorus: 400 Iron: 4 Sodium: 4 Potassium: 524 VitaminA: 0 Thiamine: 0.4
> Riboflavin: 0.24 Niacin: 1.8 VitaminC: 0
> Source: [218]
> Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Poultice.

The seed is made into a poultice and applied to tumours[218].

Other Uses

Biomass; Green manure; Oil; Soil stabilization; Thatching.

The straw is used as a fuel or as a biomass in industry[141]. It is quite strong[100] and can also be used in thatching, for paper making, weaving mats and hats etc[13, 34, 46, 61, 171].

The plant is a good green manure crop. It is fast growing with an extensive and deep root system[46]. It is especially useful if sown in late autumn. Its growth over the winter will prevent soil erosion and the leaching of nutrients from the soil, it can then be incorporated into the soil in the spring[171]. The extensive root system also makes this a good plant to use for soil stabilization, especially on sandy soils[171].

Cultivation details

Succeeds in most soils but prefers a well-drained light soil in a sunny position[1, 132]. Established plants are drought tolerant[1].

Rye is a widely cultivated temperate zone cereal crop. It is able to withstand severe climatic conditions and can be grown much further north and at higher altitudes than wheat[13, 34, 57]. There are many named varieties[183]. Rye is a rather variable species and botanists have divided it into a number of sub-species, all of which could be of value in breeding programmes. These sub-species are briefly listed below:-

S. cereale afghanicum (Vavilov.)K.Hammer. Native to the Caucasus, western Asia and India.

S. cereale ancestrale Zhuk. Native to western Asia.

S. cereale dighoricum Vavilov. Native to the Caucasus and eastern europe.

S. cereale segetale Zhuk. Native to temperate Asia.

Rye grows well with cornflowers and pansies[18, 20], though it inhibits the growth of poppies and couch grass[18, 20].

Propagation

Seed - sow March or October in situ and only just cover the seed. Germination should take place within 2 weeks.

Cultivars

"

> There are many named varieties of this annual cereal, with new forms being developed each year. At present there is not time to enter these in the database.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Plant Catalogue (S)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University

study group.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Readers Comments

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Plants For A Future: Database Search Results

Secale cereale

Common name:	Rye	Family:	Gramineae
Author:	L.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia? Original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. montanum[B] Triticum cereale[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Centeno [E], Cultivated Rye [P,B], Rogge [D], Rye [L,E], Swale [E],
Epithets:	From a Dictionary of Botanical Epithets
	cerea = waxen;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	Belgium; Spain; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Washington.

Physical Characteristics

Annual growing to 1.8m by 0.1m . It is hardy to zone 3 and is not frost tender. It is in flower from May to July, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed; Sweetener.

Seed - cooked[2, 13, 34, 46]. A common cereal, it is used especially in N. Europe to make bread[183]. The seed contains about 13% protein[61]. The grain also contains some gluten, though not as much as wheat, so it makes a heavier bread than wheat. It can also be used to make cakes etc. The seed can be sprouted and added to salads[183]. A nutritional analysis is available[218].

Malt, a sweet substance produced by germinating the seed, is extracted from the roasted germinated seed and used as a sweetening agent and in making beer etc[13].

The roasted (ungerminated) seed is used as a coffee substitute[46, 183].

Composition

Seed (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Calories: 380 Protein: 13.2 Fat: 2.5 Carbohydrate: 82.5 Fibre: 2.2 Ash: 2
> In milligrammes per 100g weight of food:
> Calcium: 44 Phosphorus: 400 Iron: 4 Sodium: 4 Potassium: 524 VitaminA: 0 Thiamine: 0.4
> Riboflavin: 0.24 Niacin: 1.8 VitaminC: 0
> Source: [218]
> Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Poultice.

The seed is made into a poultice and applied to tumours[218].

Other Uses

Biomass; Green manure; Oil; Soil stabilization; Thatching.

The straw is used as a fuel or as a biomass in industry[141]. It is quite strong[100] and can also be used in thatching, for paper making, weaving mats and hats etc[13, 34, 46, 61, 171].

The plant is a good green manure crop. It is fast growing with an extensive and deep root system[46]. It is especially useful if sown in late autumn. Its growth over the winter will prevent soil erosion and the leaching of nutrients from the soil, it can then be incorporated into the soil in the spring[171]. The extensive root system also makes this a good plant to use for soil stabilization, especially on sandy soils[171].

Cultivation details

Succeeds in most soils but prefers a well-drained light soil in a sunny position[1, 132]. Established plants are drought tolerant[1].

Rye is a widely cultivated temperate zone cereal crop. It is able to withstand severe climatic conditions and can be grown much further north and at higher altitudes than wheat[13, 34, 57]. There are many named varieties[183]. Rye is a rather variable species and botanists have divided it into a number of sub-species, all of which could be of value in breeding programmes. These sub-species are briefly listed below:-

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S. cereale ancestrale Zhuk. Native to western Asia.

S. cereale dighoricum Vavilov. Native to the Caucasus and eastern europe.

S. cereale segetale Zhuk. Native to temperate Asia.

Rye grows well with cornflowers and pansies[18, 20], though it inhibits the growth of poppies and couch grass[18, 20].

Propagation

Seed - sow March or October in situ and only just cover the seed. Germination should take place within 2 weeks.

Cultivars

"

> There are many named varieties of this annual cereal, with new forms being developed each year. At present there is not time to enter these in the database.

Suppliers

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Secale+cereale`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Secale cereale*

Subject:

Secale cereale

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Secale cereale

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:08:30 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Setaria viridis

Common name:	Green bristle grass	Family:	Gramineae
Author:	(L.) Palib.	Botanical references:	89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe to E. Asia - Japan. A casual in Britain[17].		
Habitat:	Dry places and cultivated ground[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Chaetochloa viridis[G] Chamaeraphis viridis[G] Panicum viride[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bottle Grass [L], Green Bristle Grass [B], Green Bristle-grass [L], Green Bristlegrass [P], Green Foxtail [L], Groene Naaldaar [D], Hsiao Mi [E], Hsien Su [E], Su [E],
Epithets:	From a Dictionary of Botanical Epithets
	viridis = green;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Annual growing to 0.45m by 0.1m . It is hardy to zone 6. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed[105]. Small[159]. It is used in the same ways as rice or millet, either boiled, roasted or ground into a flour[183].

The seed (roasted?) is said to be a coffee substitute.

Medicinal Uses

Disclaimer

Diuretic; Emollient; Febrifuge; Poultice; Tonic.

The seed is diuretic, emollient, febrifuge, refrigerant and tonic[218].

The plant is crushed and mixed with water then used as an external application in the treatment of bruises[240].

Other Uses

None known

Cultivation details

Succeeds in any well-drained soil in full sun[200].

Propagation

Seed - sow early spring in a greenhouse and only just cover the seed. Germination is usually quick and good. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow them on fast. Plant them out in late spring, after the last expected frosts. Whilst this is fine for small quantities, it would be an extremely labour intensive method if larger amounts were to be grown.

The seed can be sown in situ in the middle of spring though it is then later in coming into flower and may not ripen its seed in a cool summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Setaria+viridis`

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Plants For A Future: Database Search Results

Setaria viridis

Common name:	Green bristle grass	Family:	Gramineae
Author:	(L.) Palib.	Botanical references:	89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe to E. Asia - Japan. A casual in Britain[17].		
Habitat:	Dry places and cultivated ground[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Chaetochloa viridis[G] Chamaeraphis viridis[G] Panicum viride[G]
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Epithets:	From a Dictionary of Botanical Epithets
	viridis = green;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
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Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Annual growing to 0.45m by 0.1m . It is hardy to zone 6. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed[105]. Small[159]. It is used in the same ways as rice or millet, either boiled, roasted or ground into a flour[183].

The seed (roasted?) is said to be a coffee substitute.

Medicinal Uses

Disclaimer

Diuretic; Emollient; Febrifuge; Poultice; Tonic.

The seed is diuretic, emollient, febrifuge, refrigerant and tonic[218].

The plant is crushed and mixed with water then used as an external application in the treatment of bruises[240].

Other Uses

None known

Cultivation details

Succeeds in any well-drained soil in full sun[200].

Propagation

Seed - sow early spring in a greenhouse and only just cover the seed. Germination is usually quick and good. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow them on fast. Plant them out in late spring, after the last expected frosts. Whilst this is fine for small quantities, it would be an extremely labour intensive method if larger amounts were to be grown.

The seed can be sown in situ in the middle of spring though it is then later in coming into flower and may not ripen its seed in a cool summer.

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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Setaria+viridis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Setaria+viridis`

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Plants For A Future: Database Search Results

Setaria viridis

Common name:	Green bristle grass	Family:	Gramineae
Author:	(L.) Palib.	Botanical references:	89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe to E. Asia - Japan. A casual in Britain[17].		
Habitat:	Dry places and cultivated ground[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Chaetochloa viridis[G] Chamaeraphis viridis[G] Panicum viride[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bottle Grass [L], Green Bristle Grass [B], Green Bristle-grass [L], Green Bristlegrass [P], Green Foxtail [L], Groene Naaldaar [D], Hsiao Mi [E], Hsien Su [E], Su [E],
Epithets:	From a Dictionary of Botanical Epithets
	viridis = green;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Annual growing to 0.45m by 0.1m . It is hardy to zone 6. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Seed.

Seed[105]. Small[159]. It is used in the same ways as rice or millet, either boiled, roasted or ground into a flour[183].

The seed (roasted?) is said to be a coffee substitute.

Medicinal Uses

Disclaimer

Diuretic; Emollient; Febrifuge; Poultice; Tonic.

The seed is diuretic, emollient, febrifuge, refrigerant and tonic[218].

The plant is crushed and mixed with water then used as an external application in the treatment of bruises[240].

Other Uses

None known

Cultivation details

Succeeds in any well-drained soil in full sun[200].

Propagation

Seed - sow early spring in a greenhouse and only just cover the seed. Germination is usually quick and good. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow them on fast. Plant them out in late spring, after the last expected frosts. Whilst this is fine for small quantities, it would be an extremely labour intensive method if larger amounts were to be grown.

The seed can be sown in situ in the middle of spring though it is then later in coming into flower and may not ripen its seed in a cool summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Setaria+viridis`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Setaria viridis*

Subject:

Setaria viridis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Setaria viridis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:08:42 2004

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Add Comment Reset

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Plants For A Future: Database Search Results

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Silybum marianum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Milk thistle	Family:	Compositae
Author:	(L.) Gaertn.	Botanical references:	17, 200
Synonyms:	Carduus marianus (L.)		
Known Hazards:	When grown on nitrogen rich soils, especially those that have been fed with chemical fertilizers, this plant can concentrate nitrates in the leaves. Nitrates are implicated in stomach cancers.		
Range:	S. Europe, N. Africa and W. Asia. Naturalized in Britain.		
Habitat:	Waste places[17], usually close to the sea[5], especially if the ground is dry and rocky[165].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Mariana mariana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Blessed Milk-thistle [B], Blessed Milkthistle [L,P], Cardo Mariano [E], Holy Thistle [E], Kanger [E], Kenger [E], Ku'Ub [E], Lady's Thistle [L], Maria-Azami [E], Mariadistel [D], Meryemanadikeni [E], Milk Thistle [H,S,L], St Mary's Milk Thistle [H], Thistle, Milk [S], Thistle,Lady'S [E], Variegated Thistle [E],

Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database China; Europe; India; Iraq; Kurdistan; Mediterranean; Spain; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Oregon, Washington, Victoria, South Australia, Western Australia, Tasmaina.

Physical Characteristics

Biennial growing to 1.2m by 1m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Oil; Root; Stem.

Root - raw or cooked[1, 2, 4, 52, 183]. A mild flavour and somewhat mucilaginous texture[K]. When boiled, the roots resemble salsify (Tragopogon hispanicus)[1, 4, 115].

Leaves - raw or cooked[1, 4, 5, 52, 89, 115]. The very sharp leaf-spines must be removed first[46, 183], which is quite a fiddly operation[K]. The leaves are quite thick and have a mild flavour when young, at this time they are quite an acceptable ingredient of mixed salads, though they can become bitter in hot dry weather[K]. When cooked they make an acceptable spinach substitute[238]. It is possible to have leaves available all year round from successional sowings[K].

Flower buds - cooked[1, 238]. A globe artichoke substitute[12, 183], they are used before the flowers open. The flavour is mild and acceptable, but the buds are quite small and even more fiddly to use than globe artichokes[K].

Stems - raw or cooked[4, 100]. They are best peeled and can be soaked to reduce the bitterness[5, 183]. Palatable and nutritious[4, 115], they can be used like asparagus or rhubarb[12] or added to salads. They are best used in spring when they are young[105].

A good quality oil is obtained from the seeds[4].

The roasted seed is a coffee substitute[21, 46, 61, 183].

Medicinal Uses

Disclaimer

Astringent; Bitter; Cholagogue; Diaphoretic; Diuretic; Emetic; Emmenagogue; Hepatic; Homeopathy; Stimulant; Stomachic; Tonic.

Blessed thistle has a long history of use in the West as a remedy for depression and liver problems[254]. Recent research has confirmed that it has a remarkable ability to protect the liver from damage resulting from alcoholic and other types of poisoning[254].

The whole plant is astringent, bitter, cholagogue, diaphoretic, diuretic, emetic, emmenagogue, hepatic, stimulant, stomachic and tonic[4, 21, 160, 165, 238]. It is used internally in the treatment of liver and gall bladder diseases, jaundice, cirrhosis, hepatitis and poisoning[238]. The plant is harvested when in flower and dried for later use[238].

Silymarin, an extract from the seed, acts on the membranes of the liver cells preventing the entry of virus toxins and other toxic compounds and thus preventing damage to the cells[244]. It also dramatically improves liver regeneration in hepatitis, cirrhosis, mushroom poisoning and other diseases of the liver[222, 238, 254]. German research suggests that silybin (a flavonoid component of the seed) is clinically useful in the treatment of severe poisoning by Amanita mushrooms[222]. Seed extracts are produced commercially in Europe[222]. Regeneration of the liver is particularly important in the treatment of cancer since this disease is always characterized by a severely compromised and often partially destroyed liver[K].

A homeopathic remedy is obtained from equal parts of the root and the seed with its hulls still attached[4]. It is used in the treatment of liver and abdominal disorders[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Green manure; Oil.

A good green manure plant, producing a lot of bulk for incorporation into the soil[K].

Cultivation details

Succeeds in any well-drained fertile garden soil[1, 200]. Prefers a calcareous soil[12] and a sunny position[200].

Hardy to about -15°c[200].

The blessed thistle is a very ornamental plant that was formerly cultivated as a vegetable crop[1, 61, 238].

Young plants are prone to damage from snails and slugs[200]. Plants will often self sow freely[K].

Propagation

Seed - if sown in situ during March or April, the plant will usually flower in the summer and complete its life cycle in one growing season[K]. The seed can also be sown from May to August when the plant will normally wait until the following year to flower and thus behave as a biennial[K]. The best edible roots should be produced from a May/June sowing, whilst sowing the seed in the spring as well as the summer should ensure a supply of edible leaves all year round[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.

- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Carduus marianus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *silybum marianum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962

A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Silybum marianum

ysteban Sun Jan 19 13:16:13 2003

I don't see how you can rate it 2 out of 5 on a usefullness scale when it is probably the most powerful plant to repair and detox the liver, the cornerstone of the immune system... An impaired immune system is a factor in nearly every disease. Also nearly the entire plant is edible, easy to grow, etc. Even it is beautiful and beneficial to wildlife, Up the rating to a 5! I list another site below, but maybe you already have it?

Link: Natural Facts

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Silybum marianum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Milk thistle	Family:	Compositae
Author:	(L.) Gaertn.	Botanical references:	17, 200
Synonyms:	Carduus marianus (L.)		
Known Hazards:	When grown on nitrogen rich soils, especially those that have been fed with chemical fertilizers, this plant can concentrate nitrates in the leaves. Nitrates are implicated in stomach cancers.		
Range:	S. Europe, N. Africa and W. Asia. Naturalized in Britain.		
Habitat:	Waste places[17], usually close to the sea[5], especially if the ground is dry and rocky[165].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Mariana mariana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blessed Milk-thistle [B], Blessed Milkthistle [L,P], Cardo Mariano [E], Holy Thistle [E], Kanger [E], Kenger [E], Ku'Ub [E], Lady's Thistle [L], Maria-Azami [E], Mariadistel [D], Meryemanadikeni [E], Milk Thistle [H,S,L], St Mary's Milk Thistle [H], Thistle, Milk [S], Thistle,Lady'S [E], Variegated Thistle [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Europe; India; Iraq; Kurdistan; Mediterranean; Spain; Turkey; Us

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Oregon, Washington, Victoria, South Australia, Western Australia, Tasmaina.

Physical Characteristics

Biennial growing to 1.2m by 1m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Oil; Root; Stem.

Root - raw or cooked[1, 2, 4, 52, 183]. A mild flavour and somewhat mucilaginous texture[K]. When boiled, the roots resemble salsify (Tragopogon hispanicus)[1, 4, 115].

Leaves - raw or cooked[1, 4, 5, 52, 89, 115]. The very sharp leaf-spines must be removed first[46, 183], which is quite a fiddly operation[K]. The leaves are quite thick and have a mild flavour when young, at this time they are quite an acceptable ingredient of mixed salads, though they can become bitter in hot dry weather[K]. When cooked they make an acceptable spinach substitute[238]. It is possible to have leaves available all year round from successional sowings[K].

Flower buds - cooked[1, 238]. A globe artichoke substitute[12, 183], they are used before the flowers open. The flavour is mild and acceptable, but the buds are quite small and even more fiddly to use than globe artichokes[K].

Stems - raw or cooked[4, 100]. They are best peeled and can be soaked to reduce the bitterness[5, 183]. Palatable and nutritious[4, 115], they can be used like asparagus or rhubarb[12] or added to salads. They are best used in spring when they are young[105].

A good quality oil is obtained from the seeds[4].

The roasted seed is a coffee substitute[21, 46, 61, 183].

Medicinal Uses

Disclaimer

Astringent; Bitter; Cholagogue; Diaphoretic; Diuretic; Emetic; Emmenagogue; Hepatic; Homeopathy; Stimulant; Stomachic; Tonic.

Blessed thistle has a long history of use in the West as a remedy for depression and liver problems[254]. Recent research has confirmed that it has a remarkable ability to protect the liver from damage resulting from alcoholic and other types of poisoning[254].

The whole plant is astringent, bitter, cholagogue, diaphoretic, diuretic, emetic, emmenagogue, hepatic, stimulant, stomachic and tonic[4, 21, 160, 165, 238]. It is used internally in the treatment of liver and gall bladder diseases, jaundice, cirrhosis, hepatitis and poisoning[238]. The plant is harvested when in flower and dried for later use[238].

Silymarin, an extract from the seed, acts on the membranes of the liver cells preventing the entry of virus toxins and other toxic compounds and thus preventing damage to the cells[244]. It also dramatically improves liver regeneration in hepatitis, cirrhosis, mushroom poisoning and other diseases of the liver[222, 238, 254]. German research suggests that silybin (a flavonoid component of the seed) is clinically useful in the treatment of severe poisoning by Amanita mushrooms[222]. Seed extracts are produced commercially in Europe[222]. Regeneration of the liver is particularly important in the treatment of cancer since this disease is always characterized by a severely compromised and often partially destroyed liver[K].

A homeopathic remedy is obtained from equal parts of the root and the seed with its hulls still attached[4]. It is used in the treatment of liver and abdominal disorders[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Green manure; Oil.

A good green manure plant, producing a lot of bulk for incorporation into the soil[K].

Cultivation details

Succeeds in any well-drained fertile garden soil[1, 200]. Prefers a calcareous soil[12] and a sunny position[200].

Hardy to about -15°c[200].

The blessed thistle is a very ornamental plant that was formerly cultivated as a vegetable crop[1, 61, 238].

Young plants are prone to damage from snails and slugs[200]. Plants will often self sow freely[K].

Propagation

Seed - if sown in situ during March or April, the plant will usually flower in the summer and complete its life cycle in one growing season[K]. The seed can also be sown from May to August when the plant will normally wait until the following year to flower and thus behave as a biennial[K]. The best edible roots should be produced from a May/June sowing, whilst sowing the seed in the spring as well as the summer should ensure a supply of edible leaves all year round[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Carduus marianus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *silybum marianum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959

An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Silybum marianum

ysteban Sun Jan 19 13:16:13 2003

I don't see how you can rate it 2 out of 5 on a usefullness scale when it is probably the most powerful plant to repair and detox the liver, the cornerstone of the immune system... An impaired immune system is a factor in nearly every disease. Also nearly the entire plant is edible, easy to grow, etc. Even it is beautiful and beneficial to wildlife, Up the rating to a 5! I list another site below, but maybe you already have it?

Link: Natural Facts

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Plants For A Future: Database Search Results

Silybum marianum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Milk thistle	Family:	Compositae
Author:	(L.) Gaertn.	Botanical references:	17, 200
Synonyms:	Carduus marianus (L.)		
Known Hazards:	When grown on nitrogen rich soils, especially those that have been fed with chemical fertilizers, this plant can concentrate nitrates in the leaves. Nitrates are implicated in stomach cancers.		
Range:	S. Europe, N. Africa and W. Asia. Naturalized in Britain.		
Habitat:	Waste places[17], usually close to the sea[5], especially if the ground is dry and rocky[165].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Mariana mariana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Blessed Milk-thistle [B], Blessed Milkthistle [L,P], Cardo Mariano [E], Holy Thistle [E], Kanger [E], Kenger [E], Ku'Ub [E], Lady's Thistle [L], Maria-Azami [E], Mariadistel [D], Meryemanadikeni [E], Milk Thistle [H,S,L], St Mary's Milk Thistle [H], Thistle, Milk [S], Thistle,Lady'S [E], Variegated Thistle [E],
Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database China; Europe; India; Iraq; Kurdistan; Mediterranean; Spain; Turkey; Us

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Oregon, Washington, Victoria, South Australia, Western Australia, Tasmaina.

Physical Characteristics

Biennial growing to 1.2m by 1m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Oil; Root; Stem.

Root - raw or cooked[1, 2, 4, 52, 183]. A mild flavour and somewhat mucilaginous texture[K]. When boiled, the roots resemble salsify (Tragopogon hispanicus)[1, 4, 115].

Leaves - raw or cooked[1, 4, 5, 52, 89, 115]. The very sharp leaf-spines must be removed first[46, 183], which is quite a fiddly operation[K]. The leaves are quite thick and have a mild flavour when young, at this time they are quite an acceptable ingredient of mixed salads, though they can become bitter in hot dry weather[K]. When cooked they make an acceptable spinach substitute[238]. It is possible to have leaves available all year round from successional sowings[K].

Flower buds - cooked[1, 238]. A globe artichoke substitute[12, 183], they are used before the flowers open. The flavour is mild and acceptable, but the buds are quite small and even more fiddly to use than globe artichokes[K].

Stems - raw or cooked[4, 100]. They are best peeled and can be soaked to reduce the bitterness[5, 183]. Palatable and nutritious[4, 115], they can be used like asparagus or rhubarb[12] or added to salads. They are best used in spring when they are young[105].

A good quality oil is obtained from the seeds[4].

The roasted seed is a coffee substitute[21, 46, 61, 183].

Medicinal Uses

Disclaimer

Astringent; Bitter; Cholagogue; Diaphoretic; Diuretic; Emetic; Emmenagogue; Hepatic; Homeopathy; Stimulant; Stomachic; Tonic.

Blessed thistle has a long history of use in the West as a remedy for depression and liver problems[254]. Recent research has confirmed that it has a remarkable ability to protect the liver from damage resulting from alcoholic and other types of poisoning[254].

The whole plant is astringent, bitter, cholagogue, diaphoretic, diuretic, emetic, emmenagogue, hepatic, stimulant, stomachic and tonic[4, 21, 160, 165, 238]. It is used internally in the treatment of liver and gall bladder diseases, jaundice, cirrhosis, hepatitis and poisoning[238]. The plant is harvested when in flower and dried for later use[238].

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Other Uses

Green manure; Oil.

A good green manure plant, producing a lot of bulk for incorporation into the soil[K].

Cultivation details

Succeeds in any well-drained fertile garden soil[1, 200]. Prefers a calcareous soil[12] and a sunny position[200].

Hardy to about -15°c[200].

The blessed thistle is a very ornamental plant that was formerly cultivated as a vegetable crop[1, 61, 238].

Young plants are prone to damage from snails and slugs[200]. Plants will often self sow freely[K].

Propagation

Seed - if sown in situ during March or April, the plant will usually flower in the summer and complete its life cycle in one growing season[K]. The seed can also be sown from May to August when the plant will normally wait until the following year to flower and thus behave as a biennial[K]. The best edible roots should be produced from a May/June sowing, whilst sowing the seed in the spring as well as the summer should ensure a supply of edible leaves all year round[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Silybum marianum*

Subject:

Silybum marianum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Silybum marianum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Sium sisarum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Skirret	Family:	Umbelliferae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Original habitat is obscure, possibly in E. Europe or Asia.		
Habitat:	Not known in a truly wild situation but found as an escape from cultivation in damp places[50].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Skirret [H,P,E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Britain; Eurasia

Physical Characteristics

Perennial growing to 1m by 0.4m . It is hardy to zone 6 and is not frost tender. It is in leaf from March to November, in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Root.

Root - raw or cooked[2, 4, 14, 33]. Firm, sweet and floury[27] but with a small woody core[160, K]. The roots have a very acceptable taste raw, that is somewhat like a cross between carrots and parsnip but with a nutty flavour. They can also be boiled, baked or added to soups etc[183, K].

The roasted root has been used as a coffee substitute[46, 61, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a light, rich, moisture retentive soil in full sun[1, 33, 37]. Requires an abundance of moisture in the growing season or the roots will be tough[27, 37]. Plants are tolerant of some shade[244].

Plants seem to be resistant to all insects and diseases[160].

Skirret was at one time often grown for its edible root but has fallen into virtual disuse[2, 50, 61]. This is a shame since the root is very tasty, easy to grow and relatively productive[K]. The form S. sisarum sisarum should be used, its root is fleshy and succulent, S. sisarum lancifolium. (Bieb.) Thell. is sometimes offered but is unlikely to produce roots of culinary quality[200].

Propagation

Seed - sow late winter to early spring in a cold frame[1, 33]. It can be slow to germinate. Prick out the seedlings into individual pots when they are large enough to handle and plant them out in the summer if they are large enough. Otherwise, grow them on in a cold frame for their first winter and plant them out in the following spring. The seed is best sown in early April in situ[1, 33].

Division in early spring just before new growth begins. Use the side roots to produce new plants[1]. Larger divisions can be planted out direct into their permanent positions. We have found it best to pot up the smaller divisions and grow them on in a lightly shaded position in a cold frame, planting them out once they are well established in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Root Crops.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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Plants For A Future: Database Search Results

Sium sisarum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Skirret	Family:	Umbelliferae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Original habitat is obscure, possibly in E. Europe or Asia.		
Habitat:	Not known in a truly wild situation but found as an escape from cultivation in damp places[50].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Skirret [H,P,E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Britain; Eurasia

Physical Characteristics

Perennial growing to 1m by 0.4m . It is hardy to zone 6 and is not frost tender. It is in leaf from March to November, in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Root.

Root - raw or cooked[2, 4, 14, 33]. Firm, sweet and floury[27] but with a small woody core[160, K]. The roots have a very acceptable taste raw, that is somewhat like a cross between carrots and parsnip but with a nutty flavour. They can also be boiled, baked or added to soups etc[183, K].

The roasted root has been used as a coffee substitute[46, 61, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a light, rich, moisture retentive soil in full sun[1, 33, 37]. Requires an abundance of moisture in the growing season or the roots will be tough[27, 37]. Plants are tolerant of some shade[244].

Plants seem to be resistant to all insects and diseases[160].

Skirret was at one time often grown for its edible root but has fallen into virtual disuse[2, 50, 61]. This is a shame since the root is very tasty, easy to grow and relatively productive[K]. The form S. sisarum sisarum should be used, its root is fleshy and succulent, S. sisarum lancifolium. (Bieb.) Thell. is sometimes offered but is unlikely to produce roots of culinary quality[200].

Propagation

Seed - sow late winter to early spring in a cold frame[1, 33]. It can be slow to germinate. Prick out the seedlings into individual pots when they are large enough to handle and plant them out in the summer if they are large enough. Otherwise, grow them on in a cold frame for their first winter and plant them out in the following spring. The seed is best sown in early April in situ[1, 33].

Division in early spring just before new growth begins. Use the side roots to produce new plants[1]. Larger divisions can be planted out direct into their permanent positions. We have found it best to pot up the smaller divisions and grow them on in a lightly shaded position in a cold frame, planting them out once they are well established in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Root Crops.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6

Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Sium sisarum

A photo of this plant will appear in the forthcoming CD-ROM.

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Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Original habitat is obscure, possibly in E. Europe or Asia.		
Habitat:	Not known in a truly wild situation but found as an escape from cultivation in damp places[50].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Skirret [H,P,E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Britain; Eurasia

Physical Characteristics

Perennial growing to 1m by 0.4m . It is hardy to zone 6 and is not frost tender. It is in leaf from March to November, in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Root.

Root - raw or cooked[2, 4, 14, 33]. Firm, sweet and floury[27] but with a small woody core[160, K]. The roots have a very acceptable taste raw, that is somewhat like a cross between carrots and parsnip but with a nutty flavour. They can also be boiled, baked or added to soups etc[183, K].

The roasted root has been used as a coffee substitute[46, 61, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a light, rich, moisture retentive soil in full sun[1, 33, 37]. Requires an abundance of moisture in the growing season or the roots will be tough[27, 37]. Plants are tolerant of some shade[244].

Plants seem to be resistant to all insects and diseases[160].

Skirret was at one time often grown for its edible root but has fallen into virtual disuse[2, 50, 61]. This is a shame since the root is very tasty, easy to grow and relatively productive[K]. The form S. sisarum sisarum should be used, its root is fleshy and succulent, S. sisarum lancifolium. (Bieb.) Thell. is sometimes offered but is unlikely to produce roots of culinary quality[200].

Propagation

Seed - sow late winter to early spring in a cold frame[1, 33]. It can be slow to germinate. Prick out the seedlings into individual pots when they are large enough to handle and plant them out in the summer if they are large enough. Otherwise, grow them on in a cold frame for their first winter and plant them out in the following spring. The seed is best sown in early April in situ[1, 33].

Division in early spring just before new growth begins. Use the side roots to produce new plants[1]. Larger divisions can be planted out direct into their permanent positions. We have found it best to pot up the smaller divisions and grow them on in a lightly shaded position in a cold frame, planting them out once they are well established in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Sium sisarum*

Subject:

Sium sisarum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Sium sisarum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:09:06 2004

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Plants For A Future: Database Search Results

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Sonchus arvensis

Common name:	Field milk thistle	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Arable and waste land, ditches and on the drift line of salt and brackish margins, avoiding acid soils[4, 9, 17]. A persistent weed of cultivation[1].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Akkermelkdistel [D], Corn Sow-thistle [H], Field Sow Thistle [L], Field Sow-thistle [B], Field Sowthistle [P], Perennial Sow Thistle [L], Perennial Sowthistle [FEIS], Sowthistle,Corn [E],
Epithets:	From a Dictionary of Botanical Epithets
	arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Java
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Arizona, California, Hawaii, Idaho, Illinois, Iowa, Minnesota, Nevada, North Dakota, South Dakota, Wyoming.

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to October, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, Lepidoptera (Moths & Butterflies) and beetles. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Root; Stem.

Young leaves - raw or cooked[4, 5, 52, 54]. A slightly bitter taste, they can be added to salads or cooked like spinach[9, 183]. The leaves are rich in mineral salts and vitamin C[9], they contain about 47mg of vitamin C per 100g and 2% protein (dry weight)[173]. It might be best, though it is not necessary, to remove the marginal prickles[9].

Stems - cooked like asparagus or rhubarb[12].

Young root - cooked[12].

The roasted root is used as a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Antiinflammatory; Pectoral; Sedative.

The leaves are used as a poultice and are said to have anti-inflammatory activity[4, 222]. An infusion of the leaves has been used in the treatment of caked breasts[257].

A tea made from the roots is used in the treatment of asthma, coughs and other chest complaints[222].

A tea made from the leaves is said to calm the nerves[222].

Other Uses

Insecticide.

The plant is said to have insecticidal properties[218].

Cultivation details

A common garden weed, see notes on its habitat if you want to encourage it.

This species has been cultivated for its edible leaves by the Maoris of New Zealand, in Indonesia there are improved varieties selected for their edible leaves[153, 183].

A good companion for onions, tomatoes, corn as well as the cucumber and squash family[20].

Propagation

Seed - sow spring in situ. A common garden weed, this species should not normally need any assistance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
A very well written and illustrated book based on the authors own experiments with living on a native diet.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://
Details:

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Author:	L.	Botanical references:	17
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Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Java
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona, California, Hawaii, Idaho, Illinois, Iowa, Minnesota, Nevada, North Dakota, South Dakota, Wyoming.

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to October, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, Lepidoptera (Moths & Butterflies) and beetles. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Root; Stem.

Young leaves - raw or cooked[4, 5, 52, 54]. A slightly bitter taste, they can be added to salads or cooked like spinach[9, 183]. The leaves are rich in mineral salts and vitamin C[9], they contain about 47mg of vitamin C per 100g and 2% protein (dry weight)[173]. It might be best, though it is not necessary, to remove the marginal prickles[9].

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Other Uses

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Cultivation details

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A good companion for onions, tomatoes, corn as well as the cucumber and squash family[20].

Propagation

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
An interesting and readable book on the useful plants of New Zealand.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
A very well written and illustrated book based on the authors own experiments with living on a native diet.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Sonchus+arvensis`
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Plants For A Future: Database Search Results

Sonchus arvensis

Common name:	Field milk thistle	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Arable and waste land, ditches and on the drift line of salt and brackish margins, avoiding acid soils[4, 9, 17]. A persistent weed of cultivation[1].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Akkermelkdistel [D], Corn Sow-thistle [H], Field Sow Thistle [L], Field Sow-thistle [B], Field Sowthistle [P], Perennial Sow Thistle [L], Perennial Sowthistle [FEIS], Sowthistle,Corn [E],
Epithets:	From a Dictionary of Botanical Epithets
	arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Java
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona, California, Hawaii, Idaho, Illinois, Iowa, Minnesota, Nevada, North Dakota, South Dakota, Wyoming.

Physical Characteristics

Perennial growing to 1.2m. It is not frost tender. It is in flower from July to October, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, Lepidoptera (Moths & Butterflies) and beetles. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Leaves; Root; Stem.

Young leaves - raw or cooked[4, 5, 52, 54]. A slightly bitter taste, they can be added to salads or cooked like spinach[9, 183]. The leaves are rich in mineral salts and vitamin C[9], they contain about 47mg of vitamin C per 100g and 2% protein (dry weight)[173]. It might be best, though it is not necessary, to remove the marginal prickles[9].

Stems - cooked like asparagus or rhubarb[12].

Young root - cooked[12].

The roasted root is used as a coffee substitute[177, 183].

Medicinal Uses

Disclaimer

Antiinflammatory; Pectoral; Sedative.

The leaves are used as a poultice and are said to have anti-inflammatory activity[4, 222]. An infusion of the leaves has been used in the treatment of caked breasts[257].

A tea made from the roots is used in the treatment of asthma, coughs and other chest complaints[222].

A tea made from the leaves is said to calm the nerves[222].

Other Uses

Insecticide.

The plant is said to have insecticidal properties[218].

Cultivation details

A common garden weed, see notes on its habitat if you want to encourage it.

This species has been cultivated for its edible leaves by the Maoris of New Zealand, in Indonesia there are improved varieties selected for their edible leaves[153, 183].

A good companion for onions, tomatoes, corn as well as the cucumber and squash family[20].

Propagation

Seed - sow spring in situ. A common garden weed, this species should not normally need any assistance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Sonchus+arvensis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Sonchus+arvensis`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Sonchus arvensis*

Subject:

Sonchus arvensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Sonchus arvensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:09:17 2004

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Sorbus aucuparia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mountain ash	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Pyrus aucuparia ((L.)Gaertn.)		
Known Hazards:	Large quantities of the raw fruit can cause vomiting, especially if people are not used to the fruit. Seeds probably contain hydrogen cyanide. this is the ingredient that gives almonds their characteristic flavour. Unless the seed is very bitter it should be perfectly safe in reasonable quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	Britain.		
Habitat:	Woods, scrub and mountain rocks, mainly on lighter soil, rare or absent on clays or soft limestones. It is found at higher elevations than any other native tree[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pyrus aucuparia var. dulcis[G] S. aucuparia f. fastigiata[G] S. aucuparia var. dulcis[G] S. aucuparia var. edulis[G] S. aucuparia var. moravica[G] S. aucuparia var. pendula[G] S. aucuparia var. rossica[G] S. aucuparia var. xanthocarpa[G]

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cock-drunk [H], European Mountain Ash [L,H], European Mountain-ash [B], European Mountainash [P,E,DEN1], Fowler's Service [H], Hen-drunk [H], Mountain Ash [H], Quickbeam [H], Rowan [L,H], Rowan Tree [L,H,E], Serbal Silvestre [E], Uvez Agaci [E], Wilde Lijsterbes [D], Witch-wood [H], Witchen [H],
Epithets:	From a Dictionary of Botanical Epithets
	aucuparia = bird catching; orbus = orphan;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Eurasia; Spain; Turkey; Us; Ussr
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 7m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower from May to June, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Beissneri'**: Woodland, Canopy.
Cultivar **'Edulis'**: Woodland, Canopy.
Cultivar **'Rossica Major'**: Woodland, Canopy.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 5, 7, 9]. The fruit is very acid and large quantities of the raw fruit can cause stomach upsets[10, 13]. It can be used to make delicious, if slightly acidulous, jams and preserves[7], the fruit can also be dried and used as a flour mixed with cereals[2, 66]. The fruit is about 7.5mm in diameter[200] and is produced in quite large bunches making harvest easy[K].

The leaves and flowers are used as a tea substitute[61, 183].

Young leaves are said to be a famine food but they contain a cyanogenic glycoside so you should be very hungry before even thinking of eating them[179].

A coffee substitute[183]. The report was referring to the fruit, it probably means the roasted seed.

Medicinal Uses

Disclaimer

Antiscorbutic; Aperient; Astringent; Diuretic; Laxative.

The bark is astringent, it is used in the treatment of diarrhoea and as a vaginal injection for leucorrhoea etc[4].

The fruit is antiscorbutic and astringent[4, 7]. It is normally used as a jam or an infusion to treat diarrhoea and haemorrhoids[254]. An infusion can also be used as a gargle for sore throats and as a wash to treat haemorrhoids and excessive vaginal discharge[254]. The seeds contain cyanogenic glycosides which, in reaction with water, produce the extremely toxic prussic acid[254]. In small quantities this acts as a stimulant to the respiratory system but in larger doses can cause respiratory failure and death[K]. It is therefore best to remove the seeds when using the fruit medicinally or as a food[254].

Both the flowers and the fruit are aperient, mildly diuretic, laxative and emmenagogue[9, 13, 21]. An infusion is used in the treatment of painful menstruation, constipation and kidney disorders[9].

Other Uses

Cosmetic; Dye; Oil; Shelterbelt; Tannin; Wood.

An oil is obtained from the seed[13].

A cosmetic face-mask is made from the fruits and is used to combat wrinkled skin[7].

A black dye is obtained from the young branches[74]. All parts of the plant contain tannin and can

be used as a black dye[4].

Trees are very wind resistant and can be used in shelterbelt plantings[11, 200].

Wood - hard, fine grained, compact and elastic. It is highly recommended by wood turners and is also used to make hoops for barrels, cogs and furniture[7, 13, 61, 74, 113].

Cultivation details

Succeeds in most reasonably good soils in an open sunny position[11]. Grows well in heavy clay soils. Tolerates some shade[186], though it fruits better in a sunny position[K]. Prefers a cool moist position and a lighter neutral to slightly acid soil[11, 13, 200]. Dislikes shallow soils or drought[11, 200]. Succeeds on chalk or acid peats[98, 186]. A very wind firm tree tolerating very exposed and maritime positions[186, 200]. Tolerates atmospheric pollution[200].

Some named varieties have been developed for their improved fruits which are larger and sweeter than the type[183].

Plants, and especially young seedlings, are quite fast growing[186].

The fruit is very attractive to birds. 28 species of insects are associated with this tree[186].

Responds well to coppicing[186].

Plants are susceptible to fireblight[188].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78, 80]. If you have sufficient seed it can be sown in an outdoor seedbed[78, 80]. Stored seed germinates better if given 2 weeks warm then 14 - 16 weeks cold stratification[98], so sow it as early in the year as possible. Prick out the seedlings into individual pots when they are large enough to handle. Seedlings are very slow to put on top-growth for their first year or two[11], but they are busy building up a good root system. It is best to keep them in pots in a cold frame for their first winter and then plant them out into their permanent positions in late spring.

Cultivars

'Rossica Major' 'Rossica'

> This cultivar has larger and more pleasant tasting fruits than the species[11, 183]. The fruit has a pleasant taste, it is sour but not bitter[11]. It is used for making jams and preserves[11]. The trees are immune to fireblight[183].

'Edulis' 'Dulcis'. 'Moravica'.

This cultivar has larger fruits than the species. The fruit has a pleasant taste, it is sour but not bitter[11]. Just about acceptable raw to adult tastes, though young children usually love it[K]. It is used for making jams, jellies, wines and preserves[11, 183]. Fourteen 30 year old trees yielded 205 kilos of fruit[11].

'Beissneri'

This cultivar has larger fruits than the species. The fruit has a pleasant taste, it is sour but not bitter[11]. It is used for making jams and preserves[11].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Sorbus aucuparia* (Rowan)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
- Trees and Shrubs for Shelterbelts: Q-U
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Pyrus aucuparia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *sorbus aucuparia* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6

Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN

0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Sorbus aucuparia

Harald Fri Feb 4 11:29:56 2000

Do you know the east German cultivars of *Sorbus aucuparia moravica*: 'Concentra' and 'Rosina'? They were widly used in this country as substitutes for raisins (Rosina) and orange juice (Concentra). There is also a cultivar of Chaenomeles japonica 'Cido', also called litauvian lemmon. Its of higher vitamin C content than the species.

Details of Growing Condition: East Germany.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Sorbus+aucuparia`

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Plants For A Future: Database Search Results

Sorbus aucuparia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mountain ash	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Pyrus aucuparia ((L.)Gaertn.)		
Known Hazards:	Large quantities of the raw fruit can cause vomiting, especially if people are not used to the fruit. Seeds probably contain hydrogen cyanide. this is the ingredient that gives almonds their characteristic flavour. Unless the seed is very bitter it should be perfectly safe in reasonable quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	Britain.		
Habitat:	Woods, scrub and mountain rocks, mainly on lighter soil, rare or absent on clays or soft limestones. It is found at higher elevations than any other native tree[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Pyrus aucuparia var. dulcis[G] S. aucuparia f. fastigiata[G] S. aucuparia var. dulcis[G] S. aucuparia var. edulis[G] S. aucuparia var. moravica[G] S. aucuparia var. pendula[G] S. aucuparia var. rossica[G] S. aucuparia var. xanthocarpa[G]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Cock-drunk [H], European Mountain Ash [L,H], European Mountain-ash [B], European Mountainash [P,E,DEN1], Fowler's Service [H], Hen-drunk [H], Mountain Ash [H], Quickbeam [H], Rowan [L,H], Rowan Tree [L,H,E], Serbal Silvestre [E], Uvez Agaci [E], Wilde Lijsterbes [D], Witch-wood [H], Witchen [H],
Epithets:	From a Dictionary of Botanical Epithets
	aucuparia = bird catching; orbus = orphan;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Eurasia; Spain; Turkey; Us; Ussr
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 7m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower from May to June, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Beissneri'**: Woodland, Canopy.
Cultivar **'Edulis'**: Woodland, Canopy.
Cultivar **'Rossica Major'**: Woodland, Canopy.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 5, 7, 9]. The fruit is very acid and large quantities of the raw fruit can cause stomach upsets[10, 13]. It can be used to make delicious, if slightly acidulous, jams and preserves[7], the fruit can also be dried and used as a flour mixed with cereals[2, 66]. The fruit is about 7.5mm in diameter[200] and is produced in quite large bunches making harvest easy[K].

The leaves and flowers are used as a tea substitute[61, 183].

Young leaves are said to be a famine food but they contain a cyanogenic glycoside so you should be very hungry before even thinking of eating them[179].

A coffee substitute[183]. The report was referring to the fruit, it probably means the roasted seed.

Medicinal Uses

Disclaimer

Antiscorbutic; Aperient; Astringent; Diuretic; Laxative.

The bark is astringent, it is used in the treatment of diarrhoea and as a vaginal injection for leucorrhoea etc[4].

The fruit is antiscorbutic and astringent[4, 7]. It is normally used as a jam or an infusion to treat diarrhoea and haemorrhoids[254]. An infusion can also be used as a gargle for sore throats and as a wash to treat haemorrhoids and excessive vaginal discharge[254]. The seeds contain cyanogenic glycosides which, in reaction with water, produce the extremely toxic prussic acid[254]. In small quantities this acts as a stimulant to the respiratory system but in larger doses can cause respiratory failure and death[K]. It is therefore best to remove the seeds when using the fruit medicinally or as a food[254].

Both the flowers and the fruit are aperient, mildly diuretic, laxative and emmenagogue[9, 13, 21]. An infusion is used in the treatment of painful menstruation, constipation and kidney disorders[9].

Other Uses

Cosmetic; Dye; Oil; Shelterbelt; Tannin; Wood.

An oil is obtained from the seed[13].

A cosmetic face-mask is made from the fruits and is used to combat wrinkled skin[7].

A black dye is obtained from the young branches[74]. All parts of the plant contain tannin and can

be used as a black dye[4].

Trees are very wind resistant and can be used in shelterbelt plantings[11, 200].

Wood - hard, fine grained, compact and elastic. It is highly recommended by wood turners and is also used to make hoops for barrels, cogs and furniture[7, 13, 61, 74, 113].

Cultivation details

Succeeds in most reasonably good soils in an open sunny position[11]. Grows well in heavy clay soils. Tolerates some shade[186], though it fruits better in a sunny position[K]. Prefers a cool moist position and a lighter neutral to slightly acid soil[11, 13, 200]. Dislikes shallow soils or drought[11, 200]. Succeeds on chalk or acid peats[98, 186]. A very wind firm tree tolerating very exposed and maritime positions[186, 200]. Tolerates atmospheric pollution[200].

Some named varieties have been developed for their improved fruits which are larger and sweeter than the type[183].

Plants, and especially young seedlings, are quite fast growing[186].

The fruit is very attractive to birds. 28 species of insects are associated with this tree[186].

Responds well to coppicing[186].

Plants are susceptible to fireblight[188].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78, 80]. If you have sufficient seed it can be sown in an outdoor seedbed[78, 80]. Stored seed germinates better if given 2 weeks warm then 14 - 16 weeks cold stratification[98], so sow it as early in the year as possible. Prick out the seedlings into individual pots when they are large enough to handle. Seedlings are very slow to put on top-growth for their first year or two[11], but they are busy building up a good root system. It is best to keep them in pots in a cold frame for their first winter and then plant them out into their permanent positions in late spring.

Cultivars

'Rossica Major' 'Rossica'

> This cultivar has larger and more pleasant tasting fruits than the species[11, 183]. The fruit has a pleasant taste, it is sour but not bitter[11]. It is used for making jams and preserves[11]. The trees are immune to fireblight[183].

'Edulis' 'Dulcis'. 'Moravica'.

This cultivar has larger fruits than the species. The fruit has a pleasant taste, it is sour but not bitter[11]. Just about acceptable raw to adult tastes, though young children usually love it[K]. It is used for making jams, jellies, wines and preserves[11, 183]. Fourteen 30 year old trees yielded 205 kilos of fruit[11].

'Beissneri'

This cultivar has larger fruits than the species. The fruit has a pleasant taste, it is sour but not bitter[11]. It is used for making jams and preserves[11].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Sorbus aucuparia* (Rowan)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
- Trees and Shrubs for Shelterbelts: Q-U
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Pyrus aucuparia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *sorbus aucuparia* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6

Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN

0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Sorbus aucuparia

Harald Fri Feb 4 11:29:56 2000

Do you know the east German cultivars of *Sorbus aucuparia moravica*: 'Concentra' and 'Rosina'? They were widly used in this country as substitutes for raisins (Rosina) and orange juice (Concentra). There is also a cultivar of Chaenomeles japonica 'Cido', also called litauvian lemmon. Its of higher vitamin C content than the species.

Details of Growing Condition: East Germany.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Sorbus aucuparia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mountain ash	Family:	Rosaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:	Pyrus aucuparia ((L.)Gaertn.)		
Known Hazards:	Large quantities of the raw fruit can cause vomiting, especially if people are not used to the fruit. Seeds probably contain hydrogen cyanide. this is the ingredient that gives almonds their characteristic flavour. Unless the seed is very bitter it should be perfectly safe in reasonable quantities. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.		
Range:	Britain.		
Habitat:	Woods, scrub and mountain rocks, mainly on lighter soil, rare or absent on clays or soft limestones. It is found at higher elevations than any other native tree[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pyrus aucuparia var. dulcis[G] S. aucuparia f. fastigiata[G] S. aucuparia var. dulcis[G] S. aucuparia var. edulis[G] S. aucuparia var. moravica[G] S. aucuparia var. pendula[G] S. aucuparia var. rossica[G] S. aucuparia var. xanthocarpa[G]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Cock-drunk [H], European Mountain Ash [L,H], European Mountain-ash [B], European Mountainash [P,E,DEN1], Fowler's Service [H], Hen-drunk [H], Mountain Ash [H], Quickbeam [H], Rowan [L,H], Rowan Tree [L,H,E], Serbal Silvestre [E], Uvez Agaci [E], Wilde Lijsterbes [D], Witch-wood [H], Witchen [H],
Epithets:	From a Dictionary of Botanical Epithets
	aucuparia = bird catching; orbus = orphan;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Eurasia; Spain; Turkey; Us; Ussr
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

A decidious tree growing to 15m by 7m at a medium rate. It is hardy to zone 2 and is not frost tender. It is in flower from May to June, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Cultivar **'Beissneri'**: Woodland, Canopy.
Cultivar **'Edulis'**: Woodland, Canopy.
Cultivar **'Rossica Major'**: Woodland, Canopy.

Edible Uses

Coffee; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 5, 7, 9]. The fruit is very acid and large quantities of the raw fruit can cause stomach upsets[10, 13]. It can be used to make delicious, if slightly acidulous, jams and preserves[7], the fruit can also be dried and used as a flour mixed with cereals[2, 66]. The fruit is about 7.5mm in diameter[200] and is produced in quite large bunches making harvest easy[K].

The leaves and flowers are used as a tea substitute[61, 183].

Young leaves are said to be a famine food but they contain a cyanogenic glycoside so you should be very hungry before even thinking of eating them[179].

A coffee substitute[183]. The report was referring to the fruit, it probably means the roasted seed.

Medicinal Uses

Disclaimer

Antiscorbutic; Aperient; Astringent; Diuretic; Laxative.

The bark is astringent, it is used in the treatment of diarrhoea and as a vaginal injection for leucorrhoea etc[4].

The fruit is antiscorbutic and astringent[4, 7]. It is normally used as a jam or an infusion to treat diarrhoea and haemorrhoids[254]. An infusion can also be used as a gargle for sore throats and as a wash to treat haemorrhoids and excessive vaginal discharge[254]. The seeds contain cyanogenic glycosides which, in reaction with water, produce the extremely toxic prussic acid[254]. In small quantities this acts as a stimulant to the respiratory system but in larger doses can cause respiratory failure and death[K]. It is therefore best to remove the seeds when using the fruit medicinally or as a food[254].

Both the flowers and the fruit are aperient, mildly diuretic, laxative and emmenagogue[9, 13, 21]. An infusion is used in the treatment of painful menstruation, constipation and kidney disorders[9].

Other Uses

Cosmetic; Dye; Oil; Shelterbelt; Tannin; Wood.

An oil is obtained from the seed[13].

A cosmetic face-mask is made from the fruits and is used to combat wrinkled skin[7].

A black dye is obtained from the young branches[74]. All parts of the plant contain tannin and can

be used as a black dye[4].

Trees are very wind resistant and can be used in shelterbelt plantings[11, 200].

Wood - hard, fine grained, compact and elastic. It is highly recommended by wood turners and is also used to make hoops for barrels, cogs and furniture[7, 13, 61, 74, 113].

Cultivation details

Succeeds in most reasonably good soils in an open sunny position[11]. Grows well in heavy clay soils. Tolerates some shade[186], though it fruits better in a sunny position[K]. Prefers a cool moist position and a lighter neutral to slightly acid soil[11, 13, 200]. Dislikes shallow soils or drought[11, 200]. Succeeds on chalk or acid peats[98, 186]. A very wind firm tree tolerating very exposed and maritime positions[186, 200]. Tolerates atmospheric pollution[200].

Some named varieties have been developed for their improved fruits which are larger and sweeter than the type[183].

Plants, and especially young seedlings, are quite fast growing[186].

The fruit is very attractive to birds. 28 species of insects are associated with this tree[186].

Responds well to coppicing[186].

Plants are susceptible to fireblight[188].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[78, 80]. If you have sufficient seed it can be sown in an outdoor seedbed[78, 80]. Stored seed germinates better if given 2 weeks warm then 14 - 16 weeks cold stratification[98], so sow it as early in the year as possible. Prick out the seedlings into individual pots when they are large enough to handle. Seedlings are very slow to put on top-growth for their first year or two[11], but they are busy building up a good root system. It is best to keep them in pots in a cold frame for their first winter and then plant them out into their permanent positions in late spring.

Cultivars

'Rossica Major' 'Rossica'

> This cultivar has larger and more pleasant tasting fruits than the species[11, 183]. The fruit has a pleasant taste, it is sour but not bitter[11]. It is used for making jams and preserves[11]. The trees are immune to fireblight[183].

'Edulis' 'Dulcis'. 'Moravica'.

> This cultivar has larger fruits than the species. The fruit has a pleasant taste, it is sour but not bitter[11]. Just about acceptable raw to adult tastes, though young children usually love it[K]. It is used for making jams, jellies, wines and preserves[11, 183]. Fourteen 30 year old trees yielded 205 kilos of fruit[11].

'Beissneri'

> This cultivar has larger fruits than the species. The fruit has a pleasant taste, it is sour but not bitter[11]. It is used for making jams and preserves[11].

Suppliers

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philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Sorbus aucuparia* (Rowan)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Sorbus aucuparia*

Subject:

Sorbus aucuparia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Sorbus aucuparia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 03:09:31 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Symphytum tuberosum

Common name:		Family:	Boraginaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	No reports of toxicity have been seen for this species, but the following reports have been seen for S. officinale. This plant contains small quantities of a toxic alkaloid which can have a cumulative effect upon the liver. Largest concentrations are found in the roots, leaves contain higher quantities of the alkaloid as they grow older and young leaves contain almost none. Most people would have to consume very large quantities of the plant in order to do any harm, though anyone with liver problems should obviously be more cautious. In general, the health-promoting properties of the plant probably far outweigh any possible disbenefits, especially if only the younger leaves are used.		
Range:	Britain.		
Habitat:	Woods, scrub and by rivers[187].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Comfrey [H,E], Tuberous Comfrey [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	tuberosum = tuberous;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Borage family

Other Range Info:	From the Ethnobotany Database Germany

Physical Characteristics

Perennial growing to 0.6m by 0.6m at a fast rate. It is hardy to zone 5. It is in flower from May to June, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Coffee.

When roasted until brown and brittle, and then finely ground, the root is used as a coffee substitute. It has a smoothness that is not found in real coffee[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

A good, and sometimes rampant, ground cover plant for a shady border or woodland.

Cultivation details

Tolerates most soils and situations but prefers a moist soil and some shade. Grows well in heavy clay soils.

Hardy to about -20°c[187].

Plants form extensive patches, spreading by means of a creeping tuberous rhizome[187].

Plants are dormant in summer[187].

Propagation

Seed - sow spring or autumn in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed you can try an outdoor sowing in situ in the spring.

Division succeeds at almost any time of the year. Simply use a spade to chop off the top 7cm of root just below the soil level. The original root will regrow and you will have a number of root tops, each of which will make a new plant. These can either be potted up or planted out straight into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: R-S
- Checklist of plants suitable for ground cover

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Boraginaceae.

See the PFAF Links Pages for other sources

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References

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List]() or email [webmaster@pfaf.org]() (note we don't have the time to answer individual plant related queries).

Add a comment on: *Symphytum tuberosum*

Subject:

Symphytum tuberosum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Symphytum tuberosum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:09:42 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Taraxacum albidum

Common name:		Family:	Compositae
Author:	Dahlst.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Sirobana-Tanpopo [E],
Epithets:	From a Dictionary of Botanical Epithets
	albidum = whitish;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

Perennial growing to 0.35m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177, 183]. A rather bitter flavour, though it is a good tonic for the digestive system.

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

The root is dried and roasted to make a coffee substitute.

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Taraxacum albidum

Common name:		Family:	Compositae
Author:	Dahlst.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan, Korea.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Sirobana-Tanpopo [E],
Epithets:	From a Dictionary of Botanical Epithets
	albidum = whitish;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

Perennial growing to 0.35m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177, 183]. A rather bitter flavour, though it is a good tonic for the digestive system.

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

The root is dried and roasted to make a coffee substitute.

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Taraxacum albidum*

Subject:

Taraxacum albidum

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum albidum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

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Taraxacum bessarabicum

Common name:		Family:	Compositae
Author:	(Hornem.) Hand-Mazz.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	S.E. Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	arabicum = Arabian;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

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Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Taraxacum bessarabicum

Common name:		Family:	Compositae
Author:	(Hornem.) Hand-Mazz.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	S.E. Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	arabicum = Arabian;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

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Web References

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Author:	(Hornem.) Hand-Mazz.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	S.E. Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	arabicum = Arabian;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

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Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

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Add a comment on: *Taraxacum bessarabicum*

Subject:

Taraxacum bessarabicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum bessarabicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Taraxacum brassicaefolium

Common name:		Family:	Compositae
Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

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The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these

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Division in early spring as the plant comes into growth.

Suppliers

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Web References

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Readers Comments

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Plants For A Future: Database Search Results

Taraxacum brassicaefolium

Common name:		Family:	Compositae
Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
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Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

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The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

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Plants For A Future: Database Search Results

Taraxacum brassicaefolium

Common name:		Family:	Compositae
Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

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Disclaimer

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Subject:

Taraxacum brassicaefolium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum brassicaefolium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Taraxacum erythropodium

Common name:		Family:	Compositae
Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
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Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

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Cultivated Beds.

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Disclaimer

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Name of Site:

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Subject:

Taraxacum erythropodium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum erythropodium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Date: Sun May 16 03:10:28 2004

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Search for

Edible Use: Coffee (225);

Latin Name	Common Name	Description	PFAF Rating
Taraxacum formosanum		Coffee	1
Taraxacum heterolepis		Coffee	1
Taraxacum hondoense		Coffee	1
Taraxacum hybernum		Coffee	1
Taraxacum japonicum		Coffee	1
Taraxacum kok-saghyz	Rubber dandelion	Coffee	4
Taraxacum laevigatum	Red-seed dandelion	Coffee	1
Taraxacum magellanicum		Coffee	1
Taraxacum megalorrhizon		Coffee	3
Taraxacum mongolicum		Coffee	1
Taraxacum obovatum		Coffee	3
Taraxacum officinale	Dandelion	Coffee	4
Taraxacum platycarpum		Coffee	1
Taraxacum pseudo-album		Coffee	1
Taraxacum sinicum		Coffee	1
Triglochin maritima	Sea arrow grass	Coffee	2
Triglochin palustris	Marsh arrow grass	Coffee	2
Trigonella foenum-graecum	Fenugreek	Coffee	3
Triosteum perfoliatum	Wild coffee	Coffee	1
Ugni molinae	Uñi	Coffee	5
Ulmus americana	American elm	Coffee	2
Umbellularia californica	California laurel	Coffee	4
Vicia tetrasperma	Smooth tare	Coffee	1

Zea mays	Sweet corn	Coffee	4
Ziziphus jujuba	Jujube	Coffee	3

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Taraxacum formosanum

Common name:		Family:	Compositae
Author:	Kitam.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Taiwan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	formosa = beautiful;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors at least in the milder parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

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Web References

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If you know of another site which has good information about this plant fill in the following the details here.

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Range:	E. Asia - Taiwan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	formosa = beautiful;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

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Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

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Disclaimer

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Taraxacum formosanum

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Taraxacum heterolepis

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Author:	Nak. & Koidz.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - Manchuria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	heterolepis = with different scales;
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Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

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The roasted root is a coffee substitute[177].

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The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

Medicinal Uses

Disclaimer

Cancer; Galactogogue; Hepatic.

The stem has been used in the treatment of cancer[218].

A decoction of the whole plant is used in treating abscesses, appendicitis, boils, liver problems, stomach disorders etc[218]. It has been used for over 1,000 years by the Chinese in treating breast cancer and other disorders of the breasts including poor milk flow[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

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	Order: Asterales . Renamed to Asteraceae -- Aster family

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Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The roasted root is a coffee substitute[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

Medicinal Uses

Disclaimer

Cancer; Galactogogue; Hepatic.

The stem has been used in the treatment of cancer[218].

A decoction of the whole plant is used in treating abscesses, appendicitis, boils, liver problems, stomach disorders etc[218]. It has been used for over 1,000 years by the Chinese in treating breast cancer and other disorders of the breasts including poor milk flow[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is

produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

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Add a comment on: *Taraxacum heterolepis*

Subject:

Taraxacum heterolepis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum heterolepis

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:11:02 2004

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Taraxacum hondoense

Common name:		Family:	Compositae
Author:	Nak. & Koidz.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

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Division in early spring as the plant comes into growth.

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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Enter your details here:

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Plants For A Future: Database Search Results

Taraxacum hondoense

Common name:		Family:	Compositae
Author:	Nak. & Koidz.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and N. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings

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Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

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Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

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Add a comment on: *Taraxacum hondoense*

Subject:

Taraxacum hondoense

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum hondoense

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Taraxacum hybernum

Common name:		Family:	Compositae
Author:	Steven.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Italy, Balkans.		
Habitat:	Saline soils.		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	hybernum = of winter;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

The following uses are also probably applicable to this species, though we have no records for them[K].

Leaves - raw or cooked.

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

A latex obtained by maceration of the root is used to make a high quality rubber[61].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. This species is cultivated in Russia for the latex in its root[61]. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

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[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

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Cultivated Beds.

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Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

A latex obtained by maceration of the root is used to make a high quality rubber[61].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. This species is cultivated in Russia for the latex in its root[61]. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Plants For A Future: Database Search Results

Taraxacum hybernum

Common name:		Family:	Compositae
Author:	Steven.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Italy, Balkans.		
Habitat:	Saline soils.		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	hybernum = of winter;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

The following uses are also probably applicable to this species, though we have no records for them[K].

Leaves - raw or cooked.

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

A latex obtained by maceration of the root is used to make a high quality rubber[61].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. This species is cultivated in Russia for the latex in its root[61]. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Taraxacum hybernum*

Subject:

Taraxacum hybernum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum hybernum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:11:24 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Taraxacum japonicum

Common name:		Family:	Compositae
Author:	Koidz.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Kansai-Tanpopo [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[174, 177].

The roasted root is a coffee substitute[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

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The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

Medicinal Uses

Disclaimer

Cholagogue; Diuretic; Galactogogue; Skin; Stomachic; Tonic.

Cholagogue, diuretic, galactogogue, skin, stomachic, tonic[174].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

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Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

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Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *taraxacum japonicum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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[K] **Ken Fern**
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Habitat:	Not known		
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Habitats and Possible Locations

Cultivated Beds.

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Taraxacum japonicum

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Author:	Koidz.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. and S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Kansai-Tanpopo [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

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Habitats and Possible Locations

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Edible Uses

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Add a comment on: *Taraxacum japonicum*

Subject:

Taraxacum japonicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum japonicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:11:36 2004

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Add Comment Reset

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Taraxacum kok-saghyz

Common name:	Rubber dandelion	Family:	Compositae
Author:	Rodin.	Botanical references:	50
Synonyms:	Taraxacum bicorne (Dahlst.)		
Known Hazards:	None known		
Range:	E. Europe to W. Asia - Turkistan.		
Habitat:	High mountain regions, usually on light loamy meadow soils[110].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. atroglaucum[B,P] T. campylodes[B,P] T. croceum[B] T. croceum auct. non[P] T. curvidens[B,P] T. cyclocentrum[B,P] T. dahlstedtii[B,P] T. davidssonii[B,P] T. devians[B,P] T. dilutisquameum[B,P] T. firmum[B,P] T. islandiciforme[B,P] T. kok-saghyz auct. non[P] T. officinale ssp. officinale[B,P] T. officinale var. palustre[B,P] T. palustre[P] T. pleniflorum[B,P] T. retroflexum[B,P] T. rhodolepis[B,P] T. turforsum[P] T. undulatum[B,P] T. vagans[B,P] T. xanthostigma[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Wandering Dandelion [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.25m by 0.25m . . It is in flower from May to June, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[K].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Alcohol; Latex.

The root is a source of a high quality latex, used in making rubber[1, 46, 61, 110]. Yields between 150 and 500 kilos per hectare are possible[110, 171]. The roots are harvested in the autumn, before any hard frosts which can destroy some of the latex. They are then macerated to extract the latex.

The root is rich in the starch inulin. After the latex has been extracted, this inulin can be converted to alcohol and used as a fuel.

Cultivation details

Succeeds in ordinary garden soil[1] but prefers a well-drained moisture retentive humus-rich soil in full sun or light shade[110]. Prefers a pH between 5.5 and 8.5[110]. Dislikes very heavy or compacted soils[110].

Top growth of seedlings is very slow at first until the root has developed[110]. It is advantageous to mark out the rows with a catch crop such as radishes or lettuce[110].

This plant used to be grown commercially in Russia as a rubber producing plant. It was trialed in various countries during the second world war and was found to yield a commercial harvest in Britain, Scandinavia and Northern N. America. In a trial in N. America plants grew better in the northern U.S.A. and S. Canada than they did in the south of the USA[141]. With the advent of cheap artificial rubber interest in this plant dwindled.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks, though 2 weeks cold stratification may improve germination. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Taraxacum officinale ssp. officinale* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[110] **Polhamus. L. G.** *Rubber: Botany, Cultivation and Utilization.*
Mainly tropical plants with a small section on temperate plants for rubber.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820

Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Plants For A Future: Database Search Results

Taraxacum kok-saghyz

Common name:	Rubber dandelion	Family:	Compositae
Author:	Rodin.	Botanical references:	50
Synonyms:	Taraxacum bicorne (Dahlst.)		
Known Hazards:	None known		
Range:	E. Europe to W. Asia - Turkistan.		
Habitat:	High mountain regions, usually on light loamy meadow soils[110].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. atroglaucum[B,P] T. campylodes[B,P] T. croceum[B] T. croceum auct. non[P] T. curvidens[B,P] T. cyclocentrum[B,P] T. dahlstedtii[B,P] T. davidssonii[B,P] T. devians[B,P] T. dilutisquameum[B,P] T. firmum[B,P] T. islandiciforme[B,P] T. kok-saghyz auct. non[P] T. officinale ssp. officinale[B,P] T. officinale var. palustre[B,P] T. palustre[P] T. pleniflorum[B,P] T. retroflexum[B,P] T. rhodolepis[B,P] T. turforsum[P] T. undulatum[B,P] T. vagans[B,P] T. xanthostigma[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Wandering Dandelion [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.25m by 0.25m . . It is in flower from May to June, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[K].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Alcohol; Latex.

The root is a source of a high quality latex, used in making rubber[1, 46, 61, 110]. Yields between 150 and 500 kilos per hectare are possible[110, 171]. The roots are harvested in the autumn, before any hard frosts which can destroy some of the latex. They are then macerated to extract the latex.

The root is rich in the starch inulin. After the latex has been extracted, this inulin can be converted to alcohol and used as a fuel.

Cultivation details

Succeeds in ordinary garden soil[1] but prefers a well-drained moisture retentive humus-rich soil in full sun or light shade[110]. Prefers a pH between 5.5 and 8.5[110]. Dislikes very heavy or compacted soils[110].

Top growth of seedlings is very slow at first until the root has developed[110]. It is advantageous to mark out the rows with a catch crop such as radishes or lettuce[110].

This plant used to be grown commercially in Russia as a rubber producing plant. It was trialed in various countries during the second world war and was found to yield a commercial harvest in Britain, Scandinavia and Northern N. America. In a trial in N. America plants grew better in the northern U.S.A. and S. Canada than they did in the south of the USA[141]. With the advent of cheap artificial rubber interest in this plant dwindled.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

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Division in early spring as the plant comes into growth.

Suppliers

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Plants For A Future: Database Search Results

Taraxacum kok-saghyz

Common name:	Rubber dandelion	Family:	Compositae
Author:	Rodin.	Botanical references:	50
Synonyms:	Taraxacum bicorne (Dahlst.)		
Known Hazards:	None known		
Range:	E. Europe to W. Asia - Turkistan.		
Habitat:	High mountain regions, usually on light loamy meadow soils[110].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Wandering Dandelion [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.25m by 0.25m . . It is in flower from May to June, and the seeds ripen from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[K].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Alcohol; Latex.

The root is a source of a high quality latex, used in making rubber[1, 46, 61, 110]. Yields between 150 and 500 kilos per hectare are possible[110, 171]. The roots are harvested in the autumn, before any hard frosts which can destroy some of the latex. They are then macerated to extract the latex.

The root is rich in the starch inulin. After the latex has been extracted, this inulin can be converted to alcohol and used as a fuel.

Cultivation details

Succeeds in ordinary garden soil[1] but prefers a well-drained moisture retentive humus-rich soil in full sun or light shade[110]. Prefers a pH between 5.5 and 8.5[110]. Dislikes very heavy or compacted soils[110].

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Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks, though 2 weeks cold stratification may improve germination. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

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Add a comment on: *Taraxacum kok-saghyz*

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Taraxacum kok-saghyz

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum kok-saghyz

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Taraxacum laevigatum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Red-seed dandelion	Family:	Compositae
Author:	(Willd.) DC.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry pastures on sandy or calcareous soils, heaths, waste ground, walls etc[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Leontodon erythrospermum[B,P] T. disseminatum[B,P] T. erythrospermum[B,P] T. lacistophyllum[B,P] T. scanicum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akami-Tanpopo [E], Dandelion [E], Red-seed Dandelion [B], Rock Dandelion [P], Zandpaardebloem [D],
Epithets:	From a Dictionary of Botanical Epithets
	laevigatum = smooth;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Germany; Us

Physical Characteristics

Perennial growing to 0.2m. . It is in flower from April to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion). The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, Walls.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

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For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Taraxacum laevigatum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Red-seed dandelion	Family:	Compositae
Author:	(Willd.) DC.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry pastures on sandy or calcareous soils, heaths, waste ground, walls etc[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Leontodon erythrospermum[B,P] T. disseminatum[B,P] T. erythrospermum[B,P] T. lacistophyllum[B,P] T. scanicum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akami-Tanpopo [E], Dandelion [E], Red-seed Dandelion [B], Rock Dandelion [P], Zandpaardebloem [D],
Epithets:	From a Dictionary of Botanical Epithets
	laevigatum = smooth;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Germany; Us

Physical Characteristics

Perennial growing to 0.2m. . It is in flower from April to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion). The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, Walls.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

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Plants For A Future: Database Search Results

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Author:	(Willd.) DC.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry pastures on sandy or calcareous soils, heaths, waste ground, walls etc[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Germany; Us

Physical Characteristics

Perennial growing to 0.2m. . It is in flower from April to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion). The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, Walls.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

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Division in early spring as the plant comes into growth.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Taraxacum laevigatum*

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Taraxacum laevigatum

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum laevigatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Add Comment Reset

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Taraxacum magellanicum

Common name:		Family:	Compositae
Author:	Comm. ex Schultz-Bip.	Botanical references:	44
Synonyms:	Taraxacum officinale pygmaea, Taraxacum officinale glabratus		
Known Hazards:	None known		
Range:	Southern S. America. New Zealand.		
Habitat:	Montane to sub-alpine grassland, rarely in lowland areas, North, South, Stewart and Chatham Islands in New Zealand[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	New Zealand

Physical Characteristics

Perennial growing to 0.1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[173].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

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The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

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Plants For A Future: Database Search Results

Taraxacum magellanicum

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Synonyms:	Taraxacum officinale pygmaea, Taraxacum officinale glabratus		
Known Hazards:	None known		
Range:	Southern S. America. New Zealand.		
Habitat:	Montane to sub-alpine grassland, rarely in lowland areas, North, South, Stewart and Chatham Islands in New Zealand[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	New Zealand

Physical Characteristics

Perennial growing to 0.1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

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Medicinal Uses

Disclaimer

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Other Uses

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Habitat:	Montane to sub-alpine grassland, rarely in lowland areas, North, South, Stewart and Chatham Islands in New Zealand[44].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[173].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors at least in the milder parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these

plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Taraxacum magellanicum*

Subject:

Taraxacum magellanicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum magellanicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:12:10 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Taraxacum megalorrhizon

Common name:		Family:	Compositae
Author:	(Forssk.) Hand-Mazz.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Leontodon megalorrhizon[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked.

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

A latex obtained from the roots is used to make a high-class rubber[61, 110].

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

According to one report this species reproduces apomictically and sexually[50], whilst another report says that only apomictic seed production is undergone[110]. Apomixy is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202

Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[110] **Polhamus. L. G.** *Rubber: Botany, Cultivation and Utilization.*
Mainly tropical plants with a small section on temperate plants for rubber.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Taraxacum megalorrhizon

Common name:		Family:	Compositae
Author:	(Forssk.) Hand-Mazz.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Leontodon megalorrhizon[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked.

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

A latex obtained from the roots is used to make a high-class rubber[61, 110].

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

According to one report this species reproduces apomictically and sexually[50], whilst another report says that only apomictic seed production is undergone[110]. Apomixy is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

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Plants For A Future: Database Search Results

Taraxacum megalorrhizon

Common name:		Family:	Compositae
Author:	(Forssk.) Hand-Mazz.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Leontodon megalorrhizon[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked.

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

Latex.

A latex obtained from the roots is used to make a high-class rubber[61, 110].

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

According to one report this species reproduces apomictically and sexually[50], whilst another report says that only apomictic seed production is undergone[110]. Apomixy is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

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Add a comment on: *Taraxacum megalorrhizon*

Subject:

Taraxacum megalorrhizon

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum megalorrhizon

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

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Date: Sun May 16 03:12:22 2004

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Add Comment Reset

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Taraxacum mongolicum

Common name:		Family:	Compositae
Author:	Hand-Mazz.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China..		
Habitat:	Village outskirts, embankments and damp roadsides[147].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. mongoliocum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pu Gong Ying [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Young leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

Antibacterial; Cancer; Cholagogue; Decongestant; Depurative; Diuretic; Febrifuge; Galactogogue; Hepatic; Laxative; Stomachic.

The whole plant is antibacterial, cholagogue, decongestant, depurative, diuretic, febrifuge, galactogogue, laxative and stomachic[147, 176]. The plant has an antibacterial action, inhibiting the growth of Staphylococcus aureus, Pneumococci, Meningococci, Bacillus dysenteriae, B. typhi, C. diphtheriae, Proteus etc[176]. A decoction is used in treating abscesses, appendicitis, boils, liver problems, stomach disorders etc[147, 218]. It has been used for over 1,000 years by the Chinese in treating breast cancer and other disorders of the breasts including poor milk flow[218].

The stem has been used in the treatment of cancer[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Taraxacum mongoliocum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Plants For A Future: Database Search Results

Taraxacum mongolicum

Common name:		Family:	Compositae
Author:	Hand-Mazz.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China..		
Habitat:	Village outskirts, embankments and damp roadsides[147].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. mongoliocum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pu Gong Ying [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Young leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

Antibacterial; Cancer; Cholagogue; Decongestant; Depurative; Diuretic; Febrifuge; Galactogogue; Hepatic; Laxative; Stomachic.

The whole plant is antibacterial, cholagogue, decongestant, depurative, diuretic, febrifuge, galactogogue, laxative and stomachic[147, 176]. The plant has an antibacterial action, inhibiting the growth of Staphylococcus aureus, Pneumococci, Meningococci, Bacillus dysenteriae, B. typhi, C. diphtheriae, Proteus etc[176]. A decoction is used in treating abscesses, appendicitis, boils, liver problems, stomach disorders etc[147, 218]. It has been used for over 1,000 years by the Chinese in treating breast cancer and other disorders of the breasts including poor milk flow[218].

The stem has been used in the treatment of cancer[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Taraxacum mongoliocum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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References

[K] **Ken Fern**
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[147] **?** *A Barefoot Doctors Manual*. Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas*. Institute of Chinese Medicine, Los Angeles 1985
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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

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Suppliers

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum mongolicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Taraxacum obovatum

Common name:		Family:	Compositae
Author:	(Willd.) DC.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Mediterranean.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	obovatum = obovate (inversely egg shaped); ovatum = oval;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked. They have a mild flavour[217].

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The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a well-drained humus-rich soil in full sun or light shade.

According to one report this species reproduces apomictically and sexually[50], whilst another report says that only apomictic seed production is undergone[110]. Apomixy is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

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Taraxacum obovatum

Common name:		Family:	Compositae
Author:	(Willd.) DC.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Mediterranean.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	obovatum = obovate (inversely egg shaped); ovatum = oval;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

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Disclaimer

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According to one report this species reproduces apomictically and sexually[50], whilst another report says that only apomictic seed production is undergone[110]. Apomixy is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Taraxacum+obovatum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Taraxacum+obovatum`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Taraxacum obovatum*

Subject:

Taraxacum obovatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum obovatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:12:46 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Taraxacum officinale

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Dandelion	Family:	Compositae
Author:	Weber.	Botanical references:	17, 200
Synonyms:	Taraxacum vulgare (Schrank.)		
Known Hazards:	This plant has been mentioned in various books on poisonous plants but any possible toxins will be of very low concentration and toxicity[10]. There are reports that some people have suffered dermatitis as a result of touching the plant, this is probably caused by the latex in the leaves and stems[222].		
Range:	Britain.		
Habitat:	A very common weed of grassland and cultivated ground[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Leontodon latiloba[B,P] Leontodon taraxacum[B,G,H,P] T.[H] T. dens-leonis[G] T. latilobum[B,P] T. officinale group[G] T. officinale ssp. vulgare[B,P] T. palustre var. vulgare[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chiang Nou Ts'Ao [E], Chin Tsan Ts'Ao [E], Common Dandelion [B,L,H,P], Dandelion [FEIS,H,E], Diente De Leon [E], Gewone Paardebloem [D], Hindiba Berri [E], Huang Hua Ti Ting [E], Kara Hindiba [E], Khas Berri [E], Kou Ju Ts'Ao [E], Lion's Tooth [H], Maitiainen [E], P'O Kung Ying [E], P'U Kung Ying [E], Pissenlit [E], Priest's Crown [H], Pu Gong Ying [E], Seiyo-Tanpopo [E], Swine's Snout [H],

Epithets:	From a Dictionary of Botanical Epithets
	officinale = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Australia; Britain; Britain(Wales); China; Finland; France; Iraq; Mexico; Nepal; Spain; Turkey; Us; Us(Amerindian); Us(Colonial); Us(Nm); Ussr

Physical Characteristics

Perennial growing to 0.45m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from April to May, and the seeds ripen from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects and Apomictic (reproduce by seeds formed without sexual fusion). The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Lawn, Cultivated Beds.

Cultivar **'Broad Leaved'**: Meadow, Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[1, 2, 4, 5, 7, 9, 12, 14, 33, 154]. When used in salads, they are rather bitter, though less so in the winter. Tender young leaves are considerably less bitter than older leaves[K]. The leaves are often blanched (by excluding light from the growing plant) before use[183]. This will make them less bitter, but they will also contain less vitamins and minerals[K]. A very nutritious food, 100g of the raw leaves contain about 2.7g. protein, 9.2g. carbohydrate, 187mg Calcium, 66mg phosphorus, 3.1mg iron, 76mg sodium, 397mg potassium, 36mg magnesium, 14000iu vitamin A, 0.19mg vitamin B1, 0.26mg vitamin B2, 35mg vitamin C[173].

Root - raw or cooked[5, 9, 12, 183]. Bitter. A turnip-like flavour[159].

Flowers - raw or cooked[102, 159]. A rather bitter flavour[K], the unopened flower buds can be used in fritters[183] and they can also be preserved in vinegar and used like capers[7].

Both the leaves and the roots are used to flavour herbal beers and soft drinks such as 'Dandelion and Burdock'[238].

The roots of 2 year old plants are harvested in the autumn, dried and roasted to make a very good coffee substitute[2, 4, 5, 12, 54, 159]. It is caffeine-free[213].

A pleasant tea is made from the flowers[12, 102]. They are also used to make wine - all green parts should be removed when making wine to prevent a bitter flavour[238]. The leaves and the roots can also be used to make tea.

Medicinal Uses

Disclaimer

Aperient; Cholagogue; Depurative; Diuretic; Hepatic; Laxative; Stomachic; Tonic; Warts.

The dandelion is a commonly used herbal remedy. It is especially effective and valuable as a diuretic because it contains high levels of potassium salts and therefore can replace the potassium that is lost from the body when diuretics are used[238].

All parts of the plant, but especially the root, are slightly aperient, cholagogue, depurative, strongly diuretic, hepatic, laxative, stomachic and tonic[4, 7, 9, 21, 54, 165, 176, 222, 238]. The root is also experimentally cholagogue, hypoglycaemic and a weak antibiotic against yeast infections[222]. The dried root has a weaker action[222]. The roots can be used fresh or dried and should be harvested in the autumn when 2 years old[4]. The leaves are harvested in the spring when the plant is in flower and can be dried for later use[9]. A tea can be made from the leaves or, more commonly, from the roots[213].

The plant is used internally in the treatment of gall bladder and urinary disorders, gallstones, jaundice, cirrhosis, dyspepsia with constipation, oedema associated with high blood pressure and heart weakness, chronic joint and skin complaints, gout, eczema and acne[238].

The plant has an antibacterial action, inhibiting the growth of Staphylococcus aureus, Pneumococci, Meningococci, Bacillus dysenteriae, B. typhi, C. diphtheriae, Proteus etc[176].

The latex contained in the plant sap can be used to remove corns, warts and verrucae[7]. The latex has a specific action on inflammations of the gall bladder and is also believed to remove stones in the liver[7].

A tea made from the leaves is laxative[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under

with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Fruit ripening; Latex; Miscellany.

The flowers are an ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. A liquid plant feed can be made from the root and leaves[54].

A low quality latex, which can be used for making rubber, can be obtained from the roots of this plant.

A magenta-brown dye is obtained from the root[141].

The plant releases ethylene gas, this stunts the growth of nearby plants and causes premature ripening of fruits[14, 18].

A distilled water made from the ligules (thin appendages at the base of the leaf blades) is used cosmetically to clear the skin and is particularly effective in fading freckles[7].

Cultivation details

A very easily grown plant, it succeeds in most soils[1], though it prefers a well-drained humus-rich neutral to alkaline soil in full sun or light shade[37, 238].

A very hardy plant, tolerating temperatures down to at least -29°c[238].

The dandelion is a common weed of lawns and grassy places. Though it has a bitter flavour, the plant is often cultivated as a salad crop and as a medicinal plant, especially in parts of Europe. There are some named varieties with larger, more tender and less bitter leaves[183]. Dandelions can provide edible leaves all year round, especially if they are given a small amount of protection in the winter[K].

A valuable bee plant and an important food plant for the caterpillars of many butterfly and moth species[4, 24, 30, 54], it grows well in a spring meadow[24].

A deep rooting plant, it has roots up to 1 metre long and brings up nutrients from lower levels of the soil[201]. An excellent plant to grow in lawns, if the lawn is cut no more than fortnightly then the dandelions will provide a good quantity of edible leaves[K]. Grows well with alfalfa[18, 201]. Another report says that it inhibits the growth of nearby plants[54]. This is probably a reference to the fact that the plant gives off ethylene gas, this gas is a hormone that promotes the premature ripening of fruits and also induces the premature fruiting of plants, thereby stunting their growth[14, 18].

T. officinale is not a valid name for this species, but no valid name has as yet been ascribed to it[200]. This is actually an aggregate species of many hundreds of slightly differing species. Most seed production is apomictic which means that plants produce seed non-sexually and all seedlings are clones of the parent, thus small differences are maintained.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks, though 2 weeks cold stratification may improve germination. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Scent

Flowers: Fresh

> The flowers have an unpleasant odour[245].

Cultivars

'Vert de Montmagny' 'Vert de Montmagny Amélioré'

> This form has large long dark green leaves, well lobed and denticulated[183]. They may be blanched or not[183]. Vigorous and productive plants, they are best sown in early spring or autumn[183].

'Broad Leaved' 'Thick leaved', 'Cabbage Leaved'

> The plant has large broad dark green leaves, more deeply lobed along the axis of the leaf than the wild form. The leaves are thick and tender[183]. Plants are semi-erect in habit, and the leaves are easily blanched. In rich soils they can be 60cm wide[183]. Plants do not go to seed as quickly as French types[183].

'Amélioré à Coeur Plein'

> A very distinct cultivar, surpassing the wild plant not so much in size as in the very great number of leaves, which form a regular tuft of clump, instead of a plain rosette[183]. It yields a very abundant crop without taking up much ground, and blanches very easily, and indeed, almost naturally[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- The Edible Lawn
- Winter Salads

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Taraxacum officinale group* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Taraxacum officinale ssp. vulgare* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Taraxacum vulgare* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *taraxacum officinale* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
A very well written and illustrated book based on the authors own experiments with living on a native diet.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Taraxacum officinale

Unknown Sun Dec 16 16:46:59 2001

"Löwenzahn" flowers are used in northern Germany are used in northern Germany to make a delicious syrup (tastes like honey) and a jelly which is eaten on bread. I bought last summer Dandelion Jelly in the Fläming mountains just south of Berlin. The flower buds are traditionally used in Germany to make capers. The leafs are bleached like chicoree during the winter months in the cellar (it must be dark) and gives a delicious vegetable.Ralf

Your display doesn't work. I gave my name. The webmaster should correct that.

Taraxacum officinale

Rich Tue Apr 2 21:00:01 2002

Link: Goosefoot Acres A Site all about Dandelions

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Taraxacum+officinale`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Taraxacum+officinale`

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Plants For A Future: Database Search Results

Taraxacum officinale

A photo of this plant will appear in the forthcoming CD-ROM.

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Habitat:	A very common weed of grassland and cultivated ground[17].		
Plants For A Future Rating (1-5):	4		

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Epithets:	From a Dictionary of Botanical Epithets
	officinale = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Australia; Britain; Britain(Wales); China; Finland; France; Iraq; Mexico; Nepal; Spain; Turkey; Us; Us(Amerindian); Us(Colonial); Us(Nm); Ussr

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Cultivar **'Broad Leaved'**: Meadow, Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[1, 2, 4, 5, 7, 9, 12, 14, 33, 154]. When used in salads, they are rather bitter, though less so in the winter. Tender young leaves are considerably less bitter than older leaves[K]. The leaves are often blanched (by excluding light from the growing plant) before use[183]. This will make them less bitter, but they will also contain less vitamins and minerals[K]. A very nutritious food, 100g of the raw leaves contain about 2.7g. protein, 9.2g. carbohydrate, 187mg Calcium, 66mg phosphorus, 3.1mg iron, 76mg sodium, 397mg potassium, 36mg magnesium, 14000iu vitamin A, 0.19mg vitamin B1, 0.26mg vitamin B2, 35mg vitamin C[173].

Root - raw or cooked[5, 9, 12, 183]. Bitter. A turnip-like flavour[159].

Flowers - raw or cooked[102, 159]. A rather bitter flavour[K], the unopened flower buds can be used in fritters[183] and they can also be preserved in vinegar and used like capers[7].

Both the leaves and the roots are used to flavour herbal beers and soft drinks such as 'Dandelion and Burdock'[238].

The roots of 2 year old plants are harvested in the autumn, dried and roasted to make a very good coffee substitute[2, 4, 5, 12, 54, 159]. It is caffeine-free[213].

A pleasant tea is made from the flowers[12, 102]. They are also used to make wine - all green parts should be removed when making wine to prevent a bitter flavour[238]. The leaves and the roots can also be used to make tea.

Medicinal Uses

Disclaimer

Aperient; Cholagogue; Depurative; Diuretic; Hepatic; Laxative; Stomachic; Tonic; Warts.

The dandelion is a commonly used herbal remedy. It is especially effective and valuable as a diuretic because it contains high levels of potassium salts and therefore can replace the potassium that is lost from the body when diuretics are used[238].

All parts of the plant, but especially the root, are slightly aperient, cholagogue, depurative, strongly diuretic, hepatic, laxative, stomachic and tonic[4, 7, 9, 21, 54, 165, 176, 222, 238]. The root is also experimentally cholagogue, hypoglycaemic and a weak antibiotic against yeast infections[222]. The dried root has a weaker action[222]. The roots can be used fresh or dried and should be harvested in the autumn when 2 years old[4]. The leaves are harvested in the spring when the plant is in flower and can be dried for later use[9]. A tea can be made from the leaves or, more commonly, from the roots[213].

The plant is used internally in the treatment of gall bladder and urinary disorders, gallstones, jaundice, cirrhosis, dyspepsia with constipation, oedema associated with high blood pressure and heart weakness, chronic joint and skin complaints, gout, eczema and acne[238].

The plant has an antibacterial action, inhibiting the growth of Staphylococcus aureus, Pneumococci, Meningococci, Bacillus dysenteriae, B. typhi, C. diphtheriae, Proteus etc[176].

The latex contained in the plant sap can be used to remove corns, warts and verrucae[7]. The latex has a specific action on inflammations of the gall bladder and is also believed to remove stones in the liver[7].

A tea made from the leaves is laxative[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Fruit ripening; Latex; Miscellany.

The flowers are an ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. A liquid plant feed can be made from the root and leaves[54].

A low quality latex, which can be used for making rubber, can be obtained from the roots of this plant.

A magenta-brown dye is obtained from the root[141].

The plant releases ethylene gas, this stunts the growth of nearby plants and causes premature ripening of fruits[14, 18].

A distilled water made from the ligules (thin appendages at the base of the leaf blades) is used cosmetically to clear the skin and is particularly effective in fading freckles[7].

Cultivation details

A very easily grown plant, it succeeds in most soils[1], though it prefers a well-drained humus-rich neutral to alkaline soil in full sun or light shade[37, 238].

A very hardy plant, tolerating temperatures down to at least -29°c[238].

The dandelion is a common weed of lawns and grassy places. Though it has a bitter flavour, the plant is often cultivated as a salad crop and as a medicinal plant, especially in parts of Europe. There are some named varieties with larger, more tender and less bitter leaves[183]. Dandelions can provide edible leaves all year round, especially if they are given a small amount of protection in the winter[K].

A valuable bee plant and an important food plant for the caterpillars of many butterfly and moth species[4, 24, 30, 54], it grows well in a spring meadow[24].

A deep rooting plant, it has roots up to 1 metre long and brings up nutrients from lower levels of the soil[201]. An excellent plant to grow in lawns, if the lawn is cut no more than fortnightly then the dandelions will provide a good quantity of edible leaves[K]. Grows well with alfalfa[18, 201]. Another report says that it inhibits the growth of nearby plants[54]. This is probably a reference to the fact that the plant gives off ethylene gas, this gas is a hormone that promotes the premature ripening of fruits and also induces the premature fruiting of plants, thereby stunting their growth[14, 18].

T. officinale is not a valid name for this species, but no valid name has as yet been ascribed to it[200]. This is actually an aggregate species of many hundreds of slightly differing species. Most seed production is apomictic which means that plants produce seed non-sexually and all seedlings are clones of the parent, thus small differences are maintained.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks, though 2 weeks cold stratification may improve germination. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Scent

Flowers: Fresh

> The flowers have an unpleasant odour[245].

Cultivars

'Vert de Montmagny' 'Vert de Montmagny Amélioré'

> This form has large long dark green leaves, well lobed and denticulated[183]. They may be blanched or not[183]. Vigorous and productive plants, they are best sown in early spring or autumn[183].

'Broad Leaved' 'Thick leaved', 'Cabbage Leaved'

> The plant has large broad dark green leaves, more deeply lobed along the axis of the leaf than the wild form. The leaves are thick and tender[183]. Plants are semi-erect in habit, and the leaves are easily blanched. In rich soils they can be 60cm wide[183]. Plants do not go to seed as quickly as French types[183].

'Amélioré à Coeur Plein'

> A very distinct cultivar, surpassing the wild plant not so much in size as in the very great number of leaves, which form a regular tuft of clump, instead of a plain rosette[183]. It yields a very abundant crop without taking up much ground, and blanches very easily, and indeed, almost naturally[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- The Edible Lawn
- Winter Salads

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Taraxacum officinale group* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Taraxacum officinale ssp. vulgare* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Taraxacum vulgare* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *taraxacum officinale* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[10] **Altmann. H.** *Poisonous Plants and Animals.* Chatto and Windus 1980 ISBN 0-7011-2526-8
A small book, reasonable but not very detailed.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962

A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
A very well written and illustrated book based on the authors own experiments with living on a native diet.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Taraxacum officinale

Unknown Sun Dec 16 16:46:59 2001

"Löwenzahn" flowers are used in northern Germany are used in northern Germany to make a delicious syrup (tastes like honey) and a jelly which is eaten on bread. I bought last summer Dandelion Jelly in the Fläming mountains just south of Berlin. The flower buds are traditionally used in Germany to make capers. The leafs are bleached like chicoree during the winter months in the cellar (it must be dark) and gives a delicious vegetable.Ralf

Your display doesn't work. I gave my name. The webmaster should correct that.

Taraxacum officinale

Rich Tue Apr 2 21:00:01 2002

Link: Goosefoot Acres A Site all about Dandelions

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WEB search engine by Rich Morris - Home Page- Contact Info

Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Taraxacum+officinale`
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Plants For A Future: Database Search Results

Taraxacum officinale

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Dandelion	Family:	Compositae
Author:	Weber.	Botanical references:	17, 200
Synonyms:	Taraxacum vulgare (Schrank.)		
Known Hazards:	This plant has been mentioned in various books on poisonous plants but any possible toxins will be of very low concentration and toxicity[10]. There are reports that some people have suffered dermatitis as a result of touching the plant, this is probably caused by the latex in the leaves and stems[222].		
Range:	Britain.		
Habitat:	A very common weed of grassland and cultivated ground[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Leontodon latiloba[B,P] Leontodon taraxacum[B,G,H,P] T.[H] T. dens-leonis[G] T. latilobum[B,P] T. officinale group[G] T. officinale ssp. vulgare[B,P] T. palustre var. vulgare[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chiang Nou Ts'Ao [E], Chin Tsan Ts'Ao [E], Common Dandelion [B,L,H,P], Dandelion [FEIS,H,E], Diente De Leon [E], Gewone Paardebloem [D], Hindiba Berri [E], Huang Hua Ti Ting [E], Kara Hindiba [E], Khas Berri [E], Kou Ju Ts'Ao [E], Lion's Tooth [H], Maitiainen [E], P'O Kung Ying [E], P'U Kung Ying [E], Pissenlit [E], Priest's Crown [H], Pu Gong Ying [E], Seiyo-Tanpopo [E], Swine's Snout [H],
Epithets:	From a Dictionary of Botanical Epithets
	officinale = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Australia; Britain; Britain(Wales); China; Finland; France; Iraq; Mexico; Nepal; Spain; Turkey; Us; Us(Amerindian); Us(Colonial); Us(Nm); Ussr

Physical Characteristics

Perennial growing to 0.45m by 0.3m . It is hardy to zone 5 and is not frost tender. It is in flower from April to May, and the seeds ripen from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects and Apomictic (reproduce by seeds formed without sexual fusion). The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Lawn, Cultivated Beds.

Cultivar **'Broad Leaved'**: Meadow, Cultivated Beds.

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Coffee; Flowers; Leaves; Root; Tea.

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Flowers: Fresh

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Taraxacum officinale*

Subject:

Taraxacum officinale

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum officinale

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:13:01 2004

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Add Comment Reset

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Taraxacum platycarpum

Common name:		Family:	Compositae
Author:	Dahlst.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. Japan..		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	platycarpum = wide seed;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

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Web References

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Taraxacum platycarpum

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Range:	E. Asia - C. Japan..		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	platycarpum = wide seed;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

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Edible Uses

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Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - C. Japan..		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	platycarpum = wide seed;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

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Medicinal Uses

Disclaimer

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Other Uses

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Cultivation details

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Suppliers

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Add a comment on: *Taraxacum platycarpum*

Subject:

Taraxacum platycarpum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum platycarpum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Date: Sun May 16 03:13:12 2004

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Taraxacum pseudo-album

Common name:		Family:	Compositae
Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	album = white;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

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Medicinal Uses

Disclaimer

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Other Uses

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Cultivation details

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Disclaimer

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Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	album = white;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked[177].

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Taraxacum pseudo-album*

Subject:

Taraxacum pseudo-album

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Taraxacum pseudo-album

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Taraxacum sinicum

Common name:		Family:	Compositae
Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked.

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

Antibacterial; Cancer; Cholagogue; Diuretic; Galactogogue; Hepatic; Laxative; Stomachic.

The aerial parts of the plant are antibacterial, cholagogue, diuretic, galactogogue, laxative and stomachic[176]. A decoction is used in treating abscesses, appendicitis, boils, liver problems, stomach disorders etc[176, 218]. It has been used for over 1,000 years by the Chinese in treating breast cancer and other disorders of the breasts including poor milk flow[218]. The plant has an antibacterial action against Staphylococcus aureus, streptococci, Pneumococci, Meningococci, Bacillus dysenteriae, B. typhi, C. diphtheriae, Proteus etc[176].

The stem has been used in the treatment of cancer[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

Many species in this genus produce their seed apomictically. This is an asexual method of seed production where each seed is genetically identical to the parent plant. Occasionally seed is produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985

A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name: ____________________

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Plants For A Future: Database Search Results

Taraxacum sinicum

Common name:		Family:	Compositae
Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked.

The following uses are also probably applicable to this species, though we have no records for them[K]

Root - cooked[183].

Flowers - raw or cooked[183]. The unopened flower buds can be used in fritters[183].

The whole plant is dried and used as a tea[177, 183].

A pleasant tea is made from the flowers. The leaves and the roots can also be used to make tea.

The root is dried and roasted to make a coffee substitute.

Medicinal Uses

Disclaimer

Antibacterial; Cancer; Cholagogue; Diuretic; Galactogogue; Hepatic; Laxative; Stomachic.

The aerial parts of the plant are antibacterial, cholagogue, diuretic, galactogogue, laxative and stomachic[176]. A decoction is used in treating abscesses, appendicitis, boils, liver problems, stomach disorders etc[176, 218]. It has been used for over 1,000 years by the Chinese in treating breast cancer and other disorders of the breasts including poor milk flow[218]. The plant has an antibacterial action against Staphylococcus aureus, streptococci, Pneumococci, Meningococci, Bacillus dysenteriae, B. typhi, C. diphtheriae, Proteus etc[176].

The stem has been used in the treatment of cancer[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of the country. The following notes are based on the general needs of the genus.

Prefers a well-drained humus-rich soil in full sun or light shade.

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produced sexually, the resulting seedlings are somewhat different to the parent plants and if these plants are sufficiently distinct from the parents and then produce apomictic seedlings these seedlings are, in theory at least, a new species.

Propagation

Seed - sow spring in a cold frame and either surface-sow or only just cover the seed. Make sure the compost does not dry out. Germination should take place within 2 weeks. Prick out the seedlings into individual pots when they are large enough to handle, choosing relatively deep pots to accommodate the tap root. Plant them out in early summer.

Division in early spring as the plant comes into growth.

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Plants For A Future: Database Search Results

Taraxacum sinicum

Common name:		Family:	Compositae
Author:	Kitag.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Flowers; Leaves; Root; Tea.

Leaves - raw or cooked.

The following uses are also probably applicable to this species, though we have no records for them[K]

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Antibacterial; Cancer; Cholagogue; Diuretic; Galactogogue; Hepatic; Laxative; Stomachic.

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The stem has been used in the treatment of cancer[218].

Other Uses

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Cultivation details

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Suppliers

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Add a comment on: *Taraxacum sinicum*

Subject:

Taraxacum sinicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Taraxacum sinicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Your Email Address:

Date: Sun May 16 03:13:35 2004

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Triglochin maritima

Common name:	Sea arrow grass	Family:	Juncaginaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The green leaves of plants can contain a toxic cyanogenic glycoside, it is especially present during and just after a drought and is particularly toxic to ruminants[76, 85]. Plants growing in Britain are usually perfectly safe, this is probably due to the climate[76].		
Range:	Britain.		
Habitat:	Salt marshes and grassy places near the sea[9, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. concinnum var. debile[B,P] T. debile[B,P] T. elatum[B,P] T. maritimum[B,,P] T. maritimum var. elatum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arrowgrass [E], Schorrenzoutgras [D], Sea Arrowgrass [L], Seaside Arrow-grass [B], Seaside Arrowgrass [L,P],
Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Arrow-grass family
Other Range Info:	From the Ethnobotany Database

	Us

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 5. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires wet soil and can grow in water. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Coffee; Seed; Stem.

The white base of the leaf stem can be eaten raw or cooked[46, 61, 85, 103]. Best harvested in late spring, the white base has a pleasant mild sweet taste, somewhat like cucumber[256]. An unpleasant odour is produced whilst the plant is being cooked[74]. The green parts of the plant should not be eaten since they can contain a toxin[172]. Only the bases of leaf stems should be used, and not the bases of flowering stems[256]. See notes at top of the page.

Seed - parched and ground into a powder[85, 105, 161, 172, 257].

The roasted seed is a coffee substitute[161, 172, 212].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap making.

The ashes of the plant are rich in potassium and can be used in making soap[74].

Cultivation details

Succeeds in shallow water or a bog garden[200]. Possibly requires saline conditions[K].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Stand the pots in about 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Triglochin maritimum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *triglochin maritima* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Juncaginaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

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Very readable and well illustrated, it lists plants by families giving the basic diagnostic features and some details of plant uses.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Triglochin maritima

Common name:	Sea arrow grass	Family:	Juncaginaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The green leaves of plants can contain a toxic cyanogenic glycoside, it is especially present during and just after a drought and is particularly toxic to ruminants[76, 85]. Plants growing in Britain are usually perfectly safe, this is probably due to the climate[76].		
Range:	Britain.		
Habitat:	Salt marshes and grassy places near the sea[9, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. concinnum var. debile[B,P] T. debile[B,P] T. elatum[B,P] T. maritimum[B,,P] T. maritimum var. elatum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arrowgrass [E], Schorrenzoutgras [D], Sea Arrowgrass [L], Seaside Arrow-grass [B], Seaside Arrowgrass [L,P],
Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Arrow-grass family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 5. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires wet soil and can grow in water. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Coffee; Seed; Stem.

The white base of the leaf stem can be eaten raw or cooked[46, 61, 85, 103]. Best harvested in late spring, the white base has a pleasant mild sweet taste, somewhat like cucumber[256]. An unpleasant odour is produced whilst the plant is being cooked[74]. The green parts of the plant should not be eaten since they can contain a toxin[172]. Only the bases of leaf stems should be used, and not the bases of flowering stems[256]. See notes at top of the page.

Seed - parched and ground into a powder[85, 105, 161, 172, 257].

The roasted seed is a coffee substitute[161, 172, 212].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap making.

The ashes of the plant are rich in potassium and can be used in making soap[74].

Cultivation details

Succeeds in shallow water or a bog garden[200]. Possibly requires saline conditions[K].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Stand the pots in about 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Triglochin maritimum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *triglochin maritima* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Juncaginaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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Plants For A Future: Database Search Results

Triglochin maritima

Common name:	Sea arrow grass	Family:	Juncaginaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The green leaves of plants can contain a toxic cyanogenic glycoside, it is especially present during and just after a drought and is particularly toxic to ruminants[76, 85]. Plants growing in Britain are usually perfectly safe, this is probably due to the climate[76].		
Range:	Britain.		
Habitat:	Salt marshes and grassy places near the sea[9, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. concinnum var. debile[B,P] T. debile[B,P] T. elatum[B,P] T. maritimum[B,,P] T. maritimum var. elatum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Arrow-grass family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 5. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires wet soil and can grow in water. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Coffee; Seed; Stem.

The white base of the leaf stem can be eaten raw or cooked[46, 61, 85, 103]. Best harvested in late spring, the white base has a pleasant mild sweet taste, somewhat like cucumber[256]. An unpleasant odour is produced whilst the plant is being cooked[74]. The green parts of the plant should not be eaten since they can contain a toxin[172]. Only the bases of leaf stems should be used, and not the bases of flowering stems[256]. See notes at top of the page.

Seed - parched and ground into a powder[85, 105, 161, 172, 257].

The roasted seed is a coffee substitute[161, 172, 212].

Medicinal Uses

Disclaimer

None known

Other Uses

Soap making.

The ashes of the plant are rich in potassium and can be used in making soap[74].

Cultivation details

Succeeds in shallow water or a bog garden[200]. Possibly requires saline conditions[K].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Stand the pots in about 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Suppliers

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Triglochin palustris

Common name:	Marsh arrow grass	Family:	Juncaginaceae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	The green leaves of plants can contain a toxic cyanogenic glycoside, it is especially present during and just after a drought and is particularly toxic to ruminants[172]. Plants growing in Britain are usually perfectly safe, this is probably due to the climate[76].		
Range:	Britain.		
Habitat:	Marshes, usually amongst tall grass[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. palustre[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arrowgreas [E], Marsh Arrow-grass [B], Marsh Arrowgrass [P,L], Moeraszoutgras [D],
Epithets:	From a Dictionary of Botanical Epithets
	palustris = in bogs;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Arrow-grass family
Other Range Info:	From the Ethnobotany Database

	Us

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Coffee; Seed; Stem.

The white base of the leaf stem can be eaten raw or cooked[172]. An unpleasant odour is produced in the cooking process but the flavour of the stems is sweet[172]. The green parts of the plant should not be eaten since they can contain a toxin. See notes at top of the page.

Seed - parched and ground into a powder[172].

The roasted seed is a coffee substitute[172].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in shallow water or a bog garden[200]. This plant does not seem to require high salt levels for its survival[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Stand the pots in about 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Suppliers

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See the PFAF Links Pages for other sources

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Habitat:	Marshes, usually amongst tall grass[17].		
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Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Stand the pots in about 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Triglochin palustre* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Juncaginaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*

A nice guide to some useful plants in that area.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Triglochin palustris

Common name:	Marsh arrow grass	Family:	Juncaginaceae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	The green leaves of plants can contain a toxic cyanogenic glycoside, it is especially present during and just after a drought and is particularly toxic to ruminants[172]. Plants growing in Britain are usually perfectly safe, this is probably due to the climate[76].		
Range:	Britain.		
Habitat:	Marshes, usually amongst tall grass[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. palustre[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arrowgreas [E], Marsh Arrow-grass [B], Marsh Arrowgrass [P,L], Moeraszoutgras [D],
Epithets:	From a Dictionary of Botanical Epithets
	palustris = in bogs;
Systematics:	From a UDSA Plants Database
	Order: Najadales . Arrow-grass family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Coffee; Seed; Stem.

The white base of the leaf stem can be eaten raw or cooked[172]. An unpleasant odour is produced in the cooking process but the flavour of the stems is sweet[172]. The green parts of the plant should not be eaten since they can contain a toxin. See notes at top of the page.

Seed - parched and ground into a powder[172].

The roasted seed is a coffee substitute[172].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in shallow water or a bog garden[200]. This plant does not seem to require high salt levels for its survival[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Stand the pots in about 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring[200]. Larger divisions can be planted out direct into their permanent positions. We have found that it is best to pot up smaller divisions and grow them on in light shade in a greenhouse or cold frame until they are growing away well. Plant them out in the summer or the following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Triglochin+palustris`

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Add a comment on: *Triglochin palustris*

Subject:

Triglochin palustris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Triglochin palustris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

Your Email Address:

Date: Sun May 16 03:13:59 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Trigonella foenum-graecum

Common name:	Fenugreek	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	The seed contains 1% saponins[240]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Europe - S. France.		
Habitat:	Field verges, uncultivated ground, dry grasslands and hillsides[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. T. foenumgraecum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Alholva [E], Bird's Foot [H], Boyotu [E], Chinagreye [E], Fenegriek [D], Fenugreek [H,E], Foenum Graecum [E], Greek Hay-seed [H], Halva [E], Helba [E], Hu Lu Pa [E], K'U Tou [E], Kelabat [E], Koroha [E], Methi [H], Shimli [E], Sickle-fruit Fenugreek [B], Sicklefruit Fenugreek [P],
Epithets:	From a Dictionary of Botanical Epithets
	graecum = of Greece;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Austria; Belgium; Chile; China; Egypt; Hungary; India; India(Santal); Iraq; Java; Malaya; Mediterranean; Spain; Sudan; Turkey

Physical Characteristics

Annual growing to 0.6m by 0.4m at a fast rate. It is hardy to zone 6. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Kasuri'**: Cultivated Beds.

Edible Uses

Coffee; Condiment; Leaves; Seed; Seedpod; Tea.

Seed - cooked or sprouted and eaten raw[2, 4, 21, 34]. It has quite a strong spicy flavour, not unlike lovage or celery[4, 183]. When ground into a powder, the seed is a principal ingredient of curries and mango chutney[244], it is also used in pickles and spice mixes, as a flavouring in bread etc[4, 183, 238]. The seed is usually lightly roasted before use in order to reduce the bitterness[238]. The seed is about 3mm long, about 10 - 20 seeds being produced in each pod[4]. A good source of many essential elements such as iron, phosphorus and sulphur[244], the seed contains about 6% moisture, 23% protein, 10% carbohydrate, 8% fat, 10% fibre and 4.3% ash[61]. The ground seeds are used to give a maple syrup flavour to foods[183]. The seed can be soaked for 12 hours in warm water and then allowed to sprout for 3 - 5 days[244]. These sprouted seeds have a spicy flavour and can be added to salads or cooked[238, K].

An essential oil obtained from the seed is used as a food flavouring in imitation maple syrup, vanilla compositions, liquorice, pickles etc[183]. It also has medicinal virtues[57]. The ground up seeds can also be used as a substitute for maple syrup[4].

Leaves - raw or cooked[2, 4, 7, 34]. Very aromatic, in small quantities they can be added to salads, otherwise they are used as a potherb, a flavouring for root vegetables, an ingredient of curries etc[183, 238].

Seedpods - cooked[105].

The roasted seed is a coffee substitute[2, 177, 183].

A soothing tea is made from the leaves and the seed[21, 183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 6.2 Protein: 23.2 Fat: 8 Carbohydrate: 10 Fibre: 9.8 Ash: 4.3
Source: [218]

Medicinal Uses

Disclaimer

Anticholesterolemic; Antiinflammatory; Antiphlogistic; Antitumor; Cardiotonic; Carminative; Demulcent; Deobstruent; Diuretic; Emollient; Expectorant; Febrifuge; Galactogogue; Hypoglycaemic; Hypotensive; Laxative; Parasiticide; Restorative.

Fenugreek is much used in herbal medicine, especially in North Africa, the Middle East and India. It has a wide range of medicinal applications[254]. The seeds are very nourishing and are given to convalescents and to encourage weight gain, especially in anorexia nervosa[254]. The seeds should not be prescribed medicinally for pregnant women since they can induce uterine contractions[238, 254]. Research has shown that the seeds can inhibit cancer of the liver, lower blood cholesterol levels and also have an antidiabetic effect[254].

The seed and leaves are anticholesterolemic, anti-inflammatory, antitumor, carminative, demulcent, deobstruent, emollient, expectorant, febrifuge, galactogogue, hypoglycaemic, laxative, parasiticide, restorative and uterine tonic[4, 7, 21, 147, 165, 176, 238]. The seed yields a strong mucilage and is therefore useful in the treatment of inflammation and ulcers of the stomach and intestines[4, 254]. Taken internally, a decoction of the ground seeds serves to drain off the sweat ducts[7]. The seed is very nourishing and body-building and is one of the most efficacious tonics in cases of physical debility caused by anaemia or by infectious diseases, especially where a nervous factor is involved[7, 244]. It is also used in the treatment of late-onset diabetes, poor digestion (especially in convalescence), insufficient lactation, painful menstruation, labour pains etc[238, 244]. The seeds freshen bad breath and restore a dulled sense of taste[254].

Externally, the seeds can be ground into a powder and used as a poultice for abscesses, boils, ulcers, burns etc, or they can be used as a douche for excessive vaginal discharge[4, 244, 254].

The leaves are harvested in the growing season and can be used fresh or dried[238]. The seeds are harvested when fully ripe and dried for later use[238].

Compounds extracted from the plant have shown cardiotonic, hypoglycaemic, diuretic, antiphlogistic and hypotensive activity[218]. One of its constituent alkaloids, called 'trigonelline', has shown potential for use in cancer therapy. The seed contains the saponin diosgenin, an important substance in the synthesis of oral contraceptives and sex hormones[244], whilst saponins in the plant have been extracted for use in various other pharmaceutical products[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Dye; Essential; Green manure; Hair.

An essential oil is obtained from the seed - used as a food flavouring and medicinally. The dried plant has a strong aroma of hay[4].

The crushed seed, mixed with oil and massaged into the scalp, is recommended for glossy hair[244]. An infusion of the seed, used as a skin lotion, is said to be good for the complexion[244].

A good green manure crop, it is fast growing and vigorous[200], producing a lot of bulk and fixing a large quantity of atmospheric nitrogen[87].

A yellow dye is obtained from the seed[61].

Cultivation details

Succeeds in ordinary garden soil[1], preferring a well-drained loamy soil in full sun[200]. Requires a warm, sheltered position in Britain[244].

Plants are hardy to about -15°c[238].

Fenugreek is widely cultivated for its edible seed in warm temperate and tropical regions, there are some named varieties[183]. Seed production is more problematic in Britain due to the cooler and moister summers. The seed is ripened intermittently over a period of some weeks making harvesting more complicated[87]. Plants take about 16 weeks to mature in warmer climes, probably about 4 weeks longer in Britain[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and then sow in spring in situ.

Scent

Seed:

No details on scent.

Cultivars

'Kasuri' 'Kasuri Methi'

An excellent soft-core cultivar that is used as a pot-herb[183]. Several cuttings can be taken from each plant[183]. A slower-growing plant than the species, remaining in a rosette condition during most of its vegetative growth period[183]. It is grown as an autumn-sown crop in the cooler north-east of India[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Trigonella foenumgraecum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[50] **?** *Flora Europaea* Cambridge University Press 1964

An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[87] **Woodward. L. Burge. P.** *Green Manures.* Elm Farm Research Centre. 1982
Green manure crops for temperate areas. Quite a lot of information on a number of species.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN

0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Trigonella foenum-graecum

Common name:	Fenugreek	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	The seed contains 1% saponins[240]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Europe - S. France.		
Habitat:	Field verges, uncultivated ground, dry grasslands and hillsides[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. foenumgraecum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alholva [E], Bird's Foot [H], Boyotu [E], Chinagreye [E], Fenegriek [D], Fenugreek [H,E], Foenum Graecum [E], Greek Hay-seed [H], Halva [E], Helba [E], Hu Lu Pa [E], K'U Tou [E], Kelabat [E], Koroha [E], Methi [H], Shimli [E], Sickle-fruit Fenugreek [B], Sicklefruit Fenugreek [P],
Epithets:	From a Dictionary of Botanical Epithets
	graecum = of Greece;
Systematics:	From a UDSA Plants Database

	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Austria; Belgium; Chile; China; Egypt; Hungary; India; India(Santal); Iraq; Java; Malaya; Mediterranean; Spain; Sudan; Turkey

Physical Characteristics

Annual growing to 0.6m by 0.4m at a fast rate. It is hardy to zone 6. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Kasuri'**: Cultivated Beds.

Edible Uses

Coffee; Condiment; Leaves; Seed; Seedpod; Tea.

Seed - cooked or sprouted and eaten raw[2, 4, 21, 34]. It has quite a strong spicy flavour, not unlike lovage or celery[4, 183]. When ground into a powder, the seed is a principal ingredient of curries and mango chutney[244], it is also used in pickles and spice mixes, as a flavouring in bread etc[4, 183, 238]. The seed is usually lightly roasted before use in order to reduce the bitterness[238]. The seed is about 3mm long, about 10 - 20 seeds being produced in each pod[4]. A good source of many essential elements such as iron, phosphorus and sulphur[244], the seed contains about 6% moisture, 23% protein, 10% carbohydrate, 8% fat, 10% fibre and 4.3% ash[61]. The ground seeds are used to give a maple syrup flavour to foods[183]. The seed can be soaked for 12 hours in warm water and then allowed to sprout for 3 - 5 days[244]. These sprouted seeds have a spicy flavour and can be added to salads or cooked[238, K].

An essential oil obtained from the seed is used as a food flavouring in imitation maple syrup, vanilla compositions, liquorice, pickles etc[183]. It also has medicinal virtues[57]. The ground up seeds can also be used as a substitute for maple syrup[4].

Leaves - raw or cooked[2, 4, 7, 34]. Very aromatic, in small quantities they can be added to salads, otherwise they are used as a potherb, a flavouring for root vegetables, an ingredient of curries etc[183, 238].

Seedpods - cooked[105].

The roasted seed is a coffee substitute[2, 177, 183].

A soothing tea is made from the leaves and the seed[21, 183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 6.2 Protein: 23.2 Fat: 8 Carbohydrate: 10 Fibre: 9.8 Ash: 4.3
Source: [218]

Medicinal Uses

Disclaimer

Anticholesterolemic; Antiinflammatory; Antiphlogistic; Antitumor; Cardiotonic; Carminative; Demulcent; Deobstruent; Diuretic; Emollient; Expectorant; Febrifuge; Galactogogue; Hypoglycaemic; Hypotensive; Laxative; Parasiticide; Restorative.

Fenugreek is much used in herbal medicine, especially in North Africa, the Middle East and India. It has a wide range of medicinal applications[254]. The seeds are very nourishing and are given to convalescents and to encourage weight gain, especially in anorexia nervosa[254]. The seeds should not be prescribed medicinally for pregnant women since they can induce uterine contractions[238, 254]. Research has shown that the seeds can inhibit cancer of the liver, lower blood cholesterol levels and also have an antidiabetic effect[254].

The seed and leaves are anticholesterolemic, anti-inflammatory, antitumor, carminative, demulcent, deobstruent, emollient, expectorant, febrifuge, galactogogue, hypoglycaemic, laxative, parasiticide, restorative and uterine tonic[4, 7, 21, 147, 165, 176, 238]. The seed yields a strong mucilage and is therefore useful in the treatment of inflammation and ulcers of the stomach and intestines[4, 254]. Taken internally, a decoction of the ground seeds serves to drain off the sweat ducts[7]. The seed is very nourishing and body-building and is one of the most efficacious tonics in cases of physical debility caused by anaemia or by infectious diseases, especially where a nervous factor is involved[7, 244]. It is also used in the treatment of late-onset diabetes, poor digestion (especially in convalescence), insufficient lactation, painful menstruation, labour pains etc[238, 244]. The seeds freshen bad breath and restore a dulled sense of taste[254].

Externally, the seeds can be ground into a powder and used as a poultice for abscesses, boils, ulcers, burns etc, or they can be used as a douche for excessive vaginal discharge[4, 244, 254].

The leaves are harvested in the growing season and can be used fresh or dried[238]. The seeds are harvested when fully ripe and dried for later use[238].

Compounds extracted from the plant have shown cardiotonic, hypoglycaemic, diuretic, antiphlogistic and hypotensive activity[218]. One of its constituent alkaloids, called 'trigonelline', has shown potential for use in cancer therapy. The seed contains the saponin diosgenin, an important substance in the synthesis of oral contraceptives and sex hormones[244], whilst saponins in the plant have been extracted for use in various other pharmaceutical products[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cosmetic; Dye; Essential; Green manure; Hair.

An essential oil is obtained from the seed - used as a food flavouring and medicinally. The dried plant has a strong aroma of hay[4].

The crushed seed, mixed with oil and massaged into the scalp, is recommended for glossy hair[244]. An infusion of the seed, used as a skin lotion, is said to be good for the complexion[244].

A good green manure crop, it is fast growing and vigorous[200], producing a lot of bulk and fixing a large quantity of atmospheric nitrogen[87].

A yellow dye is obtained from the seed[61].

Cultivation details

Succeeds in ordinary garden soil[1], preferring a well-drained loamy soil in full sun[200]. Requires a warm, sheltered position in Britain[244].

Plants are hardy to about -15°c[238].

Fenugreek is widely cultivated for its edible seed in warm temperate and tropical regions, there are some named varieties[183]. Seed production is more problematic in Britain due to the cooler and moister summers. The seed is ripened intermittently over a period of some weeks making harvesting more complicated[87]. Plants take about 16 weeks to mature in warmer climes, probably about 4 weeks longer in Britain[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and then sow in spring in situ.

Scent

Seed:

No details on scent.

Cultivars

'Kasuri' 'Kasuri Methi'

An excellent soft-core cultivar that is used as a pot-herb[183]. Several cuttings can be taken from each plant[183]. A slower-growing plant than the species, remaining in a rosette condition during most of its vegetative growth period[183]. It is grown as an autumn-sown crop in the cooler north-east of India[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Trigonella foenumgraecum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[87] **Woodward. L. Burge. P.** *Green Manures.* Elm Farm Research Centre. 1982
Green manure crops for temperate areas. Quite a lot of information on a number of species.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Trigonella foenum-graecum

Common name:	Fenugreek	Family:	Leguminosae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	The seed contains 1% saponins[240]. Although poisonous, saponins are poorly absorbed by the human body and so most pass through without harm. Saponins are quite bitter and can be found in many common foods such as some beans. They can be removed by carefully leaching the seed or flour in running water. Thorough cooking, and perhaps changing the cooking water once, will also remove most of them. However, it is not advisable to eat large quantities of food that contain saponins. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Europe - S. France.		
Habitat:	Field verges, uncultivated ground, dry grasslands and hillsides[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. foenumgraecum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alholva [E], Bird's Foot [H], Boyotu [E], Chinagreye [E], Fenegriek [D], Fenugreek [H,E], Foenum Graecum [E], Greek Hay-seed [H], Halva [E], Helba [E], Hu Lu Pa [E], K'U Tou [E], Kelabat [E], Koroha [E], Methi [H], Shimli [E], Sickle-fruit Fenugreek [B], Sicklefruit Fenugreek [P],
Epithets:	From a Dictionary of Botanical Epithets
	graecum = of Greece;
Systematics:	From a UDSA Plants Database

	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Austria; Belgium; Chile; China; Egypt; Hungary; India; India(Santal); Iraq; Java; Malaya; Mediterranean; Spain; Sudan; Turkey

Physical Characteristics

Annual growing to 0.6m by 0.4m at a fast rate. It is hardy to zone 6. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Kasuri'**: Cultivated Beds.

Edible Uses

Coffee; Condiment; Leaves; Seed; Seedpod; Tea.

Seed - cooked or sprouted and eaten raw[2, 4, 21, 34]. It has quite a strong spicy flavour, not unlike lovage or celery[4, 183]. When ground into a powder, the seed is a principal ingredient of curries and mango chutney[244], it is also used in pickles and spice mixes, as a flavouring in bread etc[4, 183, 238]. The seed is usually lightly roasted before use in order to reduce the bitterness[238]. The seed is about 3mm long, about 10 - 20 seeds being produced in each pod[4]. A good source of many essential elements such as iron, phosphorus and sulphur[244], the seed contains about 6% moisture, 23% protein, 10% carbohydrate, 8% fat, 10% fibre and 4.3% ash[61]. The ground seeds are used to give a maple syrup flavour to foods[183]. The seed can be soaked for 12 hours in warm water and then allowed to sprout for 3 - 5 days[244]. These sprouted seeds have a spicy flavour and can be added to salads or cooked[238, K].

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Seedpods - cooked[105].

The roasted seed is a coffee substitute[2, 177, 183].

A soothing tea is made from the leaves and the seed[21, 183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 6.2 Protein: 23.2 Fat: 8 Carbohydrate: 10 Fibre: 9.8 Ash: 4.3
Source: [218]

Medicinal Uses

Disclaimer

Anticholesterolemic; Antiinflammatory; Antiphlogistic; Antitumor; Cardiotonic; Carminative; Demulcent; Deobstruent; Diuretic; Emollient; Expectorant; Febrifuge; Galactogogue; Hypoglycaemic; Hypotensive; Laxative; Parasiticide; Restorative.

Fenugreek is much used in herbal medicine, especially in North Africa, the Middle East and India. It has a wide range of medicinal applications[254]. The seeds are very nourishing and are given to convalescents and to encourage weight gain, especially in anorexia nervosa[254]. The seeds should not be prescribed medicinally for pregnant women since they can induce uterine contractions[238, 254]. Research has shown that the seeds can inhibit cancer of the liver, lower blood cholesterol levels and also have an antidiabetic effect[254].

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Externally, the seeds can be ground into a powder and used as a poultice for abscesses, boils, ulcers, burns etc, or they can be used as a douche for excessive vaginal discharge[4, 244, 254].

The leaves are harvested in the growing season and can be used fresh or dried[238]. The seeds are harvested when fully ripe and dried for later use[238].

Compounds extracted from the plant have shown cardiotonic, hypoglycaemic, diuretic, antiphlogistic and hypotensive activity[218]. One of its constituent alkaloids, called 'trigonelline', has shown potential for use in cancer therapy. The seed contains the saponin diosgenin, an important substance in the synthesis of oral contraceptives and sex hormones[244], whilst saponins in the plant have been extracted for use in various other pharmaceutical products[238].

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Other Uses

Cosmetic; Dye; Essential; Green manure; Hair.

An essential oil is obtained from the seed - used as a food flavouring and medicinally. The dried plant has a strong aroma of hay[4].

The crushed seed, mixed with oil and massaged into the scalp, is recommended for glossy hair[244]. An infusion of the seed, used as a skin lotion, is said to be good for the complexion[244].

A good green manure crop, it is fast growing and vigorous[200], producing a lot of bulk and fixing a large quantity of atmospheric nitrogen[87].

A yellow dye is obtained from the seed[61].

Cultivation details

Succeeds in ordinary garden soil[1], preferring a well-drained loamy soil in full sun[200]. Requires a warm, sheltered position in Britain[244].

Plants are hardy to about -15°c[238].

Fenugreek is widely cultivated for its edible seed in warm temperate and tropical regions, there are some named varieties[183]. Seed production is more problematic in Britain due to the cooler and moister summers. The seed is ripened intermittently over a period of some weeks making harvesting more complicated[87]. Plants take about 16 weeks to mature in warmer climes, probably about 4 weeks longer in Britain[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 12 hours in warm water and then sow in spring in situ.

Scent

Seed:

No details on scent.

Cultivars

'Kasuri' 'Kasuri Methi'

An excellent soft-core cultivar that is used as a pot-herb[183]. Several cuttings can be taken from each plant[183]. A slower-growing plant than the species, remaining in a rosette condition during most of its vegetative growth period[183]. It is grown as an autumn-sown crop in the cooler north-east of India[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Trigonella foenum-graecum*

Subject:

Trigonella foenum-graecum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Trigonella foenum-graecum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Triosteum perfoliatum

Common name:	Wild coffee	Family:	Caprifoliaceae
Author:	L.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Massachusetts to Alabama, Kentucky and Kansas, west to Nebraska.		
Habitat:	Rich soils[235]. Shady positions in forests on limestone soils[213].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Feverwort [P,B], Horse Gentian [E], Ipecacuanha Sauvage [E], Tinker'S Weed [E], Wilde Ipecacuanha [E],
Epithets:	From a Dictionary of Botanical Epithets
	perfoliatum = leaves joined around stem;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family
Other Range Info:	From the Ethnobotany Database
	Britain; France; Germany; Netherlands; Us; Us(Appalachia); Us(Cherokee); Us(Onondaga)

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 6. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee.

The dried and roasted seeds have been used as a coffee substitute[2, 207, 222]. Opinions on the taste vary wildly[207].

Medicinal Uses

Disclaimer

Cathartic; Diaphoretic; Diuretic; Emetic; Febrifuge; Laxative; Pectoral; Poultice; Stomachic.

A decoction of the leaves is diaphoretic[222]. It is used in the treatment of fever and ague[207, 213].

The roots are diaphoretic, diuretic, laxative, pectoral and stomachic[222, 257]. In large doses they are emetic and cathartic[222]. An infusion of the root has been used to treat severe colds, pneumonia, irregular or profuse menses, painful urination, stomach problems and constipation[222, 257]. The infusion has also been used as an aid to putting on weight for both adults and babies[257].

A poultice of the roots is applied to snakebites, sores and felons[222].

An infusion of the plant has been used for soaking sore feet. An ooze from the plant has been used as a wash for swollen legs[257].

The rhizome contains an alkaloid and has been used as a cathartic[213].

Other Uses

None known

Cultivation details

Succeeds in a light humus-rich soil in part shade[200].

Succeeds in the wild or woodland garden[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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URL for Site: http://

Details:

Enter your details here:

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Plants For A Future: Database Search Results

Triosteum perfoliatum

Common name:	Wild coffee	Family:	Caprifoliaceae
Author:	L.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Massachusetts to Alabama, Kentucky and Kansas, west to Nebraska.		
Habitat:	Rich soils[235]. Shady positions in forests on limestone soils[213].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Feverwort [P,B], Horse Gentian [E], Ipecacuanha Sauvage [E], Tinker'S Weed [E], Wilde Ipecacuanha [E],
Epithets:	From a Dictionary of Botanical Epithets
	perfoliatum = leaves joined around stem;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family
Other Range Info:	From the Ethnobotany Database
	Britain; France; Germany; Netherlands; Us; Us(Appalachia); Us(Cherokee); Us(Onondaga)

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 6. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee.

The dried and roasted seeds have been used as a coffee substitute[2, 207, 222]. Opinions on the taste vary wildly[207].

Medicinal Uses

Disclaimer

Cathartic; Diaphoretic; Diuretic; Emetic; Febrifuge; Laxative; Pectoral; Poultice; Stomachic.

A decoction of the leaves is diaphoretic[222]. It is used in the treatment of fever and ague[207, 213].

The roots are diaphoretic, diuretic, laxative, pectoral and stomachic[222, 257]. In large doses they are emetic and cathartic[222]. An infusion of the root has been used to treat severe colds, pneumonia, irregular or profuse menses, painful urination, stomach problems and constipation[222, 257]. The infusion has also been used as an aid to putting on weight for both adults and babies[257].

A poultice of the roots is applied to snakebites, sores and felons[222].

An infusion of the plant has been used for soaking sore feet. An ooze from the plant has been used as a wash for swollen legs[257].

The rhizome contains an alkaloid and has been used as a cathartic[213].

Other Uses

None known

Cultivation details

Succeeds in a light humus-rich soil in part shade[200].

Succeeds in the wild or woodland garden[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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Plants For A Future: Database Search Results

Triosteum perfoliatum

Common name:	Wild coffee	Family:	Caprifoliaceae
Author:	L.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Massachusetts to Alabama, Kentucky and Kansas, west to Nebraska.		
Habitat:	Rich soils[235]. Shady positions in forests on limestone soils[213].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Feverwort [P,B], Horse Gentian [E], Ipecacuanha Sauvage [E], Tinker'S Weed [E], Wilde Ipecacuanha [E],
Epithets:	From a Dictionary of Botanical Epithets
	perfoliatum = leaves joined around stem;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family
Other Range Info:	From the Ethnobotany Database
	Britain; France; Germany; Netherlands; Us; Us(Appalachia); Us(Cherokee); Us(Onondaga)

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 6. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Coffee.

The dried and roasted seeds have been used as a coffee substitute[2, 207, 222]. Opinions on the taste vary wildly[207].

Medicinal Uses

Disclaimer

Cathartic; Diaphoretic; Diuretic; Emetic; Febrifuge; Laxative; Pectoral; Poultice; Stomachic.

A decoction of the leaves is diaphoretic[222]. It is used in the treatment of fever and ague[207, 213].

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A poultice of the roots is applied to snakebites, sores and felons[222].

An infusion of the plant has been used for soaking sore feet. An ooze from the plant has been used as a wash for swollen legs[257].

The rhizome contains an alkaloid and has been used as a cathartic[213].

Other Uses

None known

Cultivation details

Succeeds in a light humus-rich soil in part shade[200].

Succeeds in the wild or woodland garden[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a cold frame in early spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring[200].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Triosteum perfoliatum*

Subject:

Triosteum perfoliatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Triosteum perfoliatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Ugni molinae

Common name:	Uñi	Family:	Myrtaceae
Author:	Turcz.	Botanical references:	11, 200
Synonyms:	Myrtus ugni (Molina.), Eugenia ugni ((Molina.)Hook.f.)		
Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Woodland edges and scrub[11, 184].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Myrtus molinae[G]
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family

Physical Characteristics

An evergreen shrub growing to 2m by 1m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from May to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Coffee; Fruit; Tea.

Fruit - raw or cooked[2, 3]. An absolutely delicious flavour, it is very aromatic and tastes of wild strawberries[11, 15, K]. The fruit is about 15mm in diameter[196] and is freely borne even on small plants[K].

Leaves are a tea substitute[177, 183].

The roasted seeds are a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Tolerant of trimming, it can be grown as a small hedge in the milder parts of Britain[11].

Cultivation details

Succeeds in any reasonably good soil including[1] dry ones. Prefers a moderately fertile well-drained loam in a sunny position[11, 200]. Fairly tolerant of maritime exposure[K]. Established plants are drought resistant[196].

A very ornamental plant[1], it is only hardy in the milder parts of Britain[3], tolerating temperatures down to about -10°c when fully dormant[184]. The young growth in spring can be damaged by late frosts. Plants grow and fruit very well in Cornwall, indeed, in the past it has been cultivated commercially for its fruit there[11, 59] (it was one of Queen Victoria's favourite fruits), but is now normally only grown as an ornamental plant. This is a much underused plant that highly merits cultivation on a commercial scale for its fruit[K].

Flowers and fruits well even when the plants are young[11, 166].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Pre-soak the seed for 24 hours in warm water and then sow it in late winter in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts[K].

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Pot up in the autumn and overwinter in a cold frame. Plant out in late spring. High percentage[78].

Cuttings of mature wood of the current seasons growth, 7 - 12cm with a heel, November in a shaded and frost free frame. Plant out in late spring or early autumn. High percentage[78].

Layering.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Myrtus ugni* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Myrtaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[196] **Popenoe. H. et al** *Lost Crops of the Incas* National Academy Press 1990 ISBN 0-309-04264-X
An excellent book. Very readable, with lots of information and good pictures of some lesser known food plants of S. America.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Ugni molinae

Common name:	Uñi	Family:	Myrtaceae
Author:	Turcz.	Botanical references:	11, 200
Synonyms:	Myrtus ugni (Molina.), Eugenia ugni ((Molina.)Hook.f.)		
Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Woodland edges and scrub[11, 184].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Myrtus molinae[G]
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family

Physical Characteristics

An evergreen shrub growing to 2m by 1m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from May to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Coffee; Fruit; Tea.

Fruit - raw or cooked[2, 3]. An absolutely delicious flavour, it is very aromatic and tastes of wild strawberries[11, 15, K]. The fruit is about 15mm in diameter[196] and is freely borne even on small plants[K].

Leaves are a tea substitute[177, 183].

The roasted seeds are a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Tolerant of trimming, it can be grown as a small hedge in the milder parts of Britain[11].

Cultivation details

Succeeds in any reasonably good soil including[1] dry ones. Prefers a moderately fertile well-drained loam in a sunny position[11, 200]. Fairly tolerant of maritime exposure[K]. Established plants are drought resistant[196].

A very ornamental plant[1], it is only hardy in the milder parts of Britain[3], tolerating temperatures down to about -10°c when fully dormant[184]. The young growth in spring can be damaged by late frosts. Plants grow and fruit very well in Cornwall, indeed, in the past it has been cultivated commercially for its fruit there[11, 59] (it was one of Queen Victoria's favourite fruits), but is now normally only grown as an ornamental plant. This is a much underused plant that highly merits cultivation on a commercial scale for its fruit[K].

Flowers and fruits well even when the plants are young[11, 166].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Pre-soak the seed for 24 hours in warm water and then sow it in late winter in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts[K].

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Pot up in the autumn and overwinter in a cold frame. Plant out in late spring. High percentage[78].

Cuttings of mature wood of the current seasons growth, 7 - 12cm with a heel, November in a shaded and frost free frame. Plant out in late spring or early autumn. High percentage[78].

Layering.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Myrtus ugni* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Myrtaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6

Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[196] **Popenoe. H. et al** *Lost Crops of the Incas* National Academy Press 1990 ISBN 0-309-04264-X
An excellent book. Very readable, with lots of information and good pictures of some lesser known food plants of S. America.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Ugni molinae

Common name:	Uñi	Family:	Myrtaceae
Author:	Turcz.	Botanical references:	11, 200
Synonyms:	Myrtus ugni (Molina.), Eugenia ugni ((Molina.)Hook.f.)		
Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Woodland edges and scrub[11, 184].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Myrtus molinae[G]
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family

Physical Characteristics

An evergreen shrub growing to 2m by 1m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower from May to July, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Coffee; Fruit; Tea.

Fruit - raw or cooked[2, 3]. An absolutely delicious flavour, it is very aromatic and tastes of wild strawberries[11, 15, K]. The fruit is about 15mm in diameter[196] and is freely borne even on small plants[K].

Leaves are a tea substitute[177, 183].

The roasted seeds are a coffee substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Tolerant of trimming, it can be grown as a small hedge in the milder parts of Britain[11].

Cultivation details

Succeeds in any reasonably good soil including[1] dry ones. Prefers a moderately fertile well-drained loam in a sunny position[11, 200]. Fairly tolerant of maritime exposure[K]. Established plants are drought resistant[196].

A very ornamental plant[1], it is only hardy in the milder parts of Britain[3], tolerating temperatures down to about -10°c when fully dormant[184]. The young growth in spring can be damaged by late frosts. Plants grow and fruit very well in Cornwall, indeed, in the past it has been cultivated commercially for its fruit there[11, 59] (it was one of Queen Victoria's favourite fruits), but is now normally only grown as an ornamental plant. This is a much underused plant that highly merits cultivation on a commercial scale for its fruit[K].

Flowers and fruits well even when the plants are young[11, 166].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Pre-soak the seed for 24 hours in warm water and then sow it in late winter in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts[K].

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame. Pot up in the autumn and overwinter in a cold frame. Plant out in late spring. High percentage[78].

Cuttings of mature wood of the current seasons growth, 7 - 12cm with a heel, November in a shaded and frost free frame. Plant out in late spring or early autumn. High percentage[78].

Layering.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ugni molinae*

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Ugni molinae

Group:
Plant Information

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ugni molinae

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Ulmus americana

Common name:	American elm	Family:	Ulmaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Ulmus floridana		
Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Manitoba, Florida and Texas.		
Habitat:	Rich soils, especially by streams and in lowlands[43, 82]. Found on a range of soil types, from acidic to mildly alkaline[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	U. americana var. floridana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Elm [DEN1,B,P,FEIS], Elm,Red [E], Elm,White [E],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Urticales . Elm family
Other Range Info:	From the Ethnobotany Database
	Canada; Us; Us(Appalachia)

Physical Characteristics

A decidious tree growing to 25m by 25m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in May, and the seeds ripen in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves.

Leaves - raw or cooked.

The red inner bark has been used to make a coffee-like drink[257].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Birthing aid; Haemostatic; Salve.

An infusion made from the bark has been used in the treatment of bleeding from the lungs, ruptures, coughs, colds, influenza, dysentery, eye infections, cramps and diarrhoea[226, 257]. An infusion of the bark has been taken by pregnant women to secure stability of children[257]. A decoction of the bark has been used as a wash on wounds[257].

A decoction of the inner bark has been taken in the treatment of severe coughs, colds, menstrual cramps[257]. An infusion of the inner bark has been drunk, and used as a bath, in the treatment of appendicitis[257].

An infusion of the root bark has been used in the treatment of coughs, colds and excessive menstruation[257]. A decoction has been used as an eye wash in the treatment of sore eyes[257]. The inner bark has been used as an emollient on tumours[257].

Other Uses

Containers; Paper; String; Wood.

A fibre obtained from the stems is used in making paper[189]. The stems are harvested in spring, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by scraping or peeling. The fibres are cooked for 2 hours with lye and then beaten with mallets. The paper is beige in colour[189].

The inner bark is very fibrous and is used in making string and strong ropes[149, 226].

The bark has been used to make various containers, including those used for gathering maple syrup[226].

Wood - hard, strong, heavy, durable, coarse grained, shrinks moderately though it tends to warp and twist, it bends well and is difficult to split. The wood is very durable in water. It weighs 40lb per cubic foot and is harvested commercially for flooring, wheel hubs, cooperage, agricultural implements and many other uses[46, 61, 82, 149, 171, 226, 227].

Cultivation details

Prefers a fertile soil in full sun[188], but it can be grown in any soil of at least moderate quality so long as it is well drained[1].

Trees are moderately fast-growing and live for at least 300 years in the wild[227, 229], but they do not thrive in Britain[1].

Susceptible to 'Dutch elm disease', a disease that has destroyed the greater part of all the elm trees growing in Britain. The disease is spread by means of beetles. Mature trees killed back by the disease will often regrow from suckers, but these too will succumb when they get larger. There is no effective cure (1992) for the problem, but most E. Asian, though not Himalayan, species are resistant (though not immune) to the disease so the potential exists to use these resistant species to develop new resistant hybrids with the native species[200].

The various species of this genus hybridize freely with each other and pollen is easily saved, so even those species with different flowering times can be hybridized[200].

Propagation

Seed - if sown in a cold frame as soon as it is ripe, it usually germinates within a few days[200]. Stored seed does not germinate so well and should be sown in early spring[200]. The seed can also be harvested 'green' (when it has fully developed but before it dries on the tree) and sown immediately in a cold frame. It should germinate very quickly and will produce a larger plant by the end of the growing season[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Plants should not be allowed to grow for more than two years in a nursery bed since they form a tap root and will then move badly.

Layering of suckers or coppiced shoots[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Ulmaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van

Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Ulmus americana

Common name:	American elm	Family:	Ulmaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Ulmus floridana		
Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Manitoba, Florida and Texas.		
Habitat:	Rich soils, especially by streams and in lowlands[43, 82]. Found on a range of soil types, from acidic to mildly alkaline[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	U. americana var. floridana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Elm [DEN1,B,P,FEIS], Elm,Red [E], Elm,White [E],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Urticales . Elm family
Other Range Info:	From the Ethnobotany Database
	Canada; Us; Us(Appalachia)

Physical Characteristics

A decidious tree growing to 25m by 25m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in May, and the seeds ripen in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves.

Leaves - raw or cooked.

The red inner bark has been used to make a coffee-like drink[257].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Birthing aid; Haemostatic; Salve.

An infusion made from the bark has been used in the treatment of bleeding from the lungs, ruptures, coughs, colds, influenza, dysentery, eye infections, cramps and diarrhoea[226, 257]. An infusion of the bark has been taken by pregnant women to secure stability of children[257]. A decoction of the bark has been used as a wash on wounds[257].

A decoction of the inner bark has been taken in the treatment of severe coughs, colds, menstrual cramps[257]. An infusion of the inner bark has been drunk, and used as a bath, in the treatment of appendicitis[257].

An infusion of the root bark has been used in the treatment of coughs, colds and excessive menstruation[257]. A decoction has been used as an eye wash in the treatment of sore eyes[257]. The inner bark has been used as an emollient on tumours[257].

Other Uses

Containers; Paper; String; Wood.

A fibre obtained from the stems is used in making paper[189]. The stems are harvested in spring, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by scraping or peeling. The fibres are cooked for 2 hours with lye and then beaten with mallets. The paper is beige in colour[189].

The inner bark is very fibrous and is used in making string and strong ropes[149, 226].

The bark has been used to make various containers, including those used for gathering maple syrup[226].

Wood - hard, strong, heavy, durable, coarse grained, shrinks moderately though it tends to warp and twist, it bends well and is difficult to split. The wood is very durable in water. It weighs 40lb per cubic foot and is harvested commercially for flooring, wheel hubs, cooperage, agricultural implements and many other uses[46, 61, 82, 149, 171, 226, 227].

Cultivation details

Prefers a fertile soil in full sun[188], but it can be grown in any soil of at least moderate quality so long as it is well drained[1].

Trees are moderately fast-growing and live for at least 300 years in the wild[227, 229], but they do not thrive in Britain[1].

Susceptible to 'Dutch elm disease', a disease that has destroyed the greater part of all the elm trees growing in Britain. The disease is spread by means of beetles. Mature trees killed back by the disease will often regrow from suckers, but these too will succumb when they get larger. There is no effective cure (1992) for the problem, but most E. Asian, though not Himalayan, species are resistant (though not immune) to the disease so the potential exists to use these resistant species to develop new resistant hybrids with the native species[200].

The various species of this genus hybridize freely with each other and pollen is easily saved, so even those species with different flowering times can be hybridized[200].

Propagation

Seed - if sown in a cold frame as soon as it is ripe, it usually germinates within a few days[200]. Stored seed does not germinate so well and should be sown in early spring[200]. The seed can also be harvested 'green' (when it has fully developed but before it dries on the tree) and sown immediately in a cold frame. It should germinate very quickly and will produce a larger plant by the end of the growing season[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Plants should not be allowed to grow for more than two years in a nursery bed since they form a tap root and will then move badly.

Layering of suckers or coppiced shoots[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for the family Ulmaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6

Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[227] **Vines. R.A.** *Trees of North Texas* University of Texas Press. 1982 ISBN 0292780206
A readable guide to the area, it contains descriptions of the plants and their habitats with quite a bit of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Ulmus americana

Common name:	American elm	Family:	Ulmaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Ulmus floridana		
Known Hazards:	None known		
Range:	Eastern N. America - Newfoundland to Manitoba, Florida and Texas.		
Habitat:	Rich soils, especially by streams and in lowlands[43, 82]. Found on a range of soil types, from acidic to mildly alkaline[229].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	U. americana var. floridana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Elm [DEN1,B,P,FEIS], Elm,Red [E], Elm,White [E],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Urticales . Elm family
Other Range Info:	From the Ethnobotany Database
	Canada; Us; Us(Appalachia)

Physical Characteristics

A decidious tree growing to 25m by 25m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in flower in May, and the seeds ripen in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Leaves.

Leaves - raw or cooked.

The red inner bark has been used to make a coffee-like drink[257].

Medicinal Uses

Disclaimer

Antispasmodic; Astringent; Birthing aid; Haemostatic; Salve.

An infusion made from the bark has been used in the treatment of bleeding from the lungs, ruptures, coughs, colds, influenza, dysentery, eye infections, cramps and diarrhoea[226, 257]. An infusion of the bark has been taken by pregnant women to secure stability of children[257]. A decoction of the bark has been used as a wash on wounds[257].

A decoction of the inner bark has been taken in the treatment of severe coughs, colds, menstrual cramps[257]. An infusion of the inner bark has been drunk, and used as a bath, in the treatment of appendicitis[257].

An infusion of the root bark has been used in the treatment of coughs, colds and excessive menstruation[257]. A decoction has been used as an eye wash in the treatment of sore eyes[257]. The inner bark has been used as an emollient on tumours[257].

Other Uses

Containers; Paper; String; Wood.

A fibre obtained from the stems is used in making paper[189]. The stems are harvested in spring, the leaves are removed and the stems steamed until the fibres can be stripped. The outer bark is removed from the inner bark by scraping or peeling. The fibres are cooked for 2 hours with lye and then beaten with mallets. The paper is beige in colour[189].

The inner bark is very fibrous and is used in making string and strong ropes[149, 226].

The bark has been used to make various containers, including those used for gathering maple syrup[226].

Wood - hard, strong, heavy, durable, coarse grained, shrinks moderately though it tends to warp and twist, it bends well and is difficult to split. The wood is very durable in water. It weighs 40lb per cubic foot and is harvested commercially for flooring, wheel hubs, cooperage, agricultural implements and many other uses[46, 61, 82, 149, 171, 226, 227].

Cultivation details

Prefers a fertile soil in full sun[188], but it can be grown in any soil of at least moderate quality so long as it is well drained[1].

Trees are moderately fast-growing and live for at least 300 years in the wild[227, 229], but they do not thrive in Britain[1].

Susceptible to 'Dutch elm disease', a disease that has destroyed the greater part of all the elm trees growing in Britain. The disease is spread by means of beetles. Mature trees killed back by the disease will often regrow from suckers, but these too will succumb when they get larger. There is no effective cure (1992) for the problem, but most E. Asian, though not Himalayan, species are resistant (though not immune) to the disease so the potential exists to use these resistant species to develop new resistant hybrids with the native species[200].

The various species of this genus hybridize freely with each other and pollen is easily saved, so even those species with different flowering times can be hybridized[200].

Propagation

Seed - if sown in a cold frame as soon as it is ripe, it usually germinates within a few days[200]. Stored seed does not germinate so well and should be sown in early spring[200]. The seed can also be harvested 'green' (when it has fully developed but before it dries on the tree) and sown immediately in a cold frame. It should germinate very quickly and will produce a larger plant by the end of the growing season[80]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Plants should not be allowed to grow for more than two years in a nursery bed since they form a tap root and will then move badly.

Layering of suckers or coppiced shoots[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ulmus americana*

Subject:

Ulmus americana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ulmus americana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:14:51 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Umbellularia californica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	California laurel	Family:	Lauraceae
Author:	(Hook. & Arn.) Nutt.	Botanical references:	11, 200
Synonyms:	Oreodaphne californica (Nees.), Laurus regia (Douglas.), Laurus regalis (Hort.)		
Known Hazards:	The foliage can cause skin irritations[1, 11]. A volatile oil in the leaves can cause sneezing and headaches if inhaled[11].		
Range:	South-western N. America - California to Oregon.		
Habitat:	Lower mountain slopes, flatlands, hillsides etc, on various soils and often in shade[62, 94]. The best specimens are found in deep rich soils of valley bottoms[229].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Tetranthera californica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bay, California [S], California Bay [FEIS,H,S], California Laurel [H,DEN1,P], California Pepper [H], California Sassafras [H], California-laurel [B], Mountain Laurel [H], Oregon Myrtle [H], Oregon Pepperwood [S], Pepperwood [H],
Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Colonial)

Physical Characteristics

An evergreen tree growing to 25m by 10m at a medium rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in April, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Condiment; Fruit; Seed.

Seed - cooked[257]. It can be roasted and eaten or can be ground into a powder that is used with cereal flours in making bread[62, 105, 177, 183]. A bitter quality in the seed is dispensed by roasting or parching the seed[92, 161].

Fruit - raw or cooked[257].

The leaves are used as a condiment in cooked foods. They are a bayleaf substitute but with a much stronger flavour[2, 94, 238]. Used for flavouring soups, stews etc[183].

A tea is obtained from the leaves[2].

A coffee substitute is obtained from the root bark[161, 183].

Medicinal Uses

Disclaimer

Analgesic; Antirheumatic; Nervine; Poultice; Salve; Stimulant; Stomachic.

California laurel was employed medicinally by some native North American Indian tribes who used it particularly as an analgesic to treat a variety of complaints[257]. It is still occasionally used in modern herbalism, being valued for its beneficial effect upon the digestive system.

The leaves are analgesic, antirheumatic, nervine and stomachic[92, 94, 95, 238, 257]. Although the aroma of the leaves is known to cause headaches, they have also been used as an infusion and a poultice to treat this affliction[92, 94, 95, 238, 257]. The leaves are also used internally to treat neuralgia, intestinal cramps and gastro-enteritis[238]. An infusion has been used by women to ease the pains of afterbirth[257]. Externally, an infusion has been used as a bath in the treatment of rheumatism[257]. A decoction of the leaves has been used as a wash on sores and to remove vermin from the head[257]. They are harvested as required and can be used fresh or dried[238].

A poultice of the ground seeds has been used to treat sores[257].

The seeds have been eaten as a stimulant[257].

Other Uses

Dye; Essential; Incense; Repellent; Wood.

The leaves are used as an insect repellent, they are especially effective against fleas[62, 92, 94, 95, 169]. They have disinfectant properties and contain small quantities of camphor[95, 169]. The leaves are burnt as a fumigant to get rid of fleas[257].

The leaves have been hung in bunches to freshen the air[257]. The aroma of the leaves gives some people headaches[K].

An essential oil is obtained from the leaves by steam distillation[11, 46, 61, 82].

Beige and green dyes are obtained from the fruits (used without the seeds). Very aromatic, the dye retains its fragrance for many years[168].

Wood - hard, close grained, heavy, strong, takes a high polish. A beautifully textured wood, it is used for high quality cabinet making, panelling etc[61, 82, 94, 229].

Cultivation details

Requires a well-drained moisture retentive lime-free soil in a sunny position[200]. Prefers an abundant supply of moisture in the growing season[82].

Older plants are hardy to about -15°c when growing in a position that is sheltered from cold drying winds, but young plants require some frost protection[200]. Even mature plants can be damaged in severe winters[1].

The leaves are harvested commercially in California and sold as a bay-leaf substitute[183].

The leaves emit a powerful camphor-like scent when bruised[245]. So strong is the aroma that it can cause headaches and dizziness[245].

A very large and beautiful tree fruited regularly at Kew, producing viable seed, until it was blown down in the severe storms of October 1987[K].

Propagation

Seed - it has a limited viability and is best sown as soon as it is ripe in the autumn in a greenhouse[200]. Stored seed should be sown as early in the year as possible in the greenhouse. In the wild the seed germinates as soon as it falls to the ground in the autumn[82]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a shaded frame. Pot up in spring. Good percentage[78, 200].

Layering.

Scent

Leaves: Crushed

> The leaves emit a powerful camphor-like scent when bruised[245]. So strong is the aroma that it can cause headaches and dizziness[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Illustration from the Southwest School of Botanical Medicine

- [S]
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Oreodaphne californica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Lauraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Umbellularia californica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	California laurel	Family:	Lauraceae
Author:	(Hook. & Arn.) Nutt.	Botanical references:	11, 200
Synonyms:	Oreodaphne californica (Nees.), Laurus regia (Douglas.), Laurus regalis (Hort.)		
Known Hazards:	The foliage can cause skin irritations[1, 11]. A volatile oil in the leaves can cause sneezing and headaches if inhaled[11].		
Range:	South-western N. America - California to Oregon.		
Habitat:	Lower mountain slopes, flatlands, hillsides etc, on various soils and often in shade[62, 94]. The best specimens are found in deep rich soils of valley bottoms[229].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Tetranthera californica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bay, California [S], California Bay [FEIS,H,S], California Laurel [H,DEN1,P], California Pepper [H], California Sassafras [H], California-laurel [B], Mountain Laurel [H], Oregon Myrtle [H], Oregon Pepperwood [S], Pepperwood [H],
Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Colonial)

Physical Characteristics

An evergreen tree growing to 25m by 10m at a medium rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in April, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Condiment; Fruit; Seed.

Seed - cooked[257]. It can be roasted and eaten or can be ground into a powder that is used with cereal flours in making bread[62, 105, 177, 183]. A bitter quality in the seed is dispensed by roasting or parching the seed[92, 161].

Fruit - raw or cooked[257].

The leaves are used as a condiment in cooked foods. They are a bayleaf substitute but with a much stronger flavour[2, 94, 238]. Used for flavouring soups, stews etc[183].

A tea is obtained from the leaves[2].

A coffee substitute is obtained from the root bark[161, 183].

Medicinal Uses

Disclaimer

Analgesic; Antirheumatic; Nervine; Poultice; Salve; Stimulant; Stomachic.

California laurel was employed medicinally by some native North American Indian tribes who used it particularly as an analgesic to treat a variety of complaints[257]. It is still occasionally used in modern herbalism, being valued for its beneficial effect upon the digestive system.

The leaves are analgesic, antirheumatic, nervine and stomachic[92, 94, 95, 238, 257]. Although the aroma of the leaves is known to cause headaches, they have also been used as an infusion and a poultice to treat this affliction[92, 94, 95, 238, 257]. The leaves are also used internally to treat neuralgia, intestinal cramps and gastro-enteritis[238]. An infusion has been used by women to ease the pains of afterbirth[257]. Externally, an infusion has been used as a bath in the treatment of rheumatism[257]. A decoction of the leaves has been used as a wash on sores and to remove vermin from the head[257]. They are harvested as required and can be used fresh or dried[238].

A poultice of the ground seeds has been used to treat sores[257].

The seeds have been eaten as a stimulant[257].

Other Uses

Dye; Essential; Incense; Repellent; Wood.

The leaves are used as an insect repellent, they are especially effective against fleas[62, 92, 94, 95, 169]. They have disinfectant properties and contain small quantities of camphor[95, 169]. The leaves are burnt as a fumigant to get rid of fleas[257].

The leaves have been hung in bunches to freshen the air[257]. The aroma of the leaves gives some people headaches[K].

An essential oil is obtained from the leaves by steam distillation[11, 46, 61, 82].

Beige and green dyes are obtained from the fruits (used without the seeds). Very aromatic, the dye retains its fragrance for many years[168].

Wood - hard, close grained, heavy, strong, takes a high polish. A beautifully textured wood, it is used for high quality cabinet making, panelling etc[61, 82, 94, 229].

Cultivation details

Requires a well-drained moisture retentive lime-free soil in a sunny position[200]. Prefers an abundant supply of moisture in the growing season[82].

Older plants are hardy to about -15°c when growing in a position that is sheltered from cold drying winds, but young plants require some frost protection[200]. Even mature plants can be damaged in severe winters[1].

The leaves are harvested commercially in California and sold as a bay-leaf substitute[183].

The leaves emit a powerful camphor-like scent when bruised[245]. So strong is the aroma that it can cause headaches and dizziness[245].

A very large and beautiful tree fruited regularly at Kew, producing viable seed, until it was blown down in the severe storms of October 1987[K].

Propagation

Seed - it has a limited viability and is best sown as soon as it is ripe in the autumn in a greenhouse[200]. Stored seed should be sown as early in the year as possible in the greenhouse. In the wild the seed germinates as soon as it falls to the ground in the autumn[82]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a shaded frame. Pot up in spring. Good percentage[78, 200].

Layering.

Scent

Leaves: Crushed

> The leaves emit a powerful camphor-like scent when bruised[245]. So strong is the aroma that it can cause headaches and dizziness[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: U-Z
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Illustration from the Southwest School of Botanical Medicine

- [S]
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

References for *Oreodaphne californica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Lauraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Umbellularia californica

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	California laurel	Family:	Lauraceae
Author:	(Hook. & Arn.) Nutt.	Botanical references:	11, 200
Synonyms:	Oreodaphne californica (Nees.), Laurus regia (Douglas.), Laurus regalis (Hort.)		
Known Hazards:	The foliage can cause skin irritations[1, 11]. A volatile oil in the leaves can cause sneezing and headaches if inhaled[11].		
Range:	South-western N. America - California to Oregon.		
Habitat:	Lower mountain slopes, flatlands, hillsides etc, on various soils and often in shade[62, 94]. The best specimens are found in deep rich soils of valley bottoms[229].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Tetranthera californica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bay, California [S], California Bay [FEIS,H,S], California Laurel [H,DEN1,P], California Pepper [H], California Sassafras [H], California-laurel [B], Mountain Laurel [H], Oregon Myrtle [H], Oregon Pepperwood [S], Pepperwood [H],
Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Colonial)

Physical Characteristics

An evergreen tree growing to 25m by 10m at a medium rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower in April, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Coffee; Condiment; Fruit; Seed.

Seed - cooked[257]. It can be roasted and eaten or can be ground into a powder that is used with cereal flours in making bread[62, 105, 177, 183]. A bitter quality in the seed is dispensed by roasting or parching the seed[92, 161].

Fruit - raw or cooked[257].

The leaves are used as a condiment in cooked foods. They are a bayleaf substitute but with a much stronger flavour[2, 94, 238]. Used for flavouring soups, stews etc[183].

A tea is obtained from the leaves[2].

A coffee substitute is obtained from the root bark[161, 183].

Medicinal Uses

Disclaimer

Analgesic; Antirheumatic; Nervine; Poultice; Salve; Stimulant; Stomachic.

California laurel was employed medicinally by some native North American Indian tribes who used it particularly as an analgesic to treat a variety of complaints[257]. It is still occasionally used in modern herbalism, being valued for its beneficial effect upon the digestive system.

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A poultice of the ground seeds has been used to treat sores[257].

The seeds have been eaten as a stimulant[257].

Other Uses

Dye; Essential; Incense; Repellent; Wood.

The leaves are used as an insect repellent, they are especially effective against fleas[62, 92, 94, 95, 169]. They have disinfectant properties and contain small quantities of camphor[95, 169]. The leaves are burnt as a fumigant to get rid of fleas[257].

The leaves have been hung in bunches to freshen the air[257]. The aroma of the leaves gives some people headaches[K].

An essential oil is obtained from the leaves by steam distillation[11, 46, 61, 82].

Beige and green dyes are obtained from the fruits (used without the seeds). Very aromatic, the dye retains its fragrance for many years[168].

Wood - hard, close grained, heavy, strong, takes a high polish. A beautifully textured wood, it is used for high quality cabinet making, panelling etc[61, 82, 94, 229].

Cultivation details

Requires a well-drained moisture retentive lime-free soil in a sunny position[200]. Prefers an abundant supply of moisture in the growing season[82].

Older plants are hardy to about -15°c when growing in a position that is sheltered from cold drying winds, but young plants require some frost protection[200]. Even mature plants can be damaged in severe winters[1].

The leaves are harvested commercially in California and sold as a bay-leaf substitute[183].

The leaves emit a powerful camphor-like scent when bruised[245]. So strong is the aroma that it can cause headaches and dizziness[245].

A very large and beautiful tree fruited regularly at Kew, producing viable seed, until it was blown down in the severe storms of October 1987[K].

Propagation

Seed - it has a limited viability and is best sown as soon as it is ripe in the autumn in a greenhouse[200]. Stored seed should be sown as early in the year as possible in the greenhouse. In the wild the seed germinates as soon as it falls to the ground in the autumn[82]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a shaded frame. Pot up in spring. Good percentage[78, 200].

Layering.

Scent

Leaves: Crushed

> The leaves emit a powerful camphor-like scent when bruised[245]. So strong is the aroma that it can cause headaches and dizziness[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Umbellularia californica*

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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Umbellularia californica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Vicia tetrasperma

Common name:	Smooth tare	Family:	Leguminosae
Author:	(L.) Schreb.	Botanical references:	17
Synonyms:	Vicia gemella (Crantz.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Grassy places, avoiding acid soils[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Ervum tetraspermum[G] V. tetrasperma var. tenuissima[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Lentil Vetch [B,P], Smooth Tare [L], Sparrow Vetch [L], Vierzadige Wikke [D],
Epithets:	From a Dictionary of Botanical Epithets
	asper = rough;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Coffee; Leaves.

Young leaves and shoots - cooked as a vegetable[2, 105, 183].

A coffee substitute[183]. The part used is not specified, it is almost certainly the roasted seed[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in any well-drained soil in a sunny position if the soil is reliably moist throughout the growing season, otherwise it is best grown in semi-shade[200]. Dislikes shade according to another report.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and then sow in situ in spring or autumn.

Suppliers

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Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

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Readers Comments

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Name of Site:

URL for Site: http://

Details:

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Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants For A Future: Database Search Results

Vicia tetrasperma

Common name:	Smooth tare	Family:	Leguminosae
Author:	(L.) Schreb.	Botanical references:	17
Synonyms:	Vicia gemella (Crantz.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Grassy places, avoiding acid soils[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Ervum tetraspermum[G] V. tetrasperma var. tenuissima[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Lentil Vetch [B,P], Smooth Tare [L], Sparrow Vetch [L], Vierzadige Wikke [D],
Epithets:	From a Dictionary of Botanical Epithets
	asper = rough;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Coffee; Leaves.

Young leaves and shoots - cooked as a vegetable[2, 105, 183].

A coffee substitute[183]. The part used is not specified, it is almost certainly the roasted seed[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in any well-drained soil in a sunny position if the soil is reliably moist throughout the growing season, otherwise it is best grown in semi-shade[200]. Dislikes shade according to another report.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and then sow in situ in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Vicia tetrasperma

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Author:	(L.) Schreb.	Botanical references:	17
Synonyms:	Vicia gemella (Crantz.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Grassy places, avoiding acid soils[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Ervum tetraspermum[G] V. tetrasperma var. tenuissima[B,P]
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	Lentil Vetch [B,P], Smooth Tare [L], Sparrow Vetch [L], Vierzadige Wikke [D],
Epithets:	From a Dictionary of Botanical Epithets
	asper = rough;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Annual growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It can fix Nitrogen. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Coffee; Leaves.

Young leaves and shoots - cooked as a vegetable[2, 105, 183].

A coffee substitute[183]. The part used is not specified, it is almost certainly the roasted seed[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in any well-drained soil in a sunny position if the soil is reliably moist throughout the growing season, otherwise it is best grown in semi-shade[200]. Dislikes shade according to another report.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200]. When removing plant remains at the end of the growing season, it is best to only remove the aerial parts of the plant, leaving the roots in the ground to decay and release their nitrogen.

Propagation

Pre-soak the seed for 24 hours in warm water and then sow in situ in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Vicia tetrasperma*

Subject:

Vicia tetrasperma

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Vicia tetrasperma

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Zea mays

Common name:	Sweet corn	Family:	Gramineae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Original habitat is obscure, probably S. America or Mexico.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ble De Turquie [E], Corn [P,B,E,L], Corn Silk [H], Dari [E], Ganma Sham [E], Indian Corn [H], Jagong [E], Jagung [E], Mais [E], Mais Vert [E], Maiz [E], Maize [H], Misir [E], Oswego Arrowroot [H], Thurah Safrah [E], Yu Kao Liang [E], Yu Shu Shu [E],
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; India(Santal); Iraq; Japan; Java; Kurdistan; Malaya; Peru; Spain; Trinidad; Turkey; Us; Us(Rappahannock); Venezuela

Physical Characteristics

Annual growing to 2m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to October, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and

are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Coffee; Oil; Pollen; Seed; Stem.

Seed - raw or cooked. Corn is one of the most commonly grown foods in the world. The seed can be eaten raw or cooked before it is fully ripe[1, 2, 33, 34] and there are varieties especially developed for this purpose (the sweet corns) that have very sweet seeds and are delicious[183, K]. The mature seed can be dried and used whole or ground into a flour. It has a very mild flavour and is used especially as a thickening agent in foods such as custards[183]. The starch is often extracted from the grain and used in making confectionery, noodles etc[183]. The dried seed of certain varieties can be heated in an oven when they burst to make 'Popcorn'[183]. The seed can also be sprouted and used in making uncooked breads and cereals[183]. A nutritional analysis is available[218].

The fresh succulent 'silks' (the flowering parts of the cob) can also be eaten[55, 183].

An edible oil is obtained from the seed, it is an all-purpose culinary oil that is frequently used as a food in salads and for cooking purposes[13, 46, 183, 238].

The pollen is used as an ingredient of soups[183]. Rich in protein, it is harvested by tapping the flowering heads over a flat surface such as a bowl. Harvesting the pollen will actually help to improve fertilisation of the seeds[K].

The roasted seed is a coffee substitute[183].

The pith of the stem is chewed like sugar cane and is sometimes made into a syrup[183].

Composition

Seed (Fresh weight)

> In grammes per 100g weight of food:
> Water: 10.6 Calories: 361 Protein: 9.4 Fat: 4.3 Carbohydrate: 74.4 Fibre: 1.8 Ash: 1.3
> In milligrammes per 100g weight of food:
> Calcium: 9 Phosphorus: 290 Iron: 2.5 VitaminA: 140 Thiamine: 0.43 Riboflavin: 0.1 Niacin: 1.9 VitaminC: 0

Source: [218]

Medicinal Uses

Disclaimer

Cancer; Cholagogue; Demulcent; Diuretic; Hypoglycaemic; Hypotensive; Lithontripic; Stimulant; Vasodilator; Warts.

A decoction of the leaves and roots is used in the treatment of strangury, dysuria and gravel[218].

The corn silks are cholagogue, demulcent, diuretic, lithontripic, mildly stimulant and vasodilator[4, 9, 165, 176, 218]. They also act to reduce blood sugar levels and so are used in the treatment of diabetes mellitus[9, 218] as well as cystitis, gonorrhoea, gout etc[222]. The silks are harvested before pollination occurs and are best used when fresh because they tend to lose their diuretic effect when stored and also become purgative[9].

A decoction of the cob is used in the treatment of nose bleeds and menorrhagia[218].

The seed is diuretic and a mild stimulant[4]. It is a good emollient poultice for ulcers, swellings and rheumatic pains[4], and is widely used in the treatment of cancer, tumours and warts[218]. It contains the cell-proliferant and wound-healing substance allantoin, which is widely used in herbal medicine (especially from the herb comfrey, Symphytum officinale) to speed the healing process[222].

The plant is said to have anticancer properties and is experimentally hypoglycaemic and hypotensive[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Adhesive; Fuel; Oil; Packing; Paper.

A glue is made from the starch in the seed[13]. This starch is also used in cosmetics and the manufacture of glucose[61].

A semi-drying oil is obtained from the seed[57]. It has many industrial uses, in the manufacture of linoleum, paints, varnishes, soaps etc[21, 61].

The corn spathes are used in the production of paper, straw hats and small articles such as little baskets[74, 171].

A fibre obtained from the stems and seed husks is used for making paper[189]. They are harvested in late summer after the seed has been harvested, they are cut into usable pieces and soaked in clear water for 24 hours. They are then cooked for 2 hours in soda ash and then beaten in a ball mill for 1½ hours in a ball mill. The fibres make a light greenish cream paper[189]. Be careful not to overcook the fibre otherwise it will produce a sticky pulp that is very hard to form into paper[189].

The dried cobs are used as a fuel[171].

The pith of the stems is used as a packing material[171].

Cultivation details

Requires a warm position a well drained soil and ample moisture in the growing season[16, 33]. Prefers a pH in the range 5.5 to 6.8[200]. Requires a rich soil if it is to do well[201].

Corn is widely cultivated for its edible seed, especially in tropical and warm temperate zones of the world[200], there are many named varieties[132]. Unfortunately, the plant is not frost tolerant and so needs to be started off under glass in Britain if a reasonable crop is to be grown. There are five main types:-

Sweetcorn is of fairly recent development. It has very sweet, soft-skinned grains that can be eaten raw or cooked before they are fully ripe. Cultivars have been developed that can produce a worthwhile crop even in the more northerly latitudes of Britain if a suitable warm sunny sheltered site is chosen[238, K.

Popcorn is a primitive form with hard-skinned grains. When roasted, these grains 'explode' to form the popular snack 'popcorn'[238].

Waxy corn is used mainly in the Far East. It has a tapioca-like starch[238].

Flint corn, which shrinks on drying, can have white, yellow, purple, red or blue-black grains[238]. It is not so sweet and also takes longer to mature so is a problematic crop in Britain. There are many other uses for this plant as detailed below.

Dent corn has mostly white to yellow grains. This and Flint corn are widely grown for oils, cornflour, cereals and silage crops.

Corn grows well with early potatoes, legumes, dill, cucurbits and sunflowers[18, 20, 201], it dislikes growing with tomatoes[20].

Propagation

Seed - sow April in individual pots in a greenhouse. Grow on quickly and plant out after the last expected frosts. A direct outdoor sowing, especially of some of the less sweet varieties, can be tried in May.

Cultivars

"

> There are many named varieties of this annual vegetable and cereal, with new forms being developed each year. At present there is not time to enter these in the database and, for sweet corn varieties, it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [FAO] Data (Description, Habitat, Location and Use) from the FAO's Grassland Index.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *zea mays* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

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Ziziphus jujuba

Common name:	Jujube	Family:	Rhamnaceae
Author:	Mill.	Botanical references:	11, 50, 200
Synonyms:	Ziziphus zizyphus ((L.)Karsten.), Ziziphus vulgaris (Lam.), Ziziphus sativa (Gaertn.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Dry gravelly or stony slopes of hills and mountains[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Rhamnus jujuba[G] Rhamnus zizyphus[G,H] Z. jujube[HORTIPLEX] Z. mauritiana[B,E,G,P] Z. spinosa[G] Z. vulgaris var. spinosa[G] Zizyphus jujuba[H,] Zizyphus lotos[H] Zizyphus sativa[H] Zizyphus vulgaris[E,H] Zizyphus zizyphus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Azufaifo [E], Bedara China [E], Chinese Date [H], Chinese Jujube [H], Common Jujube [B,P], Dara [E], Hong Zao [E], Indian Jujube [P,B], Jujube [H,E], Jujubier [E], Kan Tsao [E], Kola [E], Liane Crocs Chien [E], Liang Tsao [E], Mei Tsao [E], Nabug [E], Nan Tsao [E], Pei Tsao [E], Perita Haitiana [E], Petite Pomme [E], Pomme Malcadi [E], Ponsere [E], Suan Tsao [E], Ta Tsao [E], Tsao [E], Unnab [E], Unnap Agaci [E], Widara [E],

Systematics:	From a UDSA Plants Database Order: Rhamnales . Buckthorn family
Other Range Info:	From the Ethnobotany Database Asia; China; Dominican Republic; Europe; Haiti; India; India(Santal); Iraq; Java (Import); Malacca (Import); Nigeria; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Western Australia, Queensland, Northen Territory (Aust).

Physical Characteristics

A decidious tree growing to 10m by 7m at a fast rate. It is hardy to zone 6. It is in flower from April to May, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Coffee; Fruit; Leaves.

Fruit - raw or cooked[1, 2, 3, 100, 158]. Mealy and sweet[46]. A sourish-sweet flavour[174]. The fruit can be eaten fresh, dried like dates or cooked in puddings, cakes, breads, jellies, soups etc[183]. The dried fruit has the nicest taste[11, 132]. The fruits are often left to become wrinkled and spongy, which increases their sweetness, and are then eaten fresh or cooked[238]. The dried fruit can also be ground into a powder. This powder is used in the preparation of 'kochujang', a fermented hot pepper-soybean paste that resembles miso[183]. Fruits are about 13mm in diameter[194] and contain one or two seeds[238]. Average yields from wild trees in the Himalayas are 9.5kg per year[194]. The fruit contains about 8.7% sugars, 2.6% protein, 1.4% ash, 1.7% pectin and 1.3% tannin[194]. The fruit is about 25mm long, though it can be larger in cultivated varieties[200].

The fruit can be used as a coffee substitute[183].

Leaves - cooked. A famine food, they are only used when all else fails[179]. A nutritional analysis is available[218].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 337 Protein: 11.8 Fat: 4.3 Carbohydrate: 75.3 Fibre: 14.3 Ash: 8.6
In milligrammes per 100g weight of food:
Calcium: 1970 Phosphorus: 230 VitaminA: 200
Source: [218]

Fruit (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 350 Protein: 7.3 Fat: 1.2 Carbohydrate: 84 Fibre: 4 Ash: 3
In milligrammes per 100g weight of food:
Calcium: 130 Phosphorus: 168 Iron: 3.5 Sodium: 12 Potassium: 1050 VitaminA: 125
Thiamine: 0.1 Riboflavin: 0.18 Niacin: 2.8 VitaminC: 300
Source: [218]
Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Anodyne; Antidote; Astringent; Cancer; Diuretic; Emollient; Expectorant; Hypnotic; Narcotic; Pectoral; Poultice; Refrigerant; Sedative; Skin; Stomachic; Tonic.

Jujube is both a delicious fruit and an effective herbal remedy. It aids weight gain, improves muscular strength and increases stamina[254]. In Chinese medicine it is prescribed as a tonic to strengthen liver function[254]. Japanese research has shown that jujube increases immune-system resistance. In one clinical trial in China 12 patients with liver complaints were given jujube, peanuts and brown sugar nightly. In four weeks their liver function had improved[254].

Antidote, diuretic, emollient, expectorant[11, 61, 174, 178, 194].

The leaves are astringent and febrifuge[4, 218]. They are said to promote the growth of hair[218]. They are used to form a plaster in the treatment of strangury[240].

The dried fruits are anodyne, anticancer, pectoral, refrigerant, sedative, stomachic, styptic and tonic[4, 176, 218]. They are considered to purify the blood and aid digestion[240]. They are used internally in the treatment of chronic fatigue, loss of appetite, diarrhoea, anaemia, irritability and hysteria[176, 238].

The seed is hypnotic, narcotic, sedative, stomachic and tonic[147, 176, 218]. It is used internally in the treatment of palpitations, insomnia, nervous exhaustion, night sweats and excessive perspiration[176, 238].

The root is used in the treatment of dyspepsia[218]. A decoction of the root has been used in the treatment of fevers[4, 240]. The root is made into a powder and applied to old wounds and ulcers[240].

The plant is a folk remedy for anaemia, hypertonia, nephritis and nervous diseases[218].

The plant is widely used in China as a treatment for burns[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Charcoal; Fuel; Hedge; Wood.

Plants can be grown as a hedge[178].

Wood - dense, hard, compact, tough. Used for turnery, agricultural implements etc[74, 146, 158]. It makes an excellent fuel[146] and a good charcoal[158].

Cultivation details

Succeeds in most soils so long as they are well-drained[3, 200]. Prefers an open loam and a hot dry position[1, 3]. Succeeds in an alkaline soil[200]. Plants are fast growing, even in poor soils[146].

Plants are hardy to about -20°c[200]. Another report says that they are hardy to about -30°c when fully dormant[160].

The jujube is often cultivated in warm temperate zones for its edible fruit, there are many named varieties[50, 183]. The trees need a hot dry summer if they are to fruit well, which rather restricts their potential in a country like Britain[238, K].

Trees are resistant to most pests and diseases[160].

Responds well to coppicing[146].

Trees form a deep taproot and should be planted into their permanent positions as soon as possible[200].

Fast growing and quick to mature, it can fruit in 3 - 4 years from seed[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires 3 months warm then 3 months cold stratification[113]. Germination should take place in the first spring, though it might take another 12 months. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for at least their first winter. Plant out in early summer.

Root cuttings in a greenhouse in the winter[200]. Best results are achieved if a temperature of 5 - 10°c can be maintained[238].

Cuttings of mature wood of the current season's growth, November to January in a frame[238].

Division of suckers in the dormant season[174]. They can be planted out direct into their permanent positions if required.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Ziziphus jujube* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ziziphus mauritiana* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Ziziphus sativa* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Ziziphus vulgaris* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Ziziphus zizyphus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Zizyphus jujuba* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

References for *Zizyphus lotos* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Zizyphus sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Zizyphus vulgaris* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Zizyphus zizyphus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Rhamnaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*

Lovely pictures, a very readable book.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[194] **Parmar. C. and Kaushal. M.K.** *Wild Fruits of the Sub-Himalayan Region.* Kalyani Publishers. New Delhi. 1982
Contains lots of information on about 25 species of fruit-bearing plants of the Himalayas, not all of them suitable for cool temperate zones.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4

Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Ziziphus jujuba

Andrew Ricketts Tue Oct 15 13:41:15 2002

I believe there are several cultivars: Li, Nikitkij 93, Shui men, Small, So tsao, Tajan czao. Found in a nursery catalogue in Australia. Also there is a book on Jujubes by Meyer.

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Search for

Edible Use: Coffee (225);
Listed by genus. Click on the name of the genus to see individual matching species.

Genus	Common Names	Matches
Abelmoschus	Okra	1
Aesculus	Horse chestnut	1
Arachis	Peanut	1
Arctium	Lesser burdock	1
Asparagus	Asparagus	1
Astragalus	Swedish coffee	1
Avena	Abyssinian oat; Slender oat; Red oat; Wild oats; Oats; Naked oat;	13
Balsamorhiza	Deltoid balsamroot; Oregon sunflower	2
Brachychiton	Kurrajong	1
Bromus	Cheat grass	1
Castanea	American sweet chestnut; Sweet chetsnut	2
Caulophyllum	Papoose root	1
Ceratonia	Carob	1
Cicer	Chick pea	1
Cichorium	Chicory	1
Coix	Job's tears	1
Coprosma	Sand coprosma; Native currant; Mirror plant	21
Coreopsis	Coreopsis	1
Cornus	Cornelian cherry	1
Crataegus	Midland hawthorn; Hawthorn	2
Cyperus	Tiger nut	1
Cytisus	Broom	1
Daucus	Wild carrot; Carrot	2

Diospyros	Persimmon; American persimmon	2
Echinochloa	Barnyard millet	1
Elytrigia	Couch grass	1
Eriobotrya	Loquat	1
Fagus	Japanese beech; American beech; Japanese beech; Oriental beech; Beech	7
Fragaria	Wild strawberry; Alpine strawberry	2
Galium	Goosegrass; Lady's bedstraw	2
Genista	Dyer's greenweed	1
Gevuina	Chilean hazel	1
Gleditsia	Honey locust	1
Glycine	Soya bean; Wild soya bean	2
Gymnocladus	Kentucky coffee tree	1
Helianthus	Sunflower; Wild sunflower; Jerusalem artichoke	3
Hibiscus	Roselle	1
Hordeum	Two-rowed barley; Foxtail barley; Barley	3
Ilex	Tarajo	1
Iris	Rocky Mountain iris; Yellow flag; Beachhead iris	3
Juniperus	Juniper; Juniper; Creeping juniper; Rocky Mountain juniper	4
Lathyrus	Beach pea	1
Leontodon	Rough hawkbit	1
Ligustrum	Japanese privet	3
Linum	Flax	1
Lithocarpus		1
Lotus	Asparagus pea	1
Lupinus	White lupin; Yellow lupin	2
Lycium	Chinese boxthorn	1
Mahonia	Texas mahonia; Mexican barberry	2
Nelumbo	Sacred water lotus	1
Nymphaea	White water lily	2
Phaseolus	French bean	1
Phoenix	Senegal date palm	1

Phormium	Wharariki; New Zealand flax	2
Pseudotsuga	Douglas fir	1
Psophocarpus	Winged bean	1
Quercus	White oak; Oriental white oak; Boz-pirnal oak; Swamp white oak; Turkey oak; Live oak;	63
Rhus	Lemonade berry	1
Rosa	Dog rose	1
Rubus	Raspberry	1
Rumex	Swamp dock; Curled dock	2
Ruscus	Butcher's broom	1
Scolymus	Spanish salsify	1
Scorzonera	Scorzonera	1
Secale	Rye	1
Setaria	Green bristle grass	1
Silybum	Milk thistle	1
Sium	Skirret	1
Sonchus	Field milk thistle	1
Sorbus	Mountain ash	1
Symphytum		1
Taraxacum	Rubber dandelion; Red-seed dandelion; Dandelion	19
Triglochin	Sea arrow grass; Marsh arrow grass	2
Trigonella	Fenugreek	1
Triosteum	Wild coffee	1
Ugni	Uñi	1
Ulmus	American elm	1
Umbellularia	California laurel	1
Vicia	Smooth tare	1
Zea	Sweet corn	1
Ziziphus	Jujube	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Abelmoschus.

Latin Name	Common Name	Description	PFAF Rating
Abelmoschus esculentus	Okra	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Aesculus.

Latin Name	Common Name	Description	PFAF Rating
Aesculus hippocastanum	Horse chestnut	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Arachis.

Latin Name	Common Name	Description	PFAF Rating
Arachis hypogaea	Peanut	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Arctium.

Latin Name	Common Name	Description	PFAF Rating
Arctium minus	Lesser burdock	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Asparagus.

Latin Name	Common Name	Description	PFAF Rating
Asparagus officinalis	Asparagus	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Astragalus.

Latin Name	Common Name	Description	PFAF Rating
Astragalus boeticus	Swedish coffee	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Avena.

Latin Name	Common Name	Description	PFAF Rating
Avena abyssinica	Abyssinian oat	Coffee	2
Avena barbata	Slender oat	Coffee	2
Avena brevis		Coffee	2
Avena byzantina	Red oat	Coffee	2
Avena fatua	Wild oats	Coffee	2
Avena ludoviciana	Oats	Coffee	2
Avena nuda	Naked oat	Coffee	4
Avena nudibrevis		Coffee	2
Avena orientalis	Hungarian oat	Coffee	3
Avena sativa	Oats	Coffee	3
Avena sterilis	Sterile oats	Coffee	3
Avena strigosa	Bristle oats	Coffee	2
Avena wiestii		Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Balsamorhiza.

Latin Name	Common Name	Description	PFAF Rating
Balsamorhiza deltoidea	Deltoid balsamroot	Coffee	4
Balsamorhiza sagittata	Oregon sunflower	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Brachychiton.

Latin Name	Common Name	Description	PFAF Rating
Brachychiton populneus	Kurrajong	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Bromus.

Latin Name	Common Name	Description	PFAF Rating
Bromus tectorum	Cheat grass	Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Castanea.

Latin Name	Common Name	Description	PFAF Rating
Castanea dentata	American sweet chestnut	Coffee	3
Castanea sativa	Sweet chetsnut	Coffee	5

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Search for

Edible Use: Coffee (225);
Matching Latin name: Caulophyllum.

Latin Name	Common Name	Description	PFAF Rating
Caulophyllum thalictroides	Papoose root	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Ceratonia.

Latin Name	Common Name	Description	PFAF Rating
Ceratonia siliqua	Carob	Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Cicer.

Latin Name	Common Name	Description	PFAF Rating
Cicer arietinum	Chick pea	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Cichorium.

Latin Name	Common Name	Description	PFAF Rating
Cichorium intybus	Chicory	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Coix.

Latin Name	Common Name	Description	PFAF Rating
Coix lacryma-jobi	Job's tears	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Coprosma.

Latin Name	Common Name	Description	PFAF Rating
Coprosma acerosa	Sand coprosma	Coffee	2
Coprosma areolata		Coffee	1
Coprosma atropurpurea		Coffee	1
Coprosma billardieri	Native currant	Coffee	1
Coprosma brunnea		Coffee	2
Coprosma foetidissima		Coffee	1
Coprosma grandifolia		Coffee	1
Coprosma hirtella		Coffee	1
Coprosma lucida		Coffee	2
Coprosma moorei		Coffee	1
Coprosma nitida		Coffee	2
Coprosma petriei		Coffee	1
Coprosma propinqua		Coffee	1
Coprosma pumila		Coffee	1
Coprosma repens	Mirror plant	Coffee	1
Coprosma rhamnoides		Coffee	1
Coprosma robusta		Coffee	1
Coprosma rotundifolia		Coffee	1
Coprosma rugosa		Coffee	1
Coprosma serrulata		Coffee	1
Coprosma virescens		Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Coreopsis.

Latin Name	Common Name	Description	PFAF Rating
Coreopsis tinctoria	Coreopsis	Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Cornus.

Latin Name	Common Name	Description	PFAF Rating
Cornus mas	Cornelian cherry	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Crataegus.

Latin Name	Common Name	Description	PFAF Rating
Crataegus laevigata	Midland hawthorn	Coffee	3
Crataegus monogyna	Hawthorn	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Cyperus.

Latin Name	Common Name	Description	PFAF Rating
Cyperus esculentus	Tiger nut	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Cytisus.

Latin Name	Common Name	Description	PFAF Rating
Cytisus scoparius	Broom	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Daucus.

Latin Name	Common Name	Description	PFAF Rating
Daucus carota	Wild carrot	Coffee	2
Daucus carota sativus	Carrot	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Diospyros.

Latin Name	Common Name	Description	PFAF Rating
Diospyros kaki	Persimmon	Coffee	3
Diospyros virginiana	American persimmon	Coffee	5

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Search for

Edible Use: Coffee (225);
Matching Latin name: Echinochloa.

Latin Name	Common Name	Description	PFAF Rating
Echinochloa crus-galli	Barnyard millet	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Elytrigia.

Latin Name	Common Name	Description	PFAF Rating
Elytrigia repens	Couch grass	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Eriobotrya.

Latin Name	Common Name	Description	PFAF Rating
Eriobotrya japonica	Loquat	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Fagus.

Latin Name	Common Name	Description	PFAF Rating
Fagus crenata	Japanese beech	Coffee	2
Fagus grandifolia	American beech	Coffee	2
Fagus japonica	Japanese beech	Coffee	2
Fagus longipetiolata		Coffee	2
Fagus lucida		Coffee	2
Fagus orientalis	Oriental beech	Coffee	2
Fagus sylvatica	Beech	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Fragaria.

Latin Name	Common Name	Description	PFAF Rating
Fragaria vesca	Wild strawberry	Coffee	3
Fragaria vesca 'Semperflorens'	Alpine strawberry	Coffee	5

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Search for

Edible Use: Coffee (225);
Matching Latin name: Galium.

Latin Name	Common Name	Description	PFAF Rating
Galium aparine	Goosegrass	Coffee	2
Galium verum	Lady's bedstraw	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Genista.

Latin Name	Common Name	Description	PFAF Rating
Genista tinctoria	Dyer's greenweed	Coffee	2

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Edible Use: Coffee (225);
Matching Latin name: Gevuina.

Latin Name	Common Name	Description	PFAF Rating
Gevuina avellana	Chilean hazel	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Gleditsia.

Latin Name	Common Name	Description	PFAF Rating
Gleditsia triacanthos	Honey locust	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Glycine.

Latin Name	Common Name	Description	PFAF Rating
Glycine max	Soya bean	Coffee	4
Glycine soja	Wild soya bean	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Gymnocladus.

Latin Name	Common Name	Description	PFAF Rating
Gymnocladus dioica	Kentucky coffee tree	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Helianthus.

Latin Name	Common Name	Description	PFAF Rating
Helianthus annuus	Sunflower	Coffee	5
Helianthus lenticularis	Wild sunflower	Coffee	3
Helianthus tuberosus	Jerusalem artichoke	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Hibiscus.

Latin Name	Common Name	Description	PFAF Rating
Hibiscus sabdariffa	Roselle	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Hordeum.

Latin Name	Common Name	Description	PFAF Rating
Hordeum distichon	Two-rowed barley	Coffee	4
Hordeum jubatum	Foxtail barley	Coffee	1
Hordeum vulgare	Barley	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Ilex.

Latin Name	Common Name	Description	PFAF Rating
Ilex latifolia	Tarajo	Coffee	1
Quercus ilex	Holly oak	Coffee	5
Quercus ilex ballota	Holm oak	Coffee	5

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Search for

Edible Use: Coffee (225);
Matching Latin name: Iris.

Latin Name	Common Name	Description	PFAF Rating
Iris missouriensis	Rocky Mountain iris	Coffee	1
Iris pseudacorus	Yellow flag	Coffee	1
Iris setosa	Beachhead iris	Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Juniperus.

Latin Name	Common Name	Description	PFAF Rating
Juniperus communis	Juniper	Coffee	4
Juniperus communis nana	Juniper	Coffee	3
Juniperus horizontalis	Creeping juniper	Coffee	2
Juniperus scopulorum	Rocky Mountain juniper	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Lathyrus.

Latin Name	Common Name	Description	PFAF Rating
Lathyrus japonicus maritimus	Beach pea	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Leontodon.

Latin Name	Common Name	Description	PFAF Rating
Leontodon hispidus	Rough hawkbit	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Ligustrum.

Latin Name	Common Name	Description	PFAF Rating
Ligustrum indicum		Coffee	1
Ligustrum japonicum	Japanese privet	Coffee	2
Ligustrum obtusifolium		Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Linum.

Latin Name	Common Name	Description	PFAF Rating
Linum usitatissimum	Flax	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Lithocarpus.

Latin Name	Common Name	Description	PFAF Rating
Lithocarpus pachyphyllus		Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Lotus.

Latin Name	Common Name	Description	PFAF Rating
Lotus tetragonolobus	Asparagus pea	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Lupinus.

Latin Name	Common Name	Description	PFAF Rating
Lupinus albus	White lupin	Coffee	4
Lupinus luteus	Yellow lupin	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Lycium.

Latin Name	Common Name	Description	PFAF Rating
Lycium chinense	Chinese boxthorn	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Mahonia.

Latin Name	Common Name	Description	PFAF Rating
Mahonia swaseyi	Texas mahonia	Coffee	3
Mahonia trifoliolata	Mexican barberry	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Nelumbo.

Latin Name	Common Name	Description	PFAF Rating
Nelumbo nucifera	Sacred water lotus	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Nymphaea.

Latin Name	Common Name	Description	PFAF Rating
Nymphaea alba	White water lily	Coffee	4
Nymphaea candida		Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Phaseolus.

Latin Name	Common Name	Description	PFAF Rating
Phaseolus vulgaris	French bean	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Phoenix.

Latin Name	Common Name	Description	PFAF Rating
Phoenix reclinata	Senegal date palm	Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Phormium.

Latin Name	Common Name	Description	PFAF Rating
Phormium cookianum	Wharariki	Coffee	3
Phormium tenax	New Zealand flax	Coffee	5

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Search for

Edible Use: Coffee (225);
Matching Latin name: Pseudotsuga.

Latin Name	Common Name	Description	PFAF Rating
Pseudotsuga menziesii	Douglas fir	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Psophocarpus.

Latin Name	Common Name	Description	PFAF Rating
Psophocarpus tetragonolobus	Winged bean	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Quercus.

Latin Name	Common Name	Description	PFAF Rating
Quercus species		Coffee	3
Quercus alba	White oak	Coffee	3
Quercus aliena	Oriental white oak	Coffee	2
Quercus aucheri	Boz-pirnal oak	Coffee	4
Quercus bicolor	Swamp white oak	Coffee	4
Quercus cerris	Turkey oak	Coffee	3
Quercus chrysolepis	Live oak	Coffee	2
Quercus coccifera	Kermes oak	Coffee	3
Quercus coccinea	Scarlet oak	Coffee	2
Quercus dentata	Japanese emperor oak	Coffee	2
Quercus dilatata		Coffee	2
Quercus douglasii	Blue oak	Coffee	3
Quercus dumosa revoluta	California scrub oak	Coffee	2
Quercus ellipsoidalis	Northern pin oak	Coffee	2
Quercus emoryi	Black oak	Coffee	3
Quercus engelmannii	Evergreen oak	Coffee	2
Quercus falcata	Southern red oak	Coffee	1
Quercus frainetto	Hungarian oak	Coffee	4
Quercus fruticosa		Coffee	3
Quercus gambelii	Shin oak	Coffee	3
Quercus garryana	Oregon white oak	Coffee	2
Quercus glauca		Coffee	3
Quercus ilex	Holly oak	Coffee	5
Quercus ilex ballota	Holm oak	Coffee	5
Quercus imbricaria	Shingle oak	Coffee	2

Quercus ithaburensis macrolepis	Valonia oak	Coffee	4
Quercus kelloggii	Californian black oak	Coffee	3
Quercus laevis	American turkey oak	Coffee	2
Quercus lamellosa		Coffee	3
Quercus leucotrichophora		Coffee	2
Quercus libani	Lebanon oak	Coffee	2
Quercus lineata		Coffee	2
Quercus lobata	Californian white oak	Coffee	2
Quercus lyrata	Overcup oak	Coffee	3
Quercus marilandica	Blackjack oak	Coffee	2
Quercus michauxii	Swamp chestnut oak	Coffee	2
Quercus mongolica		Coffee	2
Quercus mongolica grosseserrata		Coffee	2
Quercus muehlenbergii	Yellow chestnut oak	Coffee	3
Quercus myrsinaefolia		Coffee	2
Quercus nigra	Water oak	Coffee	2
Quercus oblongifolia	Mexican blue oak	Coffee	3
Quercus palustris	Pin oak	Coffee	3
Quercus petraea	Sessile oak	Coffee	4
Quercus phellos	Willow oak	Coffee	2
Quercus phillyreoides		Coffee	3
Quercus prinoides	Dwarf chinkapin oak	Coffee	2
Quercus prinus	Rock chestnut oak	Coffee	4
Quercus pungens	Sandpaper oak	Coffee	2
Quercus robur	Pedunculate oak	Coffee	4
Quercus rubra	Red oak	Coffee	3
Quercus semecarpifolia		Coffee	2
Quercus serrata		Coffee	2
Quercus shumardii	Shumard oak	Coffee	2
Quercus stellata	Post oak	Coffee	3
Quercus suber	Cork oak	Coffee	3
Quercus suber occidentalis	Cork oak	Coffee	3
Quercus undulata	Wavyleaf oak	Coffee	2
Quercus variabilis	Chinese cork oak	Coffee	2

Quercus velutina	Black oak	Coffee	2
Quercus virginiana	Live oak	Coffee	3
Quercus wislizenii	Live oak	Coffee	3
Quercus x bebbiana		Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Rhus.

Latin Name	Common Name	Description	PFAF Rating
Rhus integrifolia	Lemonade berry	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Rosa.

Latin Name	Common Name	Description	PFAF Rating
Coprosma acerosa	Sand coprosma	Coffee	2
Rosa canina	Dog rose	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Rubus.

Latin Name	Common Name	Description	PFAF Rating
Rubus idaeus	Raspberry	Coffee	5

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Search for

Edible Use: Coffee (225);
Matching Latin name: Rumex.

Latin Name	Common Name	Description	PFAF Rating
Rumex brownii	Swamp dock	Coffee	2
Rumex crispus	Curled dock	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Ruscus.

Latin Name	Common Name	Description	PFAF Rating
Ruscus aculeatus	Butcher's broom	Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Scolymus.

Latin Name	Common Name	Description	PFAF Rating
Scolymus hispanicus	Spanish salsify	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Scorzonera.

Latin Name	Common Name	Description	PFAF Rating
Scorzonera hispanica	Scorzonera	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Secale.

Latin Name	Common Name	Description	PFAF Rating
Secale cereale	Rye	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Setaria.

Latin Name	Common Name	Description	PFAF Rating
Setaria viridis	Green bristle grass	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Silybum.

Latin Name	Common Name	Description	PFAF Rating
Silybum marianum	Milk thistle	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Sium.

Latin Name	Common Name	Description	PFAF Rating
Sium sisarum	Skirret	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Sonchus.

Latin Name	Common Name	Description	PFAF Rating
Sonchus arvensis	Field milk thistle	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Sorbus.

Latin Name	Common Name	Description	PFAF Rating
Sorbus aucuparia	Mountain ash	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Symphytum.

Latin Name	Common Name	Description	PFAF Rating
Symphytum tuberosum		Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Taraxacum.

Latin Name	Common Name	Description	PFAF Rating
Taraxacum albidum		Coffee	2
Taraxacum bessarabicum		Coffee	1
Taraxacum brassicaefolium		Coffee	1
Taraxacum erythropodium		Coffee	1
Taraxacum formosanum		Coffee	1
Taraxacum heterolepis		Coffee	1
Taraxacum hondoense		Coffee	1
Taraxacum hybernum		Coffee	1
Taraxacum japonicum		Coffee	1
Taraxacum kok-saghyz	Rubber dandelion	Coffee	4
Taraxacum laevigatum	Red-seed dandelion	Coffee	1
Taraxacum magellanicum		Coffee	1
Taraxacum megalorrhizon		Coffee	3
Taraxacum mongolicum		Coffee	1
Taraxacum obovatum		Coffee	3
Taraxacum officinale	Dandelion	Coffee	4
Taraxacum platycarpum		Coffee	1
Taraxacum pseudo-album		Coffee	1
Taraxacum sinicum		Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Triglochin.

Latin Name	Common Name	Description	PFAF Rating
Triglochin maritima	Sea arrow grass	Coffee	2
Triglochin palustris	Marsh arrow grass	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Trigonella.

Latin Name	Common Name	Description	PFAF Rating
Trigonella foenum-graecum	Fenugreek	Coffee	3

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Search for

Edible Use: Coffee (225);
Matching Latin name: Triosteum.

Latin Name	Common Name	Description	PFAF Rating
Triosteum perfoliatum	Wild coffee	Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Ugni.

Latin Name	Common Name	Description	PFAF Rating
Ugni molinae	Uñi	Coffee	5

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Search for

Edible Use: Coffee (225);
Matching Latin name: Ulmus.

Latin Name	Common Name	Description	PFAF Rating
Ulmus americana	American elm	Coffee	2

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Search for

Edible Use: Coffee (225);
Matching Latin name: Umbellularia.

Latin Name	Common Name	Description	PFAF Rating
Umbellularia californica	California laurel	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Vicia.

Latin Name	Common Name	Description	PFAF Rating
Avena ludoviciana	Oats	Coffee	2
Vicia tetrasperma	Smooth tare	Coffee	1

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Search for

Edible Use: Coffee (225);
Matching Latin name: Zea.

Latin Name	Common Name	Description	PFAF Rating
Zea mays	Sweet corn	Coffee	4

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Search for

Edible Use: Coffee (225);
Matching Latin name: Ziziphus.

Latin Name	Common Name	Description	PFAF Rating
Ziziphus jujuba	Jujube	Coffee	3

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Search for

Edible Use: Colouring (49);

Latin Name	Common Name	Description	PFAF Rating
Alkanna tinctoria	Alkanet	Colouring	2
Amaranthus blitum	Slender amaranth	Colouring	4
Amaranthus caudatus	Love lies bleeding	Colouring	4
Amaranthus cruentus	Purple amaranth	Colouring	4
Amaranthus hypochondriacus	Prince's feather	Colouring	4
Amaranthus quitensis	Ataco	Colouring	2
Anchusa officinalis	Alkanet	Colouring	3
Artemisia indica		Colouring	1
Artemisia princeps		Colouring	2
Artemisia vulgaris	Mugwort	Colouring	2
Atriplex canescens	Grey sage brush	Colouring	5
Basella alba	Indian spinach	Colouring	2
Borago officinalis	Borage	Colouring	3
Calendula officinalis	Pot marigold	Colouring	3
Camellia sinensis	Tea plant	Colouring	2
Capsicum annuum	Sweet pepper	Colouring	3
Carthamnus tinctorius	Safflower	Colouring	3
Centaurea cyanus	Cornflower	Colouring	2
Chenopodium capitatum	Strawberry blite	Colouring	3
Crocosmia aurea	Montbretia	Colouring	1
Crocus nudiflorus		Colouring	3
Crocus sativus	Saffron	Colouring	3
Crocus serotinus		Colouring	2

Daucus carota sativus	Carrot	Colouring	4
Euonymus europaeus	Spindle tree	Colouring	3
Euonymus japonicus	Japanese spindle tree	Colouring	3
Galium verum	Lady's bedstraw	Colouring	3
Hibiscus rosa-sinensis	Chinese hibiscus	Colouring	2
Hierochloe odorata	Holy grass	Colouring	2
Lithospermum canescens	Paint Indian	Colouring	1
Lythrum salicaria	Purple loosestrife	Colouring	2
Mirabilis jalapa	Marvel of Peru	Colouring	2
Onopordum acanthium	Scotch thistle	Colouring	2
Papaver rhoeas	Corn poppy	Colouring	3
Perilla frutescens	Shiso	Colouring	3
Perilla frutescens nankinensis	Purple shiso	Colouring	3
Petroselinum crispum	Parsley	Colouring	4
Phytolacca americana	Pokeweed	Colouring	3
Phytolacca dioica	Bella sombra	Colouring	2
Psophocarpus tetragonolobus	Winged bean	Colouring	2
Rheum x cultorum	Rhubarb	Colouring	3
Sambucus nigra	Elderberry	Colouring	4
Scolymus hispanicus	Spanish salsify	Colouring	3
Spinacia oleracea	Spinach	Colouring	3
Symplocos caudata		Colouring	2
Tagetes erecta	African marigold	Colouring	3
Tagetes patula	French marigold	Colouring	3
Tritonia crocata		Colouring	1
Urtica dioica	Stinging nettle	Colouring	5

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Alkanna tinctoria

Common name:	Alkanet	Family:	Boraginaceae
Author:	(L.) Taush.	Botanical references:	45, 200
Synonyms:	Anchusa tinctoria ((L.)L.), Alkanna tuberculata ((Forssk.)Meikle.)		
Known Hazards:	Many members of this plant family contain a liver-damaging alkaloid and so internal usage is inadvisable[238].		
Range:	S. Europe.		
Habitat:	Maritime sands, uncultivated ground[45], calcareous soils[89] and pine forests[238].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anchusa tuberculata[G] Lithospermum tinctorium[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alkanet [H], Alkanna [P], Dyer's Bugloss [H], Havaciva [E], Onoquiles [E], Orchanet [H], Spanish Bugloss [H],
Epithets:	From a Dictionary of Botanical Epithets
	tinctoria = used in dyeing;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Borage family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey

Physical Characteristics

Perennial growing to 0.2m by 0.25m . . It is in flower in June. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Colouring; Leaves.

Used as a vegetable[177]. No further details are given.

A red dye obtained from the roots is used as a food colouring[238].

Medicinal Uses

Disclaimer

Antibacterial; Antipruritic; Astringent; Vulnerary.

The root is antibacterial, antipruritic, astringent and vulnerary[238].It is used externally in the treatment of varicose veins, indolent ulcers, bed sores and itching rashes[238]. The root is harvested in the autumn and can be dried for later use[238].

Other Uses

Dye; Litmus.

A red dye is obtained from the roots[57, 89, 171], it is used by pharmacists as well as in perfumes and to stain wood or marble[100, 238]. The dye is also used in thermometers[100] and as a litmus to test for acids and alkalines[148]. It can make wood look like rosewood or mahogany[4, 148].

Cultivation details

Prefers a well-drained sandy or loamy soil[1] in sun or partial shade[238]. Dislikes acid soils[1] but thrives in alkaline soils[238]. A very drought tolerant plant when established[200], succeeding in a hot dry position[187], it is a useful plant for dry sandy or alkaline soils[238].

Plants are hardy to about -10°c[187].

This species is occasionally cultivated as a dye plant[61]. One report says that it is cultivated for its seed[46].

Propagation

Seed - sow spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring. Fairly easy, they can be planted straight out into their permanent positions if required.

Basal cuttings of new growth in late spring. Harvest the young shoots when they are about 10 - 15cm long and pot them up into individual pots in a lightly shaded position in a greenhouse. They should root well within a few weeks and can be planted out in the summer[K].

Root cuttings in late winter[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Anchusa tinctoria* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Boraginaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants

it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Habitat:	Maritime sands, uncultivated ground[45], calcareous soils[89] and pine forests[238].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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[57] **Schery. R. W.** *Plants for Man.*
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9

Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

Readers Comments

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Plants For A Future: Database Search Results

Alkanna tinctoria

Common name:	Alkanet	Family:	Boraginaceae
Author:	(L.) Taush.	Botanical references:	45, 200
Synonyms:	Anchusa tinctoria ((L.)L.), Alkanna tuberculata ((Forssk.)Meikle.)		
Known Hazards:	Many members of this plant family contain a liver-damaging alkaloid and so internal usage is inadvisable[238].		
Range:	S. Europe.		
Habitat:	Maritime sands, uncultivated ground[45], calcareous soils[89] and pine forests[238].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anchusa tuberculata[G] Lithospermum tinctorium[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alkanet [H], Alkanna [P], Dyer's Bugloss [H], Havaciva [E], Onoquiles [E], Orchanet [H], Spanish Bugloss [H],
Epithets:	From a Dictionary of Botanical Epithets
	tinctoria = used in dyeing;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Borage family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey

Physical Characteristics

Perennial growing to 0.2m by 0.25m . . It is in flower in June. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Colouring; Leaves.

Used as a vegetable[177]. No further details are given.

A red dye obtained from the roots is used as a food colouring[238].

Medicinal Uses

Disclaimer

Antibacterial; Antipruritic; Astringent; Vulnerary.

The root is antibacterial, antipruritic, astringent and vulnerary[238].It is used externally in the treatment of varicose veins, indolent ulcers, bed sores and itching rashes[238]. The root is harvested in the autumn and can be dried for later use[238].

Other Uses

Dye; Litmus.

A red dye is obtained from the roots[57, 89, 171], it is used by pharmacists as well as in perfumes and to stain wood or marble[100, 238]. The dye is also used in thermometers[100] and as a litmus to test for acids and alkalines[148]. It can make wood look like rosewood or mahogany[4, 148].

Cultivation details

Prefers a well-drained sandy or loamy soil[1] in sun or partial shade[238]. Dislikes acid soils[1] but thrives in alkaline soils[238]. A very drought tolerant plant when established[200], succeeding in a hot dry position[187], it is a useful plant for dry sandy or alkaline soils[238].

Plants are hardy to about -10°c[187].

This species is occasionally cultivated as a dye plant[61]. One report says that it is cultivated for its seed[46].

Propagation

Seed - sow spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring. Fairly easy, they can be planted straight out into their permanent positions if required.

Basal cuttings of new growth in late spring. Harvest the young shoots when they are about 10 - 15cm long and pot them up into individual pots in a lightly shaded position in a greenhouse. They should root well within a few weeks and can be planted out in the summer[K].

Root cuttings in late winter[200].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Alkanna tinctoria*

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Alkanna tinctoria

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Alkanna tinctoria

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Amaranthus blitum

Common name:	Slender amaranth	Family:	Amaranthaceae
Author:	L.	Botanical references:	58, 200
Synonyms:	Amaranthus lividus (L.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Temperate and Tropical zones.		
Habitat:	A cosmopolitan weed growing on waste ground[58, 204].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. ascendens[B,G,P] A. blitum var. oleraceus[G] A. blitus[H] A. lividus ssp. polygonoides[B,P] A. lividus var. polygonoides[B,P] A. oleraceus[G] A. viridus[B] A. viridus auct. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter;
Systematics:	From a UDSA Plants Database

	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	Algeria; China

Physical Characteristics

Annual growing to 1m. It is hardy to zone 5 and is frost tender. It is in flower in August, and the seeds ripen in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - raw or cooked as a spinach[2, 4, 55, 183]. The leaves contain about 3.88% protein, 1.1% fat, 9.38% carbohydrate, 3.2% ash, 323mg Ca, 8.3mg Fe, they are very rich in Vitamins A & C, rich in vitamin B1[179]. The leaves are used as a potherb in order to remove poison from the system[218].

Seed - cooked. Used as a cereal substitute in cakes, porridge etc[55, 183]. Very small but easy to harvest and very nutritious. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

An edible dye is obtained from the seed capsules[4].

Composition

Leaves (Fresh weight)

> In grammes per 100g weight of food:
> Protein: 3.9 Fat: 1.1 Carbohydrate: 9.4 Ash: 3.2
> In milligrammes per 100g weight of food:
> Calcium: 323 Iron: 8.3

Medicinal Uses

Disclaimer

Astringent.

A fluid extract of the plant is used as an astringent internally in the treatment of ulcerated mouths and throats, externally as a wash for ulcers and sores[4].

The plant has a folk reputation for being effective in the treatment of tumours and warts[218].

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K]. Tolerates a pH in the range 4.3 to 7.5.

Plants should not be given inorganic fertilizers, see notes above on toxicity.

This plant was cultivated by the ancient Romans and Greeks for its edible leaves, there are some named varieties[183].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Amaranthus blitum

Common name:	Slender amaranth	Family:	Amaranthaceae
Author:	L.	Botanical references:	58, 200
Synonyms:	Amaranthus lividus (L.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Temperate and Tropical zones.		
Habitat:	A cosmopolitan weed growing on waste ground[58, 204].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. ascendens[B,G,P] A. blitum var. oleraceus[G] A. blitus[H] A. lividus ssp. polygonoides[B,P] A. lividus var. polygonoides[B,P] A. oleraceus[G] A. viridus[B] A. viridus auct. non[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Baqlat Iamania [E], Berry-bearing Orache [H], Kleine Majer [D], Purple Amaranth [B,P], Strawberry Blite [H], Strawberry Spinach [H], Wild Amaranth [H],
Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	Algeria; China

Physical Characteristics

Annual growing to 1m. It is hardy to zone 5 and is frost tender. It is in flower in August, and the seeds ripen in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - raw or cooked as a spinach[2, 4, 55, 183]. The leaves contain about 3.88% protein, 1.1% fat, 9.38% carbohydrate, 3.2% ash, 323mg Ca, 8.3mg Fe, they are very rich in Vitamins A & C, rich in vitamin B1[179]. The leaves are used as a potherb in order to remove poison from the system[218].

Seed - cooked. Used as a cereal substitute in cakes, porridge etc[55, 183]. Very small but easy to harvest and very nutritious. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

An edible dye is obtained from the seed capsules[4].

Composition

Leaves (Fresh weight)

In grammes per 100g weight of food:
Protein: 3.9 Fat: 1.1 Carbohydrate: 9.4 Ash: 3.2
In milligrammes per 100g weight of food:
Calcium: 323 Iron: 8.3

Medicinal Uses

Disclaimer

Astringent.

A fluid extract of the plant is used as an astringent internally in the treatment of ulcerated mouths and throats, externally as a wash for ulcers and sores[4].

The plant has a folk reputation for being effective in the treatment of tumours and warts[218].

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K]. Tolerates a pH in the range 4.3 to 7.5.

Plants should not be given inorganic fertilizers, see notes above on toxicity.

This plant was cultivated by the ancient Romans and Greeks for its edible leaves, there are some named varieties[183].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amaranthus blitum*

Subject:

Amaranthus blitum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amaranthus blitum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Amaranthus caudatus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Love lies bleeding	Family:	Amaranthaceae
Author:	L.	Botanical references:	200
Synonyms:	Amaranthus mantegazzianus (Pass.), Amaranthus leucocarpus (S.Watson.), Amaranthus edulis (Speg.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Tropics.		
Habitat:	A weed of cultivated ground[145].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. caudatus subsp. mantegazzianus[G] A. caudatus var. alopecurus[G] A. dussii[G] A. hybridus ssp. hypochondriacus[B,P] A. hybridus var. erythrostachys[G] A. hypochondriacus[B,E,G,H,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Amaranth [H], Grain Amaranth [H], Horozobigi [E], Kattenstaartamarant [D], Love Lies Bleeding [H], Love-Lies-Bleeding [H], Love-lies-bleeding [B,P], Prince's Feather [H], Prince-of-Wales Feather [P], Prince-of-wales-feather [B], Red Cockscomb [H], Tassel Flower [H],
Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter; caudatus = with tail; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

Annual growing to 2m by 0.45m . It is hardy to zone 5 and is frost tender. It is in flower from July to September, and the seeds ripen from August to September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid, very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - raw or cooked as a spinach or added to soups etc[22, 46, 61, 105, 183]. The mild flavoured leaves are rich in vitamins and minerals[183, K].

Seed - cooked[22, 46, 57, 105]. Very small but easy to harvest and very nutritious, individual plants can bear up to 100, 000 seeds[196]. It is eaten cooked or ground into a powder and used in baking[61, 183, 196]. The seed can also be popped in much the same way as popcorn[97, 183]. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K]. The seed is very nutritious and contains 13 - 18% of a very high quality protein that is rich in the amino acid lysine[196]. It also contains good quantities of calcium, phosphorus, iron, potassium, zinc, vitamin E and the vitamin B complex[196].

A red food colouring called 'betalaina' is obtained from red cultivars[196].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 18

Medicinal Uses

Disclaimer

Anthelmintic; Astringent.

The plant is astringent, anthelmintic and diuretic[4, 240]. It is used in the treatment of stranguary and is applied externally to scrofulous sores[240].

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[196, 200]. Grows moderately well in poor soils[200]. Requires a hot sheltered position if it is to do well[K]. Plants are drought resistant though reasonable moisture levels are required for germination and also at pollination[196]. Some forms can tolerate a pH up to 8.5, there are also some that can tolerate mild salinity[196]. It is likely that they will also tolerate acid soils and aluminium toxicity[196].

Plants are not frost-hardy, the most cold tolerant cultivars can tolerate temperatures down to about 4°c[196].

Plants should not be given inorganic fertilizers, see notes above on toxicity.

This species is cultivated for its edible seed and leaves in the Andes and various other parts of S. America[46, 61, 97]. It probably arose through cultivation from A. quitensis. There are some named varieties[196]. Plants take 4 - 6 months from sowing to harvesting the seed, but up to 10 months in some Andean highland regions[196]. Yields from 1 - 3 tonnes per hectare are common, 5 tonnes has been achieved and research sites have produced the equivalent of 6 tonnes per hectare[196]. The seed is usually harvested just before maturity otherwise some of the seed will be lost during harvesting[196]. Plants usually have downward facing seedheads but varieties have been developed with upward facing heads that can be harvested mechanically[196].

This species is sensitive to day-length most cultivars are short-day and have not done well in northern latitudes, but there are some varieties that flower at day-lengths up to 16 hours[196].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amaranthus hypochondriacus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amaranthus mantegazzianus* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Amaranthaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[97] **Towle. M. A.** *The Ethno-Botany of Pre-Columbian Peru.*
A very interesting book covering quite a lot of information on plant uses in S. America although many of the plants are not suitable for temperate areas..

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[196] **Popenoe. H. et al** *Lost Crops of the Incas* National Academy Press 1990 ISBN 0-309-04264-X
An excellent book. Very readable, with lots of information and good pictures of some lesser known food plants of S. America.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Range:	Tropics.		
Habitat:	A weed of cultivated ground[145].		
Plants For A Future Rating (1-5):	4		

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Habitats and Possible Locations

Cultivated Beds.

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Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 18

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Plants are not frost-hardy, the most cold tolerant cultivars can tolerate temperatures down to about 4°c[196].

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amaranthus hypochondriacus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amaranthus mantegazzianus* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Amaranthaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[97] **Towle. M. A.** *The Ethno-Botany of Pre-Columbian Peru.*
A very interesting book covering quite a lot of information on plant uses in S. America although many of the plants are not suitable for temperate areas..

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[196] **Popenoe. H. et al** *Lost Crops of the Incas* National Academy Press 1990 ISBN 0-309-04264-X
An excellent book. Very readable, with lots of information and good pictures of some lesser known food plants of S. America.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Amaranthus caudatus

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Love lies bleeding	Family:	Amaranthaceae
Author:	L.	Botanical references:	200
Synonyms:	Amaranthus mantegazzianus (Pass.), Amaranthus leucocarpus (S.Watson.), Amaranthus edulis (Speg.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Tropics.		
Habitat:	A weed of cultivated ground[145].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. caudatus subsp. mantegazzianus[G] A. caudatus var. alopecurus[G] A. dussii[G] A. hybridus ssp. hypochondriacus[B,P] A. hybridus var. erythrostachys[G] A. hypochondriacus[B,E,G,H,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amaranth [H], Grain Amaranth [H], Horozobigi [E], Kattenstaartamarant [D], Love Lies Bleeding [H], Love-Lies-Bleeding [H], Love-lies-bleeding [B,P], Prince's Feather [H], Prince-of-Wales Feather [P], Prince-of-wales-feather [B], Red Cockscomb [H], Tassel Flower [H],
Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter; caudatus = with tail; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family

Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

Annual growing to 2m by 0.45m . It is hardy to zone 5 and is frost tender. It is in flower from July to September, and the seeds ripen from August to September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid, very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - raw or cooked as a spinach or added to soups etc[22, 46, 61, 105, 183]. The mild flavoured leaves are rich in vitamins and minerals[183, K].

Seed - cooked[22, 46, 57, 105]. Very small but easy to harvest and very nutritious, individual plants can bear up to 100, 000 seeds[196]. It is eaten cooked or ground into a powder and used in baking[61, 183, 196]. The seed can also be popped in much the same way as popcorn[97, 183]. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K]. The seed is very nutritious and contains 13 - 18% of a very high quality protein that is rich in the amino acid lysine[196]. It also contains good quantities of calcium, phosphorus, iron, potassium, zinc, vitamin E and the vitamin B complex[196].

A red food colouring called 'betalaina' is obtained from red cultivars[196].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 18

Medicinal Uses

Disclaimer

Anthelmintic; Astringent.

The plant is astringent, anthelmintic and diuretic[4, 240]. It is used in the treatment of stranguary and is applied externally to scrofulous sores[240].

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[196, 200]. Grows moderately well in poor soils[200]. Requires a hot sheltered position if it is to do well[K]. Plants are drought resistant though reasonable moisture levels are required for germination and also at pollination[196]. Some forms can tolerate a pH up to 8.5, there are also some that can tolerate mild salinity[196]. It is likely that they will also tolerate acid soils and aluminium toxicity[196].

Plants are not frost-hardy, the most cold tolerant cultivars can tolerate temperatures down to about 4°c[196].

Plants should not be given inorganic fertilizers, see notes above on toxicity.

This species is cultivated for its edible seed and leaves in the Andes and various other parts of S. America[46, 61, 97]. It probably arose through cultivation from A. quitensis. There are some named varieties[196]. Plants take 4 - 6 months from sowing to harvesting the seed, but up to 10 months in some Andean highland regions[196]. Yields from 1 - 3 tonnes per hectare are common, 5 tonnes has been achieved and research sites have produced the equivalent of 6 tonnes per hectare[196]. The seed is usually harvested just before maturity otherwise some of the seed will be lost during harvesting[196]. Plants usually have downward facing seedheads but varieties have been developed with upward facing heads that can be harvested mechanically[196].

This species is sensitive to day-length most cultivars are short-day and have not done well in northern latitudes, but there are some varieties that flower at day-lengths up to 16 hours[196].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amaranthus caudatus*

Subject:

Amaranthus caudatus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amaranthus caudatus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Amaranthus cruentus

Common name:	Purple amaranth	Family:	Amaranthaceae
Author:	L.	Botanical references:	200
Synonyms:	Amaranthus paniculatus (L.), Amaranthus hybridus cruentus ((L.)Thell.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Original habitat is obscure, it was probably tropical America.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hybridus[DUTCH] A. hybridus ssp. cruentus[B,P] A. hybridus subsp. cruentus[G] A. hybridus var. cruentus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Grain Amaranth [H], Groene Amarant [D], Prince's Feather [H], Red Amaranth [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter; cruentus = blood red;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database

	India(Santal); Lesotho

Physical Characteristics

Annual growing to 2m. It is frost tender. It is in flower from July to September, and the seeds ripen from August to September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - cooked as a spinach[183]. The mild-flavoured leaves are rich in vitamins and minerals[183].

Seed - very small but easy to harvest and very nutritious. They are eaten cooked or ground into a powder and used for making cakes etc[183, 257]. They can also be sprouted and used in salads[183]. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

The flowers are used as a food colouring in ceremonial maize bread[183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 15

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K]. Tolerates a pH in the range 4 to 7.5.

Plants should not be given inorganic fertilizers, see notes above on toxicity.

This species is cultivated for its edible seed in many parts of S. America and in Japan[58, 97, 183]. There is at least one named variety, 'Oeschberg' is a very productive plant, growing 1 metre tall and can yield up to 2.5 tonnes per hectare[183]. This species is the most adaptable of the grain amaranths, it also flowers under a wider range of daylength hours than the other species[183].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Cultivars

'R158'

> The medium-size white seeds are high in the amino acid lysine[183]. They are used to make a flour, for popping or for sprouting[183]. A very early-maturing plant, capable of ripening a seed crop with 93 days from sowing, it has ornamental red leaves and stems[183]. A vigorous growing and high yielding plant, but it lodges easily[183]. Harvest, thresh and

winnow the seed after the first frosts[183]. Plants are best grown 7 - 10cm apart in rows 60cm apart[183].

'Popping'

The white seed can be popped in a frying pan or a wok at high temperatures - no oil is needed[183]. A high yielding plant with a red and tan seed head[183]. It breaks off easily in the wind[183]. The plant matures a crop within 110 days from sowing[183].

'Oeschberg'

A very productive plant, growing 1 metre tall and capable of yields up to 2.5 tonnes per hectare[183].

'Golden Giant'

The plant produces large orange-golden seedheads. The relatively large seeds are mixed light and dark gold[183]. Yields of up to 450 grammes per plant have been achieved[183]. An early, heavy bearing ornamental cultivar, maturing in 120 days from sowing the seed[183]. It grows to 2.4 metres tall and does not produce side branches[183]. The leaves are green with golden brown veins, the stalks and flower heads are also golden brown[183]. The seed is easily gathered and threshed, but the plants are somewhat prone to lodging[183].

'1041' 'R149'

A uniform, high-yielding green plant, with predominantly white seeds[183]. Growing to 1.8 metres tall, it is mostly single-stemmed when planted at recommended densities[183]. A medium-length growing season, plants are somewhat resistant to Lygus infestations[183]. This is the most commonly grown cultivar in N. America[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amaranthus paniculatus* (a possible synonym).

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References for the family Amaranthaceae.

See the PFAF Links Pages for other sources

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References

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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Amaranthus cruentus

Common name:	Purple amaranth	Family:	Amaranthaceae
Author:	L.	Botanical references:	200
Synonyms:	Amaranthus paniculatus (L.), Amaranthus hybridus cruentus ((L.)Thell.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Original habitat is obscure, it was probably tropical America.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hybridus[DUTCH] A. hybridus ssp. cruentus[B,P] A. hybridus subsp. cruentus[G] A. hybridus var. cruentus[B,P]
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	amara = bitter; cruentus = blood red;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	India(Santal); Lesotho

Physical Characteristics

Annual growing to 2m. It is frost tender. It is in flower from July to September, and the seeds ripen from August to September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - cooked as a spinach[183]. The mild-flavoured leaves are rich in vitamins and minerals[183].

Seed - very small but easy to harvest and very nutritious. They are eaten cooked or ground into a powder and used for making cakes etc[183, 257]. They can also be sprouted and used in salads[183]. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

The flowers are used as a food colouring in ceremonial maize bread[183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 15

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K]. Tolerates a pH in the range 4 to 7.5.

Plants should not be given inorganic fertilizers, see notes above on toxicity.

This species is cultivated for its edible seed in many parts of S. America and in Japan[58, 97, 183]. There is at least one named variety, 'Oeschberg' is a very productive plant, growing 1 metre tall and can yield up to 2.5 tonnes per hectare[183]. This species is the most adaptable of the grain amaranths, it also flowers under a wider range of daylength hours than the other species[183].

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Propagation

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Cuttings of growing plants root easily[206].

Cultivars

'R158'

> The medium-size white seeds are high in the amino acid lysine[183]. They are used to make a flour, for popping or for sprouting[183]. A very early-maturing plant, capable of ripening a seed crop with 93 days from sowing, it has ornamental red leaves and stems[183]. A vigorous growing and high yielding plant, but it lodges easily[183]. Harvest, thresh and winnow the seed after the first frosts[183]. Plants are best grown 7 - 10cm apart in rows 60cm apart[183].

'Popping'

> The white seed can be popped in a frying pan or a wok at high temperatures - no oil is needed[183]. A high yielding plant with a red and tan seed head[183]. It breaks off easily in the wind[183]. The plant matures a crop within 110 days from sowing[183].

'Oeschberg'

A very productive plant, growing 1 metre tall and capable of yields up to 2.5 tonnes per hectare[183].

'Golden Giant'

The plant produces large orange-golden seedheads. The relatively large seeds are mixed light and dark gold[183]. Yields of up to 450 grammes per plant have been achieved[183]. An early, heavy bearing ornamental cultivar, maturing in 120 days from sowing the seed[183]. It grows to 2.4 metres tall and does not produce side branches[183]. The leaves are green with golden brown veins, the stalks and flower heads are also golden brown[183]. The seed is easily gathered and threshed, but the plants are somewhat prone to lodging[183].

'1041' 'R149'

A uniform, high-yielding green plant, with predominantly white seeds[183]. Growing to 1.8 metres tall, it is mostly single-stemmed when planted at recommended densities[183]. A medium-length growing season, plants are somewhat resistant to Lygus infestations[183]. This is the most commonly grown cultivar in N. America[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amaranthus paniculatus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Amaranthaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[97] **Towle. M. A.** *The Ethno-Botany of Pre-Columbian Peru.*
A very interesting book covering quite a lot of information on plant uses in S. America although many of the plants are not suitable for temperate areas..

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[196] **Popenoe. H. et al** *Lost Crops of the Incas* National Academy Press 1990 ISBN 0-309-04264-X
An excellent book. Very readable, with lots of information and good pictures of some lesser known food plants of S. America.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Amaranthus cruentus

Common name:	Purple amaranth	Family:	Amaranthaceae
Author:	L.	Botanical references:	200
Synonyms:	Amaranthus paniculatus (L.), Amaranthus hybridus cruentus ((L.)Thell.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Original habitat is obscure, it was probably tropical America.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hybridus[DUTCH] A. hybridus ssp. cruentus[B,P] A. hybridus subsp. cruentus[G] A. hybridus var. cruentus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Grain Amaranth [H], Groene Amarant [D], Prince's Feather [H], Red Amaranth [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter; cruentus = blood red;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	India(Santal); Lesotho

Physical Characteristics

Annual growing to 2m. It is frost tender. It is in flower from July to September, and the seeds ripen from August to September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - cooked as a spinach[183]. The mild-flavoured leaves are rich in vitamins and minerals[183].

Seed - very small but easy to harvest and very nutritious. They are eaten cooked or ground into a powder and used for making cakes etc[183, 257]. They can also be sprouted and used in salads[183]. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

The flowers are used as a food colouring in ceremonial maize bread[183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Protein: 15

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K]. Tolerates a pH in the range 4 to 7.5.

Plants should not be given inorganic fertilizers, see notes above on toxicity.

This species is cultivated for its edible seed in many parts of S. America and in Japan[58, 97, 183]. There is at least one named variety, 'Oeschberg' is a very productive plant, growing 1 metre tall and can yield up to 2.5 tonnes per hectare[183]. This species is the most adaptable of the grain amaranths, it also flowers under a wider range of daylength hours than the other species[183].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Cultivars

'R158'

> The medium-size white seeds are high in the amino acid lysine[183]. They are used to make a flour, for popping or for sprouting[183]. A very early-maturing plant, capable of ripening a seed crop with 93 days from sowing, it has ornamental red leaves and stems[183]. A vigorous growing and high yielding plant, but it lodges easily[183]. Harvest, thresh and winnow the seed after the first frosts[183]. Plants are best grown 7 - 10cm apart in rows 60cm apart[183].

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Amaranthus cruentus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amaranthus cruentus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Amaranthus hypochondriacus

Common name:	Prince's feather	Family:	Amaranthaceae
Author:	L.	Botanical references:	200
Synonyms:	Amaranthus hybridus hypochondriachus ((L.)Thell.), Amaranthus hybridus erythrostachys (Moq.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Southern N. America.		
Habitat:	A weed of wasteland and agricultural land.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hybridus ssp. hypochondriacus[B,P] A. hybridus var. erythrostachys[G,H] A. leucocarpus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amaranth [H], Grain Amaranth [H], Horozobigi [E], Love-Lies-Bleeding [H], Prince's Feather [H], Prince-of-Wales Feather [P], Prince-of-wales-feather [B], Red Cockscomb [H],
Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter;
Systematics:	From a UDSA Plants Database

	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

Annual growing to 1.2m by 0.5m . It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Young leaves - cooked as a spinach[183, 238]. Rich in vitamins and minerals, they have a mild flavour[K].

Seed - raw or cooked. They can be used as a cereal substitute. They can also be popped in much the same way as popcorn[183]. The seed can be soaked for 12 hours in warm water and then allowed to sprout for about 11 days[244]. They can then be added to salads[183]. Very small but the seed is easy to harvest and very nutritious. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

A red pigment obtained from the plant is used as a food colouring[238].

Medicinal Uses

Disclaimer

Astringent.

The whole plant contains tannin and is astringent[238, 254]. It is used internally in the treatment of diarrhoea and excessive menstruation[238, 254]. It can be used as a gargle to soothe inflammation of the pharynx and to hasten the healing of ulcerated mouths[254], whilst it can also be applied externally to treat vaginal discharges, nosebleeds and wounds[238]. The plant can be used fresh or it can also be harvested when coming into flower and dried for later use[238].

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

A red dye obtained from the plant (the report does not specify which part of the plant) is used as a colouring in foods and medicines[238].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K]. Tolerates a pH in the range 5.2 to 7.5.

Plants should not be given inorganic fertilizers, see notes above on toxicity.

Often cultivated, especially in tropical areas, for its edible leaves and seeds, there are many named varieties[183]. This is the most robust and highest yielding of the grain amaranths, though it is late maturing and therefore less suitable for northern areas[183].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Cultivars

'Golden Grain'

> The grain gives a delightful crunchy texture when added to bread recipes[183]. An early maturing strain with golden yellow to orange foliage and seedheads[183]. The uniform short plants are about 1.3 metres tall[183]. Easier for mechanical harvesting, but less productive than 'Burgundy'[183].

'Burgundy'

The seeds are small and creamy white/beige[183]. A widely adapted cultivar, able to mature a seed crop in 105 days from sowing[183]. It has yielded well on the Olympic Peninsula of Washington and on the windswept plains of N. Kansas[183]. The plant is heavy yielding and has striking purplish-red foliage, stalks and seedheads[183]. Plants grow 1.5 - 2.1 metres tall[183].

Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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References for *Amaranthus hybridus var. erythrostachys* (a possible synonym).

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[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Range:	Southern N. America.		
Habitat:	A weed of wasteland and agricultural land.		
Plants For A Future Rating (1-5):	4		

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Cultivated Beds.

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Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K]. Tolerates a pH in the range 5.2 to 7.5.

Plants should not be given inorganic fertilizers, see notes above on toxicity.

Often cultivated, especially in tropical areas, for its edible leaves and seeds, there are many named varieties[183]. This is the most robust and highest yielding of the grain amaranths, though it is late maturing and therefore less suitable for northern areas[183].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Cultivars

'Golden Grain'

> The grain gives a delightful crunchy texture when added to bread recipes[183]. An early maturing strain with golden yellow to orange foliage and seedheads[183]. The uniform short plants are about 1.3 metres tall[183]. Easier for mechanical harvesting, but less productive than 'Burgundy'[183].

'Burgundy'

> The seeds are small and creamy white/beige[183]. A widely adapted cultivar, able to mature a seed crop in 105 days from sowing[183]. It has yielded well on the Olympic Peninsula of Washington and on the windswept plains of N. Kansas[183]. The plant is heavy yielding

and has striking purplish-red foliage, stalks and seedheads[183]. Plants grow 1.5 - 2.1 metres tall[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Amaranthus hybridus var. erythrostachys* (a possible synonym).

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[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Amaranthus hypochondriacus

Common name:	Prince's feather	Family:	Amaranthaceae
Author:	L.	Botanical references:	200
Synonyms:	Amaranthus hybridus hypochondriachus ((L.)Thell.), Amaranthus hybridus erythrostachys (Moq.)		
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	Southern N. America.		
Habitat:	A weed of wasteland and agricultural land.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hybridus ssp. hypochondriacus[B,P] A. hybridus var. erythrostachys[G,H] A. leucocarpus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Amaranth [H], Grain Amaranth [H], Horozobigi [E], Love-Lies-Bleeding [H], Prince's Feather [H], Prince-of-Wales Feather [P], Prince-of-wales-feather [B], Red Cockscomb [H],
Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

Annual growing to 1.2m by 0.5m . It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Young leaves - cooked as a spinach[183, 238]. Rich in vitamins and minerals, they have a mild flavour[K].

Seed - raw or cooked. They can be used as a cereal substitute. They can also be popped in much the same way as popcorn[183]. The seed can be soaked for 12 hours in warm water and then allowed to sprout for about 11 days[244]. They can then be added to salads[183]. Very small but the seed is easy to harvest and very nutritious. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

A red pigment obtained from the plant is used as a food colouring[238].

Medicinal Uses

Disclaimer

Astringent.

The whole plant contains tannin and is astringent[238, 254]. It is used internally in the treatment of diarrhoea and excessive menstruation[238, 254]. It can be used as a gargle to soothe inflammation of the pharynx and to hasten the healing of ulcerated mouths[254], whilst it can also be applied externally to treat vaginal discharges, nosebleeds and wounds[238]. The plant can be used fresh or it can also be harvested when coming into flower and dried for later use[238].

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

A red dye obtained from the plant (the report does not specify which part of the plant) is used as a colouring in foods and medicines[238].

Cultivation details

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K]. Tolerates a pH in the range 5.2 to 7.5.

Plants should not be given inorganic fertilizers, see notes above on toxicity.

Often cultivated, especially in tropical areas, for its edible leaves and seeds, there are many named varieties[183]. This is the most robust and highest yielding of the grain amaranths, though it is late maturing and therefore less suitable for northern areas[183].

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Cultivars

'Golden Grain'

> The grain gives a delightful crunchy texture when added to bread recipes[183]. An early maturing strain with golden yellow to orange foliage and seedheads[183]. The uniform short plants are about 1.3 metres tall[183]. Easier for mechanical harvesting, but less productive than 'Burgundy'[183].

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Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Amaranthus hypochondriacus

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Amaranthus quitensis

Common name:	Ataco	Family:	Amaranthaceae
Author:	Kunth.	Botanical references:	50
Synonyms:			
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	S. America - Andes. A rare casual in Europe.		
Habitat:	An infrequent casual of waste ground in Britain, introduced with bird seed, soya-bean waste etc. It rarely, if ever, sets seed in Britain.		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	Argentina

Physical Characteristics

Annual growing to 1m. It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

A red edible dye is obtained from the inflorescence, it is used in S. America for colouring ceremonial maize dishes[183].

Leaves - cooked[177]. Used as a potherb[183].

Seed - ground into a powder and used as a flour[177, 183]. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

We have very little information on this species and do not know how well it will grow in Britain, but it will probably succeed as a spring-sown annual. It is occasionally cultivated in S. America, mainly for the edible dye obtained from its inflorescence[183]. The plant is also of interest as a probable ancestor of A. caudatus, which is cultivated as a grain crop in S. America. This species could be of value in any breeding programmes. The following notes are based on the general needs of the genus.

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K].

Plants should not be given inorganic fertilizers, see notes above on toxicity.

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

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Amaranthus quitensis

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Author:	Kunth.	Botanical references:	50
Synonyms:			
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Habitat:	An infrequent casual of waste ground in Britain, introduced with bird seed, soya-bean waste etc. It rarely, if ever, sets seed in Britain.		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
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Colouring; Leaves; Seed.

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Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

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Cuttings of growing plants root easily[206].

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Author:	Kunth.	Botanical references:	50
Synonyms:			
Known Hazards:	No members of this genus are known to be poisonous, but when grown on nitrogen-rich soils they are known to concentrate nitrates in the leaves. This is especially noticeable on land where chemical fertilizers are used. Nitrates are implicated in stomach cancers, blue babies and some other health problems. It is inadvisable, therefore, to eat this plant if it is grown inorganically.		
Range:	S. America - Andes. A rare casual in Europe.		
Habitat:	An infrequent casual of waste ground in Britain, introduced with bird seed, soya-bean waste etc. It rarely, if ever, sets seed in Britain.		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Amaranth family
Other Range Info:	From the Ethnobotany Database
	Argentina

Physical Characteristics

Annual growing to 1m. It is frost tender. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It

requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

A red edible dye is obtained from the inflorescence, it is used in S. America for colouring ceremonial maize dishes[183].

Leaves - cooked[177]. Used as a potherb[183].

Seed - ground into a powder and used as a flour[177, 183]. The seed can be cooked whole, and becomes very gelatinous like this, but it is rather difficult to crush all of the small seeds in the mouth and thus some of the seed will pass right through the digestive system without being assimilated[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

Yellow and green dyes can be obtained from the whole plant[168].

Cultivation details

We have very little information on this species and do not know how well it will grow in Britain, but it will probably succeed as a spring-sown annual. It is occasionally cultivated in S. America, mainly for the edible dye obtained from its inflorescence[183]. The plant is also of interest as a probable ancestor of A. caudatus, which is cultivated as a grain crop in S. America. This species could be of value in any breeding programmes. The following notes are based on the general needs of the genus.

Prefers a well-drained fertile soil in a sunny position[200]. Requires a hot sheltered position if it is to do well[K].

Plants should not be given inorganic fertilizers, see notes above on toxicity.

Most if not all members of this genus photosynthesize by a more efficient method than most plants. Called the 'C4 carbon-fixation pathway', this process is particularly efficient at high temperatures, in bright sunlight and under dry conditions[196].

Propagation

Seed - sow late spring in situ. An earlier sowing can be made in a greenhouse and the plants put out after the last expected frosts. Germination is usually rapid and good if the soil is warm[133]. A drop in temperature overnight aids germination[133].

Cuttings of growing plants root easily[206].

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Add a comment on: *Amaranthus quitensis*

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Amaranthus quitensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amaranthus quitensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:18:45 2004

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Anchusa officinalis

Common name:	Alkanet	Family:	Boraginaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Europe to W. Asia. An introduced casual in Britain[17].		
Habitat:	Roadsides, pastures and waste ground, preferring warmer areas[9, 13].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. angustifolia[G] A. procera[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Alkanet [L,H], Buglos [E], Bugloss [H], Common Alkanet [H], Common Bugloss [L,B,P], Gewone Ossentong [D], Lingua Bovina [E], Sigiidili [E], True Bugloss [H],
Epithets:	From a Dictionary of Botanical Epithets officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database Order: Lamiales . Borage family
Other Range Info:	From the Ethnobotany Database China; Germany; Italy; Turkey

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Washington.

Physical Characteristics

Biennial/Perennial growing to 0.6m. It is hardy to zone 5 and is not frost tender. It is in flower from June to October, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves.

Leaves and young shoots - cooked[9, 115, 166]. Used like spinach[2, 183].

Flowers - cooked or used as a garnish[183].

The red dye obtained from the roots can be used to colour oils and fats[105].

Medicinal Uses

Disclaimer

Demulcent; Expectorant; Homeopathy.

All parts of the plant are demulcent and expectorant[9]. They are used externally to treat cuts, bruises and phlebitis and internally to treat coughs and bronchial catarrh[9].

A homeopathic remedy is made from the plant[9]. It is used in the treatment of stomach and duodenal ulcers[9].

Other Uses

Dye.

A red dye is obtained from the roots[13].

Cultivation details

Succeeds in most soils, preferring a sunny position[1]. Prefers a fertile well-drained soil[111].

The flowers are a rich source of nectar and are very attractive to bees[1].

The dry leaves emit a rich musky fragrance, rather like wild strawberry leaves drying.

Propagation

Seed - sow spring in pots of sandy soil[200]. An overnight drop in temperature helps germination[133]. The seed usually germinates in 1 - 4 weeks at 21°c[133]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

The seed can also be sown in an outdoor seed bed during July, transplanting the plants to their final positions during early autumn[245]. These plants will grow larger and flower earlier than those sown in spring.

Scent

Leaves: Dried

> The dry leaves emit a rich musky fragrance, rather like wild strawberry leaves drying.

Suppliers

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Web References

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Plants For A Future: Database Search Results

Anchusa officinalis

Common name:	Alkanet	Family:	Boraginaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Europe to W. Asia. An introduced casual in Britain[17].		
Habitat:	Roadsides, pastures and waste ground, preferring warmer areas[9, 13].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

Biennial/Perennial growing to 0.6m. It is hardy to zone 5 and is not frost tender. It is in flower from June to October, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves.

Leaves and young shoots - cooked[9, 115, 166]. Used like spinach[2, 183].

Flowers - cooked or used as a garnish[183].

The red dye obtained from the roots can be used to colour oils and fats[105].

Medicinal Uses

Disclaimer

Demulcent; Expectorant; Homeopathy.

All parts of the plant are demulcent and expectorant[9]. They are used externally to treat cuts, bruises and phlebitis and internally to treat coughs and bronchial catarrh[9].

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Other Uses

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A red dye is obtained from the roots[13].

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Scent

Leaves: Dried

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Suppliers

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Habitats and Possible Locations

Cultivated Beds.

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Colouring; Flowers; Leaves.

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Scent

Leaves: Dried

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Anchusa officinalis*

Subject:

Anchusa officinalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Anchusa officinalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:18:59 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia indica

Common name:		Family:	Compositae
Author:	Willd.	Botanical references:	58, 200
Synonyms:	Artemisia vulgaris indica, Artemisia dubia orientalis, Artemisia dubia (non Wall.), Artemisia asiatica ((Pampan.)Nakai.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, India.		
Habitat:	Waste ground in central and southern Japan.		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	indica = Indian;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial growing to 1.2m. It is hardy to zone 7. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no

shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves.

Young leaves - cooked and eaten with barley[183]. The leaves are also pounded with steamed glutinous rice to give a flavour and colouring[177, 183].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Emmenagogue; Stomachic; Tonic.

The leaves and flowering stems are anthelmintic, antispasmodic, emmenagogue and stomachic[240]. An infusion is used in the treatment of nervous and spasmodic affections, in asthma and in diseases of the brain[240].

The roots are antiseptic and tonic[240].

Other Uses

Essential; Insecticide.

The plant yields about 0.2% essential oil. This is a good larvicide and a feeble insecticide[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200].

Plants are annuals or short-lived perennials[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

The seed can also be sown in situ in late spring.

Scent

Leaves: Crushed

> The leaves are aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste

was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+indica`

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Plants For A Future: Database Search Results

Artemisia indica

Common name:		Family:	Compositae
Author:	Willd.	Botanical references:	58, 200
Synonyms:	Artemisia vulgaris indica, Artemisia dubia orientalis, Artemisia dubia (non Wall.), Artemisia asiatica ((Pampan.)Nakai.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, India.		
Habitat:	Waste ground in central and southern Japan.		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	indica = Indian;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial growing to 1.2m. It is hardy to zone 7. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves.

Young leaves - cooked and eaten with barley[183]. The leaves are also pounded with steamed glutinous rice to give a flavour and colouring[177, 183].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Emmenagogue; Stomachic; Tonic.

The leaves and flowering stems are anthelmintic, antispasmodic, emmenagogue and stomachic[240]. An infusion is used in the treatment of nervous and spasmodic affections, in asthma and in diseases of the brain[240].

The roots are antiseptic and tonic[240].

Other Uses

Essential; Insecticide.

The plant yields about 0.2% essential oil. This is a good larvicide and a feeble insecticide[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200].

Plants are annuals or short-lived perennials[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

The seed can also be sown in situ in late spring.

Scent

Leaves: Crushed

The leaves are aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+indica`

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Artemisia absinthum

Common name:	Wormwood	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The plant is poisonous if used in large quantities[20, 61]. Even small quantities have been known to cause nervous disorders, convulsions, insomnia etc[222]. Just the scent of the plant has been known to cause headaches and nervousness in some people[169]. The plant contains thujone. In small quantities this acts as a brain stimulant but is toxic in excess[254].		
Range:	Britain.		
Habitat:	Waste land, rocks and screes[4, 9, 100].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. absinthium[B,DUTCH,E,G,H,HPIC,L,P] A. absinthium var. insipida[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Absintalsem [D], Absinth Sagewort [P], Absinth Wormwood [L,FEIS], Absinthe [E,H], Ajenjo [E], Ajenjo Oficial [E], Common Wormwood [H], Feuilles Ameres [E], Niga-Yomogi [E], Old Woman [H], Oldman [B], Pelin [E], Wormswood [E], Wormwood [H,L],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; Britain; Chile; Egypt; Haiti; Paraguay; Spain; Turkey; Us

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota, North Dakota, Washington.

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Leaves are occasionally used as a flavouring[27, 177, 183]. Caution is advised, prolonged use is known to have a detrimental effect - see the notes above on toxicity[K].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Antispasmodic; Carminative; Cholagogue; Emmenagogue; Febrifuge; Homeopathy; Hypnotic; Stimulant; Stomachic; Tonic; Vermifuge.

Wormwood is a very bitter plant with a long history of use as a medicinal herb. It is valued especially for its tonic effect on the liver, gallbladder and digestive system, and for its vermicidal activity[4, 238, 254]. It is an extremely useful medicine for those with weak and under-active digestion. It increases stomach acid and bile production, improving digestion and the absorption of nutrients[254]. It also eases wind and bloating and, if taken regularly, helps the body return to full vitality after a prolonged illness[254].

The leaves and flowering shoots are anthelmintic, anti-inflammatory, antiseptic, antispasmodic, antitumor, carminative, cholagogue, emmenagogue, febrifuge, hypnotic, stimulant, stomachic, tonic and vermifuge[4, 9, 21, 46, 165, 222, 254]. The plant is harvested as it is coming into flower and then dried for later use[4]. Use with caution[21], the plant should be taken internally in small doses for short-term treatment only, preferably under the supervision of a qualified practitioner[238]. It should not be prescribed for children or pregnant women[238]. See also the notes above on toxicity.

The extremely bitter leaves are chewed to stimulate the appetite[222]. The bitter taste on the tongue sets off a reflex action, stimulating stomach and other digestive secretions[254]. The leaves have been used with some success in the treatment of anorexia nervosa[244].

The plant is applied externally to bruises and bites[238]. A warm compress has been used to ease sprains and strained muscles[257].

A homeopathic remedy is made from the leaves[9]. It is used to stimulate bile and gastric juice production and to treat disorders of the liver and gall bladder[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Repellent; Strewing.

The fresh or dried shoots are said to repel insects and mice[6, 18, 20, 169], they have been laid amongst clothing to repel moths and have also been used as a strewing herb[4, 14, 257]. An infusion of the plant is said to discourage slugs and insects[14, 18, 201]. The plant contains substances called sesquiterpene lactones, these are strongly insecticidal[254].

Cultivation details

Succeeds in any soil but it is best in a poor dry one with a warm aspect[37]. Established plants are very drought tolerant[190, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Prefers a shady situation according to another report[4]. Tolerates a pH in the range 4.8 to 8.2.

Wormwood is occasionally grown in the herb garden, there are some named forms[187]. The growing plant is said to inhibit the growth of fennel, sage, caraway, anise and most young plants, especially in wet years[14, 18, 20]. Wormwood is a good companion for carrots, however, helping to protect them from root fly[201].

This herb was at one time the principal flavouring in the liqueur 'Absinthe' but its use has now been banned in most countries since prolonged consumption can lead to chronic poisoning, epileptiform convulsions and degeneration of the central nervous system[244].

The scent of the plant attracts dogs[169].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. The seed usually germinates within 2 - 26 weeks at 15°c[134]. When they are large enough to handle, prick the seedlings out into individual pots. They can be planted out in the summer, or kept in pots in a cold frame for the winter and then planted out in the spring.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Scent

Leaves: Crushed Dried

> The leaves and shoots are aromatic.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia absinthium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *artemisia absinthium* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
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[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
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[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN

0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* Artemisia absinthium, Artemisia. *Genera:* Artemisia.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Artemisia absinthum

Common name:	Wormwood	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The plant is poisonous if used in large quantities[20, 61]. Even small quantities have been known to cause nervous disorders, convulsions, insomnia etc[222]. Just the scent of the plant has been known to cause headaches and nervousness in some people[169]. The plant contains thujone. In small quantities this acts as a brain stimulant but is toxic in excess[254].		
Range:	Britain.		
Habitat:	Waste land, rocks and screes[4, 9, 100].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. absinthium[B,DUTCH,E,G,H,HPIC,L,P] A. absinthium var. insipida[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Absintalsem [D], Absinth Sagewort [P], Absinth Wormwood [L,FEIS], Absinthe [E,H], Ajenjo [E], Ajenjo Oficial [E], Common Wormwood [H], Feuilles Ameres [E], Niga-Yomogi [E], Old Woman [H], Oldman [B], Pelin [E], Wormswood [E], Wormwood [H,L],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; Britain; Chile; Egypt; Haiti; Paraguay; Spain; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota, North Dakota, Washington.

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Leaves are occasionally used as a flavouring[27, 177, 183]. Caution is advised, prolonged use is known to have a detrimental effect - see the notes above on toxicity[K].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Antispasmodic; Carminative; Cholagogue; Emmenagogue; Febrifuge; Homeopathy; Hypnotic; Stimulant; Stomachic; Tonic; Vermifuge.

Wormwood is a very bitter plant with a long history of use as a medicinal herb. It is valued especially for its tonic effect on the liver, gallbladder and digestive system, and for its vermicidal activity[4, 238, 254]. It is an extremely useful medicine for those with weak and under-active digestion. It increases stomach acid and bile production, improving digestion and the absorption of nutrients[254]. It also eases wind and bloating and, if taken regularly, helps the body return to full vitality after a prolonged illness[254].

The leaves and flowering shoots are anthelmintic, anti-inflammatory, antiseptic, antispasmodic, antitumor, carminative, cholagogue, emmenagogue, febrifuge, hypnotic, stimulant, stomachic, tonic and vermifuge[4, 9, 21, 46, 165, 222, 254]. The plant is harvested as it is coming into flower and then dried for later use[4]. Use with caution[21], the plant should be taken internally in small doses for short-term treatment only, preferably under the supervision of a qualified practitioner[238]. It should not be prescribed for children or pregnant women[238]. See also the notes above on toxicity.

The extremely bitter leaves are chewed to stimulate the appetite[222]. The bitter taste on the tongue sets off a reflex action, stimulating stomach and other digestive secretions[254]. The leaves have been used with some success in the treatment of anorexia nervosa[244].

The plant is applied externally to bruises and bites[238]. A warm compress has been used to ease sprains and strained muscles[257].

A homeopathic remedy is made from the leaves[9]. It is used to stimulate bile and gastric juice production and to treat disorders of the liver and gall bladder[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Repellent; Strewing.

The fresh or dried shoots are said to repel insects and mice[6, 18, 20, 169], they have been laid amongst clothing to repel moths and have also been used as a strewing herb[4, 14, 257]. An infusion of the plant is said to discourage slugs and insects[14, 18, 201]. The plant contains substances called sesquiterpene lactones, these are strongly insecticidal[254].

Cultivation details

Succeeds in any soil but it is best in a poor dry one with a warm aspect[37]. Established plants are very drought tolerant[190, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Prefers a shady situation according to another report[4]. Tolerates a pH in the range 4.8 to 8.2.

Wormwood is occasionally grown in the herb garden, there are some named forms[187]. The growing plant is said to inhibit the growth of fennel, sage, caraway, anise and most young plants, especially in wet years[14, 18, 20]. Wormwood is a good companion for carrots, however, helping to protect them from root fly[201].

This herb was at one time the principal flavouring in the liqueur 'Absinthe' but its use has now been banned in most countries since prolonged consumption can lead to chronic poisoning, epileptiform convulsions and degeneration of the central nervous system[244].

The scent of the plant attracts dogs[169].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. The seed usually germinates within 2 - 26 weeks at 15°c[134]. When they are large enough to handle, prick the seedlings out into individual pots. They can be planted out in the summer, or kept in pots in a cold frame for the winter and then planted out in the spring.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Scent

Leaves: Crushed Dried

The leaves and shoots are aromatic.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia absinthium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's

Phytochemical Database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *artemisia absinthium* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

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[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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New Search: Artemisia Search

Latin Name	Common Name	Family	Synonyms	Rating
Artemisia abrotanum	Southernwood	Compositae	A. procera	4
Artemisia absinthum	Wormwood	Compositae	A. absinthium; A. absinthium var. insipida	3
Artemisia annua	Qing Hao	Compositae		1
Artemisia anomala		Compositae		1
Artemisia apiacea		Compositae	A. thunbergiana.; Artemisia thunbergiana	2
Artemisia argyi		Compositae		1
Artemisia biennis	Biennial wormwood	Compositae		1
Artemisia campestris	Field southernwood	Compositae		1
Artemisia campestris glutinosa		Compositae	A. glutinosa. J.Gay.; Artemisia glutinosa; A. campestris subsp. glutinosa	1
Artemisia capillaris	Yin Chen Hao	Compositae		2
Artemisia carvifolia		Compositae		1

Artemisia cina	Cina	Compositae	Seriphidium cinum; A. chamaemelifolia; A. lercheana; A. maritima; A. maritima pauciflora; A. maritima stechmann.; A. maritima var. pauciflora; A. maritima var. stechmann.	1
Artemisia dracunculoides	Russian tarragon	Compositae	A. dracunculus dracunculoides.; Artemisia dracunculus dracunculoides; A. dracunculoides var. dracunculina; A. dracunculus; A. dracunculus sativa; A. dracunculus ssp. dracunculus; A. dracunculus ssp. glauca; A. dracunculus var. glauca; A. dracunculus var. sativa; A. glauca; A. glauca var. dracunculina; A. redowski; Oligosporus dracunculus; Oligosporus dracunculus ssp. dracunculinus; Oligosporus dracunculus ssp. glaucus	2
Artemisia dracunculus	Tarragon	Compositae	A. dracunculoides; A. dracunculoides var. dracunculina; A. dracunculus ssp. glauca; A. dracunculus var. glauca; A. glauca; A. glauca var. dracunculina; Oligosporus dracunculus; Oligosporus dracunculus ssp. dracunculinus; Oligosporus dracunculus ssp. glaucus	4
Artemisia feddei		Compositae	A. dubia. Wallich. A. lavendulaefolia. Dc.; Artemisia lavendulaefolia; Artemisia dubia	2
Artemisia filifolia	Sand sage	Compositae	Artemesia filifolia; Oligosporus filifolius	1

Artemisia frigida	Fringed wormwood	Compositae		2
Artemisia glacialis	Glacier wormwood	Compositae		2
Artemisia gmelinii	Russian wormwood	Compositae	A. sacrorum. Ledeb.; Artemisia sacrorum; A. gmelini	1
Artemisia indica		Compositae	A. asiatica. (Pampan.)Nakai. A. dubia. non Wallich. A. dubia orientalis. A. vulgaris indica.; Artemisia vulgaris indica; Artemisia dubia orientalis; Artemisia dubia; Artemisia asiatica	1
Artemisia iwayomoei		Compositae		1
Artemisia japonica		Compositae	A. mandschurica. A. subintegra. Chrysanthemum japonicum.; Artemisia subintegra; Artemisia mandschurica; A. parviflora	1
Artemisia keiskeana		Compositae	A. keiskiana	3
Artemisia laciniata		Compositae	A. laciniatiformis	1
Artemisia lactiflora	White mugwort	Compositae		1
Artemisia ludoviciana	White sage	Compositae	A. albula; A. canescens	2

Artemisia ludoviciana gnaphalodes	White sage	Compositae	A. gnaphalodes. Nutt.; Artemisia gnaphalodes; A. diversifolia; A. herriotii; A. ludoviciana ssp. ludoviciana; A. ludoviciana ssp. typica; A. ludoviciana var. americana; A. ludoviciana var. brittonii; A. ludoviciana var. gnaphalodes; A. ludoviciana var. latifolia; A. ludoviciana var. pabularis; A. pabularis; A. purshiana; A. vulgaris ssp. ludoviciana; A. vulgaris var. ludoviciana	1
Artemisia maritima	Sea wormwood	Compositae	Seriphidium maritimum. (L.)Soják.; Seriphidium maritimum; A. campestris maritima; A. chamaemelifolia; A. cina; A. lercheana; A. maritima pauciflora; A. maritima stechmann.; A. maritima var. pauciflora; A. maritima var. stechmann.; Seriphidium cinum	2
Artemisia mexicana	Mexican white sagebrush	Compositae	A. ludoviciana mexicana. (Willd.)Fern.; Artemisia ludoviciana mexicana; A. ludoviciana ssp. mexicana; A. ludoviciana var. mexicana; A. neomexicana; A. vulgaris var. mexicana	1
Artemisia michauxiana	Mountain sagewort	Compositae	A. discolor. Dougl. ex D.C. A. vulgaris discolor.; Artemisia vulgaris discolor; Artemisia discolor; A. vulgaris ssp. michauxiana	1
Artemisia monophylla		Compositae		1
Artemisia montana		Compositae		1

Artemisia nova	Black sagebrush	Compositae	A. arbuscula. Nutt.; Artemisia arbuscula; A. arbuscula subsp. nova; Seriphidium arbusculum; Seriphidium novum	1
Artemisia persica		Compositae		1
Artemisia princeps		Compositae		2
Artemisia rubripes		Compositae		1
Artemisia schmidtiana		Compositae		1
Artemisia scoparia		Compositae	Acapillaris scoparia.; Acapillaris scoparia	1
Artemisia sibirica		Compositae	Filifolium sibiricum	1
Artemisia sieversiana		Compositae	A. siversiana	1
Artemisia stelleriana	Beach wormwood	Compositae	A. stellerana	1
Artemisia stolonifera		Compositae		1
Artemisia sylvatica		Compositae		1
Artemisia tilesii	Wormwood	Compositae	A. unalaskensis. Rydb.; Artemisia unalaskensis; A. hookeriana; A. tilesii ssp. unalaschcensis; A. tilesii var. aleutica; A. tilesii var. unalaschcensis; A. unalaskensis var. aleutica; A. vulgaris var. kamtschatica	1

Artemisia tridentata	Sage brush	Compositae	Seriphidium tridentatum. (Nutt.)W.A.Weber.; Seriphidium tridentatum; A. angusta; A. angustifolia; A. tridentata ssp. tridentata; A. tridentata var. angustifolia; A. tridentata var. parishii; Artemesia tridentata; Seriphidium tridentatum ssp. parishii	3
Artemisia tripartita	Threetip sage brush	Compositae	A. trifida. Seriphidium tripartitum. (Rydb.)W.A.Weber.; Seriphidium tripartitum; Artemisia trifida; A. tridentata ssp. trifida; A. tripartita ssp. tripartita	2
Artemisia umbelliformis	Alpine wormwood	Compositae	Artemisia laxa; A. mutellina; Absinthium laxum	1
Artemisia vulgaris	Mugwort	Compositae	A. vulgaris var. coarctata; Cingulum sancti johannis	2
Artemisia wrightii		Compositae		1
Centipeda minima	Spreading sneeze weed	Compositae	C. minuta. C. orbicularis. Artemisia minima.; Artemisia minima	1
Eupatorium capillifolium		Compositae	Artemisia capillifolia	1
Leonurus japonicus		Labiatae	Stachys artemisia; Leonurus artemisia; L. artemisia; Stachys artemisia	1
Leonurus macranthus		Labiatae	L. japonicum. Miq.; L. artemisia; Stachys artemisia	1
Leonurus sibiricus	Chinese motherwort	Labiatae	L. artemisia; L. artemisia auct. non; Stachys artemisia	2
Lomatium macrocarpum	Bigseed biscuitroot	Umbelliferae	L. macrocarpum var. artemisiarum	4

Matricaria matricarioides	Pineapple weed	Compositae	M. discoidea. DC. M. suaveolens. non L.; Artemisia matricarioides	1

New Search

Latin Name Artemisia

Common Name

Family

Rating 1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
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Plants For A Future: Database Search Results

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Artemisia abrotanum

Common name:	Southernwood	Family:	Compositae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	S. Europe? The original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. procera[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ing Hao [E], Lad's Love [H], Old Man [H], Oldman Wormwood [FEIS], Pelinagaci [E], Southern Wormwood [H,B,L], Southernwood [H,L,E,P], Tangerine Southernwood [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Britain(Wales); China; Turkey

Physical Characteristics

A decidious shrub growing to 1.2m by 1m . It is hardy to zone 4 and is not frost tender. It is in leaf from March to November, in flower from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The young shoots have a bitter, lemony flavour and are used in small quantities as a flavouring in cakes, salads and vinegars[1, 4, 7, 183, 244].

A tea is made from the young bitter shoots[183].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Cholagogue; Deobstruent; Emmenagogue; Stomachic; Tonic.

Southernwood has a long history of domestic herbal use, though it is now used infrequently in herbal medicine[254]. It is a strongly aromatic bitter herb that improves digestion and liver function by increasing secretions in the stomach and intestines, it stimulates the uterus and encourages menstrual flow, lowers fevers, relaxes spasms and destroys intestinal worms[238, 254].

The herb, and especially the young flowering shoots, is anthelmintic, antiseptic, cholagogue, deobstruent, emmenagogue, stomachic and tonic[4, 7, 165]. The main use of this herb is as an emmenagogue, though it is also a good stimulant tonic and has some nervine principle[4]. It is sometimes given to young children in order to expel parasitic worms and externally it is applied to small wounds in order to stop them bleeding and help them to heal[7]. The herb is also used externally in aromatic bathes and as a poultice to treat skin conditions[268]. Southernwood should be used internally with caution, see the notes above on toxicity. It should not be prescribed for pregnant women, especially in the first trimester of pregnancy, since it can encourage menstrual flow[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Essential; Hair; Hedge; Incense; Pot-pourri; Repellent.

Insect repellent. The growing plant repels fruit tree moths when growing in an orchard[6, 14, 18, 20]. The fresh plant can also be rubbed onto the skin to deter insects[7]. The shoots can be dried for indoor use, they remain effective for 6 - 12 months[169]. They are also said to repel ants[201]. Shoots can be burnt in the fireplace to remove cooking odours from the house[201].

The leaves have a refreshing lemon-like fragrance and are used in pot-pourri[245].

An essential oil from the leaves and flowering shoots is used in perfumery in order to add certain subtle tones[7].

A yellow dye is obtained from the branches[14, 268].

Plants can be grown as a low hedge, they tolerate quite hard clipping[200, 201].

An infusion of the plant is used as a hair tonic or conditioner[201].

Cultivation details

Succeeds in most soils, preferring a well-drained one that is not too rich[1, 11]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 6.3 to 7.6. Established plants are drought tolerant. Plants succeed in maritime gardens[233].

Southernwood is often grown in the herb garden, the leaves are very aromatic[182]. It is best to cut the plant back fairly hard every spring in order to keep it compact and encourage plenty of new growth[233, 268]. The plant rarely produces flowers in British gardens[11].

A good companion plant for cabbages[14, 18, 20]. It is also a good plant to grow in the orchard, where it can help to reduce insect pests[201].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. The seed usually germinates in 1 - 2 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots. Once the seedlings are more than 15cm tall, plant them out into their permanent positions in late spring or summer.

Cuttings of young wood 8cm long, May in a frame[169].

Cuttings of half-ripe wood with a heel, July/August in a frame[1].

Scent

Leaves: Crushed

The leaves are very aromatic with a refreshing lemon-like perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *artemisia abrotanum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is

very terse though and with very little extra information. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent

photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Artemisia abrotanum

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Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
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Range:	S. Europe? The original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. procera[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Britain(Wales); China; Turkey

Physical Characteristics

A decidious shrub growing to 1.2m by 1m . It is hardy to zone 4 and is not frost tender. It is in leaf from March to November, in flower from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It

can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The young shoots have a bitter, lemony flavour and are used in small quantities as a flavouring in cakes, salads and vinegars[1, 4, 7, 183, 244].

A tea is made from the young bitter shoots[183].

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Other Uses

Dye; Essential; Hair; Hedge; Incense; Pot-pourri; Repellent.

Insect repellent. The growing plant repels fruit tree moths when growing in an orchard[6, 14, 18, 20]. The fresh plant can also be rubbed onto the skin to deter insects[7]. The shoots can be dried for indoor use, they remain effective for 6 - 12 months[169]. They are also said to repel ants[201]. Shoots can be burnt in the fireplace to remove cooking odours from the house[201].

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A yellow dye is obtained from the branches[14, 268].

Plants can be grown as a low hedge, they tolerate quite hard clipping[200, 201].

An infusion of the plant is used as a hair tonic or conditioner[201].

Cultivation details

Succeeds in most soils, preferring a well-drained one that is not too rich[1, 11]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 6.3 to 7.6. Established plants are drought tolerant. Plants succeed in maritime gardens[233].

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Propagation

Seed - surface sow from late winter to early summer in a greenhouse. The seed usually germinates in 1 - 2 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots. Once the seedlings are more than 15cm tall, plant them out into their permanent positions in late spring or summer.

Cuttings of young wood 8cm long, May in a frame[169].

Cuttings of half-ripe wood with a heel, July/August in a frame[1].

Scent

Leaves: Crushed

The leaves are very aromatic with a refreshing lemon-like perfume.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- PFAF Plant Catalogue (A)

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
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References for *artemisia abrotanum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148

An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia absinthum

Common name:	Wormwood	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The plant is poisonous if used in large quantities[20, 61]. Even small quantities have been known to cause nervous disorders, convulsions, insomnia etc[222]. Just the scent of the plant has been known to cause headaches and nervousness in some people[169]. The plant contains thujone. In small quantities this acts as a brain stimulant but is toxic in excess[254].		
Range:	Britain.		
Habitat:	Waste land, rocks and screes[4, 9, 100].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. absinthium[B,DUTCH,E,G,H,HPIC,L,P] A. absinthium var. insipida[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Absintalsem [D], Absinth Sagewort [P], Absinth Wormwood [L,FEIS], Absinthe [E,H], Ajenjo [E], Ajenjo Oficial [E], Common Wormwood [H], Feuilles Ameres [E], Niga-Yomogi [E], Old Woman [H], Oldman [B], Pelin [E], Wormswood [E], Wormwood [H,L],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; Britain; Chile; Egypt; Haiti; Paraguay; Spain; Turkey; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota, North Dakota, Washington.

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Leaves are occasionally used as a flavouring[27, 177, 183]. Caution is advised, prolonged use is known to have a detrimental effect - see the notes above on toxicity[K].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Antispasmodic; Carminative; Cholagogue; Emmenagogue; Febrifuge; Homeopathy; Hypnotic; Stimulant; Stomachic; Tonic; Vermifuge.

Wormwood is a very bitter plant with a long history of use as a medicinal herb. It is valued especially for its tonic effect on the liver, gallbladder and digestive system, and for its vermicidal activity[4, 238, 254]. It is an extremely useful medicine for those with weak and under-active digestion. It increases stomach acid and bile production, improving digestion and the absorption of nutrients[254]. It also eases wind and bloating and, if taken regularly, helps the body return to full vitality after a prolonged illness[254].

The leaves and flowering shoots are anthelmintic, anti-inflammatory, antiseptic, antispasmodic, antitumor, carminative, cholagogue, emmenagogue, febrifuge, hypnotic, stimulant, stomachic, tonic and vermifuge[4, 9, 21, 46, 165, 222, 254]. The plant is harvested as it is coming into flower and then dried for later use[4]. Use with caution[21], the plant should be taken internally in small doses for short-term treatment only, preferably under the supervision of a qualified practitioner[238]. It should not be prescribed for children or pregnant women[238]. See also the notes above on toxicity.

The extremely bitter leaves are chewed to stimulate the appetite[222]. The bitter taste on the tongue sets off a reflex action, stimulating stomach and other digestive secretions[254]. The leaves have been used with some success in the treatment of anorexia nervosa[244].

The plant is applied externally to bruises and bites[238]. A warm compress has been used to ease sprains and strained muscles[257].

A homeopathic remedy is made from the leaves[9]. It is used to stimulate bile and gastric juice production and to treat disorders of the liver and gall bladder[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Repellent; Strewing.

The fresh or dried shoots are said to repel insects and mice[6, 18, 20, 169], they have been laid amongst clothing to repel moths and have also been used as a strewing herb[4, 14, 257]. An infusion of the plant is said to discourage slugs and insects[14, 18, 201]. The plant contains substances called sesquiterpene lactones, these are strongly insecticidal[254].

Cultivation details

Succeeds in any soil but it is best in a poor dry one with a warm aspect[37]. Established plants are very drought tolerant[190, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Prefers a shady situation according to another report[4]. Tolerates a pH in the range 4.8 to 8.2.

Wormwood is occasionally grown in the herb garden, there are some named forms[187]. The growing plant is said to inhibit the growth of fennel, sage, caraway, anise and most young plants, especially in wet years[14, 18, 20]. Wormwood is a good companion for carrots, however, helping to protect them from root fly[201].

This herb was at one time the principal flavouring in the liqueur 'Absinthe' but its use has now been banned in most countries since prolonged consumption can lead to chronic poisoning, epileptiform convulsions and degeneration of the central nervous system[244].

The scent of the plant attracts dogs[169].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. The seed usually germinates within 2 - 26 weeks at 15°c[134]. When they are large enough to handle, prick the seedlings out into individual pots. They can be planted out in the summer, or kept in pots in a cold frame for the winter and then planted out in the spring.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Scent

Leaves: Crushed Dried

The leaves and shoots are aromatic.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future: Database Search Results

Artemisia abrotanum

Common name:	Southernwood	Family:	Compositae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	S. Europe? The original habitat is obscure.		
Habitat:	Not known in a truly wild situation.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. procera[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ing Hao [E], Lad's Love [H], Old Man [H], Oldman Wormwood [FEIS], Pelinagaci [E], Southern Wormwood [H,B,L], Southernwood [H,L,E,P], Tangerine Southernwood [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Britain(Wales); China; Turkey

Physical Characteristics

A decidious shrub growing to 1.2m by 1m . It is hardy to zone 4 and is not frost tender. It is in leaf from March to November, in flower from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It

can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The young shoots have a bitter, lemony flavour and are used in small quantities as a flavouring in cakes, salads and vinegars[1, 4, 7, 183, 244].

A tea is made from the young bitter shoots[183].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Cholagogue; Deobstruent; Emmenagogue; Stomachic; Tonic.

Southernwood has a long history of domestic herbal use, though it is now used infrequently in herbal medicine[254]. It is a strongly aromatic bitter herb that improves digestion and liver function by increasing secretions in the stomach and intestines, it stimulates the uterus and encourages menstrual flow, lowers fevers, relaxes spasms and destroys intestinal worms[238, 254].

The herb, and especially the young flowering shoots, is anthelmintic, antiseptic, cholagogue, deobstruent, emmenagogue, stomachic and tonic[4, 7, 165]. The main use of this herb is as an emmenagogue, though it is also a good stimulant tonic and has some nervine principle[4]. It is sometimes given to young children in order to expel parasitic worms and externally it is applied to small wounds in order to stop them bleeding and help them to heal[7]. The herb is also used externally in aromatic bathes and as a poultice to treat skin conditions[268]. Southernwood should be used internally with caution, see the notes above on toxicity. It should not be prescribed for pregnant women, especially in the first trimester of pregnancy, since it can encourage menstrual flow[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Essential; Hair; Hedge; Incense; Pot-pourri; Repellent.

Insect repellent. The growing plant repels fruit tree moths when growing in an orchard[6, 14, 18, 20]. The fresh plant can also be rubbed onto the skin to deter insects[7]. The shoots can be dried for indoor use, they remain effective for 6 - 12 months[169]. They are also said to repel ants[201]. Shoots can be burnt in the fireplace to remove cooking odours from the house[201].

The leaves have a refreshing lemon-like fragrance and are used in pot-pourri[245].

An essential oil from the leaves and flowering shoots is used in perfumery in order to add certain subtle tones[7].

A yellow dye is obtained from the branches[14, 268].

Plants can be grown as a low hedge, they tolerate quite hard clipping[200, 201].

An infusion of the plant is used as a hair tonic or conditioner[201].

Cultivation details

Succeeds in most soils, preferring a well-drained one that is not too rich[1, 11]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 6.3 to 7.6. Established plants are drought tolerant. Plants succeed in maritime gardens[233].

Southernwood is often grown in the herb garden, the leaves are very aromatic[182]. It is best to cut the plant back fairly hard every spring in order to keep it compact and encourage plenty of new growth[233, 268]. The plant rarely produces flowers in British gardens[11].

A good companion plant for cabbages[14, 18, 20]. It is also a good plant to grow in the orchard, where it can help to reduce insect pests[201].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. The seed usually germinates in 1 - 2 months at 15°c[134]. When large enough to handle, prick the seedlings out into individual pots. Once the seedlings are more than 15cm tall, plant them out into their permanent positions in late spring or summer.

Cuttings of young wood 8cm long, May in a frame[169].

Cuttings of half-ripe wood with a heel, July/August in a frame[1].

Scent

Leaves: Crushed

The leaves are very aromatic with a refreshing lemon-like perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Artemisia abrotanum

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia abrotanum

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Artemisia absinthum

Common name:	Wormwood	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The plant is poisonous if used in large quantities[20, 61]. Even small quantities have been known to cause nervous disorders, convulsions, insomnia etc[222]. Just the scent of the plant has been known to cause headaches and nervousness in some people[169]. The plant contains thujone. In small quantities this acts as a brain stimulant but is toxic in excess[254].		
Range:	Britain.		
Habitat:	Waste land, rocks and screes[4, 9, 100].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. absinthium[B,DUTCH,E,G,H,HPIC,L,P] A. absinthium var. insipida[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Absintalsem [D], Absinth Sagewort [P], Absinth Wormwood [L,FEIS], Absinthe [E,H], Ajenjo [E], Ajenjo Oficial [E], Common Wormwood [H], Feuilles Ameres [E], Niga-Yomogi [E], Old Woman [H], Oldman [B], Pelin [E], Wormswood [E], Wormwood [H,L],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; Britain; Chile; Egypt; Haiti; Paraguay; Spain; Turkey; Us

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota, North Dakota, Washington.

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Leaves are occasionally used as a flavouring[27, 177, 183]. Caution is advised, prolonged use is known to have a detrimental effect - see the notes above on toxicity[K].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Antispasmodic; Carminative; Cholagogue; Emmenagogue; Febrifuge; Homeopathy; Hypnotic; Stimulant; Stomachic; Tonic; Vermifuge.

Wormwood is a very bitter plant with a long history of use as a medicinal herb. It is valued especially for its tonic effect on the liver, gallbladder and digestive system, and for its vermicidal activity[4, 238, 254]. It is an extremely useful medicine for those with weak and under-active digestion. It increases stomach acid and bile production, improving digestion and the absorption of nutrients[254]. It also eases wind and bloating and, if taken regularly, helps the body return to full vitality after a prolonged illness[254].

The leaves and flowering shoots are anthelmintic, anti-inflammatory, antiseptic, antispasmodic, antitumor, carminative, cholagogue, emmenagogue, febrifuge, hypnotic, stimulant, stomachic, tonic and vermifuge[4, 9, 21, 46, 165, 222, 254]. The plant is harvested as it is coming into flower and then dried for later use[4]. Use with caution[21], the plant should be taken internally in small doses for short-term treatment only, preferably under the supervision of a qualified practitioner[238]. It should not be prescribed for children or pregnant women[238]. See also the notes above on toxicity.

The extremely bitter leaves are chewed to stimulate the appetite[222]. The bitter taste on the tongue sets off a reflex action, stimulating stomach and other digestive secretions[254]. The leaves have been used with some success in the treatment of anorexia nervosa[244].

The plant is applied externally to bruises and bites[238]. A warm compress has been used to ease sprains and strained muscles[257].

A homeopathic remedy is made from the leaves[9]. It is used to stimulate bile and gastric juice production and to treat disorders of the liver and gall bladder[9].

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Other Uses

Repellent; Strewing.

The fresh or dried shoots are said to repel insects and mice[6, 18, 20, 169], they have been laid amongst clothing to repel moths and have also been used as a strewing herb[4, 14, 257]. An infusion of the plant is said to discourage slugs and insects[14, 18, 201]. The plant contains substances called sesquiterpene lactones, these are strongly insecticidal[254].

Cultivation details

Succeeds in any soil but it is best in a poor dry one with a warm aspect[37]. Established plants are very drought tolerant[190, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Prefers a shady situation according to another report[4]. Tolerates a pH in the range 4.8 to 8.2.

Wormwood is occasionally grown in the herb garden, there are some named forms[187]. The growing plant is said to inhibit the growth of fennel, sage, caraway, anise and most young plants, especially in wet years[14, 18, 20]. Wormwood is a good companion for carrots, however, helping to protect them from root fly[201].

This herb was at one time the principal flavouring in the liqueur 'Absinthe' but its use has now been banned in most countries since prolonged consumption can lead to chronic poisoning, epileptiform convulsions and degeneration of the central nervous system[244].

The scent of the plant attracts dogs[169].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. The seed usually germinates within 2 - 26 weeks at 15°c[134]. When they are large enough to handle, prick the seedlings out into individual pots. They can be planted out in the summer, or kept in pots in a cold frame for the winter and then planted out in the spring.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Scent

Leaves: Crushed Dried

> The leaves and shoots are aromatic.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia absinthium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *artemisia absinthium* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN

0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+absinthum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+absinthum`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia absinthum*

Subject:

Artemisia absinthum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia absinthum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:19:55 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia annua

Common name:	Qing Hao	Family:	Compositae
Author:	L.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	Skin contact with the plant can cause dermatitis or other allergic reactions in some people[222]. The pollen is extremely allergenic[269].		
Range:	S. E. Europe to W. Asia.		
Habitat:	Occurs naturally as part of a steppe vegetation in the northern parts of Chahar and Suiyuan provinces in China, at 1000 to 1500 m above sea level[269].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Annual Wormwood [L,B], Ch'Ou Hao [E], Huang Hua Hao [E], Kuso-Ninzin [E], Qing-guo [H], Sweet Annie [H], Sweet Sagewort [P], Sweet Wormwood [H], Ts'Ao Hao [E], Wormwood [H],
Epithets:	From a Dictionary of Botanical Epithets
	annua = annual;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Indochina

Physical Characteristics

Annual growing to 3m by 1m at a fast rate. It is hardy to zone 7. It is in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

An essential oil in the leaves is used as a flavouring in spirits such as vermouth[269].

Medicinal Uses

Disclaimer

Antibacterial; Antiperiodic; Antiseptic; Carminative; Digestive; Febrifuge.

Qing Ho, better known in the West as sweet wormwood, is a traditional Chinese herbal medicine. An aromatic anti-bacterial plant, recent research has shown that it destroys malarial parasites, lowers fevers and checks bleeding[238, 254]. It is often used in the Tropics as an affordable and effective anti-malarial[254].

The leaves are antiperiodic, antiseptic, digestive, febrifuge[176, 178]. An infusion of the leaves is used internally to treat fevers, colds, diarrhoea etc[222, 254]. Externally, the leaves are poulticed onto nose bleeds, boils and abscesses[222, 238]. The leaves are harvested in the summer, before the plant comes into flower, and are dried for later use[254].

The plant contains artemisinin, this substance has proved to be a dramatically effective anti-malarial against multi-drug resistant Plasmodium spp[218, 238, 254, 269]. Clinical trials have shown it to be 90% effective and more successful than standard drugs[254]. In a trial of 2000 patients, all were cured of the disease[218].

The seeds are used in the treatment of flatulence, indigestion and night sweats[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under

with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Herbicide; Miscellany.

The plant is used in China as a medium for growing Aspergillus which is used in brewing wine.

The substances mentioned above in the medicinal uses, used in the treatment of malaria, also show marked herbicidal activity[222].

The plant yields 0.3% essential oil[240]. This has an agreeable, refreshing and slightly balsamic odour and has been used in perfumery[240].

Cultivation details

An easily grown plant, succeeding in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

A fast-growing annual plant, it is tall but neat in habit with a handsome fragrant foliage and is useful for filling gaps at the back of a border[238]. It has become a weed of waste places in many areas of the world[43]. The plant is extremely vigorous and essentially disease and pest free[269].

Qing Hao is a determinate short-day plant. Non-juvenile plants are very responsive to photoperiodic stimulus and flower about two weeks after induction. The critical photoperiod seems to be about 13.5 hours, but there are likely to be photoperiod x temperature interactions. In Lafayette Indiana, USA (40°21'N) plants flower in early September with mature seeds produced in October. The plant is not adapted to the tropics because flowering will be induced when the plants are very small[269].

Most collections of artemisia derive from natural stands with highly variable artemisinin content, some as low of 0.01%. Selections from Chinese origin vary from 0.05 to 0.21%. Swiss researcher N. Delabays reports a clonal selection derived from Chinese material which produces 1.1% artemisin but is very late flowering; proprietary hybrids have been obtained with somewhat lower content but flower earlier[269].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow spring in a cold frame and plant out in late spring or early summer. Alternatively, the seed can be sown late spring in situ.

Scent

Leaves: Crushed

> The leaves have a refreshing slightly balsamic aroma[240].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *artemisia annua* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of

research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around

it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+annua`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+annua`

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Plants For A Future: Database Search Results

Artemisia annua

Common name:	Qing Hao	Family:	Compositae
Author:	L.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	Skin contact with the plant can cause dermatitis or other allergic reactions in some people[222]. The pollen is extremely allergenic[269].		
Range:	S. E. Europe to W. Asia.		
Habitat:	Occurs naturally as part of a steppe vegetation in the northern parts of Chahar and Suiyuan provinces in China, at 1000 to 1500 m above sea level[269].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Annual Wormwood [L,B], Ch'Ou Hao [E], Huang Hua Hao [E], Kuso-Ninzin [E], Qing-guo [H], Sweet Annie [H], Sweet Sagewort [P], Sweet Wormwood [H], Ts'Ao Hao [E], Wormwood [H],
Epithets:	From a Dictionary of Botanical Epithets
	annua = annual;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Indochina

Physical Characteristics

Annual growing to 3m by 1m at a fast rate. It is hardy to zone 7. It is in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow

in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

An essential oil in the leaves is used as a flavouring in spirits such as vermouth[269].

Medicinal Uses

Disclaimer

Antibacterial; Antiperiodic; Antiseptic; Carminative; Digestive; Febrifuge.

Qing Ho, better known in the West as sweet wormwood, is a traditional Chinese herbal medicine. An aromatic anti-bacterial plant, recent research has shown that it destroys malarial parasites, lowers fevers and checks bleeding[238, 254]. It is often used in the Tropics as an affordable and effective anti-malarial[254].

The leaves are antiperiodic, antiseptic, digestive, febrifuge[176, 178]. An infusion of the leaves is used internally to treat fevers, colds, diarrhoea etc[222, 254]. Externally, the leaves are poulticed onto nose bleeds, boils and abscesses[222, 238]. The leaves are harvested in the summer, before the plant comes into flower, and are dried for later use[254].

The plant contains artemisinin, this substance has proved to be a dramatically effective anti-malarial against multi-drug resistant Plasmodium spp[218, 238, 254, 269]. Clinical trials have shown it to be 90% effective and more successful than standard drugs[254]. In a trial of 2000 patients, all were cured of the disease[218].

The seeds are used in the treatment of flatulence, indigestion and night sweats[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Herbicide; Miscellany.

The plant is used in China as a medium for growing Aspergillus which is used in brewing wine.

The substances mentioned above in the medicinal uses, used in the treatment of malaria, also show marked herbicidal activity[222].

The plant yields 0.3% essential oil[240]. This has an agreeable, refreshing and slightly balsamic odour and has been used in perfumery[240].

Cultivation details

An easily grown plant, succeeding in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

A fast-growing annual plant, it is tall but neat in habit with a handsome fragrant foliage and is useful for filling gaps at the back of a border[238]. It has become a weed of waste places in many areas of the world[43]. The plant is extremely vigorous and essentially disease and pest free[269].

Qing Hao is a determinate short-day plant. Non-juvenile plants are very responsive to photoperiodic stimulus and flower about two weeks after induction. The critical photoperiod seems to be about 13.5 hours, but there are likely to be photoperiod x temperature interactions. In Lafayette Indiana, USA (40°21'N) plants flower in early September with mature seeds produced in October. The plant is not adapted to the tropics because flowering will be induced when the plants are very small[269].

Most collections of artemisia derive from natural stands with highly variable artemisinin content, some as low of 0.01%. Selections from Chinese origin vary from 0.05 to 0.21%. Swiss researcher N. Delabays reports a clonal selection derived from Chinese material which produces 1.1% artemisin but is very late flowering; proprietary hybrids have been obtained with somewhat lower content but flower earlier[269].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow spring in a cold frame and plant out in late spring or early summer. Alternatively, the seed can be sown late spring in situ.

Scent

Leaves: Crushed

The leaves have a refreshing slightly balsamic aroma[240].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *artemisia annua* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum, Artemisia absinthium, Artemisia. Genera: Artemisia.*

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+annua`

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Plants For A Future: Database Search Results

Artemisia annua

Common name:	Qing Hao	Family:	Compositae
Author:	L.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	Skin contact with the plant can cause dermatitis or other allergic reactions in some people[222]. The pollen is extremely allergenic[269].		
Range:	S. E. Europe to W. Asia.		
Habitat:	Occurs naturally as part of a steppe vegetation in the northern parts of Chahar and Suiyuan provinces in China, at 1000 to 1500 m above sea level[269].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Annual Wormwood [L,B], Ch'Ou Hao [E], Huang Hua Hao [E], Kuso-Ninzin [E], Qing-guo [H], Sweet Annie [H], Sweet Sagewort [P], Sweet Wormwood [H], Ts'Ao Hao [E], Wormwood [H],
Epithets:	From a Dictionary of Botanical Epithets
	annua = annual;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Indochina

Physical Characteristics

Annual growing to 3m by 1m at a fast rate. It is hardy to zone 7. It is in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow

in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

An essential oil in the leaves is used as a flavouring in spirits such as vermouth[269].

Medicinal Uses

Disclaimer

Antibacterial; Antiperiodic; Antiseptic; Carminative; Digestive; Febrifuge.

Qing Ho, better known in the West as sweet wormwood, is a traditional Chinese herbal medicine. An aromatic anti-bacterial plant, recent research has shown that it destroys malarial parasites, lowers fevers and checks bleeding[238, 254]. It is often used in the Tropics as an affordable and effective anti-malarial[254].

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Other Uses

Essential; Herbicide; Miscellany.

The plant is used in China as a medium for growing Aspergillus which is used in brewing wine.

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The plant yields 0.3% essential oil[240]. This has an agreeable, refreshing and slightly balsamic odour and has been used in perfumery[240].

Cultivation details

An easily grown plant, succeeding in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

A fast-growing annual plant, it is tall but neat in habit with a handsome fragrant foliage and is useful for filling gaps at the back of a border[238]. It has become a weed of waste places in many areas of the world[43]. The plant is extremely vigorous and essentially disease and pest free[269].

Qing Hao is a determinate short-day plant. Non-juvenile plants are very responsive to photoperiodic stimulus and flower about two weeks after induction. The critical photoperiod seems to be about 13.5 hours, but there are likely to be photoperiod x temperature interactions. In Lafayette Indiana, USA (40°21'N) plants flower in early September with mature seeds produced in October. The plant is not adapted to the tropics because flowering will be induced when the plants are very small[269].

Most collections of artemisia derive from natural stands with highly variable artemisinin content, some as low of 0.01%. Selections from Chinese origin vary from 0.05 to 0.21%. Swiss researcher N. Delabays reports a clonal selection derived from Chinese material which produces 1.1% artemisin but is very late flowering; proprietary hybrids have been obtained with somewhat lower content but flower earlier[269].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow spring in a cold frame and plant out in late spring or early summer. Alternatively, the seed can be sown late spring in situ.

Scent

Leaves: Crushed

The leaves have a refreshing slightly balsamic aroma[240].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia annua*

Subject:

Artemisia annua

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia annua

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:20:10 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia anomala

Common name:		Family:	Compositae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	anomala = abnormal;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Used externally in the treatment of burns and inflamed skin[238].

Other Uses

None known

Cultivation details

238243

Propagation

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia anomala

Common name:		Family:	Compositae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

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() Thu Oct 16 03:57:35 2003

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[Taken from www.blackwalnuthull.com]

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Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia anomala

Common name:		Family:	Compositae
Author:	.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	anomala = abnormal;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

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Used externally in the treatment of burns and inflamed skin[238].

Other Uses

None known

Cultivation details

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+anomala`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+anomala`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia anomala*

Subject:

Artemisia anomala

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia anomala

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:20:23 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia apiacea

Common name:		Family:	Compositae
Author:	Hance.	Botanical references:	58
Synonyms:	Artemisia thunbergiana		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Riverbanks, cultivated fields and waste places, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ing Hao [E], Hsiang Hao [E], Yeh Chu Hua [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Biennial growing to 1.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked in the spring[178].

Medicinal Uses

Disclaimer

Antiperiodic; Depurative; Febrifuge; Stomachic; Tonic; Vermifuge.

The whole plant is depurative, febrifuge, stomachic, tonic and vermifuge[147, 176, 218]. The plant is said to prevent malaria, or to drive away mosquitoes[218]. It inhibits the maturation of malaria parasites in the body[176]. The plant is also used in the treatment of tidal fever, low-grade fevers and summer heat stroke[176].

This plant can be used interchangeably with Artemisia annua[254]. The medicinal virtues of that plant are as follows:-

Qing Ho, better known in the West as sweet wormwood, is a traditional Chinese herbal medicine. An aromatic anti-bacterial plant, recent research has shown that it destroys malarial parasites, lowers fevers and checks bleeding[238, 254]. It is often used in the Tropics as an affordable and effective anti-malarial[254].

The leaves are antiperiodic, antiseptic, digestive, febrifuge[176, 178]. An infusion of the leaves is used internally to treat fevers, colds, diarrhoea etc[222, 254]. Externally, the leaves are poulticed onto nose bleeds, boils and abscesses[222, 238]. The leaves are harvested in the summer, before the plant comes into flower, and are dried for later use[254].

The plant contains artemisinin, this substance has proved to be a dramatically effective anti-malarial[218, 238, 254]. Clinical trials have shown it to be 90% effective and more successful than standard drugs[254]. In a trial of 2000 patients, all were cured of the disease[218].

The seeds are used in the treatment of flatulence, indigestion and night sweats[222].

Other Uses

Repellent.

The plant is burnt to repel insects[178].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position. Established plants are drought tolerant. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese

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A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia apiacea

Common name:		Family:	Compositae
Author:	Hance.	Botanical references:	58
Synonyms:	Artemisia thunbergiana		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Riverbanks, cultivated fields and waste places, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ing Hao [E], Hsiang Hao [E], Yeh Chu Hua [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Biennial growing to 1.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked in the spring[178].

Medicinal Uses

Disclaimer

Antiperiodic; Depurative; Febrifuge; Stomachic; Tonic; Vermifuge.

The whole plant is depurative, febrifuge, stomachic, tonic and vermifuge[147, 176, 218]. The plant is said to prevent malaria, or to drive away mosquitoes[218]. It inhibits the maturation of malaria parasites in the body[176]. The plant is also used in the treatment of tidal fever, low-grade fevers and summer heat stroke[176].

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Other Uses

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Cultivation details

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Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

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It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Artemisia apiacea

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Synonyms:	Artemisia thunbergiana		
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Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Riverbanks, cultivated fields and waste places, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Biennial growing to 1.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked in the spring[178].

Medicinal Uses

Disclaimer

Antiperiodic; Depurative; Febrifuge; Stomachic; Tonic; Vermifuge.

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Other Uses

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Cultivation details

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Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

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Add a comment on: *Artemisia apiacea*

Subject:

Artemisia apiacea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia apiacea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:20:37 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia argyi

Common name:		Family:	Compositae
Author:	Lév. & Van.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Antiasthmatic; Antiseptic; Expectorant; Febrifuge; Styptic.

The leaves are antiseptic, expectorant, febrifuge and styptic[176]. They are used in the treatment of sterility, functional bleeding of the uterus, dysmenorrhoea, coughs and asthma[176]. They are also used in moxibustion[176, 218].

The leaves have been found to have an antibacterial action, effective against Staphylococcus aureus, Bacillus typhi, B. dysenteriae, E. coli, B. subtilis, Pseudomonas etc[176].

A volatile oil extracted from the plant is particularly effective in the treatment of bronchitis and asthma - the oil is sprayed into the throat and takes effect within one minute[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200].

Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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---

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum, Artemisia absinthium, Artemisia. Genera: Artemisia.*

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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Plants For A Future: Database Search Results

Artemisia argyi

Common name:		Family:	Compositae
Author:	Lév. & Van.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Antiasthmatic; Antiseptic; Expectorant; Febrifuge; Styptic.

The leaves are antiseptic, expectorant, febrifuge and styptic[176]. They are used in the treatment of sterility, functional bleeding of the uterus, dysmenorrhoea, coughs and asthma[176]. They are also used in moxibustion[176, 218].

The leaves have been found to have an antibacterial action, effective against Staphylococcus aureus, Bacillus typhi, B. dysenteriae, E. coli, B. subtilis, Pseudomonas etc[176].

A volatile oil extracted from the plant is particularly effective in the treatment of bronchitis and asthma - the oil is sprayed into the throat and takes effect within one minute[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200].

Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief

cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum, Artemisia absinthium, Artemisia. Genera: Artemisia.*

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Plants For A Future: Database Search Results

Artemisia argyi

Common name:		Family:	Compositae
Author:	Lév. & Van.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Antiasthmatic; Antiseptic; Expectorant; Febrifuge; Styptic.

The leaves are antiseptic, expectorant, febrifuge and styptic[176]. They are used in the treatment of sterility, functional bleeding of the uterus, dysmenorrhoea, coughs and asthma[176]. They are also used in moxibustion[176, 218].

The leaves have been found to have an antibacterial action, effective against Staphylococcus aureus, Bacillus typhi, B. dysenteriae, E. coli, B. subtilis, Pseudomonas etc[176].

A volatile oil extracted from the plant is particularly effective in the treatment of bronchitis and asthma - the oil is sprayed into the throat and takes effect within one minute[218].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200].

Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia argyi*

Subject:

Artemisia argyi

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia argyi

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:20:52 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia biennis

Common name:	Biennial wormwood	Family:	Compositae
Author:	Willd.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America - Quebec to British Columbia and south to New England, Indiana etc.		
Habitat:	Open ground, clearings, burns, roadsides and waste places[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Biennial Wormwood [B,L,P], Lesser Mugwort [L], Rechte Alsem [D],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Biennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed[161, 177, 257]. No further details are given, but the seed is very small and fiddly to utilize[K].

Medicinal Uses

Disclaimer

Parasiticide; Poultice; Skin.

The plant as been used in the treatment of stomach cramps, colic and painful menstruation[257]. Externally, it has been used for treating sores and wounds[257]. The report does not specify which part of the plant is used.

The seeds, mixed with molasses, have been used as a parasiticide in getting rid of worms[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position. Established plants are drought tolerant. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

The seed can also be sown in situ during late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
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[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its

properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia biennis

Common name:	Biennial wormwood	Family:	Compositae
Author:	Willd.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America - Quebec to British Columbia and south to New England, Indiana etc.		
Habitat:	Open ground, clearings, burns, roadsides and waste places[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Biennial Wormwood [B,L,P], Lesser Mugwort [L], Rechte Alsem [D],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Biennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed[161, 177, 257]. No further details are given, but the seed is very small and fiddly to utilize[K].

Medicinal Uses

Disclaimer

Parasiticide; Poultice; Skin.

The plant as been used in the treatment of stomach cramps, colic and painful menstruation[257]. Externally, it has been used for treating sores and wounds[257]. The report does not specify which part of the plant is used.

The seeds, mixed with molasses, have been used as a parasiticide in getting rid of worms[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position. Established plants are drought tolerant. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

The seed can also be sown in situ during late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8

A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia biennis

Common name:	Biennial wormwood	Family:	Compositae
Author:	Willd.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America - Quebec to British Columbia and south to New England, Indiana etc.		
Habitat:	Open ground, clearings, burns, roadsides and waste places[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Biennial Wormwood [B,L,P], Lesser Mugwort [L], Rechte Alsem [D],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Biennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed[161, 177, 257]. No further details are given, but the seed is very small and fiddly to utilize[K].

Medicinal Uses

Disclaimer

Parasiticide; Poultice; Skin.

The plant as been used in the treatment of stomach cramps, colic and painful menstruation[257]. Externally, it has been used for treating sores and wounds[257]. The report does not specify which part of the plant is used.

The seeds, mixed with molasses, have been used as a parasiticide in getting rid of worms[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position. Established plants are drought tolerant. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

The seed can also be sown in situ during late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+biennis`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia biennis*

Subject:

Artemisia biennis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia biennis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:21:06 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia campestris

Common name:	Field southernwood	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Britain.		
Habitat:	A very local plant in Britain, confined to the breckland heaths of eastern Britain[17].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Abrotano Femmina [E], Armoise Champetre [E], Beifuss [E], Boja [E], Common Sagewort [L], Escobilla Parda [E], Feld Beifuss [E], Field Mugwort [L], Field Sagewort [P], Field Southernwood [H,E], Mugwort [E], Pacific Wormwood [B], Rode Bijvoet [E], Roter Beifuss [E], Sagewort Wormwood [FEIS], Sheeh [E], Wilde Averuit [E,D],
Epithets:	From a Dictionary of Botanical Epithets
	campestris = of fields;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Iraq; Italy; Netherlands; Spain; Us

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 5. It is in flower from August to September, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Abortifacient; Anthelmintic; Antiseptic; Cholagogue; Deobstruent; Emmenagogue; Ophthalmic; Poultice; Stomachic; Tonic.

Related to the southernwood, A. abrotanum, this species has similar though milder medicinal properties[4]. The herb is anthelmintic, antiseptic, cholagogue, deobstruent, emmenagogue, stomachic and tonic[4, 7, 165]. The main use of this herb is as an emmenagogue, it is also a good stimulant tonic and has some nervine principle[4]. The leaves have been chewed in order to treat stomach problems[257]. The plant was used by some native North American Indian tribes as an abortifacient to terminate difficult pregnancies[257]. Externally, the plant has been crushed and applied to rheumatic joints, eczema, bruises and sores[257]. A poultice of the crushed leaves has been applied to sore eyes[257].

An infusion of the roots has been used, especially on children, as a hair tonic and to treat scalp infections[257]. It has been taken internally to promote urination and bowel movements[257].

Other Uses

Essential.

The pulverized roots are aromatic and have been used as a perfume[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *artemisia campestris* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
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[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia campestris

Common name:	Field southernwood	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Britain.		
Habitat:	A very local plant in Britain, confined to the breckland heaths of eastern Britain[17].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Abrotano Femmina [E], Armoise Champetre [E], Beifuss [E], Boja [E], Common Sagewort [L], Escobilla Parda [E], Feld Beifuss [E], Field Mugwort [L], Field Sagewort [P], Field Southernwood [H,E], Mugwort [E], Pacific Wormwood [B], Rode Bijvoet [E], Roter Beifuss [E], Sagewort Wormwood [FEIS], Sheeh [E], Wilde Averuit [E,D],
Epithets:	From a Dictionary of Botanical Epithets
	campestris = of fields;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Iraq; Italy; Netherlands; Spain; Us

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 5. It is in flower from August to September, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We

rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Abortifacient; Anthelmintic; Antiseptic; Cholagogue; Deobstruent; Emmenagogue; Ophthalmic; Poultice; Stomachic; Tonic.

Related to the southernwood, A. abrotanum, this species has similar though milder medicinal properties[4]. The herb is anthelmintic, antiseptic, cholagogue, deobstruent, emmenagogue, stomachic and tonic[4, 7, 165]. The main use of this herb is as an emmenagogue, it is also a good stimulant tonic and has some nervine principle[4]. The leaves have been chewed in order to treat stomach problems[257]. The plant was used by some native North American Indian tribes as an abortifacient to terminate difficult pregnancies[257]. Externally, the plant has been crushed and applied to rheumatic joints, eczema, bruises and sores[257]. A poultice of the crushed leaves has been applied to sore eyes[257].

An infusion of the roots has been used, especially on children, as a hair tonic and to treat scalp infections[257]. It has been taken internally to promote urination and bowel movements[257].

Other Uses

Essential.

The pulverized roots are aromatic and have been used as a perfume[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *artemisia campestris* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

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References

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Artemisia campestris

Common name:	Field southernwood	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Britain.		
Habitat:	A very local plant in Britain, confined to the breckland heaths of eastern Britain[17].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Abrotano Femmina [E], Armoise Champetre [E], Beifuss [E], Boja [E], Common Sagewort [L], Escobilla Parda [E], Feld Beifuss [E], Field Mugwort [L], Field Sagewort [P], Field Southernwood [H,E], Mugwort [E], Pacific Wormwood [B], Rode Bijvoet [E], Roter Beifuss [E], Sagewort Wormwood [FEIS], Sheeh [E], Wilde Averuit [E,D],
Epithets:	From a Dictionary of Botanical Epithets
	campestris = of fields;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Iraq; Italy; Netherlands; Spain; Us

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 5. It is in flower from August to September, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We

rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Abortifacient; Anthelmintic; Antiseptic; Cholagogue; Deobstruent; Emmenagogue; Ophthalmic; Poultice; Stomachic; Tonic.

Related to the southernwood, A. abrotanum, this species has similar though milder medicinal properties[4]. The herb is anthelmintic, antiseptic, cholagogue, deobstruent, emmenagogue, stomachic and tonic[4, 7, 165]. The main use of this herb is as an emmenagogue, it is also a good stimulant tonic and has some nervine principle[4]. The leaves have been chewed in order to treat stomach problems[257]. The plant was used by some native North American Indian tribes as an abortifacient to terminate difficult pregnancies[257]. Externally, the plant has been crushed and applied to rheumatic joints, eczema, bruises and sores[257]. A poultice of the crushed leaves has been applied to sore eyes[257].

An infusion of the roots has been used, especially on children, as a hair tonic and to treat scalp infections[257]. It has been taken internally to promote urination and bowel movements[257].

Other Uses

Essential.

The pulverized roots are aromatic and have been used as a perfume[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

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Add a comment on: *Artemisia campestris*

Subject:

Artemisia campestris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia campestris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia campestris glutinosa

Common name:		Family:	Compositae
Author:	(J. Gay.) Batt.	Botanical references:	50
Synonyms:	Artemisia glutinosa (J.Gay.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	S. Europe - Portugal to Italy and Sicily.		
Habitat:	Dry places[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. campestris subsp. glutinosa[G]
Epithets:	From a Dictionary of Botanical Epithets
	campestris = of fields; glutinosa = very sticky;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.5m. . The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

The plant yields an essential oil that is used in perfumery[61].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn.

Scent

Leaves: Crushed

The plant is aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia campestris subsp. glutinosa* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* Artemisia absinthum, Artemisia absinthium, Artemisia. *Genera:* Artemisia.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia campestris glutinosa

Common name:		Family:	Compositae
Author:	(J. Gay.) Batt.	Botanical references:	50
Synonyms:	Artemisia glutinosa (J.Gay.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	S. Europe - Portugal to Italy and Sicily.		
Habitat:	Dry places[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. campestris subsp. glutinosa[G]
Epithets:	From a Dictionary of Botanical Epithets
	campestris = of fields; glutinosa = very sticky;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.5m. . The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

The plant yields an essential oil that is used in perfumery[61].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn.

Scent

Leaves: Crushed

> The plant is aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Artemisia absinthum

() Thu Oct 16 03:57:35 2003

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Range:	S. Europe - Portugal to Italy and Sicily.		
Habitat:	Dry places[50].		
Plants For A Future Rating (1-5):	1		

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Cultivated Beds.

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Division in spring or autumn.

Scent

Leaves: Crushed

> The plant is aromatic.

Suppliers

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Add a comment on: *Artemisia campestris glutinosa*

Subject:

Artemisia campestris glutinosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia campestris glutinosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Artemisia capillaris

Common name:	Yin Chen Hao	Family:	Compositae
Author:	Thunb.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Grassy thickets[147, and along rivers and seashores, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	In Chen [E], Kawara-Yomogi [E], Shih Yin Ch'En [E], Yin Ch'En [E], Yin Ch'En Chiu [E], Yin Ch'En Hao [E],
Epithets:	From a Dictionary of Botanical Epithets
	capillaris = hair like;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

A decidious shrub growing to 0.5m by 0.5m . It is hardy to zone 7. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Leaves and stems - soaked and boiled[177].

Medicinal Uses

Disclaimer

Antibacterial; Anticholesterolemic; Antiviral; Cholagogue; Diuretic; Febrifuge; Hepatic; Vasodilator.

Yin Chen Hao has been used in Chinese herbal medicine for over 2,000 years. It is considered to be a bitter and cooling herb, clearing "damp heat" from the liver and gall ducts and relieving fevers[254]. It is an effective remedy for liver problems, being specifically helpful in treating hepatitis with jaundice[254]. Modern research has confirmed that the plant has a tonic and strengthening effect upon the liver, gallbladder and digestive system[254].

The leaves and young shoots are antibacterial, anticholesterolemic, antiviral, cholagogue, diuretic, febrifuge and vasodilator[147, 176, 178, 218]. An infusion is used internally in the treatment of jaundice, hepatitis, gall bladder complaints and feverish illnesses[238]. Externally it has been applied in the form of a plaster for treating headaches[254]. The plant is harvested in late spring and can be dried for later use[238]. Yin Chen Hao is contraindicated for pregnant women[254].

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

This species is probably not hardy in all parts of Britain, it tolerates temperatures down to at least -5°c[238].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around

it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Artemisia capillaris

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Author:	Thunb.	Botanical references:	58
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Habitat:	Grassy thickets[147, and along rivers and seashores, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

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Physical Characteristics

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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not

maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Leaves and stems - soaked and boiled[177].

Medicinal Uses

Disclaimer

Antibacterial; Anticholesterolemic; Antiviral; Cholagogue; Diuretic; Febrifuge; Hepatic; Vasodilator.

Yin Chen Hao has been used in Chinese herbal medicine for over 2,000 years. It is considered to be a bitter and cooling herb, clearing "damp heat" from the liver and gall ducts and relieving fevers[254]. It is an effective remedy for liver problems, being specifically helpful in treating hepatitis with jaundice[254]. Modern research has confirmed that the plant has a tonic and strengthening effect upon the liver, gallbladder and digestive system[254].

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Other Uses

None known

Cultivation details

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Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

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Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

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Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Artemisia capillaris

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Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Grassy thickets[147, and along rivers and seashores, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
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	capillaris = hair like;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

A decidious shrub growing to 0.5m by 0.5m . It is hardy to zone 7. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not

maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Leaves and stems - soaked and boiled[177].

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Disclaimer

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Other Uses

None known

Cultivation details

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Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia capillaris*

Subject:

Artemisia capillaris

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia capillaris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:21:52 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia carvifolia

Common name:		Family:	Compositae
Author:	Roxb.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Vietnam

Physical Characteristics

Annual growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Tea.

Young plants - cooked[177]. They are also used as a flavouring for tea[177].

Medicinal Uses

Disclaimer

Febrifuge; Skin; Stomachic.

The plant is used in the treatment of fevers, chronic diarrhoea, phthisis, purulent scabies and intestinal troubles[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants For A Future: Database Search Results

Artemisia carvifolia

Common name:		Family:	Compositae
Author:	Roxb.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Vietnam

Physical Characteristics

Annual growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Tea.

Young plants - cooked[177]. They are also used as a flavouring for tea[177].

Medicinal Uses

Disclaimer

Febrifuge; Skin; Stomachic.

The plant is used in the treatment of fevers, chronic diarrhoea, phthisis, purulent scabies and intestinal troubles[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+carvifolia`

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Plants For A Future: Database Search Results

Artemisia carvifolia

Common name:		Family:	Compositae
Author:	Roxb.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Vietnam

Physical Characteristics

Annual growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Tea.

Young plants - cooked[177]. They are also used as a flavouring for tea[177].

Medicinal Uses

Disclaimer

Febrifuge; Skin; Stomachic.

The plant is used in the treatment of fevers, chronic diarrhoea, phthisis, purulent scabies and intestinal troubles[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia carvifolia*

Subject:

Artemisia carvifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia carvifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:22:08 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia cina

Common name:	Cina	Family:	Compositae
Author:	Berg.	Botanical references:	
Synonyms:	Seriphidium cinum ((O.Berg.)Poljakov.)		
Known Hazards:	Poisonous[4]. Skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Russia, Turkestan		
Habitat:	Deserts[4].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. chamaemelifolia[H] A. lercheana[H] A. maritima[H] A. maritima pauciflora[H] A. maritima stechmann.[H] A. maritima var. pauciflora[H] A. maritima var. stechmann.[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Centonique [E], Chamomile-leaved Artemisi [H], Horasani [E], Levant Wormseed [H], Santonica [P,H], Sea Wormwood [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

A decidious shrub growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Digestive; Febrifuge; Homeopathy; Vermifuge.

Cina is one of the safest and most reliable vermifuges, used especially on children[4]. Because of its bitter flavour, it is usually mixed with liquorice or some other pleasantly flavoured herb. The unexpanded floral heads and the seed contain the vermicide 'santonin'[4, 61, 171, 218]. This is an effective and rapid treatment for round worms, it is also effective for thread worms, though it does not affect tapeworms[4]. The plant is also used as a febrifuge and as an aid to the digestion[232]. Caution is advised in the use of this plant since it is poisonous in large doses[4]. This plant should not be used by pregnant women[254].

The dried flowers are used to make a homeopathic remedy[232]. This is particularly useful for complaints of the nervous system and the digestive tract[232].

A homeopathic remedy made from the plant is used to rid children of worms[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. Although this plant has woody stems, these tend to die back each winter giving the plant a herbaceous habit. It is cultivated as a medicinal plant in Russia and N. America[61, 171]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia cina

Common name:	Cina	Family:	Compositae
Author:	Berg.	Botanical references:	
Synonyms:	Seriphidium cinum ((O.Berg.)Poljakov.)		
Known Hazards:	Poisonous[4]. Skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Russia, Turkestan		
Habitat:	Deserts[4].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. chamaemelifolia[H] A. lercheana[H] A. maritima[H] A. maritima pauciflora[H] A. maritima stechmann.[H] A. maritima var. pauciflora[H] A. maritima var. stechmann.[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Centonique [E], Chamomile-leaved Artemisi [H], Horasani [E], Levant Wormseed [H], Santonica [P,H], Sea Wormwood [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

A decidious shrub growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Digestive; Febrifuge; Homeopathy; Vermifuge.

Cina is one of the safest and most reliable vermifuges, used especially on children[4]. Because of its bitter flavour, it is usually mixed with liquorice or some other pleasantly flavoured herb. The unexpanded floral heads and the seed contain the vermicide 'santonin'[4, 61, 171, 218]. This is an effective and rapid treatment for round worms, it is also effective for thread worms, though it does not affect tapeworms[4]. The plant is also used as a febrifuge and as an aid to the digestion[232]. Caution is advised in the use of this plant since it is poisonous in large doses[4]. This plant should not be used by pregnant women[254].

The dried flowers are used to make a homeopathic remedy[232]. This is particularly useful for complaints of the nervous system and the digestive tract[232].

A homeopathic remedy made from the plant is used to rid children of worms[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. Although this plant has woody stems, these tend to die back each winter giving the plant a herbaceous habit. It is cultivated as a medicinal plant in Russia and N. America[61, 171]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief

cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+cina`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia cina

Common name:	Cina	Family:	Compositae
Author:	Berg.	Botanical references:	
Synonyms:	Seriphidium cinum ((O.Berg.)Poljakov.)		
Known Hazards:	Poisonous[4]. Skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Russia, Turkestan		
Habitat:	Deserts[4].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. chamaemelifolia[H] A. lercheana[H] A. maritima[H] A. maritima pauciflora[H] A. maritima stechmann.[H] A. maritima var. pauciflora[H] A. maritima var. stechmann.[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Centonique [E], Chamomile-leaved Artemisi [H], Horasani [E], Levant Wormseed [H], Santonica [P,H], Sea Wormwood [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

A decidious shrub growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Digestive; Febrifuge; Homeopathy; Vermifuge.

Cina is one of the safest and most reliable vermifuges, used especially on children[4]. Because of its bitter flavour, it is usually mixed with liquorice or some other pleasantly flavoured herb. The unexpanded floral heads and the seed contain the vermicide 'santonin'[4, 61, 171, 218]. This is an effective and rapid treatment for round worms, it is also effective for thread worms, though it does not affect tapeworms[4]. The plant is also used as a febrifuge and as an aid to the digestion[232]. Caution is advised in the use of this plant since it is poisonous in large doses[4]. This plant should not be used by pregnant women[254].

The dried flowers are used to make a homeopathic remedy[232]. This is particularly useful for complaints of the nervous system and the digestive tract[232].

A homeopathic remedy made from the plant is used to rid children of worms[238].

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Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain. Although this plant has woody stems, these tend to die back each winter giving the plant a herbaceous habit. It is cultivated as a medicinal plant in Russia and N. America[61, 171]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+cina`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+cina`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia cina*

Subject:

Artemisia cina

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia cina

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:22:25 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia dracunculoides

Common name:	Russian tarragon	Family:	Compositae
Author:	Pursh.	Botanical references:	43, 235
Synonyms:	Artemisia dracunculus dracunculoides		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America. N. Europe. N. Asia - Siberia.		
Habitat:	Prairies, plains and dry slopes[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. dracunculoides var. dracunculina[B,P] A. dracunculus[B,CPHOTO,CAL,CAL,,DUTCH,E,G,H,HPIC,HORTIPLEX,L,P] A. dracunculus sativa[H] A. dracunculus ssp. dracunculus[P] A. dracunculus ssp. glauca[B] A. dracunculus var. glauca[B] A. dracunculus var. sativa[H] A. glauca[B,G] A. glauca var. dracunculina[B,P] A. redowski[H] Oligosporus dracunculus[B,P] Oligosporus dracunculus ssp. dracunculinus[B,P] Oligosporus dracunculus ssp. glaucus[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dragon [D], Dragon Wormwood [B], French Tarragon [H], Little Dragon [H], Mugwort [H], Russian Tarragon [H], Tagantes [E], Tarhun [E], Tarragon [H,L,FEIS], True Tarragon [H], Wormwood [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Other Range Info:	From the Ethnobotany Database
	Turkey; Us(Flathead)

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 3. It is in flower in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves - raw or cooked[46, 61, 105, 161]. The N. American Indians would bake the leaves between hot stones and then eat them with salt water[183, 216]. The leaves can also be eaten raw in salads but are inferior to A. dracunculus (Tarragon)[183]. The flavour is said to improve as the plant matures[200, 268].

Seed - raw or cooked. An oily texture[46, 61, 161, 183]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Emmenagogue; Hypnotic; Stomachic.

The herb is antiscorbutic, diuretic, emmenagogue, hypnotic and stomachic[21, 46, 179]. The fresh herb is eaten to promote the appetite[268].

Other Uses

Repellent.

Both the growing and the dried plant repels insects[99].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Nomenclature is somewhat confused for this species. It is considered by some botanists to be a hardier form of A. dracunculus but with an inferior flavour[4, 200], whilst some consider it to be part of A. glauca[43]. It is very similar to A. dracunculus, but is more vigorous and hardier, Its leaves have a pungent and less pleasant flavour than that species[238].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn. Very easy, the divisions can be planted out direct into their permanent positions f required.

Basal cuttings in late spring. Harvest the shoots when 10 - 15cm long, pot them up in a greenhouse and plant out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia dracunculus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia dracunculus ssp. dracunculus* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Artemisia dracunculus var. sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *artemisia dracunculus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia dracunculoides

Common name:	Russian tarragon	Family:	Compositae
Author:	Pursh.	Botanical references:	43, 235
Synonyms:	Artemisia dracunculus dracunculoides		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America. N. Europe. N. Asia - Siberia.		
Habitat:	Prairies, plains and dry slopes[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. dracunculoides var. dracunculina[B,P] A. dracunculus[B,CPHOTO,CAL,CAL,,DUTCH,E,G,H,HPIC,HORTIPLEX,L,P] A. dracunculus sativa[H] A. dracunculus ssp. dracunculus[P] A. dracunculus ssp. glauca[B] A. dracunculus var. glauca[B] A. dracunculus var. sativa[H] A. glauca[B,G] A. glauca var. dracunculina[B,P] A. redowski[H] Oligosporus dracunculus[B,P] Oligosporus dracunculus ssp. dracunculinus[B,P] Oligosporus dracunculus ssp. glaucus[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dragon [D], Dragon Wormwood [B], French Tarragon [H], Little Dragon [H], Mugwort [H], Russian Tarragon [H], Tagantes [E], Tarhun [E], Tarragon [H,L,FEIS], True Tarragon [H], Wormwood [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us(Flathead)

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 3. It is in flower in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves - raw or cooked[46, 61, 105, 161]. The N. American Indians would bake the leaves between hot stones and then eat them with salt water[183, 216]. The leaves can also be eaten raw in salads but are inferior to A. dracunculus (Tarragon)[183]. The flavour is said to improve as the plant matures[200, 268].

Seed - raw or cooked. An oily texture[46, 61, 161, 183]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Emmenagogue; Hypnotic; Stomachic.

The herb is antiscorbutic, diuretic, emmenagogue, hypnotic and stomachic[21, 46, 179]. The fresh herb is eaten to promote the appetite[268].

Other Uses

Repellent.

Both the growing and the dried plant repels insects[99].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Nomenclature is somewhat confused for this species. It is considered by some botanists to be a hardier form of A. dracunculus but with an inferior flavour[4, 200], whilst some consider it to be part of A. glauca[43]. It is very similar to A. dracunculus, but is more vigorous and hardier, Its leaves have a pungent and less pleasant flavour than that species[238].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn. Very easy, the divisions can be planted out direct into their permanent positions f required.

Basal cuttings in late spring. Harvest the shoots when 10 - 15cm long, pot them up in a greenhouse and plant out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia dracunculus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia dracunculus ssp. dracunculus* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Artemisia dracunculus var. sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *artemisia dracunculus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia dracunculoides

Common name:	Russian tarragon	Family:	Compositae
Author:	Pursh.	Botanical references:	43, 235
Synonyms:	Artemisia dracunculus dracunculoides		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America. N. Europe. N. Asia - Siberia.		
Habitat:	Prairies, plains and dry slopes[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. dracunculoides var. dracunculina[B,P] A. dracunculus[B,CPHOTO,CAL,CAL,,DUTCH,E,G,H,HPIC,HORTIPLEX,L,P] A. dracunculus sativa[H] A. dracunculus ssp. dracunculus[P] A. dracunculus ssp. glauca[B] A. dracunculus var. glauca[B] A. dracunculus var. sativa[H] A. glauca[B,G] A. glauca var. dracunculina[B,P] A. redowski[H] Oligosporus dracunculus[B,P] Oligosporus dracunculus ssp. dracunculinus[B,P] Oligosporus dracunculus ssp. glaucus[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dragon [D], Dragon Wormwood [B], French Tarragon [H], Little Dragon [H], Mugwort [H], Russian Tarragon [H], Tagantes [E], Tarhun [E], Tarragon [H,L,FEIS], True Tarragon [H], Wormwood [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us(Flathead)

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 3. It is in flower in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves - raw or cooked[46, 61, 105, 161]. The N. American Indians would bake the leaves between hot stones and then eat them with salt water[183, 216]. The leaves can also be eaten raw in salads but are inferior to A. dracunculus (Tarragon)[183]. The flavour is said to improve as the plant matures[200, 268].

Seed - raw or cooked. An oily texture[46, 61, 161, 183]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Emmenagogue; Hypnotic; Stomachic.

The herb is antiscorbutic, diuretic, emmenagogue, hypnotic and stomachic[21, 46, 179]. The fresh herb is eaten to promote the appetite[268].

Other Uses

Repellent.

Both the growing and the dried plant repels insects[99].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Nomenclature is somewhat confused for this species. It is considered by some botanists to be a hardier form of A. dracunculus but with an inferior flavour[4, 200], whilst some consider it to be part of A. glauca[43]. It is very similar to A. dracunculus, but is more vigorous and hardier, Its leaves have a pungent and less pleasant flavour than that species[238].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn. Very easy, the divisions can be planted out direct into their permanent positions f required.

Basal cuttings in late spring. Harvest the shoots when 10 - 15cm long, pot them up in a greenhouse and plant out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia dracunculoides*

Subject:

Artemisia dracunculoides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia dracunculoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:22:42 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

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Artemisia dracunculus

Common name:	Tarragon	Family:	Compositae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	S. Europe to W. Asia.		
Habitat:	By rivers and streams[244]. Grassland and arid steppe.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. dracunculoides[B] A. dracunculoides var. dracunculina[B] A. dracunculus ssp. glauca[B] A. dracunculus var. glauca[B] A. glauca[B,G] A. glauca var. dracunculina[B] Oligosporus dracunculus[B] Oligosporus dracunculus ssp. dracunculinus[B] Oligosporus dracunculus ssp. glaucus[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dragon [D], Dragon Wormwood [B], French Tarragon [H], Little Dragon [H], Mugwort [H], Tagantes [E], Tarhun [E], Tarragon [H,FEIS,L], True Tarragon [H], Wormwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	dracunculus = small dragon;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Other Range Info:	From the Ethnobotany Database
	Turkey; Us(Flathead)

Physical Characteristics

Perennial growing to 0.6m by 0.3m . It is hardy to zone 6. It is in flower from June to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - raw or used as a flavouring in soups etc[2, 4, 14, 21, 37]. Tarragon is a commonly used herbal flavouring that is used in many traditional recipes[244]. It is particularly of value because of its beneficial effect upon the digestion and so is often used with oily foods[244]. The leaves can also be harvested in late summer and dried for later use[4]. The aromatic leaves have a very nice flavour that is somewhat liquorice-like[183, K]. They make an excellent flavouring in salads[K]. The young shoots can also be cooked and used as a potherb[183]. The leaves are used as a flavouring in vinegar[4].

An essential oil from the leaves is used as a flavouring[61].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Emmenagogue; Febrifuge; Hypnotic; Odontalgic; Stomachic; Vermifuge.

Tarragon is a bitter warming aromatic herb that stimulates the digestive system and uterus, lowers fevers and destroys intestinal worms[238]. It is little used in modern herbalism, though it is sometimes employed as an appetizer[268].

The leaves (and an essential oil obtained from them) are antiscorbutic, diuretic, emmenagogue, hypnotic and stomachic[21, 146, 179, 238]. An infusion is used in the treatment of indigestion, flatulence, nausea, hiccups etc[244]. The plant is mildly sedative and has been taken to aid sleep[254]. It also has mild emmenagogue properties and can be used to induce a delayed period[254]. A poultice can be used to relieve rheumatism, gout, arthritis and toothache[244]. The plant is harvested in the summer and can be dried for later use[238]. This herb should not be prescribed for pregnant women[238].

The root has been used to cure toothache[4].

The essential oil is used in aromatherapy to treat digestive and menstrual problems[238].

Other Uses

Essential; Repellent.

The leaves contain about 0.3% essential oil, about 70% of which is methyl chivacol[240]. This is used as a food flavouring, in detergents and also medicinally[61, 238].

Both the growing and the dried plant repels insects[99].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 37, 52, , 200]. Plants are not very long-lived when grown in clay soils[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are drought tolerant[190, 200]. Tolerates a pH in the range 6.5 to 7.8.

Plants are relatively hardy in Britain, but can be killed in wet winters. It is best to grow tarragon in a dry, rather poor soil since this will produce hardier plants[4]. The dry soil will also help to reduce predation by slugs, these creatures are very fond of the young growth and have been known to completely destroy even well-established plants[K]. When well suited, the plants can spread freely at the roots[K].

The flowers do not open in cool summers and viable seed is seldom produced[238].

Often grown in the herb garden, tarragon is also sometimes grown commercially for its edible leaves which are used mainly as a flavouring[46]. There is at least one named variety, 'Epicure' is a new fragrant cultivar[183].

There is a closely related species, A. dracunculoides or Russian tarragon, which is quite inferior in flavour, though sometimes supplied under this name.

A good companion for most plants, especially aubergines and sweet peppers[201].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. Fertile seed is rarely produced from this plant - most if not all seed supplied under this name is of the inferior form, Russian tarragon (A. dracunculoides). Therefore, it is best to only propagate by division.

Division is very easy in spring or autumn[K]. The divisions can be planted out direct into their permanent positions, though we prefer to pot them up first and grow them on in a cold frame until they have rooted well.

Basal cuttings in late spring. Harvest young shoots about 10 - 15c long and pot them up in a lightly shaded place in a greenhouse or cold frame. Plant them out into their permanent positions when well rooted. A very quick and easy method of propagation[K].

Scent

Leaves: Crushed

The leaves are aromatic.

Cultivars

'Epicure'

A very fragrant cultivar[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *artemisia dracunculus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+dracunculus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+dracunculus`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia dracunculus

Common name:	Tarragon	Family:	Compositae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	S. Europe to W. Asia.		
Habitat:	By rivers and streams[244]. Grassland and arid steppe.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. dracunculoides[B] A. dracunculoides var. dracunculina[B] A. dracunculus ssp. glauca[B] A. dracunculus var. glauca[B] A. glauca[B,G] A. glauca var. dracunculina[B] Oligosporus dracunculus[B] Oligosporus dracunculus ssp. dracunculinus[B] Oligosporus dracunculus ssp. glaucus[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dragon [D], Dragon Wormwood [B], French Tarragon [H], Little Dragon [H], Mugwort [H], Tagantes [E], Tarhun [E], Tarragon [H,FEIS,L], True Tarragon [H], Wormwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	dracunculus = small dragon;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us(Flathead)

Physical Characteristics

Perennial growing to 0.6m by 0.3m . It is hardy to zone 6. It is in flower from June to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - raw or used as a flavouring in soups etc[2, 4, 14, 21, 37]. Tarragon is a commonly used herbal flavouring that is used in many traditional recipes[244]. It is particularly of value because of its beneficial effect upon the digestion and so is often used with oily foods[244]. The leaves can also be harvested in late summer and dried for later use[4]. The aromatic leaves have a very nice flavour that is somewhat liquorice-like[183, K]. They make an excellent flavouring in salads[K]. The young shoots can also be cooked and used as a potherb[183]. The leaves are used as a flavouring in vinegar[4].

An essential oil from the leaves is used as a flavouring[61].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Emmenagogue; Febrifuge; Hypnotic; Odontalgic; Stomachic; Vermifuge.

Tarragon is a bitter warming aromatic herb that stimulates the digestive system and uterus, lowers fevers and destroys intestinal worms[238]. It is little used in modern herbalism, though it is sometimes employed as an appetizer[268].

The leaves (and an essential oil obtained from them) are antiscorbutic, diuretic, emmenagogue, hypnotic and stomachic[21, 146, 179, 238]. An infusion is used in the treatment of indigestion, flatulence, nausea, hiccups etc[244]. The plant is mildly sedative and has been taken to aid sleep[254]. It also has mild emmenagogue properties and can be used to induce a delayed period[254]. A poultice can be used to relieve rheumatism, gout, arthritis and toothache[244]. The plant is harvested in the summer and can be dried for later use[238]. This herb should not be prescribed for pregnant women[238].

The root has been used to cure toothache[4].

The essential oil is used in aromatherapy to treat digestive and menstrual problems[238].

Other Uses

Essential; Repellent.

The leaves contain about 0.3% essential oil, about 70% of which is methyl chivacol[240]. This is used as a food flavouring, in detergents and also medicinally[61, 238].

Both the growing and the dried plant repels insects[99].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 37, 52, , 200]. Plants are not very long-lived when grown in clay soils[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are drought tolerant[190, 200]. Tolerates a pH in the range 6.5 to 7.8.

Plants are relatively hardy in Britain, but can be killed in wet winters. It is best to grow tarragon in a dry, rather poor soil since this will produce hardier plants[4]. The dry soil will also help to reduce predation by slugs, these creatures are very fond of the young growth and have been known to completely destroy even well-established plants[K]. When well suited, the plants can spread freely at the roots[K].

The flowers do not open in cool summers and viable seed is seldom produced[238].

Often grown in the herb garden, tarragon is also sometimes grown commercially for its edible leaves which are used mainly as a flavouring[46]. There is at least one named variety, 'Epicure' is a new fragrant cultivar[183].

There is a closely related species, A. dracunculoides or Russian tarragon, which is quite inferior in flavour, though sometimes supplied under this name.

A good companion for most plants, especially aubergines and sweet peppers[201].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. Fertile seed is rarely produced from this plant - most if not all seed supplied under this name is of the inferior form, Russian tarragon (A. dracunculoides). Therefore, it is best to only propagate by division.

Division is very easy in spring or autumn[K]. The divisions can be planted out direct into their permanent positions, though we prefer to pot them up first and grow them on in a cold frame until they have rooted well.

Basal cuttings in late spring. Harvest young shoots about 10 - 15c long and pot them up in a lightly shaded place in a greenhouse or cold frame. Plant them out into their permanent positions when well rooted. A very quick and easy method of propagation[K].

Scent

Leaves: Crushed

> The leaves are aromatic.

Cultivars

'Epicure'

> A very fragrant cultivar[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *artemisia dracunculus* (a possible synonym).

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+dracunculus`
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Plants For A Future: Database Search Results

Artemisia dracunculus

Common name:	Tarragon	Family:	Compositae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	S. Europe to W. Asia.		
Habitat:	By rivers and streams[244]. Grassland and arid steppe.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	dracunculus = small dragon;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us(Flathead)

Physical Characteristics

Perennial growing to 0.6m by 0.3m . It is hardy to zone 6. It is in flower from June to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - raw or used as a flavouring in soups etc[2, 4, 14, 21, 37]. Tarragon is a commonly used herbal flavouring that is used in many traditional recipes[244]. It is particularly of value because of its beneficial effect upon the digestion and so is often used with oily foods[244]. The leaves can also be harvested in late summer and dried for later use[4]. The aromatic leaves have a very nice flavour that is somewhat liquorice-like[183, K]. They make an excellent flavouring in salads[K]. The young shoots can also be cooked and used as a potherb[183]. The leaves are used as a flavouring in vinegar[4].

An essential oil from the leaves is used as a flavouring[61].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Emmenagogue; Febrifuge; Hypnotic; Odontalgic; Stomachic; Vermifuge.

Tarragon is a bitter warming aromatic herb that stimulates the digestive system and uterus, lowers fevers and destroys intestinal worms[238]. It is little used in modern herbalism, though it is sometimes employed as an appetizer[268].

The leaves (and an essential oil obtained from them) are antiscorbutic, diuretic, emmenagogue, hypnotic and stomachic[21, 146, 179, 238]. An infusion is used in the treatment of indigestion, flatulence, nausea, hiccups etc[244]. The plant is mildly sedative and has been taken to aid sleep[254]. It also has mild emmenagogue properties and can be used to induce a delayed period[254]. A poultice can be used to relieve rheumatism, gout, arthritis and toothache[244]. The plant is harvested in the summer and can be dried for later use[238]. This herb should not be prescribed for pregnant women[238].

The root has been used to cure toothache[4].

The essential oil is used in aromatherapy to treat digestive and menstrual problems[238].

Other Uses

Essential; Repellent.

The leaves contain about 0.3% essential oil, about 70% of which is methyl chivacol[240]. This is used as a food flavouring, in detergents and also medicinally[61, 238].

Both the growing and the dried plant repels insects[99].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 37, 52, , 200]. Plants are not very long-lived when grown in clay soils[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are drought tolerant[190, 200]. Tolerates a pH in the range 6.5 to 7.8.

Plants are relatively hardy in Britain, but can be killed in wet winters. It is best to grow tarragon in a dry, rather poor soil since this will produce hardier plants[4]. The dry soil will also help to reduce predation by slugs, these creatures are very fond of the young growth and have been known to completely destroy even well-established plants[K]. When well suited, the plants can spread freely at the roots[K].

The flowers do not open in cool summers and viable seed is seldom produced[238].

Often grown in the herb garden, tarragon is also sometimes grown commercially for its edible leaves which are used mainly as a flavouring[46]. There is at least one named variety, 'Epicure' is a new fragrant cultivar[183].

There is a closely related species, A. dracunculoides or Russian tarragon, which is quite inferior in flavour, though sometimes supplied under this name.

A good companion for most plants, especially aubergines and sweet peppers[201].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse. Fertile seed is rarely produced from this plant - most if not all seed supplied under this name is of the inferior form, Russian tarragon (A. dracunculoides). Therefore, it is best to only propagate by division.

Division is very easy in spring or autumn[K]. The divisions can be planted out direct into their permanent positions, though we prefer to pot them up first and grow them on in a cold frame until they have rooted well.

Basal cuttings in late spring. Harvest young shoots about 10 - 15c long and pot them up in a lightly shaded place in a greenhouse or cold frame. Plant them out into their permanent positions when well rooted. A very quick and easy method of propagation[K].

Scent

Leaves: Crushed

The leaves are aromatic.

Cultivars

'Epicure'

A very fragrant cultivar[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+dracunculus`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia dracunculus*

Subject:

Artemisia dracunculus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia dracunculus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:23:01 2004

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Artemisia feddei

Common name:		Family:	Compositae
Author:	Lév. & Van.	Botanical references:	58
Synonyms:	Artemisia lavendulaefolia (DC.), Artemisia dubia (Wall.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Grassy places in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177, 179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia feddei

Common name:		Family:	Compositae
Author:	Lév. & Van.	Botanical references:	58
Synonyms:	Artemisia lavendulaefolia (DC.), Artemisia dubia (Wall.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Grassy places in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177, 179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Plants For A Future: Database Search Results

Artemisia feddei

Common name:		Family:	Compositae
Author:	Lév. & Van.	Botanical references:	58
Synonyms:	Artemisia lavendulaefolia (DC.), Artemisia dubia (Wall.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Grassy places in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	2		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177, 179].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse[200]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Add a comment on: *Artemisia feddei*

Subject:

Artemisia feddei

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia feddei

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Artemisia filifolia

Common name:	Sand sage	Family:	Compositae
Author:	Torr.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Central and Southern N. America - Nebraska to Utah, Wyoming, Texas and Mexico.		
Habitat:	Sandy soils[164] in deserts[216] and dry plains[235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Artemesia filifolia[Sa] Oligosporus filifolius[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Romerillo [S], Sagebrush, Sand [S], Sand Sage, Romerillo [S], Sand Sage, Sand Sagebrush [S], Sand Sagebrush [P,FEIS], Silver Sagebrush [B],
Epithets:	From a Dictionary of Botanical Epithets
	filifolia = thread like leaves;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Tewa)

Physical Characteristics

A deciduous shrub growing to 1.2m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Carminative; Stomachic.

The plant is carminative and stomachic[61, 257]. A tea is used in the treatment of indigestion[216]. An infusion of the plant and juniper branches is used in the treatment of indigestion[257]. A strong infusion of the plant is used as a lotion on snakebites[257]. The plant is also used to treat boils[257].

Other Uses

Miscellany.

The leaves are very soft and have been used as a substitute for toilet paper[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but make sure that the compost does not dry out. The seed usually germinates within 1 - 2 weeks in a warm greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Artemesia filifolia* (a possible synonym).

- [S]

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+filifolia`

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Plants For A Future: Database Search Results

Artemisia filifolia

Common name:	Sand sage	Family:	Compositae
Author:	Torr.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Central and Southern N. America - Nebraska to Utah, Wyoming, Texas and Mexico.		
Habitat:	Sandy soils[164] in deserts[216] and dry plains[235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Artemesia filifolia[Sa] Oligosporus filifolius[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Romerillo [S], Sagebrush, Sand [S], Sand Sage, Romerillo [S], Sand Sage, Sand Sagebrush [S], Sand Sagebrush [P,FEIS], Silver Sagebrush [B],
Epithets:	From a Dictionary of Botanical Epithets
	filifolia = thread like leaves;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Tewa)

Physical Characteristics

A decidious shrub growing to 1.2m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Carminative; Stomachic.

The plant is carminative and stomachic[61, 257]. A tea is used in the treatment of indigestion[216]. An infusion of the plant and juniper branches is used in the treatment of indigestion[257]. A strong infusion of the plant is used as a lotion on snakebites[257]. The plant is also used to treat boils[257].

Other Uses

Miscellany.

The leaves are very soft and have been used as a substitute for toilet paper[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but make sure that the compost does not dry out. The seed usually germinates within 1 - 2 weeks in a warm greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Suppliers

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Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [S]
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References for *Artemesia filifolia* (a possible synonym).

- [S]

See the PFAF Links Pages for other sources

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References

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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useful plants from around the world with very brief details of the uses. Not for the casual reader.

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[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
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[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia filifolia

Common name:	Sand sage	Family:	Compositae
Author:	Torr.	Botanical references:	200, 235
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Central and Southern N. America - Nebraska to Utah, Wyoming, Texas and Mexico.		
Habitat:	Sandy soils[164] in deserts[216] and dry plains[235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Artemesia filifolia[Sa] Oligosporus filifolius[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Romerillo [S], Sagebrush, Sand [S], Sand Sage, Romerillo [S], Sand Sage, Sand Sagebrush [S], Sand Sagebrush [P,FEIS], Silver Sagebrush [B],
Epithets:	From a Dictionary of Botanical Epithets
	filifolia = thread like leaves;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Tewa)

Physical Characteristics

A decidious shrub growing to 1.2m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Carminative; Stomachic.

The plant is carminative and stomachic[61, 257]. A tea is used in the treatment of indigestion[216]. An infusion of the plant and juniper branches is used in the treatment of indigestion[257]. A strong infusion of the plant is used as a lotion on snakebites[257]. The plant is also used to treat boils[257].

Other Uses

Miscellany.

The leaves are very soft and have been used as a substitute for toilet paper[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but make sure that the compost does not dry out. The seed usually germinates within 1 - 2 weeks in a warm greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia filifolia*

Subject:

Artemisia filifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia filifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:23:32 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia frigida

Common name:	Fringed wormwood	Family:	Compositae
Author:	Willd.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America - Minnesota to Saskatchewan, Yukon, Texas and Arizona. N. Asia.		
Habitat:	Dry prairies, plains and rocks to 3300 metres in N. America[43, 164].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Berg Salbei [E], Fringed Sagebrush [FEIS], Fringed Sagewort [P], Fringed Wormwood [H], Mountain Sage [E], Mugwort [H], Prairie Sagebrush [B], Silver &quot;Sage&quot;, Fringed &quot;Sage&quot; [S], Silver Sage, Romerillo Del Llano [S],
Epithets:	From a Dictionary of Botanical Epithets
	frigida = cold; rigida = rigid;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Germany; Us; Us(Blackfoot)

Physical Characteristics

Perennial growing to 0.3m by 0.5m . It is hardy to zone 4. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used by the Hopi Indians as a flavouring for sweet corn[61, 172, 177, 183, 257].

Medicinal Uses

Disclaimer

Antispasmodic; Disinfectant; Poultice; Stimulant; Stomachic; Vermifuge; Women's complaints.

The leaves are stomachic, vermifuge and used in the treatment of women's complaints[172]. The plant contains camphor, which is stimulant and antispasmodic[213]. An infusion of the leaves is used in the treatment of biliousness, indigestion, coughs and colds whilst the leaves are chewed and the juice swallowed to treat heartburn[257]. A poultice of the chewed leaves is used as a poultice to reduce swellings and the leaves are also placed in the nose to stop nosebleeds[257]. A hot poultice of the leaves has been used to treat toothache[257].

The leaves can be used as a sanitary towel to help reduce skin irritation[257]. They are also drunk as a tea when the woman is menstruating or to treat irregular menstruation[257].

The dried leaves are burnt in a room as a disinfectant[257].

A decoction of the root is used as a stimulant and tonic[257].

Other Uses

Deodorant; Dye; Essential; Repellent.

Both the growing and the dried plant can be used as an insect repellent[172]. The leaves can be placed on a camp fire to repel mosquitoes[257].

The aromatic leaves have been used in pillows etc as a deodorant[257].

Bunches of the soft leaves have been used as towels, toilet paper etc[257].

A green dye is obtained from the leaves[257].

Cultivation details

Requires a sunny position and a well-drained soil that is not too rich[1, 200]. Requires a lime-free soil. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

A very ornamental plant[1].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but make sure that the compost does not dry out. The seed usually germinates within 1 - 2 weeks in a warm greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine

- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+frigida`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia frigida

Common name:	Fringed wormwood	Family:	Compositae
Author:	Willd.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America - Minnesota to Saskatchewan, Yukon, Texas and Arizona. N. Asia.		
Habitat:	Dry prairies, plains and rocks to 3300 metres in N. America[43, 164].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Berg Salbei [E], Fringed Sagebrush [FEIS], Fringed Sagewort [P], Fringed Wormwood [H], Mountain Sage [E], Mugwort [H], Prairie Sagebrush [B], Silver &quot;Sage&quot;, Fringed &quot;Sage&quot; [S], Silver Sage, Romerillo Del Llano [S],
Epithets:	From a Dictionary of Botanical Epithets
	frigida = cold; rigida = rigid;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Germany; Us; Us(Blackfoot)

Physical Characteristics

Perennial growing to 0.3m by 0.5m . It is hardy to zone 4. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow

in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used by the Hopi Indians as a flavouring for sweet corn[61, 172, 177, 183, 257].

Medicinal Uses

Disclaimer

Antispasmodic; Disinfectant; Poultice; Stimulant; Stomachic; Vermifuge; Women's complaints.

The leaves are stomachic, vermifuge and used in the treatment of women's complaints[172]. The plant contains camphor, which is stimulant and antispasmodic[213]. An infusion of the leaves is used in the treatment of biliousness, indigestion, coughs and colds whilst the leaves are chewed and the juice swallowed to treat heartburn[257]. A poultice of the chewed leaves is used as a poultice to reduce swellings and the leaves are also placed in the nose to stop nosebleeds[257]. A hot poultice of the leaves has been used to treat toothache[257].

The leaves can be used as a sanitary towel to help reduce skin irritation[257]. They are also drunk as a tea when the woman is menstruating or to treat irregular menstruation[257].

The dried leaves are burnt in a room as a disinfectant[257].

A decoction of the root is used as a stimulant and tonic[257].

Other Uses

Deodorant; Dye; Essential; Repellent.

Both the growing and the dried plant can be used as an insect repellent[172]. The leaves can be placed on a camp fire to repel mosquitoes[257].

The aromatic leaves have been used in pillows etc as a deodorant[257].

Bunches of the soft leaves have been used as towels, toilet paper etc[257].

A green dye is obtained from the leaves[257].

Cultivation details

Requires a sunny position and a well-drained soil that is not too rich[1, 200]. Requires a lime-free soil. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

A very ornamental plant[1].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but make sure that the compost does not dry out. The seed usually germinates within 1 - 2 weeks in a warm greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia frigida

Common name:	Fringed wormwood	Family:	Compositae
Author:	Willd.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America - Minnesota to Saskatchewan, Yukon, Texas and Arizona. N. Asia.		
Habitat:	Dry prairies, plains and rocks to 3300 metres in N. America[43, 164].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Berg Salbei [E], Fringed Sagebrush [FEIS], Fringed Sagewort [P], Fringed Wormwood [H], Mountain Sage [E], Mugwort [H], Prairie Sagebrush [B], Silver &quot;Sage&quot;, Fringed &quot;Sage&quot; [S], Silver Sage, Romerillo Del Llano [S],
Epithets:	From a Dictionary of Botanical Epithets
	frigida = cold; rigida = rigid;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Germany; Us; Us(Blackfoot)

Physical Characteristics

Perennial growing to 0.3m by 0.5m . It is hardy to zone 4. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow

in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used by the Hopi Indians as a flavouring for sweet corn[61, 172, 177, 183, 257].

Medicinal Uses

Disclaimer

Antispasmodic; Disinfectant; Poultice; Stimulant; Stomachic; Vermifuge; Women's complaints.

The leaves are stomachic, vermifuge and used in the treatment of women's complaints[172]. The plant contains camphor, which is stimulant and antispasmodic[213]. An infusion of the leaves is used in the treatment of biliousness, indigestion, coughs and colds whilst the leaves are chewed and the juice swallowed to treat heartburn[257]. A poultice of the chewed leaves is used as a poultice to reduce swellings and the leaves are also placed in the nose to stop nosebleeds[257]. A hot poultice of the leaves has been used to treat toothache[257].

The leaves can be used as a sanitary towel to help reduce skin irritation[257]. They are also drunk as a tea when the woman is menstruating or to treat irregular menstruation[257].

The dried leaves are burnt in a room as a disinfectant[257].

A decoction of the root is used as a stimulant and tonic[257].

Other Uses

Deodorant; Dye; Essential; Repellent.

Both the growing and the dried plant can be used as an insect repellent[172]. The leaves can be placed on a camp fire to repel mosquitoes[257].

The aromatic leaves have been used in pillows etc as a deodorant[257].

Bunches of the soft leaves have been used as towels, toilet paper etc[257].

A green dye is obtained from the leaves[257].

Cultivation details

Requires a sunny position and a well-drained soil that is not too rich[1, 200]. Requires a lime-free soil. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

A very ornamental plant[1].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but make sure that the compost does not dry out. The seed usually germinates within 1 - 2 weeks in a warm greenhouse. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia frigida*

Subject:

Artemisia frigida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia frigida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia glacialis

Common name:	Glacier wormwood	Family:	Compositae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	C. Europe.		
Habitat:	Exposed rocky slopes in the Alps[190]. Schistose rocks and screes, 2000 - 3100 metres[50].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	glacialis = frozen, glacial;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.18m by 0.3m . It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The herb is used as a flavouring in vermouth and liqueurs[183].

Medicinal Uses

Disclaimer

Digestive; Expectorant; Sedative; Stomachic.

Glacier wormwood has similar medicinal properties to common wormwood, A, absinthum[7]. It is used locally where it grows wild. The whole plant is digestive, expectorant, sedative and stomachic[7]. An infusion of the herb has a marked effect upon mountain sickness[7]. A poultice of the plant is used as a first-aid remedy in the treatment of wounds[7].

Other Uses

None known

Cultivation details

Requires a very well-drained light or medium soil and a sunny position[190]. Very intolerant of winter wet[190]. Established plants are drought tolerant[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Indiscriminate collection of this plant from the wild has made it an endangered species[7].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225

A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

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Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Plants For A Future: Database Search Results

Artemisia glacialis

Common name:	Glacier wormwood	Family:	Compositae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	C. Europe.		
Habitat:	Exposed rocky slopes in the Alps[190]. Schistose rocks and screes, 2000 - 3100 metres[50].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	glacialis = frozen, glacial;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.18m by 0.3m . It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The herb is used as a flavouring in vermouth and liqueurs[183].

Medicinal Uses

Disclaimer

Digestive; Expectorant; Sedative; Stomachic.

Glacier wormwood has similar medicinal properties to common wormwood, A, absinthum[7]. It is used locally where it grows wild. The whole plant is digestive, expectorant, sedative and stomachic[7]. An infusion of the herb has a marked effect upon mountain sickness[7]. A poultice of the plant is used as a first-aid remedy in the treatment of wounds[7].

Other Uses

None known

Cultivation details

Requires a very well-drained light or medium soil and a sunny position[190]. Very intolerant of winter wet[190]. Established plants are drought tolerant[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Indiscriminate collection of this plant from the wild has made it an endangered species[7].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia glacialis

Common name:	Glacier wormwood	Family:	Compositae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	C. Europe.		
Habitat:	Exposed rocky slopes in the Alps[190]. Schistose rocks and screes, 2000 - 3100 metres[50].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	glacialis = frozen, glacial;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.18m by 0.3m . It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The herb is used as a flavouring in vermouth and liqueurs[183].

Medicinal Uses

Disclaimer

Digestive; Expectorant; Sedative; Stomachic.

Glacier wormwood has similar medicinal properties to common wormwood, A, absinthum[7]. It is used locally where it grows wild. The whole plant is digestive, expectorant, sedative and stomachic[7]. An infusion of the herb has a marked effect upon mountain sickness[7]. A poultice of the plant is used as a first-aid remedy in the treatment of wounds[7].

Other Uses

None known

Cultivation details

Requires a very well-drained light or medium soil and a sunny position[190]. Very intolerant of winter wet[190]. Established plants are drought tolerant[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Indiscriminate collection of this plant from the wild has made it an endangered species[7].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia glacialis*

Subject:

Artemisia glacialis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia glacialis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia gmelinii

Common name:	Russian wormwood	Family:	Compositae
Author:	Weber. ex Steckm.	Botanical references:	51, 200
Synonyms:	Artemisia sacrorum (Ledeb.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas from Afghanistan to C. Nepal.		
Habitat:	Dry stony slopes, especially in Ladakh and Lahul, 2100 - 4200 metres[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. gmelini[HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial growing to 1.5m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but gives no more details[177].

Medicinal Uses

Disclaimer

None known

Other Uses

The plant yields 1% essential oil, which contains 19% essential oil, 6% camphor[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

We are not sure if this plant is annual, biennial or perennial, since various reports differ.

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Artemisia gmelini* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia sacrorum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia gmelinii

Common name:	Russian wormwood	Family:	Compositae
Author:	Weber. ex Steckm.	Botanical references:	51, 200
Synonyms:	Artemisia sacrorum (Ledeb.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas from Afghanistan to C. Nepal.		
Habitat:	Dry stony slopes, especially in Ladakh and Lahul, 2100 - 4200 metres[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. gmelini[HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial growing to 1.5m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but gives no more details[177].

Medicinal Uses

Disclaimer

None known

Other Uses

The plant yields 1% essential oil, which contains 19% essential oil, 6% camphor[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

We are not sure if this plant is annual, biennial or perennial, since various reports differ.

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

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Suppliers

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia gmelinii

Common name:	Russian wormwood	Family:	Compositae
Author:	Weber. ex Steckm.	Botanical references:	51, 200
Synonyms:	Artemisia sacrorum (Ledeb.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas from Afghanistan to C. Nepal.		
Habitat:	Dry stony slopes, especially in Ladakh and Lahul, 2100 - 4200 metres[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. gmelini[HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial growing to 1.5m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but gives no more details[177].

Medicinal Uses

Disclaimer

None known

Other Uses

The plant yields 1% essential oil, which contains 19% essential oil, 6% camphor[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

We are not sure if this plant is annual, biennial or perennial, since various reports differ.

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Artemisia gmelinii*

Subject:

Artemisia gmelinii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia gmelinii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:24:21 2004

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Add Comment Reset

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Plants For A Future: Database Search Results

Artemisia indica

Common name:		Family:	Compositae
Author:	Willd.	Botanical references:	58, 200
Synonyms:	Artemisia vulgaris indica, Artemisia dubia orientalis, Artemisia dubia (non Wall.), Artemisia asiatica ((Pampan.)Nakai.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, India.		
Habitat:	Waste ground in central and southern Japan.		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	indica = Indian;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial growing to 1.2m. It is hardy to zone 7. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves.

Young leaves - cooked and eaten with barley[183]. The leaves are also pounded with steamed glutinous rice to give a flavour and colouring[177, 183].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Emmenagogue; Stomachic; Tonic.

The leaves and flowering stems are anthelmintic, antispasmodic, emmenagogue and stomachic[240]. An infusion is used in the treatment of nervous and spasmodic affections, in asthma and in diseases of the brain[240].

The roots are antiseptic and tonic[240].

Other Uses

Essential; Insecticide.

The plant yields about 0.2% essential oil. This is a good larvicide and a feeble insecticide[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200].

Plants are annuals or short-lived perennials[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow spring in a greenhouse. Do not allow the compost to dry out. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

The seed can also be sown in situ in late spring.

Scent

Leaves: Crushed

> The leaves are aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Artemisia indica*

Subject:

Artemisia indica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Plant names you would like this comment to be added to:

Artemisia indica

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Artemisia iwayomoei

Common name:		Family:	Compositae
Author:	Kitam.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - N. Japan, Korea, Manchuria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but gives no more details[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a

lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Submit

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia iwayomoei

Common name:		Family:	Compositae
Author:	Kitam.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - N. Japan, Korea, Manchuria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but gives no more details[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

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It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia iwayomoei

Common name:		Family:	Compositae
Author:	Kitam.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - N. Japan, Korea, Manchuria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but gives no more details[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia iwayomoei*

Subject:

Artemisia iwayomoei

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia iwayomoei

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia japonica

Common name:		Family:	Compositae
Author:	Thunb.	Botanical references:	58, 200
Synonyms:	Artemisia subintegra, Artemisia mandschurica		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny hills and low elevations in mountains all over Japan[58]. Fields and waste land[178].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. parviflora[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'I T'Ou Hao [E], Mou Hao [E], Wei [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked. Used as a vegetable[218].

Medicinal Uses

Disclaimer

Digestive; Women's complaints.

The leaves are digestive[178]. A decoction of the leaves is said to promote a plump figure, but too much is said to be deleterious and can cause hypertension[218].

The expressed juice of the plant is used in the treatment of vaginitis[178, 218].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200].

This species is not very hardy in the colder areas of Britain, it tolerates temperatures down to between -5 and -10°c[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste

was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia japonica

Common name:		Family:	Compositae
Author:	Thunb.	Botanical references:	58, 200
Synonyms:	Artemisia subintegra, Artemisia mandschurica		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny hills and low elevations in mountains all over Japan[58]. Fields and waste land[178].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. parviflora[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'I T'Ou Hao [E], Mou Hao [E], Wei [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked. Used as a vegetable[218].

Medicinal Uses

Disclaimer

Digestive; Women's complaints.

The leaves are digestive[178]. A decoction of the leaves is said to promote a plump figure, but too much is said to be deleterious and can cause hypertension[218].

The expressed juice of the plant is used in the treatment of vaginitis[178, 218].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200].

This species is not very hardy in the colder areas of Britain, it tolerates temperatures down to between -5 and -10°c[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Web References

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia japonica

Common name:		Family:	Compositae
Author:	Thunb.	Botanical references:	58, 200
Synonyms:	Artemisia subintegra, Artemisia mandschurica		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny hills and low elevations in mountains all over Japan[58]. Fields and waste land[178].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. parviflora[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'I T'Ou Hao [E], Mou Hao [E], Wei [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked. Used as a vegetable[218].

Medicinal Uses

Disclaimer

Digestive; Women's complaints.

The leaves are digestive[178]. A decoction of the leaves is said to promote a plump figure, but too much is said to be deleterious and can cause hypertension[218].

The expressed juice of the plant is used in the treatment of vaginitis[178, 218].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200].

This species is not very hardy in the colder areas of Britain, it tolerates temperatures down to between -5 and -10°c[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia japonica*

Subject:

Artemisia japonica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia japonica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:25:01 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia keiskeana

Common name:		Family:	Compositae
Author:	Miq.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia [China, Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. keiskiana[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	An Lu [E], Fu Lu [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and shoot tips - cooked[177, 179]. The leaves contain about 5.6% protein, 1.2% fat, 9.5% carbohydrate, 2.6% ash[179].

Composition

Leaves (Fresh weight)

> In grammes per 100g weight of food:
> Protein: 5.6 Fat: 1.2 Carbohydrate: 9.5 Ash: 2.6

Medicinal Uses

Disclaimer

Infertility.

Used in the treatment of impotence, amenorrhoea, post-partum pain etc[178].

Other Uses

Thatching.

The stalks are used for thatching[178].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. This species is closely related to A. dracunculus[179]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia keiskiana* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Plants For A Future: Database Search Results

Artemisia keiskeana

Common name:		Family:	Compositae
Author:	Miq.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia [China, Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. keiskiana[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	An Lu [E], Fu Lu [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and shoot tips - cooked[177, 179]. The leaves contain about 5.6% protein, 1.2% fat, 9.5% carbohydrate, 2.6% ash[179].

Composition

Leaves (Fresh weight)

In grammes per 100g weight of food:
Protein: 5.6 Fat: 1.2 Carbohydrate: 9.5 Ash: 2.6

Medicinal Uses

Disclaimer

Infertility.

Used in the treatment of impotence, amenorrhoea, post-partum pain etc[178].

Other Uses

Thatching.

The stalks are used for thatching[178].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. This species is closely related to A. dracunculus[179]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia keiskiana* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977

A translation of an ancient Chinese book on edible wild foods. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around

it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia keiskeana

Common name:		Family:	Compositae
Author:	Miq.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia [China, Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. keiskiana[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	An Lu [E], Fu Lu [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and shoot tips - cooked[177, 179]. The leaves contain about 5.6% protein, 1.2% fat, 9.5% carbohydrate, 2.6% ash[179].

Composition

Leaves (Fresh weight)

In grammes per 100g weight of food:
Protein: 5.6 Fat: 1.2 Carbohydrate: 9.5 Ash: 2.6

Medicinal Uses

Disclaimer

Infertility.

Used in the treatment of impotence, amenorrhoea, post-partum pain etc[178].

Other Uses

Thatching.

The stalks are used for thatching[178].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. This species is closely related to A. dracunculus[179]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia keiskeana*

Subject:

Artemisia keiskeana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia keiskeana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:25:18 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia laciniata

Common name:		Family:	Compositae
Author:	Willd.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Europe to E. Asia.		
Habitat:	Found at elevations of 2,400 - 3,600 metres in the Himalayas.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. laciniatiformis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Lacinate Sagewort [P], Siberian Wormwood [B],
Epithets:	From a Dictionary of Botanical Epithets
	laciniata = deeply cut;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Parboiled and used as a food[177]. No more details are given, we assume that the report refers to the leaves[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. It is closely related to A. sacrorum. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia laciniata

Common name:		Family:	Compositae
Author:	Willd.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Europe to E. Asia.		
Habitat:	Found at elevations of 2,400 - 3,600 metres in the Himalayas.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. laciniatiformis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Lacinate Sagewort [P], Siberian Wormwood [B],
Epithets:	From a Dictionary of Botanical Epithets
	laciniata = deeply cut;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Parboiled and used as a food[177]. No more details are given, we assume that the report refers to the leaves[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. It is closely related to A. sacrorum. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Plants For A Future: Database Search Results

Artemisia laciniata

Common name:		Family:	Compositae
Author:	Willd.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Europe to E. Asia.		
Habitat:	Found at elevations of 2,400 - 3,600 metres in the Himalayas.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. laciniatiformis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Lacinate Sagewort [P], Siberian Wormwood [B],
Epithets:	From a Dictionary of Botanical Epithets
	laciniata = deeply cut;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Parboiled and used as a food[177]. No more details are given, we assume that the report refers to the leaves[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. It is closely related to A. sacrorum. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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(You can copy, distribute, display this works but: Attribution is required, its for Non-Commercial purposes, and it's Share Alike (GNUish/copyleft) i.e. has an identical license.)
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia laciniata*

Subject:

Artemisia laciniata

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia laciniata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:25:33 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia lactiflora

Common name:	White mugwort	Family:	Compositae
Author:	Wallich.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant might be poisonous in large doses[21]. Skin contact can cause dermatitis in some people[222].		
Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	White Mugwort [H],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; lactiflora = milky flower;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.5m by 0.5m . It is hardy to zone 4. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emmenagogue; Tonic.

White mugwort is a bitter aromatic tonic herb. The leaves and flowering stems are used internally in traditional Chinese medicine to treat menstrual and liver disorders[238].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly acid loamy soil, preferring a sunny position and a moisture-retentive soil[200]. Plants are tolerant of light shade[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

There are some named varieties selected for their ornamental value[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn.

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Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia lactiflora

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Author:	Wallich.	Botanical references:	200
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Range:	E. Asia - China.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Physical Characteristics

Perennial growing to 1.5m by 0.5m . It is hardy to zone 4. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emmenagogue; Tonic.

White mugwort is a bitter aromatic tonic herb. The leaves and flowering stems are used internally in traditional Chinese medicine to treat menstrual and liver disorders[238].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly acid loamy soil, preferring a sunny position and a moisture-retentive soil[200]. Plants are tolerant of light shade[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

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Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

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Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very

easy.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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Artemisia lactiflora

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Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

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Cultivated Beds.

Edible Uses

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Cultivars

"

No entries have been made for this species as yet.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia lactiflora*

Subject:

Artemisia lactiflora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia lactiflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 03:25:50 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia ludoviciana

Common name:	White sage	Family:	Compositae
Author:	Nutt.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	There is a report that the plant can cause allergies in some people[222].		
Range:	Western N. America - Michigan to Washington, south to Texas and Mexico.		
Habitat:	Prairies, dry open soils and thin woodland[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. albula[H] A. canescens[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Estafiate [S], Louisiana Sagewort [FEIS,P], Western Mugwort [H,L], White Sage [L], White Sagebrush [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico(Kickapoo); Us(Flathead)

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 5. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

Edible Uses

Condiment; Seed; Tea.

Leaves and flowering heads are used as a flavouring or garnish for sauces, gravies etc[183].

A herb tea is made from the leaves and flowering heads[183].

Seed[105, 161, 177, 183]. No further details are given but the seed is very small and fiddly to use.

Medicinal Uses

Disclaimer

Astringent; Poultice; Skin.

The leaves are astringent[222]. They were commonly used by the N. American Indians to induce sweating, curb pain and diarrhoea[222]. A weak tea was used in the treatment of stomach ache and menstrual disorders[222].

Externally, a wash of the leaves was applied to itching, rashes, swellings, boils, sores, etc[222]. The wash was also applied to eczema and as an underarm deodorant[257]. A poultice of the leaves can be applied to spider bites, blisters and burst boils[257].

A snuff of the crushed leaves has been used to treat headaches, the sinuses and nosebleeds[257].

Other Uses

Deodorant; Ground cover; Repellent.

The plant makes a useful ground cover plant once it is established[190].

The leaves can be placed in the shoes as a foot deodorant[257]. An infusion of the leaves has been used as an underarm deodorant[257].

The soft leaves can be used as a toilet paper[257].

The plant can be burnt to repel mosquitoes[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Does well in a sandy soil[188]. Established plants are very drought tolerant[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

A very polymorphic species[43].

Slugs love the young shoots of this plant and have been known to destroy even well-established plants[K].

A very ornamental plant, spreading by stolons to form loose patches[187], it can be invasive[190]. There are many named forms selected for their ornamental value[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+ludoviciana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+ludoviciana`

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Plants For A Future: Database Search Results

Artemisia ludoviciana

Common name:	White sage	Family:	Compositae
Author:	Nutt.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	There is a report that the plant can cause allergies in some people[222].		
Range:	Western N. America - Michigan to Washington, south to Texas and Mexico.		
Habitat:	Prairies, dry open soils and thin woodland[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. albula[H] A. canescens[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Estafiate [S], Louisiana Sagewort [FEIS,P], Western Mugwort [H,L], White Sage [L], White Sagebrush [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico(Kickapoo); Us(Flathead)

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 5. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

Edible Uses

Condiment; Seed; Tea.

Leaves and flowering heads are used as a flavouring or garnish for sauces, gravies etc[183].

A herb tea is made from the leaves and flowering heads[183].

Seed[105, 161, 177, 183]. No further details are given but the seed is very small and fiddly to use.

Medicinal Uses

Disclaimer

Astringent; Poultice; Skin.

The leaves are astringent[222]. They were commonly used by the N. American Indians to induce sweating, curb pain and diarrhoea[222]. A weak tea was used in the treatment of stomach ache and menstrual disorders[222].

Externally, a wash of the leaves was applied to itching, rashes, swellings, boils, sores, etc[222]. The wash was also applied to eczema and as an underarm deodorant[257]. A poultice of the leaves can be applied to spider bites, blisters and burst boils[257].

A snuff of the crushed leaves has been used to treat headaches, the sinuses and nosebleeds[257].

Other Uses

Deodorant; Ground cover; Repellent.

The plant makes a useful ground cover plant once it is established[190].

The leaves can be placed in the shoes as a foot deodorant[257]. An infusion of the leaves has been used as an underarm deodorant[257].

The soft leaves can be used as a toilet paper[257].

The plant can be burnt to repel mosquitoes[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Does well in a sandy soil[188]. Established plants are very drought tolerant[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

A very polymorphic species[43].

Slugs love the young shoots of this plant and have been known to destroy even well-established plants[K].

A very ornamental plant, spreading by stolons to form loose patches[187], it can be invasive[190]. There are many named forms selected for their ornamental value[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

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> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

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For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Common name:	White sage	Family:	Compositae
Author:	Nutt.	Botanical references:	43, 200
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Range:	Western N. America - Michigan to Washington, south to Texas and Mexico.		
Habitat:	Prairies, dry open soils and thin woodland[43].		
Plants For A Future Rating (1-5):	2		

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	A. albula[H] A. canescens[H]
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Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
	Mexico(Kickapoo); Us(Flathead)

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 5. It is in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

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Condiment; Seed; Tea.

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A herb tea is made from the leaves and flowering heads[183].

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Disclaimer

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The soft leaves can be used as a toilet paper[257].

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Cultivation details

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A very polymorphic species[43].

Slugs love the young shoots of this plant and have been known to destroy even well-established plants[K].

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Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia ludoviciana*

Subject:

Artemisia ludoviciana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia ludoviciana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:26:08 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia ludoviciana gnaphalodes

Common name:	White sage	Family:	Compositae
Author:	(Nutt.) Torr. & Gr	Botanical references:	43
Synonyms:	Artemisia gnaphalodes (Nutt.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America - Ontario and Illinois to Alberta, Missouri, Texas and Mexico.		
Habitat:	Prairies, plains and dry open soils[43, 235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. diversifolia[B,P] A. herriotii[B,P] A. ludoviciana ssp. ludoviciana[B,C,CAL,P] A. ludoviciana ssp. typica[B,P] A. ludoviciana var. americana[B,P] A. ludoviciana var. brittonii[B,P] A. ludoviciana var. gnaphalodes[B,P] A. ludoviciana var. latifolia[B,P] A. ludoviciana var. pabularis[B,P] A. pabularis[B,P] A. purshiana[B,P] A. vulgaris ssp. ludoviciana[B,P] A. vulgaris var. ludoviciana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Foothill Sagewort [P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Indian)

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Antirheumatic; Febrifuge; Foot care; Miscellany; Ophthalmic; Poultice; Vulnerary.

An infusion of the plant is used to treat stomach problems, coughs, colds, headaches etc[61, 257]. A decoction of the leaves is used as a bath to treat fevers and can be applied as a wash to sores, rashes, itches, skin eruptions etc[257]. An infusion of the leaves has been used as an eyewash[257].

The powdered leaves can be applied to the nostrils to stop nose bleeds, sprinkled on sores they will hasten the healing process[257].

The crushed plant can be rubbed on the body as a liniment to treat rheumatic joints, soreness or stiffness[257].

The plant can be placed in the shoes to keep the feet from sweating[257].

Other Uses

Incense; Miscellany.

Bunches of the plants have been used as towels[257].

The plant can be burnt as an incense[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Slugs are attracted to the young shoots in spring and have been known to destroy even well-established plants[K].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia gnaphalodes* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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References

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia ludoviciana gnaphalodes

Common name:	White sage	Family:	Compositae
Author:	(Nutt.) Torr. & Gr	Botanical references:	43
Synonyms:	Artemisia gnaphalodes (Nutt.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
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Habitat:	Prairies, plains and dry open soils[43, 235].		
Plants For A Future Rating (1-5):	1		

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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Indian)

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Antirheumatic; Febrifuge; Foot care; Miscellany; Ophthalmic; Poultice; Vulnerary.

An infusion of the plant is used to treat stomach problems, coughs, colds, headaches etc[61, 257]. A decoction of the leaves is used as a bath to treat fevers and can be applied as a wash to sores, rashes, itches, skin eruptions etc[257]. An infusion of the leaves has been used as an eyewash[257].

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Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

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Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia ludoviciana gnaphalodes*

Subject:

Artemisia ludoviciana gnaphalodes

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia ludoviciana gnaphalodes

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:26:24 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia maritima

Common name:	Sea wormwood	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:	Seriphidium maritimum ((L.)Poljakov.)		
Known Hazards:	The following notes are from a report on the closely related A. absinthum, they quite possibly also apply to this species. The plant is poisonous if used in large quantities[20, 61]. Even small quantities have been known to cause nervous disorders, convulsions, insomnia etc[222]. Just the scent of the plant has been known to cause headaches and nervousness in some people[169].		
Range:	Britain.		
Habitat:	Drier parts of salt marshes[17] in sand and shingle[190].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. campestris maritima[DUTCH] A. chamaemelifolia[H] A. cina[E,G,H,HORTIPLEX,P] A. lercheana[H] A. maritima pauciflora[H] A. maritima stechmann.[H] A. maritima var. pauciflora[H] A. maritima var. stechmann.[H] Seriphidium cinum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ajenjo Marino [E], Centonique [E], Chamomile-leaved Artemisi [H], Deniz Pelini [E], Duinaveruit [D], Horasani [E], Levant Wormseed [H], Santonica [H,P], Sea Wormswood [E], Sea Wormwood [L,H,P], Yomogi [E],
Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey

Physical Characteristics

A decidious shrub growing to 0.6m. It is hardy to zone 7. It is in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are occasionally used as a flavouring[183]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Antispasmodic; Carminative; Cholagogue; Emmenagogue; Febrifuge; Stimulant; Stomachic; Tonic; Vermifuge.

Sea wormwood is not much used in herbal medicine, though it is often used domestically. Its medicinal virtues are similar to wormwood, A. absinthum, though milder in their action. It is used mainly as a tonic to the digestive system, in treating intermittent fevers and as a vermifuge[4]. The leaves and flowering shoots are anthelmintic, antiseptic, antispasmodic, carminative, cholagogue, emmenagogue, febrifuge, stimulant, stomachic, tonic and vermifuge[4, 145]. The plant is harvested as it comes into flower and is dried for later use[4].

The unexpanded floral heads contain the vermicide 'santonin'[218].

Other Uses

Repellent; Strewing.

The growing shoots are said to repel insects and mice[6, 18, 20], they have also been used as a strewing herb[4, 14]. An infusion is said to discourage slugs and insects[14, 18].

Cultivation details

Succeeds in any soil but prefers a poor dry soil with a warm aspect[37]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 6.0 to 7.6. Dislikes shade. Established plants are very drought tolerant[190, 200]. Tolerates maritime exposure[190].

The whole plant has a sweet aromatic smell[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Scent

Plant: Crushed

> The whole plant has a sweet aromatic smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia chamaemelifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Artemisia cina* (a possible synonym).

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN

0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus

colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+maritima`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+maritima`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia maritima

Common name:	Sea wormwood	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:	Seriphidium maritimum ((L.)Poljakov.)		
Known Hazards:	The following notes are from a report on the closely related A. absinthum, they quite possibly also apply to this species. The plant is poisonous if used in large quantities[20, 61]. Even small quantities have been known to cause nervous disorders, convulsions, insomnia etc[222]. Just the scent of the plant has been known to cause headaches and nervousness in some people[169].		
Range:	Britain.		
Habitat:	Drier parts of salt marshes[17] in sand and shingle[190].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. campestris maritima[DUTCH] A. chamaemelifolia[H] A. cina[E,G,H,HORTIPLEX,P] A. lercheana[H] A. maritima pauciflora[H] A. maritima stechmann.[H] A. maritima var. pauciflora[H] A. maritima var. stechmann.[H] Seriphidium cinum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ajenjo Marino [E], Centonique [E], Chamomile-leaved Artemisi [H], Deniz Pelini [E], Duinaveruit [D], Horasani [E], Levant Wormseed [H], Santonica [H,P], Sea Wormswood [E], Sea Wormwood [L,H,P], Yomogi [E],
Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey

Physical Characteristics

A decidious shrub growing to 0.6m. It is hardy to zone 7. It is in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are occasionally used as a flavouring[183]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Antispasmodic; Carminative; Cholagogue; Emmenagogue; Febrifuge; Stimulant; Stomachic; Tonic; Vermifuge.

Sea wormwood is not much used in herbal medicine, though it is often used domestically. Its medicinal virtues are similar to wormwood, A. absinthum, though milder in their action. It is used mainly as a tonic to the digestive system, in treating intermittent fevers and as a vermifuge[4]. The leaves and flowering shoots are anthelmintic, antiseptic, antispasmodic, carminative, cholagogue, emmenagogue, febrifuge, stimulant, stomachic, tonic and vermifuge[4, 145]. The plant is harvested as it comes into flower and is dried for later use[4].

The unexpanded floral heads contain the vermicide 'santonin'[218].

Other Uses

Repellent; Strewing.

The growing shoots are said to repel insects and mice[6, 18, 20], they have also been used as a strewing herb[4, 14]. An infusion is said to discourage slugs and insects[14, 18].

Cultivation details

Succeeds in any soil but prefers a poor dry soil with a warm aspect[37]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 6.0 to 7.6. Dislikes shade. Established plants are very drought tolerant[190, 200]. Tolerates maritime exposure[190].

The whole plant has a sweet aromatic smell[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Scent

Plant: Crushed

The whole plant has a sweet aromatic smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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References

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+maritima`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+maritima`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia maritima

Common name:	Sea wormwood	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:	Seriphidium maritimum ((L.)Poljakov.)		
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Range:	Britain.		
Habitat:	Drier parts of salt marshes[17] in sand and shingle[190].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. campestris maritima[DUTCH] A. chamaemelifolia[H] A. cina[E,G,H,HORTIPLEX,P] A. lercheana[H] A. maritima pauciflora[H] A. maritima stechmann.[H] A. maritima var. pauciflora[H] A. maritima var. stechmann.[H] Seriphidium cinum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ajenjo Marino [E], Centonique [E], Chamomile-leaved Artemisi [H], Deniz Pelini [E], Duinaveruit [D], Horasani [E], Levant Wormseed [H], Santonica [H,P], Sea Wormswood [E], Sea Wormwood [L,H,P], Yomogi [E],
Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Spain; Turkey

Physical Characteristics

A decidious shrub growing to 0.6m. It is hardy to zone 7. It is in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are occasionally used as a flavouring[183]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Antispasmodic; Carminative; Cholagogue; Emmenagogue; Febrifuge; Stimulant; Stomachic; Tonic; Vermifuge.

Sea wormwood is not much used in herbal medicine, though it is often used domestically. Its medicinal virtues are similar to wormwood, A. absinthum, though milder in their action. It is used mainly as a tonic to the digestive system, in treating intermittent fevers and as a vermifuge[4]. The leaves and flowering shoots are anthelmintic, antiseptic, antispasmodic, carminative, cholagogue, emmenagogue, febrifuge, stimulant, stomachic, tonic and vermifuge[4, 145]. The plant is harvested as it comes into flower and is dried for later use[4].

The unexpanded floral heads contain the vermicide 'santonin'[218].

Other Uses

Repellent; Strewing.

The growing shoots are said to repel insects and mice[6, 18, 20], they have also been used as a strewing herb[4, 14]. An infusion is said to discourage slugs and insects[14, 18].

Cultivation details

Succeeds in any soil but prefers a poor dry soil with a warm aspect[37]. Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 6.0 to 7.6. Dislikes shade. Established plants are very drought tolerant[190, 200]. Tolerates maritime exposure[190].

The whole plant has a sweet aromatic smell[245].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn[200].

Scent

Plant: Crushed

The whole plant has a sweet aromatic smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+maritima`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List](#) or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia maritima*

Subject:

Artemisia maritima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia maritima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:26:41 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia mexicana

Common name:	Mexican white sagebrush	Family:	Compositae
Author:	Willd.	Botanical references:	43, 235
Synonyms:	Artemisia ludoviciana mexicana ((Willd.)Fernald.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	South-western N. America - Missouri to Texas, Arkansas and Mexico.		
Habitat:	Prairies, hillsides, barrens and sands[43, 235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. ludoviciana ssp. mexicana[B,P] A. ludoviciana var. mexicana[B,P] A. neomexicana[B,P] A. vulgaris var. mexicana[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Mexican White Sagebrush [P],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Indian); Us(Kiowa)

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emmenagogue; Miscellany; Poultice; Stimulant; Vermifuge.

The plant is emmenagogue, stimulant and vermifuge[61, 213]. The leaves can be chewed to treat sore throats[61, 213, 257].

A poultice of the chewed leaves can be used on sores[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia ludoviciana ssp. mexicana* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Artemisia mexicana

Common name:	Mexican white sagebrush	Family:	Compositae
Author:	Willd.	Botanical references:	43, 235
Synonyms:	Artemisia ludoviciana mexicana ((Willd.)Fernald.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	South-western N. America - Missouri to Texas, Arkansas and Mexico.		
Habitat:	Prairies, hillsides, barrens and sands[43, 235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. ludoviciana ssp. mexicana[B,P] A. ludoviciana var. mexicana[B,P] A. neomexicana[B,P] A. vulgaris var. mexicana[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Indian); Us(Kiowa)

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emmenagogue; Miscellany; Poultice; Stimulant; Vermifuge.

The plant is emmenagogue, stimulant and vermifuge[61, 213]. The leaves can be chewed to treat sore throats[61, 213, 257].

A poultice of the chewed leaves can be used on sores[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Plants For A Future: Database Search Results

Artemisia mexicana

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Author:	Willd.	Botanical references:	43, 235
Synonyms:	Artemisia ludoviciana mexicana ((Willd.)Fernald.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	South-western N. America - Missouri to Texas, Arkansas and Mexico.		
Habitat:	Prairies, hillsides, barrens and sands[43, 235].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. ludoviciana ssp. mexicana[B,P] A. ludoviciana var. mexicana[B,P] A. neomexicana[B,P] A. vulgaris var. mexicana[P]
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	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Indian); Us(Kiowa)

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Emmenagogue; Miscellany; Poultice; Stimulant; Vermifuge.

The plant is emmenagogue, stimulant and vermifuge[61, 213]. The leaves can be chewed to treat sore throats[61, 213, 257].

A poultice of the chewed leaves can be used on sores[257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia mexicana*

Subject:

Artemisia mexicana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia mexicana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 03:26:58 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia michauxiana

Common name:	Mountain sagewort	Family:	Compositae
Author:	Besser.	Botanical references:	60, 200
Synonyms:	Artemisia vulgaris discolor, Artemisia discolor (Dougl. ex D.C.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Western N. America - British Columbia to California.		
Habitat:	Rocky places in mountains, usually at rather high elevations[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. vulgaris ssp. michauxiana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Michaux's Sagebrush [P], Michaux's Wormwood [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.45m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed[105, 161, 177]. No further details are given, but the seed is very small and fiddly to use.

Medicinal Uses

Disclaimer

Poultice.

A hot infusion of the plant has been used in the treatment of headaches[257].

A poultice of the chewed plant is applied to sprains and swellings[257].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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---

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia michauxiana

Common name:	Mountain sagewort	Family:	Compositae
Author:	Besser.	Botanical references:	60, 200
Synonyms:	Artemisia vulgaris discolor, Artemisia discolor (Dougl. ex D.C.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Western N. America - British Columbia to California.		
Habitat:	Rocky places in mountains, usually at rather high elevations[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. vulgaris ssp. michauxiana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Michaux's Sagebrush [P], Michaux's Wormwood [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.45m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed[105, 161, 177]. No further details are given, but the seed is very small and fiddly to use.

Medicinal Uses

Disclaimer

Poultice.

A hot infusion of the plant has been used in the treatment of headaches[257].

A poultice of the chewed plant is applied to sprains and swellings[257].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very

easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:*

Artemisia.

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Plants For A Future: Database Search Results

Artemisia michauxiana

Common name:	Mountain sagewort	Family:	Compositae
Author:	Besser.	Botanical references:	60, 200
Synonyms:	Artemisia vulgaris discolor, Artemisia discolor (Dougl. ex D.C.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Western N. America - British Columbia to California.		
Habitat:	Rocky places in mountains, usually at rather high elevations[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. vulgaris ssp. michauxiana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Michaux's Sagebrush [P], Michaux's Wormwood [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.45m. It is hardy to zone 3. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed[105, 161, 177]. No further details are given, but the seed is very small and fiddly to use.

Medicinal Uses

Disclaimer

Poultice.

A hot infusion of the plant has been used in the treatment of headaches[257].

A poultice of the chewed plant is applied to sprains and swellings[257].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very

easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Artemisia michauxiana*

Subject:

Artemisia michauxiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia michauxiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:27:14 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia monophylla

Common name:		Family:	Compositae
Author:	Kitam.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan.		
Habitat:	High mountains, C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	monophylla = 1 leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible, it does not say what part of the plant[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a

lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia monophylla

Common name:		Family:	Compositae
Author:	Kitam.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan.		
Habitat:	High mountains, C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	monophylla = 1 leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible, it does not say what part of the plant[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

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It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Habitat:	High mountains, C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	monophylla = 1 leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible, it does not say what part of the plant[177].

Medicinal Uses

Disclaimer

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Other Uses

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Cultivation details

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia monophylla*

Subject:

Artemisia monophylla

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia monophylla

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Artemisia montana

Common name:		Family:	Compositae
Author:	(Nak.) Pampan.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan.		
Habitat:	Woods in mountains, C. and N. Japan[58].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	montana = of mountains;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.8m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Leaves; Tea.

Young leaves - cooked[177].

A tea is made from the leaves[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Artemisia montana

Common name:		Family:	Compositae
Author:	(Nak.) Pampan.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan.		
Habitat:	Woods in mountains, C. and N. Japan[58].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	montana = of mountains;
Systematics:	From a UDSA Plants Database
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Physical Characteristics

Perennial growing to 1.8m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

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Edible Uses

Leaves; Tea.

Young leaves - cooked[177].

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Medicinal Uses

Disclaimer

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Other Uses

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Cultivation details

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Physical Characteristics

Perennial growing to 1.8m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Leaves; Tea.

Young leaves - cooked[177].

A tea is made from the leaves[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+montana`
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Add a comment on: *Artemisia montana*

Subject:

Artemisia montana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia montana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:27:47 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia nova

Common name:	Black sagebrush	Family:	Compositae
Author:	A. Nels.	Botanical references:	60
Synonyms:	Artemisia arbuscula (Nutt.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Western N. America - Washington to California.		
Habitat:	Dry plains and hills, 1500 - 2400 metres[60, 164].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbuscula subsp. nova[G] Seriphidium arbusculum[G] Seriphidium novum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Sagebrush [B,FEIS,P], Dwarf Sagebrush [B], Low Sagebrush [P,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	nova = new;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 0.45m. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Miscellany.

A decoction of the leaves is used in the treatment of coughs, colds and headaches[61, 257].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position. This species has some affinity for calcareous soils[164]. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Unlike several closely related species, this plant does not layer or sprout from the stump if it is cut back[164].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but make sure that the soil does not dry out. Germination usually takes place in 1 - 2 weeks in a warm greenhouse[164]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Artemisia arbuscula* (a possible synonym).

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

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Plants For A Future: Database Search Results

Artemisia nova

Common name:	Black sagebrush	Family:	Compositae
Author:	A. Nels.	Botanical references:	60
Synonyms:	Artemisia arbuscula (Nutt.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Western N. America - Washington to California.		
Habitat:	Dry plains and hills, 1500 - 2400 metres[60, 164].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. arbuscula subsp. nova[G] Seriphidium arbusculum[G] Seriphidium novum[G]
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Epithets:	From a Dictionary of Botanical Epithets
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Physical Characteristics

An evergreen shrub growing to 0.45m. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Miscellany.

A decoction of the leaves is used in the treatment of coughs, colds and headaches[61, 257].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position. This species has some affinity for calcareous soils[164]. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Unlike several closely related species, this plant does not layer or sprout from the stump if it is cut back[164].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but make sure that the soil does not dry out. Germination usually takes place in 1 - 2 weeks in a warm greenhouse[164]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame.

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Suppliers

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() Thu Oct 16 03:57:35 2003

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Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Range:	Western N. America - Washington to California.		
Habitat:	Dry plains and hills, 1500 - 2400 metres[60, 164].		
Plants For A Future Rating (1-5):	1		

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Miscellany.

A decoction of the leaves is used in the treatment of coughs, colds and headaches[61, 257].

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position. This species has some affinity for calcareous soils[164]. Established plants are very drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Unlike several closely related species, this plant does not layer or sprout from the stump if it is cut back[164].

Plants in this genus are notably resistant to honey fungus[200].

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Propagation

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Cuttings of half-ripe wood, July/August in a frame.

Division in spring or autumn.

Suppliers

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Add a comment on: *Artemisia nova*

Subject:

Artemisia nova

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia nova

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:28:03 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia persica

Common name:		Family:	Compositae
Author:	Boiss.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas in W. Tibet.		
Habitat:	Found at a height of 2700 - 3000 metres[240].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	persica = of Persia;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Afghanistan

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It

can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Febrifuge; Tonic; Vermifuge.

The plant is febrifuge, tonic and vermifuge[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8 An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia persica

Common name:		Family:	Compositae
Author:	Boiss.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas in W. Tibet.		
Habitat:	Found at a height of 2700 - 3000 metres[240].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	persica = of Persia;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Afghanistan

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Febrifuge; Tonic; Vermifuge.

The plant is febrifuge, tonic and vermifuge[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a

lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Artemisia absinthum

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It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Plants For A Future: Database Search Results

Artemisia persica

Common name:		Family:	Compositae
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Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas in W. Tibet.		
Habitat:	Found at a height of 2700 - 3000 metres[240].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	persica = of Persia;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Afghanistan

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Febrifuge; Tonic; Vermifuge.

The plant is febrifuge, tonic and vermifuge[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

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Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a

lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia persica*

Subject:

Artemisia persica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia persica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:28:19 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia princeps

Common name:		Family:	Compositae
Author:	Pampan.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan.		
Habitat:	Waste ground and thickets in lowland and low elevations, central and southern Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Yomogi [E],
Epithets:	From a Dictionary of Botanical Epithets
	princeps = distinguished;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves.

Leaves and young seedlings - raw or cooked[116, 177]. Used in salads and soups after the bitterness has been removed[183].

After being lightly boiled the young leaves are pounded into glutinous-rice dumplings (known as 'mochi'). They impart a delightful aroma, flavour and colour[183]. Mugwort mochi is often sold in N. American health food stores[183].

Medicinal Uses

Disclaimer

Bitter.

Bitter[116].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. This species spreads rapidly by means of underground stolons and can become invasive[206]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

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References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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Readers Comments

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Wormwood

Artemisia absinthium

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Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves.

Leaves and young seedlings - raw or cooked[116, 177]. Used in salads and soups after the bitterness has been removed[183].

After being lightly boiled the young leaves are pounded into glutinous-rice dumplings (known as 'mochi'). They impart a delightful aroma, flavour and colour[183]. Mugwort mochi is often sold in N. American health food stores[183].

Medicinal Uses

Disclaimer

Bitter.

Bitter[116].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. This species spreads rapidly by means of underground stolons and can become invasive[206]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn.

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia princeps

Common name:		Family:	Compositae
Author:	Pampan.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan.		
Habitat:	Waste ground and thickets in lowland and low elevations, central and southern Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Yomogi [E],
Epithets:	From a Dictionary of Botanical Epithets
	princeps = distinguished;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves.

Leaves and young seedlings - raw or cooked[116, 177]. Used in salads and soups after the bitterness has been removed[183].

After being lightly boiled the young leaves are pounded into glutinous-rice dumplings (known as 'mochi'). They impart a delightful aroma, flavour and colour[183]. Mugwort mochi is often sold in N. American health food stores[183].

Medicinal Uses

Disclaimer

Bitter.

Bitter[116].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. This species spreads rapidly by means of underground stolons and can become invasive[206]. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn.

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia princeps*

Subject:

Artemisia princeps

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia princeps

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:28:37 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia rubripes

Common name:		Family:	Compositae
Author:	Nak.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.8m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn.

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a

lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Enter your details here:

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Plants For A Future: Database Search Results

Artemisia rubripes

Common name:		Family:	Compositae
Author:	Nak.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.8m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn.

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Plants For A Future: Database Search Results

Artemisia rubripes

Common name:		Family:	Compositae
Author:	Nak.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, S. Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.8m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

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Division in spring or autumn.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia rubripes*

Subject:

Artemisia rubripes

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia rubripes

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:28:52 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia schmidtiana

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan.		
Habitat:	Bare soil in high mountains and also by the sea, C. and N. Japan[58, 187].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Silver Mound [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.3m by 0.6m . . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Stem.

Stems - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a well-drained sandy soil in full sun[187]. Established plants are drought tolerant[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants are hardy to about -20°c[187].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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---

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia schmidtiana

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan.		
Habitat:	Bare soil in high mountains and also by the sea, C. and N. Japan[58, 187].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Silver Mound [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.3m by 0.6m . . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Stem.

Stems - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a well-drained sandy soil in full sun[187]. Established plants are drought tolerant[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants are hardy to about -20°c[187].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia schmidtiana

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan.		
Habitat:	Bare soil in high mountains and also by the sea, C. and N. Japan[58, 187].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Silver Mound [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 0.3m by 0.6m . . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Stem.

Stems - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a well-drained sandy soil in full sun[187]. Established plants are drought tolerant[190]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Plants are hardy to about -20°c[187].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia schmidtiana*

Subject:

Artemisia schmidtiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia schmidtiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:29:10 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia scoparia

Common name:		Family:	Compositae
Author:	Waldst. & Kit.	Botanical references:	58, 200
Synonyms:	Acapillaris scoparia		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	C. Europe to W. Asia.		
Habitat:	Waste ground in C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Scoparia Wormwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	scopa = broom twig; scoparia = broom like;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Biennial growing to 0.6m. It is hardy to zone 3. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It

requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177].

Medicinal Uses

Disclaimer

Antibacterial; Anticholesterolemic; Antipyretic; Antiseptic; Cholagogue; Diuretic; Vasodilator.

The plant is anticholesterolemic, antipyretic, antiseptic, cholagogue, diuretic and vasodilator[176]. It has an antibacterial action, inhibiting the growth of Staphylococcus aureus, streptococci, Bacillus dysenteriae, B. typhi, B. subtilis, Pneumococci, C. diphtheriae, mycobacterium etc[176]. It is used in the treatment of jaundice, hepatitis and inflammation of the gall bladder[176]. The plant is also used in a mixture with other herbs as a cholagogue[218].

Other Uses

Essential.

The seed and flowering stems contain 0.75% essential oil[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow late spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Scent

Seed: Crushed Dried

The seed contains an essential oil.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985

ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its

properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia scoparia

Common name:		Family:	Compositae
Author:	Waldst. & Kit.	Botanical references:	58, 200
Synonyms:	Acapillaris scoparia		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	C. Europe to W. Asia.		
Habitat:	Waste ground in C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Scoparia Wormwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	scopa = broom twig; scoparia = broom like;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Biennial growing to 0.6m. It is hardy to zone 3. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177].

Medicinal Uses

Disclaimer

Antibacterial; Anticholesterolemic; Antipyretic; Antiseptic; Cholagogue; Diuretic; Vasodilator.

The plant is anticholesterolemic, antipyretic, antiseptic, cholagogue, diuretic and vasodilator[176]. It has an antibacterial action, inhibiting the growth of Staphylococcus aureus, streptococci, Bacillus dysenteriae, B. typhi, B. subtilis, Pneumococci, C. diphtheriae, mycobacterium etc[176]. It is used in the treatment of jaundice, hepatitis and inflammation of the gall bladder[176]. The plant is also used in a mixture with other herbs as a cholagogue[218].

Other Uses

Essential.

The seed and flowering stems contain 0.75% essential oil[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow late spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Scent

Seed: Crushed Dried

The seed contains an essential oil.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985

ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia scoparia

Common name:		Family:	Compositae
Author:	Waldst. & Kit.	Botanical references:	58, 200
Synonyms:	Acapillaris scoparia		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	C. Europe to W. Asia.		
Habitat:	Waste ground in C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Scoparia Wormwood [P],
Epithets:	From a Dictionary of Botanical Epithets
	scopa = broom twig; scoparia = broom like;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Biennial growing to 0.6m. It is hardy to zone 3. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves - cooked[177].

Medicinal Uses

Disclaimer

Antibacterial; Anticholesterolemic; Antipyretic; Antiseptic; Cholagogue; Diuretic; Vasodilator.

The plant is anticholesterolemic, antipyretic, antiseptic, cholagogue, diuretic and vasodilator[176]. It has an antibacterial action, inhibiting the growth of Staphylococcus aureus, streptococci, Bacillus dysenteriae, B. typhi, B. subtilis, Pneumococci, C. diphtheriae, mycobacterium etc[176]. It is used in the treatment of jaundice, hepatitis and inflammation of the gall bladder[176]. The plant is also used in a mixture with other herbs as a cholagogue[218].

Other Uses

Essential.

The seed and flowering stems contain 0.75% essential oil[240].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow late spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Scent

Seed: Crushed Dried

The seed contains an essential oil.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia scoparia*

Subject:

Artemisia scoparia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia scoparia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Artemisia sibirica

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Filifolium sibiricum[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and shoot tips - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a

lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Filifolium sibiricum* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia sibirica

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Filifolium sibiricum[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and shoot tips - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Filifolium sibiricum* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia sibirica

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - China, Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Filifolium sibiricum[G]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young leaves and shoot tips - cooked[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia sibirica*

Subject:

Artemisia sibirica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia sibirica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:29:49 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia sieversiana

Common name:		Family:	Compositae
Author:	(Ehrh.) Willd.	Botanical references:	51
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas from Pakistan to C. Nepal.		
Habitat:	Stony ground, especially in Ladakh, and also in dry areas of Nepal, 1500 - 4100 metres[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. siversiana[E,HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but does not say what part of the plant[177].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Deobstruent; Emmenagogue; Febrifuge; Tonic.

The leaves and flowering stems are anthelmintic, deobstruent, emmenagogue, febrifuge and tonic[240]. Externally, they are used as an antiseptic and discutient[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for *Artemisia siversiana* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* Artemisia absinthum, Artemisia absinthium, Artemisia. *Genera:*

Artemisia.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Plants For A Future: Database Search Results

Artemisia sieversiana

Common name:		Family:	Compositae
Author:	(Ehrh.) Willd.	Botanical references:	51
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas from Pakistan to C. Nepal.		
Habitat:	Stony ground, especially in Ladakh, and also in dry areas of Nepal, 1500 - 4100 metres[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. siversiana[E,HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but does not say what part of the plant[177].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Deobstruent; Emmenagogue; Febrifuge; Tonic.

The leaves and flowering stems are anthelmintic, deobstruent, emmenagogue, febrifuge and tonic[240]. Externally, they are used as an antiseptic and discutient[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for *Artemisia siversiana* (a possible synonym).

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia sieversiana

Common name:		Family:	Compositae
Author:	(Ehrh.) Willd.	Botanical references:	51
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Himalayas from Pakistan to C. Nepal.		
Habitat:	Stony ground, especially in Ladakh, and also in dry areas of Nepal, 1500 - 4100 metres[51].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. siversiana[E,HORTIPLEX]
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual/Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

One report says that the plant is edible but does not say what part of the plant[177].

Medicinal Uses

Disclaimer

Anthelmintic; Antiseptic; Deobstruent; Emmenagogue; Febrifuge; Tonic.

The leaves and flowering stems are anthelmintic, deobstruent, emmenagogue, febrifuge and tonic[240]. Externally, they are used as an antiseptic and discutient[240].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

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Add a comment on: *Artemisia sieversiana*

Subject:

Artemisia sieversiana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia sieversiana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 03:30:06 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia stelleriana

Common name:	Beach wormwood	Family:	Compositae
Author:	Besser.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan, Korea, Siberia. Naturalized in Britain[17].		
Habitat:	Sand dunes and coastal cliffs, C. and N. Japan[58, 187]. Naturalized on sand near Marazion in Cornwall[1].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. stellerana[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beach Wormwood [H], Dustymiller Sagewort [P], Fan [E], Lu [E], Old Woman [H], Oldwoman [B], Pai Hao [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen perennial growing to 0.5m by 0.6m . It is hardy to zone 3. It is in leaf all year, in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177, 179, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

Plants can be grown as ground cover in a sunny position[197], they are of sprawling habit[208].

Cultivation details

Requires a well-drained sandy soil and a sunny position[187]. Established plants are drought tolerant[190]. Grows well in maritime areas and in cold gardens[208, 233]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Some named forms have been selected for their ornamental value[187].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia stellerana* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+stelleriana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+stelleriana`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia stelleriana

Common name:	Beach wormwood	Family:	Compositae
Author:	Besser.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan, Korea, Siberia. Naturalized in Britain[17].		
Habitat:	Sand dunes and coastal cliffs, C. and N. Japan[58, 187]. Naturalized on sand near Marazion in Cornwall[1].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. stellerana[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beach Wormwood [H], Dustymiller Sagewort [P], Fan [E], Lu [E], Old Woman [H], Oldwoman [B], Pai Hao [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen perennial growing to 0.5m by 0.6m . It is hardy to zone 3. It is in leaf all year, in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime

exposure.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177, 179, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

Plants can be grown as ground cover in a sunny position[197], they are of sprawling habit[208].

Cultivation details

Requires a well-drained sandy soil and a sunny position[187]. Established plants are drought tolerant[190]. Grows well in maritime areas and in cold gardens[208, 233]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Some named forms have been selected for their ornamental value[187].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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See the PFAF Links Pages for other sources

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+stelleriana`

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Plants For A Future: Database Search Results

Artemisia stelleriana

Common name:	Beach wormwood	Family:	Compositae
Author:	Besser.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan, Korea, Siberia. Naturalized in Britain[17].		
Habitat:	Sand dunes and coastal cliffs, C. and N. Japan[58, 187]. Naturalized on sand near Marazion in Cornwall[1].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. stellerana[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beach Wormwood [H], Dustymiller Sagewort [P], Fan [E], Lu [E], Old Woman [H], Oldwoman [B], Pai Hao [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen perennial growing to 0.5m by 0.6m . It is hardy to zone 3. It is in leaf all year, in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime

exposure.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177, 179, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

Plants can be grown as ground cover in a sunny position[197], they are of sprawling habit[208].

Cultivation details

Requires a well-drained sandy soil and a sunny position[187]. Established plants are drought tolerant[190]. Grows well in maritime areas and in cold gardens[208, 233]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Some named forms have been selected for their ornamental value[187].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia stelleriana*

Subject:

Artemisia stelleriana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia stelleriana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia stolonifera

Common name:		Family:	Compositae
Author:	(Maxim.) Komar.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan.		
Habitat:	Mountains in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	stolonifer = producing stolons; stolonifera = producing stolons;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a

lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants For A Future: Database Search Results

Artemisia stolonifera

Common name:		Family:	Compositae
Author:	(Maxim.) Komar.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan.		
Habitat:	Mountains in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	stolonifer = producing stolons; stolonifera = producing stolons;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia stolonifera

Common name:		Family:	Compositae
Author:	(Maxim.) Komar.	Botanical references:	58
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia - Japan.		
Habitat:	Mountains in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	stolonifer = producing stolons; stolonifera = producing stolons;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List](#) or email [webmaster@pfaf.org](#) (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia stolonifera*

Subject:

Artemisia stolonifera

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia stolonifera

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:30:42 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Artemisia sylvatica

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	sylvatica = growing in the woods, wild;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a

lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Enter your details here:

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Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Artemisia sylvatica

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	sylvatica = growing in the woods, wild;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

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Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

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Suppliers

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Web References

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

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Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia sylvatica

Common name:		Family:	Compositae
Author:	Maxim.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
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Habitat:	Not known		
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	sylvatica = growing in the woods, wild;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+sylvatica`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia sylvatica*

Subject:

Artemisia sylvatica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia sylvatica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:31:02 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Artemisia tilesii

Common name:	Wormwood	Family:	Compositae
Author:	Ledeb.	Botanical references:	60
Synonyms:	Artemisia unalaskensis (Rydb.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia to North-western N. America.		
Habitat:	Open rocky or gravelly wet or dry sites, mostly at rather high elevations in the mountains, but descending at times to sea level, N. Montana to Alaska[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hookeriana[B] A. tilesii ssp. unalaschcensis[B,P] A. tilesii var. aleutica[B,P] A. tilesii var. unalaschcensis[B,P] A. unalaskensis var. aleutica[B,P] A. vulgaris var. kamtschatica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alaska Sagebrush [P], Kamtschat's Wormwood [P], Tilesius' Wormwood [P,B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Aleut)

Physical Characteristics

Perennial growing to 1.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177]. The raw shoots are peeled and eaten, usually with oil[257].

Medicinal Uses

Disclaimer

Analgesic; Antirheumatic; Antitumor; Disinfectant; Haemostatic; Laxative; Poultice; Skin; Stomachic; Tonic.

The plant is antirheumatic, antitumor, disinfectant, febrifuge, haemostatic, laxative and tonic[257]. It is used in the treatment of cancer and to prevent infections in wounds etc[257]. An infusion of the leaves and flowering tops is used as a laxative and to treat stomach aches[257]. An infusion is used internally to treat rheumatism and is also applied externally to swollen joints[257]. A poultice of the leaves is applied to skin infections and to cuts to stop the bleeding[257]. A decoction is used as an eyewash[257].

The plant has properties similar to codeine[238]. The report does not specify which part of the plant is used[K]. Codeine is used as a painkiller.

Other Uses

Incense.

The freshly crushed leaves can be rubbed on the hands to remove odours[257].

The plant is used as an incense and deodorant in the home[257].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

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Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

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Suppliers

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Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Artemisia vulgaris var. kamtschatica* (a possible synonym).

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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8

A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Details:	

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Your Name:	
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia tilesii

Common name:	Wormwood	Family:	Compositae
Author:	Ledeb.	Botanical references:	60
Synonyms:	Artemisia unalaskensis (Rydb.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	E. Asia to North-western N. America.		
Habitat:	Open rocky or gravelly wet or dry sites, mostly at rather high elevations in the mountains, but descending at times to sea level, N. Montana to Alaska[60].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. hookeriana[B] A. tilesii ssp. unalaschcensis[B,P] A. tilesii var. aleutica[B,P] A. tilesii var. unalaschcensis[B,P] A. unalaskensis var. aleutica[B,P] A. vulgaris var. kamtschatica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Aleut)

Physical Characteristics

Perennial growing to 1.5m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used for flavouring rice dumplings[177]. The raw shoots are peeled and eaten, usually with oil[257].

Medicinal Uses

Disclaimer

Analgesic; Antirheumatic; Antitumor; Disinfectant; Haemostatic; Laxative; Poultice; Skin; Stomachic; Tonic.

The plant is antirheumatic, antitumor, disinfectant, febrifuge, haemostatic, laxative and tonic[257]. It is used in the treatment of cancer and to prevent infections in wounds etc[257]. An infusion of the leaves and flowering tops is used as a laxative and to treat stomach aches[257]. An infusion is used internally to treat rheumatism and is also applied externally to swollen joints[257]. A poultice of the leaves is applied to skin infections and to cuts to stop the bleeding[257]. A decoction is used as an eyewash[257].

The plant has properties similar to codeine[238]. The report does not specify which part of the plant is used[K]. Codeine is used as a painkiller.

Other Uses

Incense.

The freshly crushed leaves can be rubbed on the hands to remove odours[257].

The plant is used as an incense and deodorant in the home[257].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

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Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

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Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

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Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum, Artemisia absinthium, Artemisia. Genera: Artemisia.*

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Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+tilesii`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+tilesii`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia tilesii*

Subject:

Artemisia tilesii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia tilesii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:31:20 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia tridentata

Common name:	Sage brush	Family:	Compositae
Author:	Nutt.	Botanical references:	11, 60, 200
Synonyms:	Seriphidium tridentatum ((Nutt.)W.A.Weber.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Western N. America - British Columbia to California and Mexico, east to Nebraska.		
Habitat:	Dry plains and hills on calcareous soils[60]. Found on slightly acid and on alkaline soils[164].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. angusta[B,P] A. angustifolia[P] A. tridentata ssp. tridentata[B,C,CAL,P] A. tridentata var. angustifolia[B,P] A. tridentata var. parishii[P] Artemesia tridentata[Sa] Seriphidium tridentatum ssp. parishii[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basin Big Sagebrush [FEIS,P], Big Sagebrush [B,DEN1,P], Chamiso Hediondo [S], Purple Sage [H], Sagebrush [S], Sagebrush, Chamiso Hediondo [S],
Epithets:	From a Dictionary of Botanical Epithets
	dentata = with teeth; tridentata = 3 toothed;
Systematics:	From a UDSA Plants Database

	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us; Us(Amerindian); Us(Flathead); Us(Navajo); Us(Tewa)

Physical Characteristics

An evergreen shrub growing to 2.5m. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower in October, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Leaves; Seed; Tea.

Leaves - cooked[61]. The subspecies A. tridentata vaseyana has a pleasant mint-like aroma whilst some other subspecies are very bitter and pungent[164]. The leaves are used as a condiment and to make a tea[257].

Seed - raw or cooked. Oily[46, 61]. It can be roasted then ground into a powder and mixed with water or eaten raw[84, 106, 161, 257]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Digestive; Disinfectant; Febrifuge; Ophthalmic; Poultice; Sedative; Skin.

Sage brush was widely employed by many native North American Indian tribes who used it to treat a wide range of disorders[257]. It is little used in modern herbalism, though it certainly merits further investigation[K].

The plant is antirheumatic, antiseptic, digestive, disinfectant, febrifuge, ophthalmic, poultice and sedative[46, 61, 99, 257]. A decoction of the leaves is used in the treatment of digestive disorders and sore throats[216, 257]. An infusion of the fresh or dried leaves is used to treat pneumonia, bad colds with coughing and bronchitis[257]. It is used both internally and externally in the treatment of rheumatism[257]. The crushed plant is used as a liniment on cuts, sores etc whilst a decoction of the leaves is used as an antiseptic wash for cuts, wounds and sores[257]. A poultice of the steeped leaves is applied to sore eyes[257]. The plant is burnt in the house in order to disinfect it[257].

Other Uses

Basketry; Dye; Fibre; Friction sticks; Fuel; Hair; Miscellany; Paper; Repellent; Stuffing; Tinder.

An infusion of the leaves is used as a hair rinse, it treats dandruff and falling hair[84, 106, 168].

An infusion of the plant repels insects[99], it is also disinfectant and so is used for washing walls, floors etc[99].

A yellow to gold dye is obtained from the leaves, buds and stems combined[168].

The fibrous bark is used for weaving mats, baskets, cloth etc., or as a stuffing material in pillows etc and as an insulation in shoes to keep the feet warm[99, 257]. A fibre obtained from the inner bark is used for making paper[189]. The fibres are about 1.3mm long[189]. The stems are harvested in late summer, the leaves removed and the stems steamed until the fibre can be stripped off. The fibre is then cooked for two hours with lye before being ball milled for 4 hours. The resulting paper is a light tan/gold colour[189].

A bunch of the leafy stems can be tied together and used as a broom[257].

The shredded bark is a fine tinder for starting fires[99, 257].

The stems make good friction sticks for making fires[257].

The seeds are used during celebrations because, when thrown into a fire, they explode like crackers[257].

Wood - hard, dense[229]. It burns rapidly and well, even when green, and has a pleasant aromatic smell[212].

Cultivation details

Requires a sunny position and a well-drained soil that is not too rich[1, 11]. Requires a lime-free soil[60]. There are a number of sub-species growing in different habitats from deep fertile soils to poor shallow ones[164]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are very drought tolerant[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to

between -5 and -10°c[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The plant is very aromatic, especially after rain[11, 182].

The pollen of this species is one of the main causes of hayfever in N. America[212].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but making sure that the compost does not dry out. The sub-species A. tridentata vaseyana germinates better if given a cool stratification for 30 - 50 days. Other sub-species germinate in 1 - 2 weeks in a warm greenhouse[164]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame. Very slow to root[11]

Division in spring or autumn.

Layering[164].

Scent

Leaves: Crushed

> The plant is very aromatic, especially after rain.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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See the PFAF Links Pages for other sources

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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[84] **Coyle. J. and Roberts. N. C.** *A Field Guide to the Common and Interesting Plants of Baja California.* Natural History Publishing Co. 1975
A very readable pocket flora with good illustrations, it gives quite a few plant uses.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225

A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+tridentata`
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Plants For A Future: Database Search Results

Artemisia tridentata

Common name:	Sage brush	Family:	Compositae
Author:	Nutt.	Botanical references:	11, 60, 200
Synonyms:	Seriphidium tridentatum ((Nutt.)W.A.Weber.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Western N. America - British Columbia to California and Mexico, east to Nebraska.		
Habitat:	Dry plains and hills on calcareous soils[60]. Found on slightly acid and on alkaline soils[164].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. angusta[B,P] A. angustifolia[P] A. tridentata ssp. tridentata[B,C,CAL,P] A. tridentata var. angustifolia[B,P] A. tridentata var. parishii[P] Artemesia tridentata[Sa] Seriphidium tridentatum ssp. parishii[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basin Big Sagebrush [FEIS,P], Big Sagebrush [B,DEN1,P], Chamiso Hediondo [S], Purple Sage [H], Sagebrush [S], Sagebrush, Chamiso Hediondo [S],
Epithets:	From a Dictionary of Botanical Epithets
	dentata = with teeth; tridentata = 3 toothed;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us; Us(Amerindian); Us(Flathead); Us(Navajo); Us(Tewa)

Physical Characteristics

An evergreen shrub growing to 2.5m. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower in October, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Leaves; Seed; Tea.

Leaves - cooked[61]. The subspecies A. tridentata vaseyana has a pleasant mint-like aroma whilst some other subspecies are very bitter and pungent[164]. The leaves are used as a condiment and to make a tea[257].

Seed - raw or cooked. Oily[46, 61]. It can be roasted then ground into a powder and mixed with water or eaten raw[84, 106, 161, 257]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Digestive; Disinfectant; Febrifuge; Ophthalmic; Poultice; Sedative; Skin.

Sage brush was widely employed by many native North American Indian tribes who used it to treat a wide range of disorders[257]. It is little used in modern herbalism, though it certainly merits further investigation[K].

The plant is antirheumatic, antiseptic, digestive, disinfectant, febrifuge, ophthalmic, poultice and sedative[46, 61, 99, 257]. A decoction of the leaves is used in the treatment of digestive disorders and sore throats[216, 257]. An infusion of the fresh or dried leaves is used to treat pneumonia, bad colds with coughing and bronchitis[257]. It is used both internally and externally in the treatment of rheumatism[257]. The crushed plant is used as a liniment on cuts, sores etc whilst a decoction of the leaves is used as an antiseptic wash for cuts, wounds and sores[257]. A poultice of the steeped leaves is applied to sore eyes[257]. The plant is burnt in the house in order to disinfect it[257].

Other Uses

Basketry; Dye; Fibre; Friction sticks; Fuel; Hair; Miscellany; Paper; Repellent; Stuffing; Tinder.

An infusion of the leaves is used as a hair rinse, it treats dandruff and falling hair[84, 106, 168].

An infusion of the plant repels insects[99], it is also disinfectant and so is used for washing walls, floors etc[99].

A yellow to gold dye is obtained from the leaves, buds and stems combined[168].

The fibrous bark is used for weaving mats, baskets, cloth etc., or as a stuffing material in pillows etc and as an insulation in shoes to keep the feet warm[99, 257]. A fibre obtained from the inner bark is used for making paper[189]. The fibres are about 1.3mm long[189]. The stems are harvested in late summer, the leaves removed and the stems steamed until the fibre can be stripped off. The fibre is then cooked for two hours with lye before being ball milled for 4 hours. The resulting paper is a light tan/gold colour[189].

A bunch of the leafy stems can be tied together and used as a broom[257].

The shredded bark is a fine tinder for starting fires[99, 257].

The stems make good friction sticks for making fires[257].

The seeds are used during celebrations because, when thrown into a fire, they explode like crackers[257].

Wood - hard, dense[229]. It burns rapidly and well, even when green, and has a pleasant aromatic smell[212].

Cultivation details

Requires a sunny position and a well-drained soil that is not too rich[1, 11]. Requires a lime-free soil[60]. There are a number of sub-species growing in different habitats from deep fertile soils to poor shallow ones[164]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are very drought tolerant[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The plant is very aromatic, especially after rain[11, 182].

The pollen of this species is one of the main causes of hayfever in N. America[212].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but making sure that the compost does not dry out. The sub-species A. tridentata vaseyana germinates better if given a cool stratification for 30 - 50 days. Other sub-species germinate in 1 - 2 weeks in a warm greenhouse[164]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame. Very slow to root[11]

Division in spring or autumn.

Layering[164].

Scent

Leaves: Crushed

> The plant is very aromatic, especially after rain.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[84] **Coyle. J. and Roberts. N. C.** *A Field Guide to the Common and Interesting Plants of Baja*

California. Natural History Publishing Co. 1975
A very readable pocket flora with good illustrations, it gives quite a few plant uses.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[189] **Bell. L. A.** *Plant Fibres for Papermaking.* Liliaceae Press 1988
A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van

Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:*

Artemisia.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+tridentata`

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Plants For A Future: Database Search Results

Artemisia tridentata

Common name:	Sage brush	Family:	Compositae
Author:	Nutt.	Botanical references:	11, 60, 200
Synonyms:	Seriphidium tridentatum ((Nutt.)W.A.Weber.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Western N. America - British Columbia to California and Mexico, east to Nebraska.		
Habitat:	Dry plains and hills on calcareous soils[60]. Found on slightly acid and on alkaline soils[164].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. angusta[B,P] A. angustifolia[P] A. tridentata ssp. tridentata[B,C,CAL,P] A. tridentata var. angustifolia[B,P] A. tridentata var. parishii[P] Artemesia tridentata[Sa] Seriphidium tridentatum ssp. parishii[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basin Big Sagebrush [FEIS,P], Big Sagebrush [B,DEN1,P], Chamiso Hediondo [S], Purple Sage [H], Sagebrush [S], Sagebrush, Chamiso Hediondo [S],
Epithets:	From a Dictionary of Botanical Epithets
	dentata = with teeth; tridentata = 3 toothed;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us; Us(Amerindian); Us(Flathead); Us(Navajo); Us(Tewa)

Physical Characteristics

An evergreen shrub growing to 2.5m. It is hardy to zone 8 and is frost tender. It is in leaf all year, in flower in October, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Leaves; Seed; Tea.

Leaves - cooked[61]. The subspecies A. tridentata vaseyana has a pleasant mint-like aroma whilst some other subspecies are very bitter and pungent[164]. The leaves are used as a condiment and to make a tea[257].

Seed - raw or cooked. Oily[46, 61]. It can be roasted then ground into a powder and mixed with water or eaten raw[84, 106, 161, 257]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Antirheumatic; Antiseptic; Digestive; Disinfectant; Febrifuge; Ophthalmic; Poultice; Sedative; Skin.

Sage brush was widely employed by many native North American Indian tribes who used it to treat a wide range of disorders[257]. It is little used in modern herbalism, though it certainly merits further investigation[K].

The plant is antirheumatic, antiseptic, digestive, disinfectant, febrifuge, ophthalmic, poultice and sedative[46, 61, 99, 257]. A decoction of the leaves is used in the treatment of digestive disorders and sore throats[216, 257]. An infusion of the fresh or dried leaves is used to treat pneumonia, bad colds with coughing and bronchitis[257]. It is used both internally and externally in the treatment of rheumatism[257]. The crushed plant is used as a liniment on cuts, sores etc whilst a decoction of the leaves is used as an antiseptic wash for cuts, wounds and sores[257]. A poultice of the steeped leaves is applied to sore eyes[257]. The plant is burnt in the house in order to disinfect it[257].

Other Uses

Basketry; Dye; Fibre; Friction sticks; Fuel; Hair; Miscellany; Paper; Repellent; Stuffing; Tinder.

An infusion of the leaves is used as a hair rinse, it treats dandruff and falling hair[84, 106, 168].

An infusion of the plant repels insects[99], it is also disinfectant and so is used for washing walls, floors etc[99].

A yellow to gold dye is obtained from the leaves, buds and stems combined[168].

The fibrous bark is used for weaving mats, baskets, cloth etc., or as a stuffing material in pillows etc and as an insulation in shoes to keep the feet warm[99, 257]. A fibre obtained from the inner bark is used for making paper[189]. The fibres are about 1.3mm long[189]. The stems are harvested in late summer, the leaves removed and the stems steamed until the fibre can be stripped off. The fibre is then cooked for two hours with lye before being ball milled for 4 hours. The resulting paper is a light tan/gold colour[189].

A bunch of the leafy stems can be tied together and used as a broom[257].

The shredded bark is a fine tinder for starting fires[99, 257].

The stems make good friction sticks for making fires[257].

The seeds are used during celebrations because, when thrown into a fire, they explode like crackers[257].

Wood - hard, dense[229]. It burns rapidly and well, even when green, and has a pleasant aromatic smell[212].

Cultivation details

Requires a sunny position and a well-drained soil that is not too rich[1, 11]. Requires a lime-free soil[60]. There are a number of sub-species growing in different habitats from deep fertile soils to poor shallow ones[164]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are very drought tolerant[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The plant is very aromatic, especially after rain[11, 182].

The pollen of this species is one of the main causes of hayfever in N. America[212].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but making sure that the compost does not dry out. The sub-species A. tridentata vaseyana germinates better if given a cool stratification for 30 - 50 days. Other sub-species germinate in 1 - 2 weeks in a warm greenhouse[164]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame. Very slow to root[11]

Division in spring or autumn.

Layering[164].

Scent

Leaves: Crushed

> The plant is very aromatic, especially after rain.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Artemisia tridentata*

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Artemisia tridentata

Group:
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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia tridentata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Artemisia tripartita

Common name:	Threetip sage brush	Family:	Compositae
Author:	Rydb.	Botanical references:	60, 200
Synonyms:	Seriphidium tripartitum ((Rydb.)W.A.Weber.), Artemisia trifida (Nutt.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	North-western N. America.		
Habitat:	Dry plains and hills, often in somewhat moister or more favoured sites or at slightly higher elevations than A. tridentata to which it is akin[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. tridentata ssp. trifida[B,P] A. tripartita ssp. tripartita[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Idaho Threetip Sagebrush [P], Three-tip Sagebrush [B], Threetip Sagebrush [FEIS,P],
Epithets:	From a Dictionary of Botanical Epithets
	tripartita = 3 parts;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Shrub growing to 1.8m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves[61]. No further details are given.

Seed[46, 61, 105, 161, 257]. No further details are given, but the seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Diaphoretic; Vulnerary.

An infusion of the roots, or a decoction of the leaves and branches, is used in the treatment of colds, sore throats, tonsillitis, headaches etc[257].

An infusion of the plant is used as a wash for wounds caused by the removal of corns[257].

Other Uses

Tinder.

The bark is used as a tinder when making fires[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Succeeds in most soils including those of low fertility[164]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are very drought tolerant[200].

Plants resprout freely after a fire[60, 164].

The sub-species A. tripartita rupicola is a dwarf form growing only 15cm tall, whilst A. tripartita tripartita grows to 1.8 metres[164].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but do not allow it to dry out. The seed usually germinates in 1 - 2 weeks in a warm greenhouse[164]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame. Very slow to root[11]

Division in spring or autumn.

Layering[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects

Information System.

References for *Artemisia tripartita ssp. tripartita* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

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Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia tripartita

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Author:	Rydb.	Botanical references:	60, 200
Synonyms:	Seriphidium tripartitum ((Rydb.)W.A.Weber.), Artemisia trifida (Nutt.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	North-western N. America.		
Habitat:	Dry plains and hills, often in somewhat moister or more favoured sites or at slightly higher elevations than A. tridentata to which it is akin[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. tridentata ssp. trifida[B,P] A. tripartita ssp. tripartita[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	tripartita = 3 parts;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Shrub growing to 1.8m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves[61]. No further details are given.

Seed[46, 61, 105, 161, 257]. No further details are given, but the seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Diaphoretic; Vulnerary.

An infusion of the roots, or a decoction of the leaves and branches, is used in the treatment of colds, sore throats, tonsillitis, headaches etc[257].

An infusion of the plant is used as a wash for wounds caused by the removal of corns[257].

Other Uses

Tinder.

The bark is used as a tinder when making fires[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Succeeds in most soils including those of low fertility[164]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are very drought tolerant[200].

Plants resprout freely after a fire[60, 164].

The sub-species A. tripartita rupicola is a dwarf form growing only 15cm tall, whilst A. tripartita

tripartita grows to 1.8 metres[164].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but do not allow it to dry out. The seed usually germinates in 1 - 2 weeks in a warm greenhouse[164]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame. Very slow to root[11]

Division in spring or autumn.

Layering[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Artemisia tripartita ssp. tripartita* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460

86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants For A Future: Database Search Results

Artemisia tripartita

Common name:	Threetip sage brush	Family:	Compositae
Author:	Rydb.	Botanical references:	60, 200
Synonyms:	Seriphidium tripartitum ((Rydb.)W.A.Weber.), Artemisia trifida (Nutt.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	North-western N. America.		
Habitat:	Dry plains and hills, often in somewhat moister or more favoured sites or at slightly higher elevations than A. tridentata to which it is akin[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. tridentata ssp. trifida[B,P] A. tripartita ssp. tripartita[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Idaho Threetip Sagebrush [P], Three-tip Sagebrush [B], Threetip Sagebrush [FEIS,P],
Epithets:	From a Dictionary of Botanical Epithets
	tripartita = 3 parts;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Shrub growing to 1.8m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves[61]. No further details are given.

Seed[46, 61, 105, 161, 257]. No further details are given, but the seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

Diaphoretic; Vulnerary.

An infusion of the roots, or a decoction of the leaves and branches, is used in the treatment of colds, sore throats, tonsillitis, headaches etc[257].

An infusion of the plant is used as a wash for wounds caused by the removal of corns[257].

Other Uses

Tinder.

The bark is used as a tinder when making fires[257].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Succeeds in most soils including those of low fertility[164]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Established plants are very drought tolerant[200].

Plants resprout freely after a fire[60, 164].

The sub-species A. tripartita rupicola is a dwarf form growing only 15cm tall, whilst A. tripartita

tripartita grows to 1.8 metres[164].

Plants in this genus are notably resistant to honey fungus[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse in a very free-draining soil, but do not allow it to dry out. The seed usually germinates in 1 - 2 weeks in a warm greenhouse[164]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter, planting them out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame. Very slow to root[11]

Division in spring or autumn.

Layering[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+tripartita`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+tripartita`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia tripartita*

Subject:

Artemisia tripartita

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia tripartita

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:32:03 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia umbelliformis

Common name:	Alpine wormwood	Family:	Compositae
Author:	Lam.	Botanical references:	50, 200
Synonyms:	Artemisia laxa ((Lam.)Fritsch.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Europe - Alps, N. Apennines.		
Habitat:	Mountain rocks, moraines and river gravels[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. mutellina[G,H] Absinthium laxum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Wormwood [H], Alps Wormwood [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	umbelliformis = in umbels;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Europe(Alps)

Physical Characteristics

Perennial growing to 0.2m. It is hardy to zone 4. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Tea.

The herb is used in the preparation of a tea and a liqueur, often with the addition of absinthe[183]. The leaves are used as a condiment[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

An aromatic plant[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Scent

Leaves: Crushed

The plant is aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Artemisia laxa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Enter your details here:

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Email Address:

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Plants For A Future: Database Search Results

Artemisia umbelliformis

Common name:	Alpine wormwood	Family:	Compositae
Author:	Lam.	Botanical references:	50, 200
Synonyms:	Artemisia laxa ((Lam.)Fritsch.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Europe - Alps, N. Apennines.		
Habitat:	Mountain rocks, moraines and river gravels[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. mutellina[G,H] Absinthium laxum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Wormwood [H], Alps Wormwood [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	umbelliformis = in umbels;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Europe(Alps)

Physical Characteristics

Perennial growing to 0.2m. It is hardy to zone 4. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Tea.

The herb is used in the preparation of a tea and a liqueur, often with the addition of absinthe[183]. The leaves are used as a condiment[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

An aromatic plant[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very

easy.

Scent

Leaves: Crushed

The plant is aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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References for *Artemisia laxa* (a possible synonym).

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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Artemisia+umbelliformis`
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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+umbelliformis`

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Plants For A Future: Database Search Results

Artemisia umbelliformis

Common name:	Alpine wormwood	Family:	Compositae
Author:	Lam.	Botanical references:	50, 200
Synonyms:	Artemisia laxa ((Lam.)Fritsch.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	Europe - Alps, N. Apennines.		
Habitat:	Mountain rocks, moraines and river gravels[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. mutellina[G,H] Absinthium laxum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Wormwood [H], Alps Wormwood [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	umbelliformis = in umbels;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Europe(Alps)

Physical Characteristics

Perennial growing to 0.2m. It is hardy to zone 4. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Tea.

The herb is used in the preparation of a tea and a liqueur, often with the addition of absinthe[183]. The leaves are used as a condiment[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a warm sunny dry position. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

An aromatic plant[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very

easy.

Scent

Leaves: Crushed

The plant is aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Artemisia+umbelliformis`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia umbelliformis*

Subject:

Artemisia umbelliformis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia umbelliformis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia vulgaris

Common name:	Mugwort	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The plant might be poisonous in large doses[21]. Skin contact can cause dermatitis in some people[222].		
Range:	Britain.		
Habitat:	Common on hedgebanks and waysides, uncultivated and waste land[4, 7, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. vulgaris var. coarctata[G] Cingulum sancti johannis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ai [E], Ai Fu [E], Arbre Aux Cent Gouts [E], Armoise [E], Artemisa [E], Baru China [E], Bijvoet [D], Ch'I Ai [E], Chih Ts'Ao [E], Chiu Ts'Ao [E], Common Mugwort [S,L], Common Wormwood [B,P], Douglas Mugwort [H], Fleurs St Jean [E], Genje Jawa [E], Hiyam [E], I Ts'Ao [E], Miskotu [E], Mugwort [E,H,L], St John's Plant [H], Suket Ganjahan [E], Sundamala [E], Tzu Ai [E],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Britain(Wales); China; Haiti; India; Java; Malacca; Malaya; Mexico; Philippines; Spain; Sumatra; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.7m . It is hardy to zone 3 and is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Meadow, Hedgerow.

Edible Uses

Colouring; Condiment; Leaves.

Leaves - raw or cooked[2, 9, 12, 27, 177]. Aromatic and somewhat bitter[244]. Their addition to the diet aids the digestion and so they are often used in small quantities as a flavouring, especially with fatty foods[183, 244]. They are also used to give colour and flavour to glutinous-rice dumplings (Mochi)[183, 244]. The young shoots are used in spring[46]. In Japan the young leaves are used as a potherb[183].

The dried leaves and flowering tops are steeped into tea[183]. They have also been used as a flavouring in beer, though fell into virtual disuse once hops came into favour[4].

Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Appetizer; Carminative; Cholagogue; Diaphoretic; Digestive; Diuretic; Emmenagogue; Expectorant; Foot care; Haemostatic; Nervine; Purgative; Stimulant; Tonic; Women's complaints.

Mugwort has a long history of use in herbal medicine especially in matters connected to the digestive system, menstrual complaints and the treatment of worms[238]. It is slightly toxic, however, and should never be used by pregnant women, especially in their first trimester, since it can cause a miscarriage[7, 238]. Large, prolonged dosage can damage the nervous system[268].

All parts of the plant are anthelmintic, antiseptic, antispasmodic, carminative, cholagogue, diaphoretic, digestive, emmenagogue, expectorant, nervine, purgative, stimulant, slightly tonic and used in the treatment of women's complaints[4, 7, 13, 21, 147, 165, 178, 201].

The leaves are also said to be appetizer, diuretic, haemostatic and stomachic[176, 218, 222]. They can be used internally or externally[218]. An infusion of the leaves and flowering tops is used in the treatment of nervous and spasmodic affections, sterility, functional bleeding of the uterus, dysmenorrhoea, asthma and diseases of the brain[176, 243]. The leaves have an antibacterial action, inhibiting the growth of Staphylococcus aureus, Bacillus typhi, B. dysenteriae, streptococci, E. coli, B. subtilis, Pseudomonas etc[176]. The leaves are harvested in August and can be dried for later use[4].

The stem is also said to be antirheumatic, antispasmodic, and stomachic[218].

The roots are tonic and antispasmodic[243]. They are said to be one of the best stomachics[4]. They are harvested in the autumn and dried for later use[4].

The leaves, placed inside the shoes, are said to be soothing for sore feet[238].

The compressed dried leaves and stems are used in moxibustion[176, 178, 218, 222, 238]. Another report says that the down from the leaves is used[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Insecticide; Repellent; Tinder.

The fresh or the dried plant repels insects, it can be used as a spray but caution is advised since it can also inhibit plant growth[20]. A weak tea made from the infused plant is a good all-purpose insecticide[201]. An essential oil from the plant kills insect larvae[218].

The down on the leaves makes a good tinder for starting fires[115].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position and a moist soil[1, 14, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 4.8 to 8.2. Established plants are drought tolerant[200].

Mugwort is an aggressive and invasive plant[14], it inhibits the growth of nearby plants by means of root secretions[20, 201].

The sub-species A. vulgaris parviflora. Maxim. is the form that is eaten in China[179].

There are some named varieties[200]. 'White' is a taller plant than the type species, growing to 1.5 metres. It has a strong, rather resinous or "floral" taste similar to chrysanthemum leaves and is used in soups or fried as a side dish[183].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse and do not allow the compost to dry out. When large enough to handle, prick out the seedlings into individual pots. If growth is sufficient, they can be planted out into their permanent positions in the summer, otherwise grow them on in a cold frame for their first winter and then plant them out in the spring.

Division in spring or autumn.

Basal cuttings in late spring. Harvest the young shoots when about 10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

'White'

> A taller plant than the type species, growing to 1.5 metres in height. It has a strong, rather resinous or "floral" taste similar to chrysanthemum leaves and is used in soups or fried as a side dish[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *artemisia vulgaris* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3

Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2

Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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If you know of another site which has good information about this plant fill in the following the details here.

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Details:	

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Plants For A Future: Database Search Results

Artemisia vulgaris

Common name:	Mugwort	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The plant might be poisonous in large doses[21]. Skin contact can cause dermatitis in some people[222].		
Range:	Britain.		
Habitat:	Common on hedgebanks and waysides, uncultivated and waste land[4, 7, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. vulgaris var. coarctata[G] Cingulum sancti johannis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); China; Haiti; India; Java; Malacca; Malaya; Mexico; Philippines; Spain; Sumatra; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.7m . It is hardy to zone 3 and is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Meadow, Hedgerow.

Edible Uses

Colouring; Condiment; Leaves.

Leaves - raw or cooked[2, 9, 12, 27, 177]. Aromatic and somewhat bitter[244]. Their addition to the diet aids the digestion and so they are often used in small quantities as a flavouring, especially with fatty foods[183, 244]. They are also used to give colour and flavour to glutinous-rice dumplings (Mochi)[183, 244]. The young shoots are used in spring[46]. In Japan the young leaves are used as a potherb[183].

The dried leaves and flowering tops are steeped into tea[183]. They have also been used as a flavouring in beer, though fell into virtual disuse once hops came into favour[4].

Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Appetizer; Carminative; Cholagogue; Diaphoretic; Digestive; Diuretic; Emmenagogue; Expectorant; Foot care; Haemostatic; Nervine; Purgative; Stimulant; Tonic; Women's complaints.

Mugwort has a long history of use in herbal medicine especially in matters connected to the digestive system, menstrual complaints and the treatment of worms[238]. It is slightly toxic, however, and should never be used by pregnant women, especially in their first trimester, since it can cause a miscarriage[7, 238]. Large, prolonged dosage can damage the nervous system[268].

All parts of the plant are anthelmintic, antiseptic, antispasmodic, carminative, cholagogue, diaphoretic, digestive, emmenagogue, expectorant, nervine, purgative, stimulant, slightly tonic and used in the treatment of women's complaints[4, 7, 13, 21, 147, 165, 178, 201].

The leaves are also said to be appetizer, diuretic, haemostatic and stomachic[176, 218, 222]. They can be used internally or externally[218]. An infusion of the leaves and flowering tops is used in the treatment of nervous and spasmodic affections, sterility, functional bleeding of the uterus, dysmenorrhoea, asthma and diseases of the brain[176, 243]. The leaves have an antibacterial action, inhibiting the growth of Staphylococcus aureus, Bacillus typhi, B. dysenteriae, streptococci, E. coli, B. subtilis, Pseudomonas etc[176]. The leaves are harvested in August and can be dried for later use[4].

The stem is also said to be antirheumatic, antispasmodic, and stomachic[218].

The roots are tonic and antispasmodic[243]. They are said to be one of the best stomachics[4]. They are harvested in the autumn and dried for later use[4].

The leaves, placed inside the shoes, are said to be soothing for sore feet[238].

The compressed dried leaves and stems are used in moxibustion[176, 178, 218, 222, 238]. Another report says that the down from the leaves is used[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Insecticide; Repellent; Tinder.

The fresh or the dried plant repels insects, it can be used as a spray but caution is advised since it can also inhibit plant growth[20]. A weak tea made from the infused plant is a good all-purpose insecticide[201]. An essential oil from the plant kills insect larvae[218].

The down on the leaves makes a good tinder for starting fires[115].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position and a moist soil[1, 14, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 4.8 to 8.2. Established plants are drought tolerant[200].

Mugwort is an aggressive and invasive plant[14], it inhibits the growth of nearby plants by means of root secretions[20, 201].

The sub-species A. vulgaris parviflora. Maxim. is the form that is eaten in China[179].

There are some named varieties[200]. 'White' is a taller plant than the type species, growing to 1.5 metres. It has a strong, rather resinous or "floral" taste similar to chrysanthemum leaves and is used in soups or fried as a side dish[183].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse and do not allow the compost to dry out. When large enough to handle, prick out the seedlings into individual pots. If growth is sufficient, they can be planted out into their permanent positions in the summer, otherwise grow them on in a cold frame for their first winter and then plant them out in the spring.

Division in spring or autumn.

Basal cuttings in late spring. Harvest the young shoots when about 10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

'White'

> A taller plant than the type species, growing to 1.5 metres in height. It has a strong, rather resinous or "floral" taste similar to chrysanthemum leaves and is used in soups or fried as a side dish[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *artemisia vulgaris* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7

A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Artemisia vulgaris

Common name:	Mugwort	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The plant might be poisonous in large doses[21]. Skin contact can cause dermatitis in some people[222].		
Range:	Britain.		
Habitat:	Common on hedgebanks and waysides, uncultivated and waste land[4, 7, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. vulgaris var. coarctata[G] Cingulum sancti johannis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ai [E], Ai Fu [E], Arbre Aux Cent Gouts [E], Armoise [E], Artemisa [E], Baru China [E], Bijvoet [D], Ch'I Ai [E], Chih Ts'Ao [E], Chiu Ts'Ao [E], Common Mugwort [S,L], Common Wormwood [B,P], Douglas Mugwort [H], Fleurs St Jean [E], Genje Jawa [E], Hiyam [E], I Ts'Ao [E], Miskotu [E], Mugwort [E,H,L], St John's Plant [H], Suket Ganjahan [E], Sundamala [E], Tzu Ai [E],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); China; Haiti; India; Java; Malacca; Malaya; Mexico; Philippines; Spain; Sumatra; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.7m . It is hardy to zone 3 and is not frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Meadow, Hedgerow.

Edible Uses

Colouring; Condiment; Leaves.

Leaves - raw or cooked[2, 9, 12, 27, 177]. Aromatic and somewhat bitter[244]. Their addition to the diet aids the digestion and so they are often used in small quantities as a flavouring, especially with fatty foods[183, 244]. They are also used to give colour and flavour to glutinous-rice dumplings (Mochi)[183, 244]. The young shoots are used in spring[46]. In Japan the young leaves are used as a potherb[183].

The dried leaves and flowering tops are steeped into tea[183]. They have also been used as a flavouring in beer, though fell into virtual disuse once hops came into favour[4].

Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Appetizer; Carminative; Cholagogue; Diaphoretic; Digestive; Diuretic; Emmenagogue; Expectorant; Foot care; Haemostatic; Nervine; Purgative; Stimulant; Tonic; Women's complaints.

Mugwort has a long history of use in herbal medicine especially in matters connected to the digestive system, menstrual complaints and the treatment of worms[238]. It is slightly toxic, however, and should never be used by pregnant women, especially in their first trimester, since it can cause a miscarriage[7, 238]. Large, prolonged dosage can damage the nervous system[268].

All parts of the plant are anthelmintic, antiseptic, antispasmodic, carminative, cholagogue, diaphoretic, digestive, emmenagogue, expectorant, nervine, purgative, stimulant, slightly tonic and used in the treatment of women's complaints[4, 7, 13, 21, 147, 165, 178, 201].

The leaves are also said to be appetizer, diuretic, haemostatic and stomachic[176, 218, 222]. They can be used internally or externally[218]. An infusion of the leaves and flowering tops is used in the treatment of nervous and spasmodic affections, sterility, functional bleeding of the uterus, dysmenorrhoea, asthma and diseases of the brain[176, 243]. The leaves have an antibacterial action, inhibiting the growth of Staphylococcus aureus, Bacillus typhi, B. dysenteriae, streptococci, E. coli, B. subtilis, Pseudomonas etc[176]. The leaves are harvested in August and can be dried for later use[4].

The stem is also said to be antirheumatic, antispasmodic, and stomachic[218].

The roots are tonic and antispasmodic[243]. They are said to be one of the best stomachics[4]. They are harvested in the autumn and dried for later use[4].

The leaves, placed inside the shoes, are said to be soothing for sore feet[238].

The compressed dried leaves and stems are used in moxibustion[176, 178, 218, 222, 238]. Another report says that the down from the leaves is used[4].

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Other Uses

Insecticide; Repellent; Tinder.

The fresh or the dried plant repels insects, it can be used as a spray but caution is advised since it can also inhibit plant growth[20]. A weak tea made from the infused plant is a good all-purpose insecticide[201]. An essential oil from the plant kills insect larvae[218].

The down on the leaves makes a good tinder for starting fires[115].

Cultivation details

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position and a moist soil[1, 14, 200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245]. Tolerates a pH in the range 4.8 to 8.2. Established plants are drought tolerant[200].

Mugwort is an aggressive and invasive plant[14], it inhibits the growth of nearby plants by means of root secretions[20, 201].

The sub-species A. vulgaris parviflora. Maxim. is the form that is eaten in China[179].

There are some named varieties[200]. 'White' is a taller plant than the type species, growing to 1.5 metres. It has a strong, rather resinous or "floral" taste similar to chrysanthemum leaves and is used in soups or fried as a side dish[183].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse and do not allow the compost to dry out. When large enough to handle, prick out the seedlings into individual pots. If growth is sufficient, they can be planted out into their permanent positions in the summer, otherwise grow them on in a cold frame for their first winter and then plant them out in the spring.

Division in spring or autumn.

Basal cuttings in late spring. Harvest the young shoots when about 10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Cultivars

'White'

> A taller plant than the type species, growing to 1.5 metres in height. It has a strong, rather resinous or "floral" taste similar to chrysanthemum leaves and is used in soups or fried as a side dish[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia vulgaris*

Subject:

Artemisia vulgaris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia vulgaris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Artemisia wrightii

Common name:		Family:	Compositae
Author:	Gray.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves - cooked[61].

Seed - raw or cooked. An oily texture[61, 161, 177]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about 10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N.*

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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

Wormwood

Artemisia absinthium

Wormwood is native to Eurasia, and has been grown in North America as a casual weed in the northern United States and southern Canada. Wormwood is a perennial, growing 2 to 4 feet tall, with clustered stems and grayish-silver herbage. Flowering from June to September, it emits an aromatic odor and tastes very bitter.

It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around

it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants:* *Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera:* *Artemisia*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

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Plants For A Future: Database Search Results

Artemisia wrightii

Common name:		Family:	Compositae
Author:	Gray.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves - cooked[61].

Seed - raw or cooked. An oily texture[61, 161, 177]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about 10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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Readers Comments

Artemisia absinthum

() Thu Oct 16 03:57:35 2003

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Artemisia absinthium

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It is known in Russia as Polin and is considered the most bitter plant in the world. This bitter taste was commonly believed to be due to the plant's absorption of bitter human sufferings, its properties said to restore peace and calm to the soul. In the eighteenth century, a toast to happiness included adding a drop of Wormwood in the drink.

Wormwood is known in India and Pakistan as Afsantin or Vilayati Afsantin. it is praised highly for ridding the body of round and tape worms."

[Taken from www.blackwalnuthull.com]

Link: www.BlackWalnutHull.com

Details of Growing Condition: Grows almost anywhere, however it inhibits all other plants around it. Grow at least 3 feet away from your vegetable garden..

Cross references: *Plants: Artemisia absinthum*, *Artemisia absinthium*, *Artemisia*. *Genera: Artemisia*.

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Plants For A Future: Database Search Results

Artemisia wrightii

Common name:		Family:	Compositae
Author:	Gray.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people[222].		
Range:	N. America.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Leaves - cooked[61].

Seed - raw or cooked. An oily texture[61, 161, 177]. The seed is very small and fiddly to use[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Easily grown in a well-drained circumneutral or slightly alkaline loamy soil, preferring a sunny position[1, 200]. Established plants are drought tolerant[200]. Plants are longer lived, more hardy and more aromatic when they are grown in a poor dry soil[245].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - surface sow from late winter to early summer in a greenhouse, making sure that the compost does not dry out[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer.

Division in spring or autumn[200].

Basal cuttings in late spring. Harvest the young shoots when about 10 - 15cm long, pot up in a lightly shaded position in a greenhouse or cold frame and plant them out when well rooted. Very easy.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Artemisia wrightii*

Subject:

Artemisia wrightii

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Artemisia wrightii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Centipeda minima

Common name:	Spreading sneeze weed	Family:	Compositae
Author:	(L.) A. Braun. & Aschers.	Botanical references:	58, 265
Synonyms:	Centipeda orbicularis, Centipeda minuta, Artemisia minima (L.)		
Known Hazards:	None known		
Range:	E. Asia to Australia.		
Habitat:	Waste ground and roadsides all over Japan[58]. Usually in wet places in eastern Australia[265].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	E Pu Shih Ts'Ao [E], Pe Kong Chhau [E], Shih Hu Sui [E], Spreading Sneezeweed [P], Spreading-sneezeweed [B], T'Ien Hu Sui [E],
Epithets:	From a Dictionary of Botanical Epithets
	minima = smallest;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; India(Santal); Malaya

Physical Characteristics

Annual growing to 0.1m by 0.5m . . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anodyne, antitussive, depurative, diuretic, stimulates blood circulation[147, 176].

Other Uses

None known

Cultivation details

See also[58], [240].

Propagation

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Centipeda minuta* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Centipeda orbicularis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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Plants For A Future: Database Search Results

Centipeda minima

Common name:	Spreading sneeze weed	Family:	Compositae
Author:	(L.) A. Braun. & Aschers.	Botanical references:	58, 265
Synonyms:	Centipeda orbicularis, Centipeda minuta, Artemisia minima (L.)		
Known Hazards:	None known		
Range:	E. Asia to Australia.		
Habitat:	Waste ground and roadsides all over Japan[58]. Usually in wet places in eastern Australia[265].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	E Pu Shih Ts'Ao [E], Pe Kong Chhau [E], Shih Hu Sui [E], Spreading Sneezeweed [P], Spreading-sneezeweed [B], T'Ien Hu Sui [E],
Epithets:	From a Dictionary of Botanical Epithets
	minima = smallest;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; India(Santal); Malaya

Physical Characteristics

Annual growing to 0.1m by 0.5m . . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anodyne, antitussive, depurative, diuretic, stimulates blood circulation[147, 176].

Other Uses

None known

Cultivation details

See also[58], [240].

Propagation

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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Plants For A Future: Database Search Results

Centipeda minima

Common name:	Spreading sneeze weed	Family:	Compositae
Author:	(L.) A. Braun. & Aschers.	Botanical references:	58, 265
Synonyms:	Centipeda orbicularis, Centipeda minuta, Artemisia minima (L.)		
Known Hazards:	None known		
Range:	E. Asia to Australia.		
Habitat:	Waste ground and roadsides all over Japan[58]. Usually in wet places in eastern Australia[265].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	E Pu Shih Ts'Ao [E], Pe Kong Chhau [E], Shih Hu Sui [E], Spreading Sneezeweed [P], Spreading-sneezeweed [B], T'Ien Hu Sui [E],
Epithets:	From a Dictionary of Botanical Epithets
	minima = smallest;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; India(Santal); Malaya

Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anodyne, antitussive, depurative, diuretic, stimulates blood circulation[147, 176].

Other Uses

None known

Cultivation details

See also[58], [240].

Propagation

Suppliers

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Centipeda+minima`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Centipeda minima*

Subject:

Centipeda minima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Centipeda minima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:33:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Eupatorium capillifolium

Common name:		Family:	Compositae
Author:	(Lam.) Small.	Botanical references:	43
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - New Jersey to Vancouver, south to Florida.		
Habitat:	Borders of woods, clearings, fields and roadsides[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Artemisia capillifolia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dog Fennel [L], Dog-fennel [B], Dogfennel [P,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	capillifolium = hairy leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual growing to 3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

Stings.

The entire plant is applied externally as a remedy for the bites of reptiles and insects[61].

Other Uses

Repellent; Strewing.

The plant is used as a strewing herb and to discourage insects[61].

Cultivation details

We have very little information on this species but, judging by its habitat, it should be hardy in Britain. Other members of this genus succeed in ordinary well-drained but moisture retentive garden soil in sun or part shade[200].

Plants seem to be immune to the predations of rabbits[233].

An aggressive and weedy species[43].

Propagation

Seed - sow spring in a cold frame and only just cover the seed. Prick out the seedlings into individual pots when they are large enough to handle and plant them out into their permanent positions in the summer.

Division in spring or autumn[111]. Very easy, the clumps can be replanted direct into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Eupatorium capillifolium

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Range:	Eastern N. America - New Jersey to Vancouver, south to Florida.		
Habitat:	Borders of woods, clearings, fields and roadsides[43].		
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Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	capillifolium = hairy leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual growing to 3m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

Stings.

The entire plant is applied externally as a remedy for the bites of reptiles and insects[61].

Other Uses

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Eupatorium capillifolium

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Synonyms:			
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Range:	Eastern N. America - New Jersey to Vancouver, south to Florida.		
Habitat:	Borders of woods, clearings, fields and roadsides[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	capillifolium = hairy leaved;
Systematics:	From a UDSA Plants Database
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Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

Stings.

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Other Uses

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Add a comment on: *Eupatorium capillifolium*

Subject:

Eupatorium capillifolium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Eupatorium capillifolium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Plants For A Future: Database Search Results

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Leonurus japonicus

Common name:		Family:	Labiatae
Author:	Houtt.	Botanical references:	266
Synonyms:	Stachys artemisia (Lour.), Leonurus artemisia ((Lour.)S.Y.Hu.), Leonurus heterophyllus (Sweet.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Waste places, hillsides, roadsides and gardens[147]. Sunny areas to elevations of 3,400 metres all over China[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. artemisia[G] L. sibiricus[G] Stachys artemisia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Me-Haziki [E],
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Annual/Biennial growing to 0.9m. . It is in flower from July to September, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in

semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Antifungal; Aphrodisiac; Birthing aid; Contraceptive; Depurative; Diuretic; Emmenagogue; Hypotensive; Ophthalmic; Poultice; Vasodilator; Vulnerary; Women's complaints.

This plant (and other closely related species) is commonly used in Chinese herbalism, where it is considered to be one of the 50 fundamental herbs[218].

The leaves are diuretic and are placed in bath water to relieve itching and painful shingles[218].

The dried flowers are emmenagogue and are also used in pregnancy and to help expel the placenta after giving birth[218].

The juice of the stems is vulnerary[218].

The fruit is antibacterial, diuretic, emmenagogue, hypotensive, ophthalmic and vasodilator[176, 218]. It is used in the treatment of abnormal menstruation, nebula and conjunctivitis[176].

The seed is aphrodisiac, diuretic, emmenagogue, ophthalmic and is also used in the treatment of various women's complaints[147, 218]. The plant was ranked number one in a survey of 250 potential antifertility plants in China[218]. The seed is used in the treatment of conjunctivitis and night blindness[147].

The aerial parts of the plant are alterative, antibacterial, antifungal, depurative, diuretic, emmenagogue, hypotensive, vasodilator and vulnerary[176, 218]. The whole plant is decocted, either on its own or with other herbs, as an ophthalmic[218]. It is used in the treatment of abnormal menstruation, postpartum abdominal pain, tumours, uterine bleeding, oedema, eczema and purulent abscess[176]. It is also used externally as a poultice for bruises[218].

Stimulates blood circulation[147]. (The part of the plant used is not made clear.)

Other Uses

None known

Cultivation details

We have almost no information on this species and do not know if it will be hardy in this country. The following notes are based on the general needs of the genus.

Succeeds in most soils[200]. Prefers a poor soil[108].

There is some doubt over the correct name for this species, a recent work suggested that it should be L. artemisia (Lour.)S.Y.Hu. - at least in as much as it refers to the medicinal plant in China[218].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Suppliers

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Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981

The title says it all.

[147] **?** *A Barefoot Doctors Manual*. Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
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[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Antifungal; Aphrodisiac; Birthing aid; Contraceptive; Depurative; Diuretic; Emmenagogue; Hypotensive; Ophthalmic; Poultice; Vasodilator; Vulnerary; Women's complaints.

This plant (and other closely related species) is commonly used in Chinese herbalism, where it is considered to be one of the 50 fundamental herbs[218].

The leaves are diuretic and are placed in bath water to relieve itching and painful shingles[218].

The dried flowers are emmenagogue and are also used in pregnancy and to help expel the placenta after giving birth[218].

The juice of the stems is vulnerary[218].

The fruit is antibacterial, diuretic, emmenagogue, hypotensive, ophthalmic and vasodilator[176, 218]. It is used in the treatment of abnormal menstruation, nebula and conjunctivitis[176].

The seed is aphrodisiac, diuretic, emmenagogue, ophthalmic and is also used in the treatment of various women's complaints[147, 218]. The plant was ranked number one in a survey of 250 potential antifertility plants in China[218]. The seed is used in the treatment of conjunctivitis and night blindness[147].

The aerial parts of the plant are alterative, antibacterial, antifungal, depurative, diuretic, emmenagogue, hypotensive, vasodilator and vulnerary[176, 218]. The whole plant is decocted, either on its own or with other herbs, as an ophthalmic[218]. It is used in the treatment of abnormal menstruation, postpartum abdominal pain, tumours, uterine bleeding, oedema, eczema and purulent abscess[176]. It is also used externally as a poultice for bruises[218].

Stimulates blood circulation[147]. (The part of the plant used is not made clear.)

Other Uses

None known

Cultivation details

We have almost no information on this species and do not know if it will be hardy in this country. The following notes are based on the general needs of the genus.

Succeeds in most soils[200]. Prefers a poor soil[108].

There is some doubt over the correct name for this species, a recent work suggested that it should be L. artemisia (Lour.)S.Y.Hu. - at least in as much as it refers to the medicinal plant in China[218].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981

The title says it all.

[147] **?** *A Barefoot Doctors Manual*. Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

Readers Comments

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Plants For A Future: Database Search Results

Leonurus japonicus

Common name:		Family:	Labiatae
Author:	Houtt.	Botanical references:	266
Synonyms:	Stachys artemisia (Lour.), Leonurus artemisia ((Lour.)S.Y.Hu.), Leonurus heterophyllus (Sweet.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Waste places, hillsides, roadsides and gardens[147]. Sunny areas to elevations of 3,400 metres all over China[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. artemisia[G] L. sibiricus[G] Stachys artemisia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Me-Haziki [E],
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Annual/Biennial growing to 0.9m. . It is in flower from July to September, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Antifungal; Aphrodisiac; Birthing aid; Contraceptive; Depurative; Diuretic; Emmenagogue; Hypotensive; Ophthalmic; Poultice; Vasodilator; Vulnerary; Women's complaints.

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Stimulates blood circulation[147]. (The part of the plant used is not made clear.)

Other Uses

None known

Cultivation details

We have almost no information on this species and do not know if it will be hardy in this country. The following notes are based on the general needs of the genus.

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Propagation

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Leonurus japonicus*

Subject:

Leonurus japonicus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Leonurus japonicus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:34:02 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Leonurus macranthus

Common name:		Family:	Labiatae
Author:	Maxim.	Botanical references:	58, 266
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea, Manchuria.		
Habitat:	Grassy places and thickets in hills all over Japan[58]. Grows in shady places in Kiangnan, China[178]. Grassy slopes and thickets to 400 metres in Hebei, Jilin and Liaoning[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. artemisia[G] L. japonicus[E,G] L. sibiricus[G] Stachys artemisia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Me-Haziki [E], T'Ui [E], Tsan Ts'Ai [E],
Epithets:	From a Dictionary of Botanical Epithets
	acranthus = flowers at apices; macranthus = large flowered;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China; Tibet

Physical Characteristics

Perennial growing to 1m. . It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Leaves.

Shoots - cooked[178].

Medicinal Uses

Disclaimer

Blood tonic; Tonic; Women's complaints.

The plant is a blood tonic and is used in the treatment of women's complaints, especially post-partum difficulties[178].

Other Uses

None known

Cultivation details

We have almost no information on this species and do not know if it will be hardy in this country, though judging by its native range it should succeed outdoors in most parts of the country. The following notes are based on the general needs of the genus.

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Propagation

Seed - sow spring in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and plant them out in the summer.

If you have sufficient seed then it can be sown in an outdoor seedbed, or even in situ.

Division in spring or autumn[238]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Leonurus macranthus*

Subject:

Leonurus macranthus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Leonurus macranthus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:34:20 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Leonurus sibiricus

Common name:	Chinese motherwort	Family:	Labiatae
Author:	L.	Botanical references:	58, 74, 266
Synonyms:	Leonurus manshuricus (Yabe.)		
Known Hazards:	See the notes under medicinal uses.		
Range:	E. Asia - China, Japan, Korea, Siberia.		
Habitat:	Stony and steppe slopes, pine forests and occasionally as a weed of cultivated land[74]. By the sea shore and along the margins of marshes and pools[178].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. artemisia[B,G] L. artemisia auct. non[P] L. sibericus[H] L. sibirica[Shl] Stachys artemisia[G]
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Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Java; Malacca; Malaya; Tibet

Physical Characteristics

Annual/Biennial growing to 1m by 0.6m . It is hardy to zone 6. It is in flower from July to September, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root.

Young shoots - cooked[105, 177, 183]. A sweetish flavour[179].

Root - cooked with other foods[177, 183]. This probably means that it is used as a flavouring[K].

Medicinal Uses

Disclaimer

Antibacterial; Antispasmodic; Astringent; Cardiac; Depurative; Diaphoretic; Diuretic; Emmenagogue; Hypnotic; Nervine; Oxytoxic; Stimulant; Stomachic; Tonic.

Chinese motherwort is unusual amongst Chinese herbs in that it is often prescribed for use on its own and not in a mixture with other plants[238]. The whole plant is antibacterial, antispasmodic, astringent, cardiac, depurative, diaphoretic, diuretic, emmenagogue, hypnotic, nervine, oxytocic, stomachic, tonic, uterine stimulant[4, 9, 21, 46, 165, 174, 178, 192]. The seeds have a similar action to the plant, but are a less effective diuretic and depurative[238]. The plant is used in the treatment of painful and excessive menstruation, post-partum bleeding, oedema, kidney complaints, kidney stones, eczema and abscesses[238, 240]. A tincture is used in the treatment of rheumatic fever[192]. The plant stimulates uterine contractions and should not therefore be used when in the earlier stages of pregnancy[240]. The plant is harvested when in flower but before the seeds have set, and is dried for later use[238].

The plant contains about 0.05% of an alkaloid called leonurine[240]. This has a curare-like effect on the motor-endings of the nervous system, acting in small doses as a stimulant to the respiratory system but in large doses causing respiratory paralysis[240].

Other Uses

Essential.

Yields an essential oil[46]. No more details are given.

Cultivation details

Prefers a well-drained moist soil in sun or partial shade[238]. Prefers a poor soil[108].

Plants are hardy to at least -15°c[238].

There is some confusion over the correct name for this species, it should quite probably be called L. japonicus.

Propagation

Seed - sow late spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Enter your details here:

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Plants For A Future: Database Search Results

Leonurus sibiricus

Common name:	Chinese motherwort	Family:	Labiatae
Author:	L.	Botanical references:	58, 74, 266
Synonyms:	Leonurus manshuricus (Yabe.)		
Known Hazards:	See the notes under medicinal uses.		
Range:	E. Asia - China, Japan, Korea, Siberia.		
Habitat:	Stony and steppe slopes, pine forests and occasionally as a weed of cultivated land[74]. By the sea shore and along the margins of marshes and pools[178].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Java; Malacca; Malaya; Tibet

Physical Characteristics

Annual/Biennial growing to 1m by 0.6m . It is hardy to zone 6. It is in flower from July to September, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Root.

Young shoots - cooked[105, 177, 183]. A sweetish flavour[179].

Root - cooked with other foods[177, 183]. This probably means that it is used as a flavouring[K].

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Disclaimer

Antibacterial; Antispasmodic; Astringent; Cardiac; Depurative; Diaphoretic; Diuretic; Emmenagogue; Hypnotic; Nervine; Oxytoxic; Stimulant; Stomachic; Tonic.

Chinese motherwort is unusual amongst Chinese herbs in that it is often prescribed for use on its own and not in a mixture with other plants[238]. The whole plant is antibacterial, antispasmodic, astringent, cardiac, depurative, diaphoretic, diuretic, emmenagogue, hypnotic, nervine, oxytocic, stomachic, tonic, uterine stimulant[4, 9, 21, 46, 165, 174, 178, 192]. The seeds have a similar action to the plant, but are a less effective diuretic and depurative[238]. The plant is used in the treatment of painful and excessive menstruation, post-partum bleeding, oedema, kidney complaints, kidney stones, eczema and abscesses[238, 240]. A tincture is used in the treatment of rheumatic fever[192]. The plant stimulates uterine contractions and should not therefore be used when in the earlier stages of pregnancy[240]. The plant is harvested when in flower but before the seeds have set, and is dried for later use[238].

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Other Uses

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Yields an essential oil[46]. No more details are given.

Cultivation details

Prefers a well-drained moist soil in sun or partial shade[238]. Prefers a poor soil[108].

Plants are hardy to at least -15°c[238].

There is some confusion over the correct name for this species, it should quite probably be called L. japonicus.

Propagation

Seed - sow late spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Scent

No details on scent.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Leonurus+sibiricus`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Leonurus sibiricus*

Subject:

Leonurus sibiricus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Leonurus sibiricus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Lomatium macrocarpum

Common name:	Bigseed biscuitroot	Family:	Umbelliferae
Author:	(Nutt.) Coult. & Rose.	Botanical references:	60
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - British Columbia to California.		
Habitat:	Open rocky hills and plains, not extending much into the mountains[60].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cogswellia macrocarpa[B,P] Ferula macrocarpa[B,P] L. macrocarpum var. artemisiarum[B,P] L. macrocarpum var. ellipticum[B,P] Peucedanum macrocarpum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bigseed Biscuitroot [P], Large-fruit Desert-parsley [B],
Epithets:	From a Dictionary of Botanical Epithets
	macrocarpum = large fruited;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root; Seed; Tea.

Root - raw or cooked[257]. A staple food for a number of native North American Indian tribes[257]. The root is usually peeled before being cooked or eaten[257]. It can be dried and ground into a powder and then used to make cakes etc[105, 161, 183].

Seed - raw or cooked. Very nutritious, they can also be ground into a powder[183] and then used with cereal flours when making bread, cakes etc, or be used as a flavouring in soups etc[257]. The seed is very small, but quite easy to harvest[183, K].

A tea can be made from the leaves, stems and flowers[183].

Medicinal Uses

Disclaimer

Infertility; Pectoral; Poultice; Sedative; Tonic.

An infusion of the roots has been used as a general strengthener for a weakened patient[257]. The infusion is also used as a treatment for colds, influenza and bronchitis[257]. The root has been chewed and the juice swallowed as a treatment for sore throats[257].

The root has been eaten by childless couples, especially older people, in order to help them conceive[257].

A poultice made from the boiled root has been used to treat swellings[257].

The leaves have been used as a padding in a child's cradle to encourage it to sleep more[257].

Other Uses

Incense.

The root has been dried then burnt as a ceremonial incense[257].

Cultivation details

We have almost no information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in much of the country.

It can be assumed that plants will require a dry to moist but well-drained soil in a sunny position.

Polymorphic[60].

This is a taxonomically very difficult genus, many of the species now included in it have at times been included in other genera[60].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed can be rather slow to germinate, when sown in the spring it usually takes at least 12 months to germinate. Giving it a period of cold stratification might reduce this time. The seedlings need to be pricked out into individual pots as soon as they are large enough to handle, and should be planted out into their permanent positions in the summer.

Fresh seed can be sown immediately in situ.

Division may be possible in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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See the PFAF Links Pages for other sources

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Habitat:	Open rocky hills and plains, not extending much into the mountains[60].		
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Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

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The leaves have been used as a padding in a child's cradle to encourage it to sleep more[257].

Other Uses

Incense.

The root has been dried then burnt as a ceremonial incense[257].

Cultivation details

We have almost no information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in much of the country.

It can be assumed that plants will require a dry to moist but well-drained soil in a sunny position.

Polymorphic[60].

This is a taxonomically very difficult genus, many of the species now included in it have at times been included in other genera[60].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed can be rather slow to germinate, when sown in the spring it usually takes at least 12 months to germinate. Giving it a period of cold stratification might reduce this time. The seedlings need to be pricked out into individual pots as soon as they are large enough to handle, and should be planted out into their permanent positions in the summer.

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Cultivation details

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Polymorphic[60].

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Propagation

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Subject:

Lomatium macrocarpum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Lomatium macrocarpum

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Matricaria matricarioides

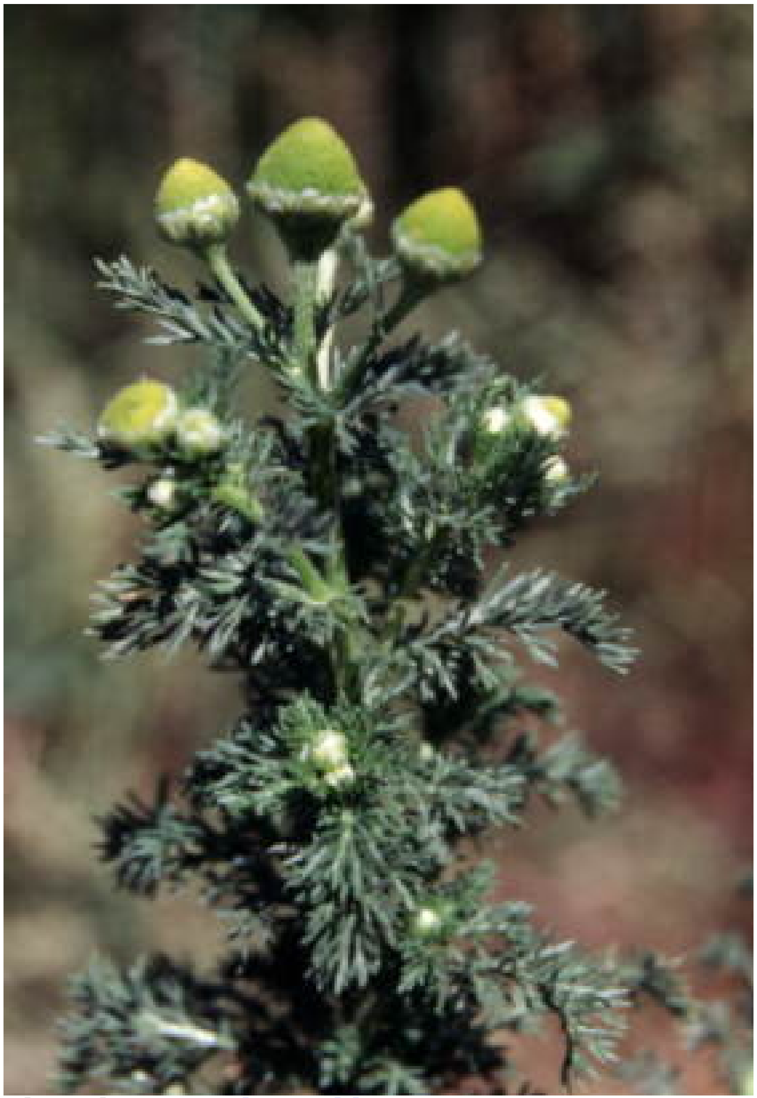

Photo by Derrick Ditchburn

Common name:	Pineapple weed	Family:	Compositae
Author:	(Less.) Porter.	Botanical references:	17
Synonyms:	Matricaria suaveolens (non L.), Matricaria discoidea (DC.)		

Known Hazards:	Some people are allergic to this plant[222].
Range:	N.E. Asia. An introduced and increasing weed in Britain.
Habitat:	Waysides and waste places, especially along tracks, paths and by trampled gateways[17].
Plants For A Future Rating (1-5):	1

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Artemisia matricarioides[B,G,P] Chamomilla chamomilla[B,P] Chamomilla recutita[B,G,H,P] Chamomilla suaveolens[B,C,G,H,P] Lepidanthus suaveolens[B,P] Lepidotheca suaveolens[B,P] M. chamomilla[B,G,H,P] M. chamomilla var. coronata[B,P] M. discoides[E] M. recutita[B,DUTCH,G,H,HPIC,HORTIPLEX,L,P] M. reticulata[H] Santolina suaveolens[B,G,P] Tanacetum suaveolens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chamomile [H], Disc Mayweed [P], Echte Kamille [D], False Chamomile [H], German Chamomile [H], German Tea Chamomile [H], Hungarian Chamomile [H], Kopf Kamille [E], Mayweed [P], Nd [E], Pineapple Weed [H,S,E], Pineapple-weed [L,B], Scented Mayweed [L], Schijfkamille [D], Sweet Chamomile [H], Wild Chamomile [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Germany; Us(Aleut); Us(Blackfoot); Us(Flathead)

Physical Characteristics

Annual growing to 0.3m. It is hardy to zone 6 and is not frost tender. It is in flower from June to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Tea.

Flower heads - raw or cooked[172]. A tasty nibble[172].

The dried flowers are used to make herb teas[172]. They are pineapple scented when steeped in hot water[183].

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Galactogogue; Sedative; Skin; Vermifuge.

The flowering plant is antispasmodic, carminative, galactogogue, sedative, skin and vermifuge[9, 172, 222]. This plant is rarely used medicinally, though it is sometimes employed as a domestic remedy in the treatment of intestinal worms and also as a sedative[9]. The plant is harvested when in flower in the summer and is dried for later use[9]. Some caution is advised since some individuals are allergic to this plant[222].

Other Uses

Repellent.

The plant repels insects[172]. The dried flowers are used as an insect repellent[213].

Cultivation details

Succeeds in any well-drained soil in a sunny position[200].

The bruised or sun-warmed leaves emit the appealing odour of ripe apples[245].

Propagation

Seed - sow spring or late summer in situ. Germination should take place within 3 weeks.

Scent

Leaves: Fresh Crushed

> The bruised or sun-warmed leaves emit the appealing odour of ripe apples[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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References for *Matricaria discoides* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Matricaria recutita* (a possible synonym).

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References for *Matricaria suaveolens* (a possible synonym).

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References for *matricaria matricarioides* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for *matricaria recutita* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

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References

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URL for Site: http://

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Matricaria matricarioides

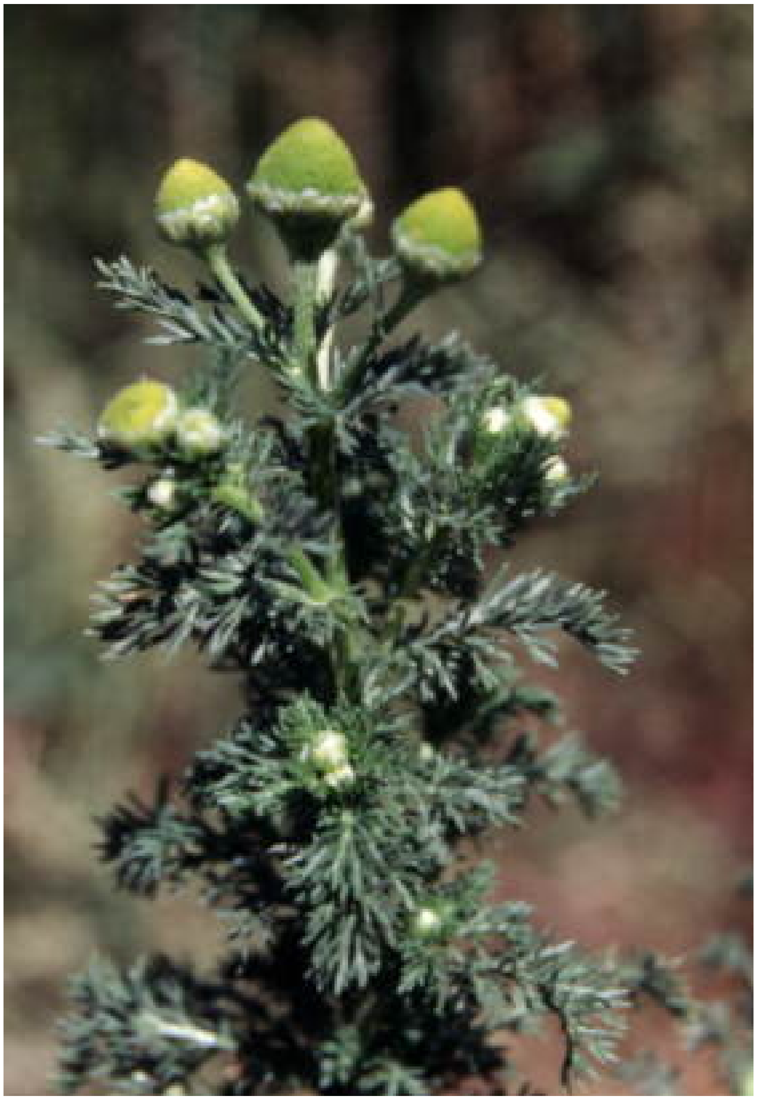

Photo by Derrick Ditchburn

Common name:	Pineapple weed	Family:	Compositae
Author:	(Less.) Porter.	Botanical references:	17
Synonyms:	Matricaria suaveolens (non L.), Matricaria discoidea (DC.)		
Known Hazards:	Some people are allergic to this plant[222].		
Range:	N.E. Asia. An introduced and increasing weed in Britain.		
Habitat:	Waysides and waste places, especially along tracks, paths and by trampled gateways[17].		

Plants For A Future Rating (1-5):	1

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Artemisia matricarioides[B,G,P] Chamomilla chamomilla[B,P] Chamomilla recutita[B,G,H,P] Chamomilla suaveolens[B,C,G,H,P] Lepidanthus suaveolens[B,P] Lepidotheca suaveolens[B,P] M. chamomilla[B,G,H,P] M. chamomilla var. coronata[B,P] M. discoides[E] M. recutita[B,DUTCH,G,H,HPIC,HORTIPLEX,L,P] M. reticulata[H] Santolina suaveolens[B,G,P] Tanacetum suaveolens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chamomile [H], Disc Mayweed [P], Echte Kamille [D], False Chamomile [H], German Chamomile [H], German Tea Chamomile [H], Hungarian Chamomile [H], Kopf Kamille [E], Mayweed [P], Nd [E], Pineapple Weed [H,S,E], Pineapple-weed [L,B], Scented Mayweed [L], Schijfkamille [D], Sweet Chamomile [H], Wild Chamomile [B],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Germany; Us(Aleut); Us(Blackfoot); Us(Flathead)

Physical Characteristics

Annual growing to 0.3m. It is hardy to zone 6 and is not frost tender. It is in flower from June to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Tea.

Flower heads - raw or cooked[172]. A tasty nibble[172].

The dried flowers are used to make herb teas[172]. They are pineapple scented when steeped in hot water[183].

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Galactogogue; Sedative; Skin; Vermifuge.

The flowering plant is antispasmodic, carminative, galactogogue, sedative, skin and vermifuge[9, 172, 222]. This plant is rarely used medicinally, though it is sometimes employed as a domestic remedy in the treatment of intestinal worms and also as a sedative[9]. The plant is harvested when in flower in the summer and is dried for later use[9]. Some caution is advised since some individuals are allergic to this plant[222].

Other Uses

Repellent.

The plant repels insects[172]. The dried flowers are used as an insect repellent[213].

Cultivation details

Succeeds in any well-drained soil in a sunny position[200].

The bruised or sun-warmed leaves emit the appealing odour of ripe apples[245].

Propagation

Seed - sow spring or late summer in situ. Germination should take place within 3 weeks.

Scent

Leaves: Fresh Crushed

> The bruised or sun-warmed leaves emit the appealing odour of ripe apples[245].

Suppliers

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References for *Matricaria discoidea* (a possible synonym).

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- [HP] PhotoFrom Henriette's plant pictures
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Readers Comments

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Plants For A Future: Database Search Results

Matricaria matricarioides

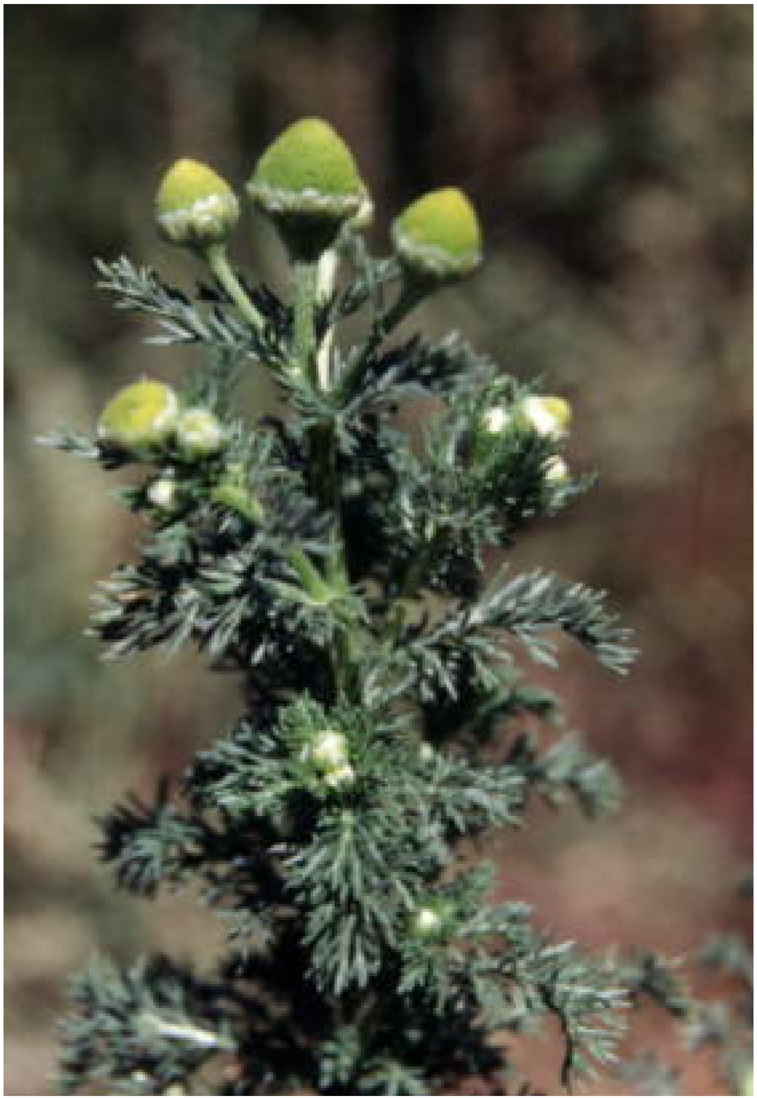

Photo by Derrick Ditchburn

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Author:	(Less.) Porter.	Botanical references:	17
Synonyms:	Matricaria suaveolens (non L.), Matricaria discoidea (DC.)		
Known Hazards:	Some people are allergic to this plant[222].		
Range:	N.E. Asia. An introduced and increasing weed in Britain.		
Habitat:	Waysides and waste places, especially along tracks, paths and by trampled gateways[17].		

Plants For A Future Rating (1-5):	1

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Artemisia matricarioides[B,G,P] Chamomilla chamomilla[B,P] Chamomilla recutita[B,G,H,P] Chamomilla suaveolens[B,C,G,H,P] Lepidanthus suaveolens[B,P] Lepidotheca suaveolens[B,P] M. chamomilla[B,G,H,P] M. chamomilla var. coronata[B,P] M. discoides[E] M. recutita[B,DUTCH,G,H,HPIC,HORTIPLEX,L,P] M. reticulata[H] Santolina suaveolens[B,G,P] Tanacetum suaveolens[B,P]
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Systematics:	From a UDSA Plants Database Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database Britain; Germany; Us(Aleut); Us(Blackfoot); Us(Flathead)

Physical Characteristics

Annual growing to 0.3m. It is hardy to zone 6 and is not frost tender. It is in flower from June to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Flowers; Tea.

Flower heads - raw or cooked[172]. A tasty nibble[172].

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The bruised or sun-warmed leaves emit the appealing odour of ripe apples[245].

Propagation

Seed - sow spring or late summer in situ. Germination should take place within 3 weeks.

Scent

Leaves: Fresh Crushed

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Suppliers

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Add a comment on: *Matricaria matricarioides*

Subject:

Matricaria matricarioides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Matricaria matricarioides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Basella alba

Common name:	Indian spinach	Family:	Basellaceae
Author:	L.	Botanical references:	200
Synonyms:	Basella rubra (L.)		
Known Hazards:	None known		
Range:	E. Asia. Africa.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ceylon Spinach [P], Ceylon-spinach [B], Chung K'Uei [E], Gendolak [E], Genjerot [E], Jingga [E], L [E], Lo K'Uei [E], Oetji-oetji [E], Remayong [E], T'Eng K'Uei [E], Tian Kui Zi [E], Yu Ts'Ai [E],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Basella family
Other Range Info:	From the Ethnobotany Database
	China; Gandola; India(Santal); Java; Malaya; Wi

Physical Characteristics

Perennial Climber growing to 9m at a fast rate. It is hardy to zone 10 and is frost tender. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Eclipse'**: Cultivated Beds.

Edible Uses

Colouring; Leaves; Tea.

Leaves and stem tips - raw or cooked[200]. A pleasant mild spinach flavour[206], the leaves can be used as a spinach or added to salads[183]. Do not overcook the leaves or they will become slimy[206]. The mucilaginous qualities of the plant make it an excellent thickening agent in soups, stews etc where it can be used as a substitute for okra, Abelmoschatus esculentus[206]. A nutritional analysis of the leaves is available[218].

An infusion of the leaves is a tea substitute[183].

The purplish sap from the fruit is used as a food colouring in pastries and sweets. The colour is enhanced by adding some lemon juice[183].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 275 Protein: 20 Fat: 3.5 Carbohydrate: 54 Fibre: 9 Ash: 19
In milligrammes per 100g weight of food:
Calcium: 3000 VitaminA: 50 Thiamine: 0.7 Riboflavin: 1.8 Niacin: 7.5 VitaminC: 1200

Medicinal Uses

Disclaimer

Antidote; Aperient; Astringent; Demulcent; Diuretic; Febrifuge; Laxative.

Astringent - the cooked roots are used in the treatment of diarrhoea[206, 264].

Laxative - the cooked leaves and stems are used[206, 264].

The flowers are used as an antidote to poisons[218].

The plant is febrifuge, its juice is a safe aperient for pregnant women and a decoction has been used to alleviate labour[218].

The leaf juice is a demulcent, used in cases of dysentery[218]. It is also diuretic, febrifuge and laxative[218].

Other Uses

Dye.

A red dye is obtained from the juice of the fruits[206]. It has been used as a rouge and also as a dye for official seals[218].

Cultivation details

Requires a well-drained moisture-retentive soil rich in organic matter and a warm sunny sheltered position[200]. Prefers a sandy loam[206]. Tolerates fairly poor soils but does much better in rich soils[206]. Tolerates high rainfall[206]. Tolerates a pH in the range 4.3 to 7.

A frost-tender perennial, it is not hardy outdoors in Britain but can be grown as a spring-sown annual[200]. A fast growing plant, capable of producing a crop within 70 days from seed in a warm climate[200, 264], though it requires a minimum daytime temperature of 15°c if it is to keep growing vigorously so it seldom does well outdoors in Britain[264]. It does tolerate low light levels plus night temperatures occasionally falling below 10°c, and so can do well in a cold greenhouse[206]. Plants do not flower if the length of daylight is more than 13 hours per day[200].

Widely cultivated for its edible leaves in the tropics[200], there are some named varieties[183]. It is an excellent hot weather substitute for spinach[183].

Some authorities recognize three different species, B. alba, B. rubra and B. cordifolia[206], they are all treated here as being part of one species[K].

Propagation

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'Eclipse'

Producing a crop in 55 - 60 days in warm areas, this is a very early cultivar producing small and compact plants that can be planted close together[183]. The leaves are thick and medium to deep green in colour[183]. Yields very well under warm humid conditions[183].

Suppliers

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References for *Basella rubra* (a possible synonym).

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Basellaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Readers Comments

Basella alba

Jon Booth Sun Dec 8 11:20:54 2002

Superb salad greens & keeps a long time in refrigeration. Grows slowly in high PH soils.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Details:	

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Plants For A Future: Database Search Results

Basella alba

Common name:	Indian spinach	Family:	Basellaceae
Author:	L.	Botanical references:	200
Synonyms:	Basella rubra (L.)		
Known Hazards:	None known		
Range:	E. Asia. Africa.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ceylon Spinach [P], Ceylon-spinach [B], Chung K'Uei [E], Gendolak [E], Genjerot [E], Jingga [E], L [E], Lo K'Uei [E], Oetji-oetji [E], Remayong [E], T'Eng K'Uei [E], Tian Kui Zi [E], Yu Ts'Ai [E],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Basella family
Other Range Info:	From the Ethnobotany Database
	China; Gandola; India(Santal); Java; Malaya; Wi

Physical Characteristics

Perennial Climber growing to 9m at a fast rate. It is hardy to zone 10 and is frost tender. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Eclipse'**: Cultivated Beds.

Edible Uses

Colouring; Leaves; Tea.

Leaves and stem tips - raw or cooked[200]. A pleasant mild spinach flavour[206], the leaves can be used as a spinach or added to salads[183]. Do not overcook the leaves or they will become slimy[206]. The mucilaginous qualities of the plant make it an excellent thickening agent in soups, stews etc where it can be used as a substitute for okra, Abelmoschatus esculentus[206]. A nutritional analysis of the leaves is available[218].

An infusion of the leaves is a tea substitute[183].

The purplish sap from the fruit is used as a food colouring in pastries and sweets. The colour is enhanced by adding some lemon juice[183].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 275 Protein: 20 Fat: 3.5 Carbohydrate: 54 Fibre: 9 Ash: 19
In milligrammes per 100g weight of food:
Calcium: 3000 VitaminA: 50 Thiamine: 0.7 Riboflavin: 1.8 Niacin: 7.5 VitaminC: 1200

Medicinal Uses

Disclaimer

Antidote; Aperient; Astringent; Demulcent; Diuretic; Febrifuge; Laxative.

Astringent - the cooked roots are used in the treatment of diarrhoea[206, 264].

Laxative - the cooked leaves and stems are used[206, 264].

The flowers are used as an antidote to poisons[218].

The plant is febrifuge, its juice is a safe aperient for pregnant women and a decoction has been used to alleviate labour[218].

The leaf juice is a demulcent, used in cases of dysentery[218]. It is also diuretic, febrifuge and laxative[218].

Other Uses

Dye.

A red dye is obtained from the juice of the fruits[206]. It has been used as a rouge and also as a dye for official seals[218].

Cultivation details

Requires a well-drained moisture-retentive soil rich in organic matter and a warm sunny sheltered position[200]. Prefers a sandy loam[206]. Tolerates fairly poor soils but does much better in rich soils[206]. Tolerates high rainfall[206]. Tolerates a pH in the range 4.3 to 7.

A frost-tender perennial, it is not hardy outdoors in Britain but can be grown as a spring-sown annual[200]. A fast growing plant, capable of producing a crop within 70 days from seed in a warm climate[200, 264], though it requires a minimum daytime temperature of 15°c if it is to keep growing vigorously so it seldom does well outdoors in Britain[264]. It does tolerate low light levels plus night temperatures occasionally falling below 10°c, and so can do well in a cold greenhouse[206]. Plants do not flower if the length of daylight is more than 13 hours per day[200].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Basella alba*

Subject:

Basella alba

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Basella alba

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Borago officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Borage	Family:	Boraginaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant, but not the oil obtained from the seeds, contains small amounts of pyrrolizidine alkaloids that can cause liver damage and liver cancer[238]. These alkaloids are present in too small a quantity to be harmful unless you make borage a major part of your diet, though people with liver problems would be wise to avoid using the leaves or flowers of this plant[K].		
Range:	C. Europe. A garden escape in Britain[17].		
Habitat:	Waste ground near houses in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below. Beebread [H], Bernagie [D], Borage [MS,H,B,L], Borraja [E], Bourrache [E], Bugloss [H], Burrage [H], Common Borage [P], Fleurs De Bourrache [E], Hodan [E], Ruri-Zisa [E], Star-flower [H],
Epithets:	From a Dictionary of Botanical Epithets officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database Order: Lamiales . Borage family
Other Range Info:	From the Ethnobotany Database

	Chile; Dominican Republic; France; Haiti; Mexico; Sicily; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.6m by 0.3m . It is hardy to zone 7 and is not frost tender. It is in flower from June to October, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedgerow, Cultivated Beds, In Walls, In South Wall, In West Wall.

Edible Uses

Colouring; Flowers; Leaves; Oil; Tea.

Leaves - raw or cooked[2, 5, 7, 14, 115, 183]. They can be used as a pot-herb or be added to salads[4]. They are also added whole as a flavouring to various drinks such as Pimms and wine-based drinks[238]. The leaves are rich in potassium and calcium, they have a salty cucumber flavour[200]. Very hairy, the whole leaves have an unpleasant feeling in the mouth and so they are best chopped up finely and added to other leaves when eaten in a salad[K]. The leaves should always be used fresh, because they lose their flavour and colour if dried[244].

Flowers - raw. They are used as a decorative garnish on salads and summer fruit drinks[2, 5, 7, 14, 183]. The flowers are very nice, both to look at and to taste with a sweet slightly cucumber-like flavour[K].

A refreshing tea is made from the leaves and/or the flowers[21, 183].

The dried stems are used for flavouring beverages[183].

The seed yields 30% oil, 20% of which is gamma-linolenic acid[141]. Total yields are 0.35 - 0.65 tonnes per hectare[141]. Unfortunately, the seed ripens intermittently over a period of time and falls from the plant when it is ripe, this makes harvesting the seeds in quantity very difficult[K].

An edible blue dye can be obtained from the flowers. It is used to colour vinegar[183].

Medicinal Uses

Disclaimer

Demulcent; Depurative; Diaphoretic; Diuretic; Emollient; Expectorant; Febrifuge; Hypotensive; Lenitive; Poultice; Sedative; Skin; Women's complaints.

Borage is a fairly common domestic herbal remedy that has been used since ancient times[244]. It has a particularly good reputation for its beneficial affect on the mind, being used to dispel melancholy and induce euphoria[244]. It is a soothing saline, diuretic herb that soothes damaged or irritated tissues[238].

The leaves, and to a lesser extent the flowers, are demulcent, diaphoretic, depurative, mildly diuretic, emollient, expectorant, febrifuge, lenitive and mildly sedative[4, 7, 9, 14, 201, 238]. An infusion is taken internally in the treatment of a range of ailments including fevers, chest problems and kidney problems[4], though it should not be prescribed to people with liver problems. Externally it is used as a poultice for inflammatory swellings[4, 7]. The leaves are harvested in late spring and the summer as the plant comes into flower. They can be used fresh or dried but should not be stored for more than one year because they soon lose their medicinal properties[238].

The seeds are a rich source of gamma-linolenic acid, this oil helps to regulate the hormonal systems and lowers blood pressure[238]. It is used both internally and externally, helping to relieve skin complaints and pre-menstrual tension[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Repellent.

The growing plant is said to repel insects[14].

A blue dye is obtained from the flowers[7]. This turns pink on contact with acids[238].

Cultivation details

A very easily grown plant, succeeding in ordinary garden soil[1], preferring a dry soil[37] and a sunny position[138]. It grows particularly well in loose, stony soils with some chalk and sand[244]. Plants are tolerant of poor dry soils, though much bigger specimens are produced when the plants are growing in better conditions[238]. Tolerates a pH in the range 4.8 to 8.3.

Borage is often grown as a culinary plant in the herb garden[1, 7]. Although an annual, it usually maintains itself by self-sowing, sometimes in quite a prolific manner, as long as the soil is disturbed by hoeing etc[14, 188].

Plants often develop mildew when growing in dry conditions or towards the end of the growing season[238].

Flowers are a deeper blue when grown in poorer soils[138]. The flowers are rich in a sweet nectar and are very attractive to bees[7, 14, 20, 108, 244].

The growing plant is a good companion for strawberries, tomatoes, courgettes and most other plants[14, 201, 238]. It is said to deter Japanese beetle and tomato hornworms[238].

Propagation

Seed - sow April/May in situ. The plants quickly develop a stout tap-root and do not transplant successfully[238]. The seed can also be sown in situ in the autumn, this will produce larger plants and earlier flowering[4]. The plant usually self-sows prolifically.

Suppliers

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Web References

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References for *borago officinalis* (a possible synonym).

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See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Plants For A Future: Database Search Results

Borago officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Borage	Family:	Boraginaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant, but not the oil obtained from the seeds, contains small amounts of pyrrolizidine alkaloids that can cause liver damage and liver cancer[238]. These alkaloids are present in too small a quantity to be harmful unless you make borage a major part of your diet, though people with liver problems would be wise to avoid using the leaves or flowers of this plant[K].		
Range:	C. Europe. A garden escape in Britain[17].		
Habitat:	Waste ground near houses in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beebread [H], Bernagie [D], Borage [MS,H,B,L], Borraja [E], Bourrache [E], Bugloss [H], Burrage [H], Common Borage [P], Fleurs De Bourrache [E], Hodan [E], Ruri-Zisa [E], Star-flower [H],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Borage family
Other Range Info:	From the Ethnobotany Database
	Chile; Dominican Republic; France; Haiti; Mexico; Sicily; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.6m by 0.3m . It is hardy to zone 7 and is not frost tender. It is in flower from June to October, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Hedgerow, Cultivated Beds, In Walls, In South Wall, In West Wall.

Edible Uses

Colouring; Flowers; Leaves; Oil; Tea.

Leaves - raw or cooked[2, 5, 7, 14, 115, 183]. They can be used as a pot-herb or be added to salads[4]. They are also added whole as a flavouring to various drinks such as Pimms and wine-based drinks[238]. The leaves are rich in potassium and calcium, they have a salty cucumber flavour[200]. Very hairy, the whole leaves have an unpleasant feeling in the mouth and so they are best chopped up finely and added to other leaves when eaten in a salad[K]. The leaves should always be used fresh, because they lose their flavour and colour if dried[244].

Flowers - raw. They are used as a decorative garnish on salads and summer fruit drinks[2, 5, 7, 14, 183]. The flowers are very nice, both to look at and to taste with a sweet slightly cucumber-like flavour[K].

A refreshing tea is made from the leaves and/or the flowers[21, 183].

The dried stems are used for flavouring beverages[183].

The seed yields 30% oil, 20% of which is gamma-linolenic acid[141]. Total yields are 0.35 - 0.65 tonnes per hectare[141]. Unfortunately, the seed ripens intermittently over a period of time and falls from the plant when it is ripe, this makes harvesting the seeds in quantity very difficult[K].

An edible blue dye can be obtained from the flowers. It is used to colour vinegar[183].

Medicinal Uses

Disclaimer

Demulcent; Depurative; Diaphoretic; Diuretic; Emollient; Expectorant; Febrifuge; Hypotensive; Lenitive; Poultice; Sedative; Skin; Women's complaints.

Borage is a fairly common domestic herbal remedy that has been used since ancient times[244]. It has a particularly good reputation for its beneficial affect on the mind, being used to dispel melancholy and induce euphoria[244]. It is a soothing saline, diuretic herb that soothes damaged or irritated tissues[238].

The leaves, and to a lesser extent the flowers, are demulcent, diaphoretic, depurative, mildly diuretic, emollient, expectorant, febrifuge, lenitive and mildly sedative[4, 7, 9, 14, 201, 238]. An infusion is taken internally in the treatment of a range of ailments including fevers, chest problems and kidney problems[4], though it should not be prescribed to people with liver problems. Externally it is used as a poultice for inflammatory swellings[4, 7]. The leaves are harvested in late spring and the summer as the plant comes into flower. They can be used fresh or dried but should not be stored for more than one year because they soon lose their medicinal properties[238].

The seeds are a rich source of gamma-linolenic acid, this oil helps to regulate the hormonal systems and lowers blood pressure[238]. It is used both internally and externally, helping to relieve skin complaints and pre-menstrual tension[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Repellent.

The growing plant is said to repel insects[14].

A blue dye is obtained from the flowers[7]. This turns pink on contact with acids[238].

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Plants For A Future: Database Search Results

Borago officinalis

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Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant, but not the oil obtained from the seeds, contains small amounts of pyrrolizidine alkaloids that can cause liver damage and liver cancer[238]. These alkaloids are present in too small a quantity to be harmful unless you make borage a major part of your diet, though people with liver problems would be wise to avoid using the leaves or flowers of this plant[K].		
Range:	C. Europe. A garden escape in Britain[17].		
Habitat:	Waste ground near houses in Britain[17].		
Plants For A Future Rating (1-5):	3		

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Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Borage family
Other Range Info:	From the Ethnobotany Database
	Chile; Dominican Republic; France; Haiti; Mexico; Sicily; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.6m by 0.3m . It is hardy to zone 7 and is not frost tender. It is in flower from June to October, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

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Colouring; Flowers; Leaves; Oil; Tea.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Borago+officinalis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Borago+officinalis`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Borago officinalis*

Subject:

Borago officinalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Borago officinalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 03:36:23 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Calendula officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pot marigold	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe. A garden escape in Britain[17].		
Habitat:	The original habitat is obscure but it is found as a garden escape on waste, cultivated and arable land and along roadsides[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. officinalis var. prolifera[G] Caltha officinalis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aklelmulk [E], Atunjaq [E], Calendula [H,E], Chin Chan Hua [E], China [E], Kamisha Bahar [E], Maravilla [E], Marigold [H], Mercadela [E], Oqhuwan [E], Pot Marigold [H,P,L], Pot-marigold [B], Qaraqus [E], Tibbi Nergis [E], To-Kinsen-Ka [E], Tuingoudsbloem [D], Virreina [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Argentina; Chile; China; Iraq; Kurdistan; Mexico; Pakistan; Philippines; Spain; Trinidad; Turkey; Uruguay; Yugoslavia

Physical Characteristics

Annual growing to 0.6m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in flower from June to November, and the seeds ripen from August to November. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves; Tea.

Leaves - raw[14, 21]. When eaten they first of all impart a viscid sweetness, followed by a strong penetrating taste of a saline nature[4]. They are very rich in vitamins and minerals and are similar to Taraxacum officinale (Dandelion) in nutritional value[179].

Fresh petals are chopped and added to salads[183]. The dried petals have a more concentrated flavour and are used as a seasoning in soups, cakes etc[183]. High in vitamins A and C[218].

An edible yellow dye is obtained from the petals[46]. A saffron substitute[21], it is used to colour and flavour rice, soups etc[2, 14, 27, 33]. It is also used as a hair rinse, adding golden tints to brown or auburn hair[201].

A tea is made from the petals and flowers, that made from the petals is less bitter[183].

There is no record of the seed being edible, but it contains up to 37% protein and 46% oil[218].

Medicinal Uses

Disclaimer

Antiphlogistic; Antiseptic; Antispasmodic; Aperient; Astringent; Cholagogue; Diaphoretic; Emmenagogue; Homeopathy; Skin; Stimulant; Vulnerary; Warts.

Pot marigold is one of the best known and versatile herbs in Western herbal medicine and is also a popular domestic remedy[4, 254]. It is, above all, a remedy for skin problems and is applied externally to bites and stings, sprains, wounds, sore eyes, varicose veins etc[4, 254]. It is also a cleansing and detoxifying herb and is taken internally in treating fevers and chronic infections[4, 254]. Only the common deep-orange flowered variety is considered to be of medicinal value[4].

The whole plant, but especially the flowers and the leaves, is antiphlogistic, antiseptic, antispasmodic, aperient, astringent, cholagogue, diaphoretic, emmenagogue, skin, stimulant and vulnerary[4, 7, 9, 21, 46, 165, 201]. The leaves can be used fresh or dried, they are best harvested in the morning of a fine sunny day just after the dew has dried from them[4]. The flowers are also used fresh or dried, for drying they are harvested when fully open and need to be dried quickly in the shade[4].

A tea of the petals tones up the circulation and, taken regularly, can ease varicose veins[201].

An application of the crushed stems to corns and warts will soon render them easily removable[7].

The leaves, blossoms and buds are used to make a homeopathic remedy[232]. It is used internally in order to speed the healing of wounds[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Essential; Repellent; Weather forecasting.

The growing plant acts as an insect deterrent[14], it reduces the soil eelworm population[24].

The flowers are used cosmetically. They can be used in skin lotions and when added to hair shampoos will lighten the hair colour[244].

The flowers are an alternative ingredient of 'Quick Return' compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

A yellow dye is obtained from the boiled flowers[2, 4, 46].

An essential oil is obtained from the plant[7]. It is used rather sparingly, in view of the difficulty in obtaining it, in perfumes that have a rather sharp tang[7].

The flowers close when wet weather is likely to occur and they can therefore be used as a rough means of weather forecasting[7].

Cultivation details

An easily grown plant, it succeeds in any well-drained soil[200, 268], though it prefers a good loam and requires a sunny or at least partially sunny position[4, 15, 200, 268]. Plants flower best when they are grown in a poor soil[108]. Tolerates a pH in the range 4.5 to 8.3.

The pot marigold is a very ornamental plant that is commonly grown in the flower garden, and occasionally as a culinary herb, there are some named varieties[183]. When well-sited it usually self-sows freely and will maintain itself if allowed[1, 4]. The flowers are sensitive to variations in temperature and dampness, closing when it is dark and when rain is expected[7, 244]. All parts of the plant are pungently scented[245].

The growing plant attracts hoverflies to the garden, the young of which are fairly efficient eaters of aphids[24, 201]. The flowers are attractive to bees[108]. Marigolds are good companion plants, they grow well with tomatoes[14].

Cucumber mosaic disease and powdery mildew can cause problems with this plant[188].

Propagation

Seed - sow in situ from spring to early summer and again in September. The seed germinates best in darkness and usually within 1 - 2 weeks at 21°c[138]. The plant often self-sows freely.

Scent

Plant: Crushed

All parts of the plant are pungently scented.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Calendula officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pot marigold	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe. A garden escape in Britain[17].		
Habitat:	The original habitat is obscure but it is found as a garden escape on waste, cultivated and arable land and along roadsides[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; Chile; China; Iraq; Kurdistan; Mexico; Pakistan; Philippines; Spain; Trinidad; Turkey; Uruguay; Yugoslavia

Physical Characteristics

Annual growing to 0.6m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in flower from June to November, and the seeds ripen from August to November. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves; Tea.

Leaves - raw[14, 21]. When eaten they first of all impart a viscid sweetness, followed by a strong penetrating taste of a saline nature[4]. They are very rich in vitamins and minerals and are similar to Taraxacum officinale (Dandelion) in nutritional value[179].

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There is no record of the seed being edible, but it contains up to 37% protein and 46% oil[218].

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Disclaimer

Antiphlogistic; Antiseptic; Antispasmodic; Aperient; Astringent; Cholagogue; Diaphoretic; Emmenagogue; Homeopathy; Skin; Stimulant; Vulnerary; Warts.

Pot marigold is one of the best known and versatile herbs in Western herbal medicine and is also a popular domestic remedy[4, 254]. It is, above all, a remedy for skin problems and is applied externally to bites and stings, sprains, wounds, sore eyes, varicose veins etc[4, 254]. It is also a cleansing and detoxifying herb and is taken internally in treating fevers and chronic infections[4, 254]. Only the common deep-orange flowered variety is considered to be of medicinal value[4].

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A tea of the petals tones up the circulation and, taken regularly, can ease varicose veins[201].

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Other Uses

Compost; Cosmetic; Dye; Essential; Repellent; Weather forecasting.

The growing plant acts as an insect deterrent[14], it reduces the soil eelworm population[24].

The flowers are used cosmetically. They can be used in skin lotions and when added to hair shampoos will lighten the hair colour[244].

The flowers are an alternative ingredient of 'Quick Return' compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

A yellow dye is obtained from the boiled flowers[2, 4, 46].

An essential oil is obtained from the plant[7]. It is used rather sparingly, in view of the difficulty in obtaining it, in perfumes that have a rather sharp tang[7].

The flowers close when wet weather is likely to occur and they can therefore be used as a rough means of weather forecasting[7].

Cultivation details

An easily grown plant, it succeeds in any well-drained soil[200, 268], though it prefers a good loam and requires a sunny or at least partially sunny position[4, 15, 200, 268]. Plants flower best when they are grown in a poor soil[108]. Tolerates a pH in the range 4.5 to 8.3.

The pot marigold is a very ornamental plant that is commonly grown in the flower garden, and occasionally as a culinary herb, there are some named varieties[183]. When well-sited it usually self-sows freely and will maintain itself if allowed[1, 4]. The flowers are sensitive to variations in temperature and dampness, closing when it is dark and when rain is expected[7, 244]. All parts of the plant are pungently scented[245].

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Cucumber mosaic disease and powdery mildew can cause problems with this plant[188].

Propagation

Seed - sow in situ from spring to early summer and again in September. The seed germinates best in darkness and usually within 1 - 2 weeks at 21°c[138]. The plant often self-sows freely.

Scent

Plant: Crushed

All parts of the plant are pungently scented.

Cultivars

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No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Calendula officinalis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pot marigold	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe. A garden escape in Britain[17].		
Habitat:	The original habitat is obscure but it is found as a garden escape on waste, cultivated and arable land and along roadsides[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. officinalis var. prolifera[G] Caltha officinalis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aklelmulk [E], Atunjaq [E], Calendula [H,E], Chin Chan Hua [E], China [E], Kamisha Bahar [E], Maravilla [E], Marigold [H], Mercadela [E], Oqhuwan [E], Pot Marigold [H,P,L], Pot-marigold [B], Qaraqus [E], Tibbi Nergis [E], To-Kinsen-Ka [E], Tuingoudsbloem [D], Virreina [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; Chile; China; Iraq; Kurdistan; Mexico; Pakistan; Philippines; Spain; Trinidad; Turkey; Uruguay; Yugoslavia

Physical Characteristics

Annual growing to 0.6m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in flower from June to November, and the seeds ripen from August to November. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves; Tea.

Leaves - raw[14, 21]. When eaten they first of all impart a viscid sweetness, followed by a strong penetrating taste of a saline nature[4]. They are very rich in vitamins and minerals and are similar to Taraxacum officinale (Dandelion) in nutritional value[179].

Fresh petals are chopped and added to salads[183]. The dried petals have a more concentrated flavour and are used as a seasoning in soups, cakes etc[183]. High in vitamins A and C[218].

An edible yellow dye is obtained from the petals[46]. A saffron substitute[21], it is used to colour and flavour rice, soups etc[2, 14, 27, 33]. It is also used as a hair rinse, adding golden tints to brown or auburn hair[201].

A tea is made from the petals and flowers, that made from the petals is less bitter[183].

There is no record of the seed being edible, but it contains up to 37% protein and 46% oil[218].

Medicinal Uses

Disclaimer

Antiphlogistic; Antiseptic; Antispasmodic; Aperient; Astringent; Cholagogue; Diaphoretic; Emmenagogue; Homeopathy; Skin; Stimulant; Vulnerary; Warts.

Pot marigold is one of the best known and versatile herbs in Western herbal medicine and is also a popular domestic remedy[4, 254]. It is, above all, a remedy for skin problems and is applied externally to bites and stings, sprains, wounds, sore eyes, varicose veins etc[4, 254]. It is also a cleansing and detoxifying herb and is taken internally in treating fevers and chronic infections[4, 254]. Only the common deep-orange flowered variety is considered to be of medicinal value[4].

The whole plant, but especially the flowers and the leaves, is antiphlogistic, antiseptic, antispasmodic, aperient, astringent, cholagogue, diaphoretic, emmenagogue, skin, stimulant and vulnerary[4, 7, 9, 21, 46, 165, 201]. The leaves can be used fresh or dried, they are best harvested in the morning of a fine sunny day just after the dew has dried from them[4]. The flowers are also used fresh or dried, for drying they are harvested when fully open and need to be dried quickly in the shade[4].

A tea of the petals tones up the circulation and, taken regularly, can ease varicose veins[201].

An application of the crushed stems to corns and warts will soon render them easily removable[7].

The leaves, blossoms and buds are used to make a homeopathic remedy[232]. It is used internally in order to speed the healing of wounds[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Essential; Repellent; Weather forecasting.

The growing plant acts as an insect deterrent[14], it reduces the soil eelworm population[24].

The flowers are used cosmetically. They can be used in skin lotions and when added to hair shampoos will lighten the hair colour[244].

The flowers are an alternative ingredient of 'Quick Return' compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

A yellow dye is obtained from the boiled flowers[2, 4, 46].

An essential oil is obtained from the plant[7]. It is used rather sparingly, in view of the difficulty in obtaining it, in perfumes that have a rather sharp tang[7].

The flowers close when wet weather is likely to occur and they can therefore be used as a rough means of weather forecasting[7].

Cultivation details

An easily grown plant, it succeeds in any well-drained soil[200, 268], though it prefers a good loam and requires a sunny or at least partially sunny position[4, 15, 200, 268]. Plants flower best when they are grown in a poor soil[108]. Tolerates a pH in the range 4.5 to 8.3.

The pot marigold is a very ornamental plant that is commonly grown in the flower garden, and occasionally as a culinary herb, there are some named varieties[183]. When well-sited it usually self-sows freely and will maintain itself if allowed[1, 4]. The flowers are sensitive to variations in temperature and dampness, closing when it is dark and when rain is expected[7, 244]. All parts of the plant are pungently scented[245].

The growing plant attracts hoverflies to the garden, the young of which are fairly efficient eaters of aphids[24, 201]. The flowers are attractive to bees[108]. Marigolds are good companion plants, they grow well with tomatoes[14].

Cucumber mosaic disease and powdery mildew can cause problems with this plant[188].

Propagation

Seed - sow in situ from spring to early summer and again in September. The seed germinates best in darkness and usually within 1 - 2 weeks at 21°c[138]. The plant often self-sows freely.

Scent

Plant: Crushed

All parts of the plant are pungently scented.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Calendula officinalis*

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Calendula officinalis

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calendula officinalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Camellia sinensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Tea plant	Family:	Theaceae
Author:	(L.) O. Kuntze.	Botanical references:	11, 200
Synonyms:	Thea viridis (L.), Thea sinensis (L.), Thea bohea (L.), Camellia theifera (Griff.), Camellia thea (Link.), Camellia bohea		
Known Hazards:	None known		
Range:	E. Asia - China? Exact origin is uncertain.		
Habitat:	Shaded areas[192] at an elevation of 2100 - 2700 metres in Yunnan[11].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sinensis var. assamica[G,P] C. sinensis var. sinensis[G,P] Thea stricta jassamica[H] Thea veridis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	An Hua Ch'A [E], Assam Tea [P], Cay [E], Ch'A [E], Green Tea [E], Hsueh Ch'A [E], Lo Chieh Ch'A [E], Ming [E], P'U Erh Ch'A [E], P'U T'O Ch'A [E], Shui Sha Lien Ch'A [E], Tea [E,P,H], Wu I Ch'A [E],
Systematics:	From a UDSA Plants Database
	Order: Theales . Tea family
Other Range Info:	From the Ethnobotany Database
	Asia; China; Mexico(Kickapoo); Turkey

Physical Characteristics

An evergreen shrub growing to 4m by 2.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from March to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Condiment; Leaves; Oil; Tea.

The leaves are infused in hot water and used as the drink that is commonly known as tea. It is widely drunk in many areas of the world. Green tea is made from the steamed and dried leaves, whilst black tea (the form most commonly drunk in the west) is made from leaves that have been fermented and then dried[183, 238]. Tea contains polyphenols, these are antioxidants that help to protect the body against heart diseases, stroke and cancer[238]. It also contains the stimulant caffeine which, when taken in excess, can cause sleeplessness and irritability and also, through its action as a diuretic, act to remove nutrients from the body. Tea is also rich in tannin and is a possible cause of oesophageal cancer[238]. Cold tea is sometimes used as a soaking liquid to flavour dried fruit[238]. One report says that the leaves are used as a boiled vegetable[179]. The leaves contain about 25.7% protein, 6.5% fat, 40.8% carbohydrate, 5% ash, 3.3% caffeine, 12.9% tannin[179].

Terminal sprouts with 2-3 leaves are usually hand-plucked, 10 kg of green shoots (75-80% water) produce about 2.5 kg dried tea[269]. The bushes are plucked every 7-15 days, depending on the development of the tender shoots. Leaves that are slow in development always make a better flavoured product[269]. Various techniques are used to produce black teas, usually during July and August when solar heat is most intense. Freshly picked leaves are spread very thinly and evenly on trays and placed in the sun until the leaves become very flaccid, requiring 13 hours or more, depending on heat and humidity. Other types of black teas are made by withering the leaves, rolling them into a ball and allowing to ferment in a damp place for 3-6 hours, at which time the ball turns a yellowish copper colour, with an agreeable fruity one[269]. If this stage goes too far, the leaves become sour and unfit for tea. After fermenting, the ball is broken up and the leaves spread out on trays and dried in oven until leaves are brittle and have slight odour of tea[269]. Tea is then stored in air-tight tin boxes or cans. As soon as harvested, leaves are steamed or heated to dry the natural sap and prevent oxidation to produce green tea. Still soft and pliable after the initial treatment, the leaves are then rolled and subjected to further firing. Thus dried, the leaves are sorted into various grades of green tea[269].

The flowers are made into 'tempura' using the edible oil that is obtained from the seed[183].

A clear golden-yellow edible oil resembling sasanqua oil is obtained from the seed[183, 269]. The oil needs to be refined before it is eaten.

An essential oil distilled from the fermented dried leaves is used as a commercial food flavouring[238]. Tea extract is used as a flavour in alcoholic beverages, frozen dairy desserts, candy, baked goods, gelatines, and puddings[269].

Tea is a potential source of food colours (black, green, orange, yellow, etc.)[269].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 25.7 Fat: 6.5 Carbohydrate: 40.8 Ash: 5

Medicinal Uses

Disclaimer

Astringent; Cardiotonic; Diuretic; Stimulant.

The tea plant is commonly used in Chinese herbalism, where it is considered to be one of the 50 fundamental herbs[218]. Modern research has shown that there are many health benefits to drinking tea, including its ability to protect the drinker from certain heart diseases. It has also been shown that drinking tea can protect the teeth from decay[254], because of the fluoride naturally occurring in the tea[K]. However, the tea also contains some tannin, which is suspected of being carcinogenic[269].

The leaves are cardiotonic, diuretic, expectorant, stimulant and astringent[4, 174, 192, 218, 240, 269]. They exert a decided influence over the nervous system, giving a feeling of comfort and exhilaration, but also producing an unnatural wakefulness when taken in large doses[4]. They are used internally in the treatment of diarrhoea, dysentery, hepatitis and gastro-enteritis[218, 238]. Tea is reportedly effective in clinical treatment of amoebic dysentery, bacterial dysentery, gastro-enteritis, and hepatitis. It has also been reported to have antiatherosclerotic effects and vitamin P activity[269]. Excessive use, however, can lead to dizziness, constipation, constipation, indigestion, palpitations and insomnia[238]. Externally, they are used as a poultice or wash to treat cuts, burns, bruises, insect bites, ophthalmia, swellings etc[218, 238, 257]. Only the very young leaves and leaf buds are used, these can be harvested throughout the growing season from plants over three years old and are dried for later use[238].

Teabags have been poulticed onto baggy or tired eyes, compressed onto headache, or used to bathe sunburn[269].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Essential; Oil; Tannin; Wood.

An essential oil is distilled from the fermented and dried leaves[238]. It is used in perfumery and in commercial food flavouring[238].

A non-drying oil is obtained from the seeds. Refined teaseed oil, made by removing the free fatty acids with caustic soda, then bleaching the oil with Fuller's earth and a sprinkling of bone black, makes an oil suitable for use in manufacture of sanctuary or signal oil for burning purposes, and in all respects is considered a favourable substitute for rapeseed, olive, or lard oils. The oil is different from cottonseed, corn, or sesame oils in that it is a non-drying oil and is not subject to oxidation changes, thus making it very suitable for use in the textile industry; it remains liquid below -18deg.C[269].

A grey dye is obtained from the pink or red petals[168].

The leaves contain 13 - 18% tannin[223]. The leaves also contain quercetin, a dyestuff that, when found in other plants, is much used as a dye[223]. The quantity of quercetin is not given[K].

Wood - moderately hard, close and even grained. It is very good for walking sticks[158].

Cultivation details

Prefers a woodland soil but thrives in a warm open well-drained loam if leafmould is added[1, 11, 200]. A calcifuge plant, preferring a pH between 5 and 7[11, 200]. Prefers the partial shade of a light woodland or a woodland clearing[166, 200]. Forms grown in this country are slow-growing[219]. Tea is reported to tolerate an annual precipitation of 70 to 310cm, an average annual temperature range of 14 to 27°C and a pH in the range of 4.5 to 7.3[269].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. It prefers a wet summer and a cool but not very frosty dry winter[200].

The fragrant flowers are very attractive to insects, particularly moths[219].

Plants are not very self-compatible, self-fertilized flowers produce few seeds and these are of low viability[200].

A very ornamental plant[1], it is widely cultivated in tropical and warm temperate areas for its leaves which are used to make China tea[1]. There are many named varieties[183] and new hardier forms are being produced in China for growing in colder areas of the country[260]. The Chinese form, known as 'Hsüeh-ch'a', is said to grow in areas within the snow limit on the mountains of Lingchiangfu in Yunnan province[178].

The sub-species C. sinensis assamica. (Mast.)Kitam. is a larger plant, growing up to 17 metres tall. It is a more tropical form of the species, is intolerant of frost and does not succeed outdoors in Britain[11, 260].

Propagation

Seed - can be sown as soon as it is ripe in a greenhouse[113]. Stored seed should be pre-soaked for 24 hours in warm water and the hard covering around the micropyle should be filed down to leave a thin covering[78, 113, 138]. It usually germinates in 1 - 3 months at 23°c[138]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade in the greenhouse for at least their first winter. Plant them out into their permanent positions when they are more than 15cm tall and give them some protection from winter cold for their first year or three outdoors[K]. Seedlings take 4 - 12 years before they start to produce seed[269].

There are approximately 500 seeds per kilo[269].

Cuttings of almost ripe wood, 10 - 15cm with a heel, August/September in a shaded frame. High percentage but slow[78].

Cuttings of firm wood, 7 - 10cm with a heel, end of June in a frame[11, 78]. Keep in a cool greenhouse for the first year[11].

Leaf-bud cuttings, July/August in a frame.

Scent

Flowers: Fresh

> The flowers are deliciously scented.

Cultivars

'Hsüeh-ch'a'

> This is a Chinese form that is said to grow in areas within the snow limit on the mountains of Lingchiangfu in Yunnan province[178].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Camellia sinensis var. assamica* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Camellia sinensis var. sinensis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Camellia thea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Camellia theifera* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Thea bohea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Thea sinensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Thea veridis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *camellia sinensis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References for the family Theaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Camellia+sinensis`

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Plants For A Future: Database Search Results

Camellia sinensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Tea plant	Family:	Theaceae
Author:	(L.) O. Kuntze.	Botanical references:	11, 200
Synonyms:	Thea viridis (L.), Thea sinensis (L.), Thea bohea (L.), Camellia theifera (Griff.), Camellia thea (Link.), Camellia bohea		
Known Hazards:	None known		
Range:	E. Asia - China? Exact origin is uncertain.		
Habitat:	Shaded areas[192] at an elevation of 2100 - 2700 metres in Yunnan[11].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sinensis var. assamica[G,P] C. sinensis var. sinensis[G,P] Thea stricta jassamica[H] Thea veridis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	An Hua Ch'A [E], Assam Tea [P], Cay [E], Ch'A [E], Green Tea [E], Hsueh Ch'A [E], Lo Chieh Ch'A [E], Ming [E], P'U Erh Ch'A [E], P'U T'O Ch'A [E], Shui Sha Lien Ch'A [E], Tea [E,P,H], Wu I Ch'A [E],
Systematics:	From a UDSA Plants Database
	Order: Theales . Tea family
Other Range Info:	From the Ethnobotany Database
	Asia; China; Mexico(Kickapoo); Turkey

Physical Characteristics

An evergreen shrub growing to 4m by 2.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from March to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. We rate it 2 out of 5 for

usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Condiment; Leaves; Oil; Tea.

The leaves are infused in hot water and used as the drink that is commonly known as tea. It is widely drunk in many areas of the world. Green tea is made from the steamed and dried leaves, whilst black tea (the form most commonly drunk in the west) is made from leaves that have been fermented and then dried[183, 238]. Tea contains polyphenols, these are antioxidants that help to protect the body against heart diseases, stroke and cancer[238]. It also contains the stimulant caffeine which, when taken in excess, can cause sleeplessness and irritability and also, through its action as a diuretic, act to remove nutrients from the body. Tea is also rich in tannin and is a possible cause of oesophageal cancer[238]. Cold tea is sometimes used as a soaking liquid to flavour dried fruit[238]. One report says that the leaves are used as a boiled vegetable[179]. The leaves contain about 25.7% protein, 6.5% fat, 40.8% carbohydrate, 5% ash, 3.3% caffeine, 12.9% tannin[179].

Terminal sprouts with 2-3 leaves are usually hand-plucked, 10 kg of green shoots (75-80% water) produce about 2.5 kg dried tea[269]. The bushes are plucked every 7-15 days, depending on the development of the tender shoots. Leaves that are slow in development always make a better flavoured product[269]. Various techniques are used to produce black teas, usually during July and August when solar heat is most intense. Freshly picked leaves are spread very thinly and evenly on trays and placed in the sun until the leaves become very flaccid, requiring 13 hours or more, depending on heat and humidity. Other types of black teas are made by withering the leaves, rolling them into a ball and allowing to ferment in a damp place for 3-6 hours, at which time the ball turns a yellowish copper colour, with an agreeable fruity one[269]. If this stage goes too far, the leaves become sour and unfit for tea. After fermenting, the ball is broken up and the leaves spread out on trays and dried in oven until leaves are brittle and have slight odour of tea[269]. Tea is then stored in air-tight tin boxes or cans. As soon as harvested, leaves are steamed or heated to dry the natural sap and prevent oxidation to produce green tea. Still soft and pliable after the initial treatment, the leaves are then rolled and subjected to further firing. Thus dried, the leaves are sorted into various grades of green tea[269].

The flowers are made into 'tempura' using the edible oil that is obtained from the seed[183].

A clear golden-yellow edible oil resembling sasanqua oil is obtained from the seed[183, 269]. The oil needs to be refined before it is eaten.

An essential oil distilled from the fermented dried leaves is used as a commercial food flavouring[238]. Tea extract is used as a flavour in alcoholic beverages, frozen dairy desserts, candy, baked goods, gelatines, and puddings[269].

Tea is a potential source of food colours (black, green, orange, yellow, etc.)[269].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 25.7 Fat: 6.5 Carbohydrate: 40.8 Ash: 5

Medicinal Uses

Disclaimer

Astringent; Cardiotonic; Diuretic; Stimulant.

The tea plant is commonly used in Chinese herbalism, where it is considered to be one of the 50 fundamental herbs[218]. Modern research has shown that there are many health benefits to drinking tea, including its ability to protect the drinker from certain heart diseases. It has also been shown that drinking tea can protect the teeth from decay[254], because of the fluoride naturally occurring in the tea[K]. However, the tea also contains some tannin, which is suspected of being carcinogenic[269].

The leaves are cardiotonic, diuretic, expectorant, stimulant and astringent[4, 174, 192, 218, 240, 269]. They exert a decided influence over the nervous system, giving a feeling of comfort and exhilaration, but also producing an unnatural wakefulness when taken in large doses[4]. They are used internally in the treatment of diarrhoea, dysentery, hepatitis and gastro-enteritis[218, 238]. Tea is reportedly effective in clinical treatment of amoebic dysentery, bacterial dysentery, gastro-enteritis, and hepatitis. It has also been reported to have antiatherosclerotic effects and vitamin P activity[269]. Excessive use, however, can lead to dizziness, constipation, constipation, indigestion, palpitations and insomnia[238]. Externally, they are used as a poultice or wash to treat cuts, burns, bruises, insect bites, ophthalmia, swellings etc[218, 238, 257]. Only the very young leaves and leaf buds are used, these can be harvested throughout the growing season from plants over three years old and are dried for later use[238].

Teabags have been poulticed onto baggy or tired eyes, compressed onto headache, or used to bathe sunburn[269].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that

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Other Uses

Dye; Essential; Oil; Tannin; Wood.

An essential oil is distilled from the fermented and dried leaves[238]. It is used in perfumery and in commercial food flavouring[238].

A non-drying oil is obtained from the seeds. Refined teaseed oil, made by removing the free fatty acids with caustic soda, then bleaching the oil with Fuller's earth and a sprinkling of bone black, makes an oil suitable for use in manufacture of sanctuary or signal oil for burning purposes, and in all respects is considered a favourable substitute for rapeseed, olive, or lard oils. The oil is different from cottonseed, corn, or sesame oils in that it is a non-drying oil and is not subject to oxidation changes, thus making it very suitable for use in the textile industry; it remains liquid below -18deg.C[269].

A grey dye is obtained from the pink or red petals[168].

The leaves contain 13 - 18% tannin[223]. The leaves also contain quercetin, a dyestuff that, when found in other plants, is much used as a dye[223]. The quantity of quercetin is not given[K].

Wood - moderately hard, close and even grained. It is very good for walking sticks[158].

Cultivation details

Prefers a woodland soil but thrives in a warm open well-drained loam if leafmould is added[1, 11, 200]. A calcifuge plant, preferring a pH between 5 and 7[11, 200]. Prefers the partial shade of a light woodland or a woodland clearing[166, 200]. Forms grown in this country are slow-growing[219]. Tea is reported to tolerate an annual precipitation of 70 to 310cm, an average annual temperature range of 14 to 27°C and a pH in the range of 4.5 to 7.3[269].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. It prefers a wet summer and a cool but not very frosty dry winter[200].

The fragrant flowers are very attractive to insects, particularly moths[219].

Plants are not very self-compatible, self-fertilized flowers produce few seeds and these are of low viability[200].

A very ornamental plant[1], it is widely cultivated in tropical and warm temperate areas for its leaves which are used to make China tea[1]. There are many named varieties[183] and new hardier forms are being produced in China for growing in colder areas of the country[260]. The Chinese form, known as 'Hsüeh-ch'a', is said to grow in areas within the snow limit on the mountains of Lingchiangfu in Yunnan province[178].

The sub-species C. sinensis assamica. (Mast.)Kitam. is a larger plant, growing up to 17 metres tall. It is a more tropical form of the species, is intolerant of frost and does not succeed outdoors in Britain[11, 260].

Propagation

Seed - can be sown as soon as it is ripe in a greenhouse[113]. Stored seed should be pre-soaked for 24 hours in warm water and the hard covering around the micropyle should be filed down to leave a thin covering[78, 113, 138]. It usually germinates in 1 - 3 months at 23°c[138]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade in the greenhouse for at least their first winter. Plant them out into their permanent positions when they are more than 15cm tall and give them some protection from winter cold for their first year or three outdoors[K]. Seedlings take 4 - 12 years before they start to produce seed[269].

There are approximately 500 seeds per kilo[269].

Cuttings of almost ripe wood, 10 - 15cm with a heel, August/September in a shaded frame. High percentage but slow[78].

Cuttings of firm wood, 7 - 10cm with a heel, end of June in a frame[11, 78]. Keep in a cool greenhouse for the first year[11].

Leaf-bud cuttings, July/August in a frame.

Scent

Flowers: Fresh

> The flowers are deliciously scented.

Cultivars

'Hsüeh-ch'a'

> This is a Chinese form that is said to grow in areas within the snow limit on the mountains of Lingchiangfu in Yunnan province[178].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Camellia sinensis var. assamica* (a possible synonym).

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	Asia; China; Mexico(Kickapoo); Turkey

Physical Characteristics

An evergreen shrub growing to 4m by 2.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from March to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant not is self-fertile. We rate it 2 out of 5 for

usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Condiment; Leaves; Oil; Tea.

The leaves are infused in hot water and used as the drink that is commonly known as tea. It is widely drunk in many areas of the world. Green tea is made from the steamed and dried leaves, whilst black tea (the form most commonly drunk in the west) is made from leaves that have been fermented and then dried[183, 238]. Tea contains polyphenols, these are antioxidants that help to protect the body against heart diseases, stroke and cancer[238]. It also contains the stimulant caffeine which, when taken in excess, can cause sleeplessness and irritability and also, through its action as a diuretic, act to remove nutrients from the body. Tea is also rich in tannin and is a possible cause of oesophageal cancer[238]. Cold tea is sometimes used as a soaking liquid to flavour dried fruit[238]. One report says that the leaves are used as a boiled vegetable[179]. The leaves contain about 25.7% protein, 6.5% fat, 40.8% carbohydrate, 5% ash, 3.3% caffeine, 12.9% tannin[179].

Terminal sprouts with 2-3 leaves are usually hand-plucked, 10 kg of green shoots (75-80% water) produce about 2.5 kg dried tea[269]. The bushes are plucked every 7-15 days, depending on the development of the tender shoots. Leaves that are slow in development always make a better flavoured product[269]. Various techniques are used to produce black teas, usually during July and August when solar heat is most intense. Freshly picked leaves are spread very thinly and evenly on trays and placed in the sun until the leaves become very flaccid, requiring 13 hours or more, depending on heat and humidity. Other types of black teas are made by withering the leaves, rolling them into a ball and allowing to ferment in a damp place for 3-6 hours, at which time the ball turns a yellowish copper colour, with an agreeable fruity one[269]. If this stage goes too far, the leaves become sour and unfit for tea. After fermenting, the ball is broken up and the leaves spread out on trays and dried in oven until leaves are brittle and have slight odour of tea[269]. Tea is then stored in air-tight tin boxes or cans. As soon as harvested, leaves are steamed or heated to dry the natural sap and prevent oxidation to produce green tea. Still soft and pliable after the initial treatment, the leaves are then rolled and subjected to further firing. Thus dried, the leaves are sorted into various grades of green tea[269].

The flowers are made into 'tempura' using the edible oil that is obtained from the seed[183].

A clear golden-yellow edible oil resembling sasanqua oil is obtained from the seed[183, 269]. The oil needs to be refined before it is eaten.

An essential oil distilled from the fermented dried leaves is used as a commercial food flavouring[238]. Tea extract is used as a flavour in alcoholic beverages, frozen dairy desserts, candy, baked goods, gelatines, and puddings[269].

Tea is a potential source of food colours (black, green, orange, yellow, etc.)[269].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 25.7 Fat: 6.5 Carbohydrate: 40.8 Ash: 5

Medicinal Uses

Disclaimer

Astringent; Cardiotonic; Diuretic; Stimulant.

The tea plant is commonly used in Chinese herbalism, where it is considered to be one of the 50 fundamental herbs[218]. Modern research has shown that there are many health benefits to drinking tea, including its ability to protect the drinker from certain heart diseases. It has also been shown that drinking tea can protect the teeth from decay[254], because of the fluoride naturally occurring in the tea[K]. However, the tea also contains some tannin, which is suspected of being carcinogenic[269].

The leaves are cardiotonic, diuretic, expectorant, stimulant and astringent[4, 174, 192, 218, 240, 269]. They exert a decided influence over the nervous system, giving a feeling of comfort and exhilaration, but also producing an unnatural wakefulness when taken in large doses[4]. They are used internally in the treatment of diarrhoea, dysentery, hepatitis and gastro-enteritis[218, 238]. Tea is reportedly effective in clinical treatment of amoebic dysentery, bacterial dysentery, gastro-enteritis, and hepatitis. It has also been reported to have antiatherosclerotic effects and vitamin P activity[269]. Excessive use, however, can lead to dizziness, constipation, constipation, indigestion, palpitations and insomnia[238]. Externally, they are used as a poultice or wash to treat cuts, burns, bruises, insect bites, ophthalmia, swellings etc[218, 238, 257]. Only the very young leaves and leaf buds are used, these can be harvested throughout the growing season from plants over three years old and are dried for later use[238].

Teabags have been poulticed onto baggy or tired eyes, compressed onto headache, or used to bathe sunburn[269].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that

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Other Uses

Dye; Essential; Oil; Tannin; Wood.

An essential oil is distilled from the fermented and dried leaves[238]. It is used in perfumery and in commercial food flavouring[238].

A non-drying oil is obtained from the seeds. Refined teaseed oil, made by removing the free fatty acids with caustic soda, then bleaching the oil with Fuller's earth and a sprinkling of bone black, makes an oil suitable for use in manufacture of sanctuary or signal oil for burning purposes, and in all respects is considered a favourable substitute for rapeseed, olive, or lard oils. The oil is different from cottonseed, corn, or sesame oils in that it is a non-drying oil and is not subject to oxidation changes, thus making it very suitable for use in the textile industry; it remains liquid below -18deg.C[269].

A grey dye is obtained from the pink or red petals[168].

The leaves contain 13 - 18% tannin[223]. The leaves also contain quercetin, a dyestuff that, when found in other plants, is much used as a dye[223]. The quantity of quercetin is not given[K].

Wood - moderately hard, close and even grained. It is very good for walking sticks[158].

Cultivation details

Prefers a woodland soil but thrives in a warm open well-drained loam if leafmould is added[1, 11, 200]. A calcifuge plant, preferring a pH between 5 and 7[11, 200]. Prefers the partial shade of a light woodland or a woodland clearing[166, 200]. Forms grown in this country are slow-growing[219]. Tea is reported to tolerate an annual precipitation of 70 to 310cm, an average annual temperature range of 14 to 27°C and a pH in the range of 4.5 to 7.3[269].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. It prefers a wet summer and a cool but not very frosty dry winter[200].

The fragrant flowers are very attractive to insects, particularly moths[219].

Plants are not very self-compatible, self-fertilized flowers produce few seeds and these are of low viability[200].

A very ornamental plant[1], it is widely cultivated in tropical and warm temperate areas for its leaves which are used to make China tea[1]. There are many named varieties[183] and new hardier forms are being produced in China for growing in colder areas of the country[260]. The Chinese form, known as 'Hsüeh-ch'a', is said to grow in areas within the snow limit on the mountains of Lingchiangfu in Yunnan province[178].

The sub-species C. sinensis assamica. (Mast.)Kitam. is a larger plant, growing up to 17 metres tall. It is a more tropical form of the species, is intolerant of frost and does not succeed outdoors in Britain[11, 260].

Propagation

Seed - can be sown as soon as it is ripe in a greenhouse[113]. Stored seed should be pre-soaked for 24 hours in warm water and the hard covering around the micropyle should be filed down to leave a thin covering[78, 113, 138]. It usually germinates in 1 - 3 months at 23°c[138]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade in the greenhouse for at least their first winter. Plant them out into their permanent positions when they are more than 15cm tall and give them some protection from winter cold for their first year or three outdoors[K]. Seedlings take 4 - 12 years before they start to produce seed[269].

There are approximately 500 seeds per kilo[269].

Cuttings of almost ripe wood, 10 - 15cm with a heel, August/September in a shaded frame. High percentage but slow[78].

Cuttings of firm wood, 7 - 10cm with a heel, end of June in a frame[11, 78]. Keep in a cool greenhouse for the first year[11].

Leaf-bud cuttings, July/August in a frame.

Scent

Flowers: Fresh

> The flowers are deliciously scented.

Cultivars

'Hsüeh-ch'a'

> This is a Chinese form that is said to grow in areas within the snow limit on the mountains of Lingchiangfu in Yunnan province[178].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Camellia sinensis*

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Camellia sinensis

Group:
Plant Information

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Camellia sinensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Capsicum annuum

Common name:	Sweet pepper	Family:	Solanaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Pungent-fruited peppers may cause painful irritation when used in excess, or after accidental contact with the eyes[238]. Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	Probably native of the Tropics, but the original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. C. annum[E] C. annum var. aviculare[P] C. annuum var. aviculare[B,G,P] C. annuum var. glabriusculum[B,G,P] C. annuum var. minimum[G,P] C. annuum var. minus[B,P] C. baccatum[B] C. cordiforme[G] C. frutescens[B,H] C. hispidum var. glabriusculum[G] Croton annum[H]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Aji Dulce [E], Cayenne [H], Cayenne Pepper [B,P], Chabai Achong [E], Filfil [E], Hungarian Pepper [H], Kirmizi Biber [E], La Chiao [E], Mexican Chili [H], Paprika [H], Peppers [H], Piment Doux [E], Pimiento [E], Red Pepper [H], Sweet Pepper [H], To-Garasi [E],
Epithets:	From a Dictionary of Botanical Epithets annuum = annual;
Systematics:	From a UDSA Plants Database Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database China; Dominican Republic; Haiti; Hawaii; Iraq; Japan; Malaya; Mexico; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen perennial growing to 1m by 1m . It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Colouring; Condiment; Flowers; Fruit; Leaves.

Fruit - raw or cooked[2, 33, 105, 132]. Some varieties are very hot (the chilli and cayenne peppers) and are normally used as a pungent flavouring whilst milder varieties (the sweet peppers) have a very pleasant flavour with a slight sweetness and are often eaten raw in salads etc[142, 238]. The dried fruits of chilli and cayenne peppers is ground into a powder and used as a pungent flavouring called paprika[238]. The powder from the dried ground fruit of some cultivars is added to food as a colouring[183]. The fruits range widely in size and shape, from a few centimetres long to more than 30cm[200].

Young leaves are said to be edible[105] but some caution is advised. They are steamed as a potherb or added to soups and stews[183]. The leaves contain about 4 - 6% protein[183].

Seed - dried, ground into a powder and used as a pepper[2].

Flowers - raw or cooked[201].

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Antirheumatic; Digestive; Irritant; Rubefacient; Sialagogue.

The fruit of the hot, pungent cultivars is antihaemorrhoidal when taken in small amounts, antirheumatic, antiseptic, diaphoretic, digestive, irritant, rubefacient, sialagogue and tonic[7, 238]. It is taken internally in the treatment of the cold stage of fevers, debility in convalescence or old age, varicose veins, asthma and digestive problems[238]. Externally it is used in the treatment of sprains, unbroken chilblains, neuralgia, pleurisy etc[238]. It is an effective sea-sickness preventative[7].

Other Uses

None known

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Prefers a light sandy soil that is slightly acid[201]. Tolerates a pH in the range 4.3 to 8.3.

Plants can tolerate a small amount of frost[171], but this species does not normally do well outdoors in an average British summer and so it is usually grown in a greenhouse in this country[1]. However, if a very warm sheltered position outdoors is chosen then reasonable crops could be obtained in good summers.

This species is widely grown throughout the world, but especially in warm temperate to tropical climates, for its edible fruit - the sweet and chilli peppers. There are many named varieties[183]. There are five basic forms of fruits, each form having various varieties. These forms are:-

Cerasiforme. These have small cherry-shaped pungent fruits.

Conioides. These fruits are cone-shaped and up to 5cm long. Many of them are grown as ornamentals, but some are also cultivated for food..

Fasciculatum. Also cone-shaped, but with pungent red fruits up to 7.5cm long.

Grossum. These are the sweet peppers with large bell-shaped fruits and thick flesh.

Longum. These are the cultivated hot cayenne and chilli peppers with long thin fruits up to 30cm long.

The pungency of peppers depends upon the presence of a single gene, cultivars that lack this gene are the sweet peppers[238]. A short-lived evergreen perennial in the tropics[200], though the plants are grown as annuals in temperate zones[188].

Sweet pepper plants are good companions for basil and okra[20, 201]. They should not be grown near apricot trees, however, because a fungus that the pepper is prone to can cause a lot of harm to the apricot tree[201].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Capsicum annum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Capsicum annuum var. glabriusculum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *capsicum annuum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Solanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
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[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
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[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
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A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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Plants For A Future: Database Search Results

Capsicum annuum

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Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

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Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	annuum = annual;
Systematics:	From a UDSA Plants Database

	Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; Hawaii; Iraq; Japan; Malaya; Mexico; Spain; Turkey
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Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Colouring; Condiment; Flowers; Fruit; Leaves.

Fruit - raw or cooked[2, 33, 105, 132]. Some varieties are very hot (the chilli and cayenne peppers) and are normally used as a pungent flavouring whilst milder varieties (the sweet peppers) have a very pleasant flavour with a slight sweetness and are often eaten raw in salads etc[142, 238]. The dried fruits of chilli and cayenne peppers is ground into a powder and used as a pungent flavouring called paprika[238]. The powder from the dried ground fruit of some cultivars is added to food as a colouring[183]. The fruits range widely in size and shape, from a few centimetres long to more than 30cm[200].

Young leaves are said to be edible[105] but some caution is advised. They are steamed as a potherb or added to soups and stews[183]. The leaves contain about 4 - 6% protein[183].

Seed - dried, ground into a powder and used as a pepper[2].

Flowers - raw or cooked[201].

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Antirheumatic; Digestive; Irritant; Rubefacient; Sialagogue.

The fruit of the hot, pungent cultivars is antihaemorrhoidal when taken in small amounts, antirheumatic, antiseptic, diaphoretic, digestive, irritant, rubefacient, sialagogue and tonic[7, 238]. It is taken internally in the treatment of the cold stage of fevers, debility in convalescence or old age, varicose veins, asthma and digestive problems[238]. Externally it is used in the treatment of sprains, unbroken chilblains, neuralgia, pleurisy etc[238]. It is an effective sea-sickness preventative[7].

Other Uses

None known

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Prefers a light sandy soil that is slightly acid[201]. Tolerates a pH in the range 4.3 to 8.3.

Plants can tolerate a small amount of frost[171], but this species does not normally do well outdoors in an average British summer and so it is usually grown in a greenhouse in this country[1]. However, if a very warm sheltered position outdoors is chosen then reasonable crops could be obtained in good summers.

This species is widely grown throughout the world, but especially in warm temperate to tropical climates, for its edible fruit - the sweet and chilli peppers. There are many named varieties[183]. There are five basic forms of fruits, each form having various varieties. These forms are:-

Cerasiforme. These have small cherry-shaped pungent fruits.

Conioides. These fruits are cone-shaped and up to 5cm long. Many of them are grown as ornamentals, but some are also cultivated for food..

Fasciculatum. Also cone-shaped, but with pungent red fruits up to 7.5cm long.

Grossum. These are the sweet peppers with large bell-shaped fruits and thick flesh.

Longum. These are the cultivated hot cayenne and chilli peppers with long thin fruits up to 30cm long.

The pungency of peppers depends upon the presence of a single gene, cultivars that lack this gene are the sweet peppers[238]. A short-lived evergreen perennial in the tropics[200], though the plants are grown as annuals in temperate zones[188].

Sweet pepper plants are good companions for basil and okra[20, 201]. They should not be grown near apricot trees, however, because a fungus that the pepper is prone to can cause a lot of harm to the apricot tree[201].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Capsicum annum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Capsicum annuum var. glabriusculum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *capsicum annuum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Solanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0

Fairly good.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[171] **Hill. A. F.** *Economic Botany*. The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Capsicum+annuum`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Capsicum annuum

Common name:	Sweet pepper	Family:	Solanaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Pungent-fruited peppers may cause painful irritation when used in excess, or after accidental contact with the eyes[238]. Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	Probably native of the Tropics, but the original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. annum[E] C. annum var. aviculare[P] C. annuum var. aviculare[B,G,P] C. annuum var. glabriusculum[B,G,P] C. annuum var. minimum[G,P] C. annuum var. minus[B,P] C. baccatum[B] C. cordiforme[G] C. frutescens[B,H] C. hispidum var. glabriusculum[G] Croton annum[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aji Dulce [E], Cayenne [H], Cayenne Pepper [B,P], Chabai Achong [E], Filfil [E], Hungarian Pepper [H], Kirmizi Biber [E], La Chiao [E], Mexican Chili [H], Paprika [H], Peppers [H], Piment Doux [E], Pimiento [E], Red Pepper [H], Sweet Pepper [H], To-Garasi [E],
Epithets:	From a Dictionary of Botanical Epithets
	annuum = annual;
Systematics:	From a UDSA Plants Database

	Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; Hawaii; Iraq; Japan; Malaya; Mexico; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen perennial growing to 1m by 1m . It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Colouring; Condiment; Flowers; Fruit; Leaves.

Fruit - raw or cooked[2, 33, 105, 132]. Some varieties are very hot (the chilli and cayenne peppers) and are normally used as a pungent flavouring whilst milder varieties (the sweet peppers) have a very pleasant flavour with a slight sweetness and are often eaten raw in salads etc[142, 238]. The dried fruits of chilli and cayenne peppers is ground into a powder and used as a pungent flavouring called paprika[238]. The powder from the dried ground fruit of some cultivars is added to food as a colouring[183]. The fruits range widely in size and shape, from a few centimetres long to more than 30cm[200].

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Seed - dried, ground into a powder and used as a pepper[2].

Flowers - raw or cooked[201].

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Antirheumatic; Digestive; Irritant; Rubefacient; Sialagogue.

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Other Uses

None known

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Prefers a light sandy soil that is slightly acid[201]. Tolerates a pH in the range 4.3 to 8.3.

Plants can tolerate a small amount of frost[171], but this species does not normally do well outdoors in an average British summer and so it is usually grown in a greenhouse in this country[1]. However, if a very warm sheltered position outdoors is chosen then reasonable crops could be obtained in good summers.

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Sweet pepper plants are good companions for basil and okra[20, 201]. They should not be grown near apricot trees, however, because a fungus that the pepper is prone to can cause a lot of harm to the apricot tree[201].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Capsicum annuum*

Subject:

Capsicum annuum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Capsicum annuum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Carthamnus tinctorius

Common name:	Safflower	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	N. Africa - Egypt. A rare casual in Britain[17].		
Habitat:	Poor dry soils in full sun.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Carthamus tinctorius[B,CPHOTO,CAL,CAL,,DUTCH,ENERGY,E,G,H,HPIC,L,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alazor [E], Azafran [E], Beni-Bana [E], E'Sfer [E], False Saffron [H], Habb Et Quirthim [E], Huang Lan [E], Hung Hua [E], Hung Lan Hua [E], Kasumba [E], Kesumba [E], Qurtum [E], Saffloer [D], Safflower [H,P,L,B], Yao Hua [E],
Epithets:	From a Dictionary of Botanical Epithets
	tinctorius = used in dyeing;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Algeria; China; India; Iraq; Japan; Java; Malaya; Mexico; Spain; Turkey; Us; Us(Amerindian); Venezuela

Physical Characteristics

Annual growing to 1m by 0.35m . . It is in leaf from May to October, in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Oil; Seed.

An edible oil is obtained from the seed. It contains a higher percentage of essential unsaturated fatty acids and a lower percentage of saturated fatty acids than other edible vegetable seed oils[269]. The oil, light coloured and easily clarified, is used in salad dressings, cooking oils and margarines[2, 4, 7, 34, 46, 183, 244, 269]. A very stable oil, it is said to be healthier than many other edible oils and its addition to the diet helps to reduce blood-cholesterol levels[238].

Seed - cooked. They can be roasted, or fried and eaten in chutneys[61, 105, 183, 269].

Tender young leaves and shoots - cooked or raw[105, 171, 177]. A sweet flavour, they can be used as a spinach[179, 183]. A famine food, it is only used when all else fails[178].

An edible yellow and a red dye are obtained from the flowers[244]. The yellow is used as a saffron substitute to flavour and colour food[183, 244].

The (fried?) seeds are used as a curdling agent for plant milks etc[183].

Medicinal Uses

Disclaimer

Alterative; Analgesic; Antibacterial; Anticholesterolemic; Antiphlogistic; Antitumor; Cardiac; Contraceptive; Diaphoretic; Diuretic; Emmenagogue; Febrifuge; Laxative; Purgative; Sedative; Stimulant; Tonic; Vermifuge.

Safflower is commonly grown as a food plant, but also has a wide range of medicinal uses. Modern research has, for example, shown that the flowers can reduce coronary heart disease and lower cholesterol levels[254].

Alterative, analgesic, antibacterial, antiphlogistic, haemopoietic[14, 174, 178]. Treats tumours and stomatitis[174].

The flowers are anticholesterolemic, diaphoretic, emmenagogue, laxative, purgative, sedative and stimulant[4, 7, 147, 176, 240, 269]. They are used to treat menstrual pains and other complications by promoting a smooth menstrual flow[218] and were ranked third in a survey of 250 potential anti-fertility plants[218]. In domestic practice, the flowers are used as a substitute or adulterant for saffron in treating infants complaints such as measles, fevers and eruptive skin complaints[4, 269]. Externally, they are applied to bruising, sprains, skin inflammations, wounds etc[238]. The flowers are harvested in the summer and can be used fresh or dried[238]. They should not be stored for longer than 12 months[238]. It is possible to carefully pick the florets and leave the ovaries behind so that seed can be produced, though this procedure is rather more time-consuming[238].

The plant is febrifuge, sedative, sudorific and vermifuge[218]. When combined with Ligusticum wallichii it is said to have a definite therapeutic effect upon coronary diseases[218].

The seed is diuretic, purgative and tonic[240]. It is used in the treatment of rheumatism[240] and tumours, especially inflammatory tumours of the liver[269].

The oil is charred and used to heal sores and treat rheumatism[240]. In Iran, the oil is used as a salve for treating sprains and rheumatism[269].

Other Uses

Adhesive; Cosmetic; Dye; Oil; Waterproofing.

The seed yields up to 40% of a drying oil[114], it is used for lighting, paint, varnishes, linoleum and wax cloths[57, 171, 269]. The oil can also be used as a diesel substitute[269]. It does not yellow with age[114]. When heated to 300°c for 2 hours and then poured into cold water, the oil solidifies to a gelatinous mass and is then used as a cement for glass, tiles, stones etc or as a substitute for 'plaster of Paris'. If the oil is heated to 307°c for 2½ hours, it suddenly becomes a stiff elastic solid by polymerization and can then be used in making waterproof cloth etc[114].

A yellow dye is obtained by steeping the flowers in water, it is used as a saffron substitute[2, 4, 7, 14, 171, 238].

A red dye can be obtained by steeping the flowers in alcohol[169, 171, 238]. It is used for dyeing cloth and, mixed with talcum powder, is used as a rouge to colour the cheeks[244].

Cultivation details

Succeeds in ordinary garden soil[1, 169]. Safflower thrives in heavy clays with good water-holding capacity, but will also grow satisfactorily in deep sandy or clay loams with good drainage[269]. It needs soil moisture from the time of planting until it is flowering[269]. It requires a well-drained soil and a position in full sun[138, 169, 238]. Safflower is reported to tolerate an annual precipitation of 20 to 137cm, an annual average temperature range of 6.3 to 27.5deg.C and a pH in the range of 5.4 to 8.2[269]. Plants are reported to tolerate bacteria, disease, drought, frost, fungus, high pH, phage, salt, sand, rust, virus and wind[269].

Safflower grows in the temperate zone in areas where wheat and barley do well, and grows slowly during periods of cool short days in early part of season. Seedlings can withstand temperatures lower than many species; however, varieties differ greatly in their tolerance to frost; in general, frost damages budding and flowering thus reducing yields and quality[269].

Safflower is a long-day plant, requiring a photoperiod of about 14 hours. It is shade and weed intolerant, will not grow as a weed because other wild plants overshadow it before it becomes established. It is about as salt tolerant as cotton, but less so than barley[269]. Safflower matures in from 110-150 days from planting to harvest as a spring crop, as most of it is grown, and from 200 or more days as an autumn-sown crop[269]. It should be harvested when the plant is thoroughly dried. Since the seeds do not shatter easily, it may be harvested by direct combining. The crop is allowed to dry in the fields before threshing[269].

Plants are self-fertile, though cross-pollination also takes place[269].

Plants have a sturdy taproot that can penetrate 2.5 metres into the soil[269].

Safflower has been grown for thousands of years for the dye that can be obtained from the flowers[238]. This is not much used nowadays, having been replaced by chemical dyes, but the plant is still widely cultivated commercially for its oil-rich seed in warm temperate and tropical areas of the world. There are many named varieties[174, 200]. A number of spineless cultivars have been developed, but at present these produce much lower yields of oil than the spiny varieties[269].

Safflower is unlikely to be a worthwhile crop in Britain since it only ripens its seed here in long hot summers. There is more chance of success in the drier eastern part of the country with its usually warmer summers, the cooler moister conditions in the west tend to act against the production of viable seed[K].

Propagation

Seed - sow spring in gentle heat in a greenhouse. Germination usually takes place within 2 - 4 weeks at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in late spring or early summer.

The seed can also be sown in situ in April/May[138] but plants may not then mature their seed.

Cultivars

'Dart'

Cold tolerant during early growth, it has tolerance for Phytophthora, Puccinia and Verticillium. In a 5-year period of testing at Mesa, 'Dart' averaged 4,004 kg/ha[269].

'US 10'

Yield and oil percentage about equal to 'Gila', but plants are resistant to Phytophthora root rot[269].

'Frio'

A highly cold tolerant variety with oil and protein content higher than 'Gila'[269].

'Gila'

A high yielding, high test-weight variety, adapted to Arizona growing conditions[269].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Carthamus tinctorius* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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Published only on the Internet, excellent information on a wide range of plants.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Carthamnus+tinctorius`

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Plants For A Future: Database Search Results

Carthamnus tinctorius

Common name:	Safflower	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	N. Africa - Egypt. A rare casual in Britain[17].		
Habitat:	Poor dry soils in full sun.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Carthamus tinctorius[B,CPHOTO,CAL,CAL,,DUTCH,ENERGY,E,G,H,HPIC,L,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alazor [E], Azafran [E], Beni-Bana [E], E'Sfer [E], False Saffron [H], Habb Et Quirthim [E], Huang Lan [E], Hung Hua [E], Hung Lan Hua [E], Kasumba [E], Kesumba [E], Qurtum [E], Saffloer [D], Safflower [H,P,L,B], Yao Hua [E],
Epithets:	From a Dictionary of Botanical Epithets
	tinctorius = used in dyeing;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Algeria; China; India; Iraq; Japan; Java; Malaya; Mexico; Spain; Turkey; Us; Us(Amerindian); Venezuela

Physical Characteristics

Annual growing to 1m by 0.35m . . It is in leaf from May to October, in flower from August to October, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Oil; Seed.

An edible oil is obtained from the seed. It contains a higher percentage of essential unsaturated fatty acids and a lower percentage of saturated fatty acids than other edible vegetable seed oils[269]. The oil, light coloured and easily clarified, is used in salad dressings, cooking oils and margarines[2, 4, 7, 34, 46, 183, 244, 269]. A very stable oil, it is said to be healthier than many other edible oils and its addition to the diet helps to reduce blood-cholesterol levels[238].

Seed - cooked. They can be roasted, or fried and eaten in chutneys[61, 105, 183, 269].

Tender young leaves and shoots - cooked or raw[105, 171, 177]. A sweet flavour, they can be used as a spinach[179, 183]. A famine food, it is only used when all else fails[178].

An edible yellow and a red dye are obtained from the flowers[244]. The yellow is used as a saffron substitute to flavour and colour food[183, 244].

The (fried?) seeds are used as a curdling agent for plant milks etc[183].

Medicinal Uses

Disclaimer

Alterative; Analgesic; Antibacterial; Anticholesterolemic; Antiphlogistic; Antitumor; Cardiac; Contraceptive; Diaphoretic; Diuretic; Emmenagogue; Febrifuge; Laxative; Purgative; Sedative; Stimulant; Tonic; Vermifuge.

Safflower is commonly grown as a food plant, but also has a wide range of medicinal uses. Modern research has, for example, shown that the flowers can reduce coronary heart disease and lower cholesterol levels[254].

Alterative, analgesic, antibacterial, antiphlogistic, haemopoietic[14, 174, 178]. Treats tumours and stomatitis[174].

The flowers are anticholesterolemic, diaphoretic, emmenagogue, laxative, purgative, sedative and stimulant[4, 7, 147, 176, 240, 269]. They are used to treat menstrual pains and other complications by promoting a smooth menstrual flow[218] and were ranked third in a survey of 250 potential anti-fertility plants[218]. In domestic practice, the flowers are used as a substitute or adulterant for saffron in treating infants complaints such as measles, fevers and eruptive skin complaints[4, 269]. Externally, they are applied to bruising, sprains, skin inflammations, wounds etc[238]. The flowers are harvested in the summer and can be used fresh or dried[238]. They should not be stored for longer than 12 months[238]. It is possible to carefully pick the florets and leave the ovaries behind so that seed can be produced, though this procedure is rather more time-consuming[238].

The plant is febrifuge, sedative, sudorific and vermifuge[218]. When combined with Ligusticum wallichii it is said to have a definite therapeutic effect upon coronary diseases[218].

The seed is diuretic, purgative and tonic[240]. It is used in the treatment of rheumatism[240] and tumours, especially inflammatory tumours of the liver[269].

The oil is charred and used to heal sores and treat rheumatism[240]. In Iran, the oil is used as a salve for treating sprains and rheumatism[269].

Other Uses

Adhesive; Cosmetic; Dye; Oil; Waterproofing.

The seed yields up to 40% of a drying oil[114], it is used for lighting, paint, varnishes, linoleum and wax cloths[57, 171, 269]. The oil can also be used as a diesel substitute[269]. It does not yellow with age[114]. When heated to 300°c for 2 hours and then poured into cold water, the oil solidifies to a gelatinous mass and is then used as a cement for glass, tiles, stones etc or as a substitute for 'plaster of Paris'. If the oil is heated to 307°c for 2½ hours, it suddenly becomes a stiff elastic solid by polymerization and can then be used in making waterproof cloth etc[114].

A yellow dye is obtained by steeping the flowers in water, it is used as a saffron substitute[2, 4, 7, 14, 171, 238].

A red dye can be obtained by steeping the flowers in alcohol[169, 171, 238]. It is used for dyeing cloth and, mixed with talcum powder, is used as a rouge to colour the cheeks[244].

Cultivation details

Succeeds in ordinary garden soil[1, 169]. Safflower thrives in heavy clays with good water-holding capacity, but will also grow satisfactorily in deep sandy or clay loams with good drainage[269]. It needs soil moisture from the time of planting until it is flowering[269]. It requires a well-drained soil and a position in full sun[138, 169, 238]. Safflower is reported to tolerate an annual precipitation of 20 to 137cm, an annual average temperature range of 6.3 to 27.5deg.C and a pH in the range of 5.4 to 8.2[269]. Plants are reported to tolerate bacteria, disease, drought, frost, fungus, high pH, phage, salt, sand, rust, virus and wind[269].

Safflower grows in the temperate zone in areas where wheat and barley do well, and grows slowly during periods of cool short days in early part of season. Seedlings can withstand temperatures lower than many species; however, varieties differ greatly in their tolerance to frost; in general, frost damages budding and flowering thus reducing yields and quality[269].

Safflower is a long-day plant, requiring a photoperiod of about 14 hours. It is shade and weed intolerant, will not grow as a weed because other wild plants overshadow it before it becomes established. It is about as salt tolerant as cotton, but less so than barley[269]. Safflower matures in from 110-150 days from planting to harvest as a spring crop, as most of it is grown, and from 200 or more days as an autumn-sown crop[269]. It should be harvested when the plant is thoroughly dried. Since the seeds do not shatter easily, it may be harvested by direct combining. The crop is allowed to dry in the fields before threshing[269].

Plants are self-fertile, though cross-pollination also takes place[269].

Plants have a sturdy taproot that can penetrate 2.5 metres into the soil[269].

Safflower has been grown for thousands of years for the dye that can be obtained from the flowers[238]. This is not much used nowadays, having been replaced by chemical dyes, but the plant is still widely cultivated commercially for its oil-rich seed in warm temperate and tropical areas of the world. There are many named varieties[174, 200]. A number of spineless cultivars have been developed, but at present these produce much lower yields of oil than the spiny varieties[269].

Safflower is unlikely to be a worthwhile crop in Britain since it only ripens its seed here in long hot summers. There is more chance of success in the drier eastern part of the country with its usually warmer summers, the cooler moister conditions in the west tend to act against the production of viable seed[K].

Propagation

Seed - sow spring in gentle heat in a greenhouse. Germination usually takes place within 2 - 4 weeks at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in late spring or early summer.

The seed can also be sown in situ in April/May[138] but plants may not then mature their seed.

Cultivars

'Dart'

> Cold tolerant during early growth, it has tolerance for Phytophthora, Puccinia and Verticillium. In a 5-year period of testing at Mesa, 'Dart' averaged 4,004 kg/ha[269].

'US 10'

> Yield and oil percentage about equal to 'Gila', but plants are resistant to Phytophthora root

rot[269].

'Frio'

A highly cold tolerant variety with oil and protein content higher than 'Gila'[269].

'Gila'

A high yielding, high test-weight variety, adapted to Arizona growing conditions[269].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Carthamus tinctorius* (a possible synonym).

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Plants For A Future: Database Search Results

Carthamnus tinctorius

Common name:	Safflower	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	N. Africa - Egypt. A rare casual in Britain[17].		
Habitat:	Poor dry soils in full sun.		
Plants For A Future Rating (1-5):	3		

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Epithets:	From a Dictionary of Botanical Epithets
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Cultivated Beds.

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An edible oil is obtained from the seed. It contains a higher percentage of essential unsaturated fatty acids and a lower percentage of saturated fatty acids than other edible vegetable seed oils[269]. The oil, light coloured and easily clarified, is used in salad dressings, cooking oils and margarines[2, 4, 7, 34, 46, 183, 244, 269]. A very stable oil, it is said to be healthier than many other edible oils and its addition to the diet helps to reduce blood-cholesterol levels[238].

Seed - cooked. They can be roasted, or fried and eaten in chutneys[61, 105, 183, 269].

Tender young leaves and shoots - cooked or raw[105, 171, 177]. A sweet flavour, they can be used as a spinach[179, 183]. A famine food, it is only used when all else fails[178].

An edible yellow and a red dye are obtained from the flowers[244]. The yellow is used as a saffron substitute to flavour and colour food[183, 244].

The (fried?) seeds are used as a curdling agent for plant milks etc[183].

Medicinal Uses

Disclaimer

Alterative; Analgesic; Antibacterial; Anticholesterolemic; Antiphlogistic; Antitumor; Cardiac; Contraceptive; Diaphoretic; Diuretic; Emmenagogue; Febrifuge; Laxative; Purgative; Sedative; Stimulant; Tonic; Vermifuge.

Safflower is commonly grown as a food plant, but also has a wide range of medicinal uses. Modern research has, for example, shown that the flowers can reduce coronary heart disease and lower cholesterol levels[254].

Alterative, analgesic, antibacterial, antiphlogistic, haemopoietic[14, 174, 178]. Treats tumours and stomatitis[174].

The flowers are anticholesterolemic, diaphoretic, emmenagogue, laxative, purgative, sedative and stimulant[4, 7, 147, 176, 240, 269]. They are used to treat menstrual pains and other complications by promoting a smooth menstrual flow[218] and were ranked third in a survey of 250 potential anti-fertility plants[218]. In domestic practice, the flowers are used as a substitute or adulterant for saffron in treating infants complaints such as measles, fevers and eruptive skin complaints[4, 269]. Externally, they are applied to bruising, sprains, skin inflammations, wounds etc[238]. The flowers are harvested in the summer and can be used fresh or dried[238]. They should not be stored for longer than 12 months[238]. It is possible to carefully pick the florets and leave the ovaries behind so that seed can be produced, though this procedure is rather more time-consuming[238].

The plant is febrifuge, sedative, sudorific and vermifuge[218]. When combined with Ligusticum wallichii it is said to have a definite therapeutic effect upon coronary diseases[218].

The seed is diuretic, purgative and tonic[240]. It is used in the treatment of rheumatism[240] and tumours, especially inflammatory tumours of the liver[269].

The oil is charred and used to heal sores and treat rheumatism[240]. In Iran, the oil is used as a salve for treating sprains and rheumatism[269].

Other Uses

Adhesive; Cosmetic; Dye; Oil; Waterproofing.

The seed yields up to 40% of a drying oil[114], it is used for lighting, paint, varnishes, linoleum and wax cloths[57, 171, 269]. The oil can also be used as a diesel substitute[269]. It does not yellow with age[114]. When heated to 300°c for 2 hours and then poured into cold water, the oil solidifies to a gelatinous mass and is then used as a cement for glass, tiles, stones etc or as a substitute for 'plaster of Paris'. If the oil is heated to 307°c for 2½ hours, it suddenly becomes a stiff elastic solid by polymerization and can then be used in making waterproof cloth etc[114].

A yellow dye is obtained by steeping the flowers in water, it is used as a saffron substitute[2, 4, 7, 14, 171, 238].

A red dye can be obtained by steeping the flowers in alcohol[169, 171, 238]. It is used for dyeing cloth and, mixed with talcum powder, is used as a rouge to colour the cheeks[244].

Cultivation details

Succeeds in ordinary garden soil[1, 169]. Safflower thrives in heavy clays with good water-holding capacity, but will also grow satisfactorily in deep sandy or clay loams with good drainage[269]. It needs soil moisture from the time of planting until it is flowering[269]. It requires a well-drained soil and a position in full sun[138, 169, 238]. Safflower is reported to tolerate an annual precipitation of 20 to 137cm, an annual average temperature range of 6.3 to 27.5deg.C and a pH in the range of 5.4 to 8.2[269]. Plants are reported to tolerate bacteria, disease, drought, frost, fungus, high pH, phage, salt, sand, rust, virus and wind[269].

Safflower grows in the temperate zone in areas where wheat and barley do well, and grows slowly during periods of cool short days in early part of season. Seedlings can withstand temperatures lower than many species; however, varieties differ greatly in their tolerance to frost; in general, frost damages budding and flowering thus reducing yields and quality[269].

Safflower is a long-day plant, requiring a photoperiod of about 14 hours. It is shade and weed intolerant, will not grow as a weed because other wild plants overshadow it before it becomes established. It is about as salt tolerant as cotton, but less so than barley[269]. Safflower matures in from 110-150 days from planting to harvest as a spring crop, as most of it is grown, and from 200 or more days as an autumn-sown crop[269]. It should be harvested when the plant is thoroughly dried. Since the seeds do not shatter easily, it may be harvested by direct combining. The crop is allowed to dry in the fields before threshing[269].

Plants are self-fertile, though cross-pollination also takes place[269].

Plants have a sturdy taproot that can penetrate 2.5 metres into the soil[269].

Safflower has been grown for thousands of years for the dye that can be obtained from the flowers[238]. This is not much used nowadays, having been replaced by chemical dyes, but the plant is still widely cultivated commercially for its oil-rich seed in warm temperate and tropical areas of the world. There are many named varieties[174, 200]. A number of spineless cultivars have been developed, but at present these produce much lower yields of oil than the spiny varieties[269].

Safflower is unlikely to be a worthwhile crop in Britain since it only ripens its seed here in long hot summers. There is more chance of success in the drier eastern part of the country with its usually warmer summers, the cooler moister conditions in the west tend to act against the production of viable seed[K].

Propagation

Seed - sow spring in gentle heat in a greenhouse. Germination usually takes place within 2 - 4 weeks at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in late spring or early summer.

The seed can also be sown in situ in April/May[138] but plants may not then mature their seed.

Cultivars

'Dart'

Cold tolerant during early growth, it has tolerance for Phytophthora, Puccinia and Verticillium. In a 5-year period of testing at Mesa, 'Dart' averaged 4,004 kg/ha[269].

'US 10'

Yield and oil percentage about equal to 'Gila', but plants are resistant to Phytophthora root rot[269].

'Frio'

A highly cold tolerant variety with oil and protein content higher than 'Gila'[269].

'Gila'

A high yielding, high test-weight variety, adapted to Arizona growing conditions[269].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Group:
Plant Information

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Carthamnus tinctorius

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Centaurea cyanus

Common name:	Cornflower	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Once a common weed of cornfields, as a result of modern agricultural practices it is now very rare in the wild[9, 13]. Found especially on porous, nutrient-rich soils[268].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cyaneus[E] Leucacantha cyanus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Nber [E], Aciano [E], Bachelor's Button [L], Bachelor's Buttons [H], Blue Cap [H], Bluebottle [H,L], Bluebow [H], Cornflour [E], Cornflower [H,L], Garden Cornflower [P,B], Hurtsickle [H], Korenbloem [D], Mawi Pighember Chichegi [E], Peygamber Cicegi [E], Sentoria [E],
Epithets:	From a Dictionary of Botanical Epithets
	aurea = golden; cyanus = blue;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Europe; Iraq; Spain; Turkey

Physical Characteristics

Annual growing to 1m by 0.3m . It is not frost tender. It is in flower from June to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers.

The young shoots are edible[7].

Flowers - raw or cooked. The fresh florets can be used in salads[238]. They are used as a vegetable or a garnish[183].

An edible blue dye is obtained from the flowers, used for colouring sugar and confections[183].

Medicinal Uses

Disclaimer

Antipruritic; Antirheumatic; Antitussive; Astringent; Diuretic; Emmenagogue; Laxative; Ophthalmic; Purgative; Tonic.

Cornflower has a long history of herbal use, though it is seldom employed nowadays. In France it is still used as a remedy for tired eyes, but opinions differ as to its efficacy[254, 268]. Traditionally it is said to work best on blue eyes, whilst Plantago major (great plantain) was used for brown eyes[268].

The dried flowers are antipruritic, antitussive, astringent, weakly diuretic, emmenagogue, ophthalmic, very mildly purgative, and tonic[4, 7, 9, 21, 201, 240]. An infusion can be used in the treatment of dropsy, constipation, or as a mouthwash for ulcers and bleeding gums[9, 238]. This infusion is also taken as a bitter tonic and stimulant, improving the digestion and possibly supporting the liver as well as improving resistance to infections[254]. A water distilled from the petals was formerly in repute as a remedy for weak eyes[4] and a soothing lotion for conjunctivitis[7, 240].

The seeds are used as a mild laxative for children[7, 254].

A decoction of the leaves is antirheumatic[7, 254].

Other Uses

Dye; Hair; Ink; Pot-pourri.

A blue ink and a dye is obtained from the petals mixed with alum-water[4, 100, 115, 201]. The dye gives a lovely colour to linen, but it is transient[4].

The dried petals are used in pot-pourri in order to add colour[4, 268].

Extracts of the plant are added to hair shampoos and rinses[238].

Cultivation details

Succeeds in ordinary garden soil[1, 200]. Prefers a well-drained fertile soil and a sunny position[200]. Tolerates dry, low fertility and alkaline soils[200]. Established plants are drought tolerant[201].

A very ornamental plant[1], there are many named varieties[188]. The flowers are often used in dried-flower arrangements because they retain their colour well[7].

A good plant for bees, butterflies and moths[20, 30, 108]. The cornflower is considered to be a good companion, in small quantities, for cereal crops[18, 20], though another report says that its greedy roots deprive the cultivated plants of nutrients and its tough stem dulls the reaper's sickle[4].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow March in the greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in May.

The seed can also be sown in situ during April, whilst in areas where the winters are not too cold a sowing in situ during September will produce larger and earlier-flowering plants

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Centaurea cyaneus* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *centaurea cyanus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
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[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
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[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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A well produced and very readable book.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Plants For A Future: Database Search Results

Centaurea cyanus

Common name:	Cornflower	Family:	Compositae
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Synonyms:			
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Range:	Britain.		
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Plants For A Future Rating (1-5):	2		

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers.

The young shoots are edible[7].

Flowers - raw or cooked. The fresh florets can be used in salads[238]. They are used as a vegetable or a garnish[183].

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Centaurea cyaneus* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *centaurea cyanus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Centaurea+cyanus`

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Plants For A Future: Database Search Results

Centaurea cyanus

Common name:	Cornflower	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Once a common weed of cornfields, as a result of modern agricultural practices it is now very rare in the wild[9, 13]. Found especially on porous, nutrient-rich soils[268].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cyaneus[E] Leucacantha cyanus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	A'Nber [E], Aciano [E], Bachelor's Button [L], Bachelor's Buttons [H], Blue Cap [H], Bluebottle [H,L], Bluebow [H], Cornflour [E], Cornflower [H,L], Garden Cornflower [P,B], Hurtsickle [H], Korenbloem [D], Mawi Pighember Chichegi [E], Peygamber Cicegi [E], Sentoria [E],
Epithets:	From a Dictionary of Botanical Epithets
	aurea = golden; cyanus = blue;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Europe; Iraq; Spain; Turkey

Physical Characteristics

Annual growing to 1m by 0.3m . It is not frost tender. It is in flower from June to August, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers.

The young shoots are edible[7].

Flowers - raw or cooked. The fresh florets can be used in salads[238]. They are used as a vegetable or a garnish[183].

An edible blue dye is obtained from the flowers, used for colouring sugar and confections[183].

Medicinal Uses

Disclaimer

Antipruritic; Antirheumatic; Antitussive; Astringent; Diuretic; Emmenagogue; Laxative; Ophthalmic; Purgative; Tonic.

Cornflower has a long history of herbal use, though it is seldom employed nowadays. In France it is still used as a remedy for tired eyes, but opinions differ as to its efficacy[254, 268]. Traditionally it is said to work best on blue eyes, whilst Plantago major (great plantain) was used for brown eyes[268].

The dried flowers are antipruritic, antitussive, astringent, weakly diuretic, emmenagogue, ophthalmic, very mildly purgative, and tonic[4, 7, 9, 21, 201, 240]. An infusion can be used in the treatment of dropsy, constipation, or as a mouthwash for ulcers and bleeding gums[9, 238]. This infusion is also taken as a bitter tonic and stimulant, improving the digestion and possibly supporting the liver as well as improving resistance to infections[254]. A water distilled from the petals was formerly in repute as a remedy for weak eyes[4] and a soothing lotion for conjunctivitis[7, 240].

The seeds are used as a mild laxative for children[7, 254].

A decoction of the leaves is antirheumatic[7, 254].

Other Uses

Dye; Hair; Ink; Pot-pourri.

A blue ink and a dye is obtained from the petals mixed with alum-water[4, 100, 115, 201]. The dye gives a lovely colour to linen, but it is transient[4].

The dried petals are used in pot-pourri in order to add colour[4, 268].

Extracts of the plant are added to hair shampoos and rinses[238].

Cultivation details

Succeeds in ordinary garden soil[1, 200]. Prefers a well-drained fertile soil and a sunny position[200]. Tolerates dry, low fertility and alkaline soils[200]. Established plants are drought tolerant[201].

A very ornamental plant[1], there are many named varieties[188]. The flowers are often used in dried-flower arrangements because they retain their colour well[7].

A good plant for bees, butterflies and moths[20, 30, 108]. The cornflower is considered to be a good companion, in small quantities, for cereal crops[18, 20], though another report says that its greedy roots deprive the cultivated plants of nutrients and its tough stem dulls the reaper's sickle[4].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow March in the greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in May.

The seed can also be sown in situ during April, whilst in areas where the winters are not too cold a sowing in situ during September will produce larger and earlier-flowering plants

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the

natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Centaurea cyanus*

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Centaurea cyanus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Centaurea cyanus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Chenopodium capitatum

Common name:	Strawberry blite	Family:	Chenopodiaceae
Author:	(L.) Asch.	Botanical references:	200
Synonyms:	Blitum capitatum (L.)		
Known Hazards:	The leaves and seeds of all members of this genus are more or less edible. However, many of the species in this genus contain saponins, though usually in quantities too small to do any harm. Although toxic, saponins are poorly absorbed by the body and most pass straight through without any problem. They are also broken down to a large extent in the cooking process. Saponins are found in many foods, such as some beans. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K]. The plants also contain some oxalic acid, which in large quantities can lock up some of the nutrients in the food. However, even considering this, they are very nutritious vegetables in reasonable quantities. Cooking the plants will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Europe. A rare casual in Britain[17].		
Habitat:	Rubbish tips etc in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Blitum foliosum[H]

Other Common Names:	From various places around the Web, may not be correct. See below. Blite Goosefoot [P,L], Strawberry Blite [H], Strawberry-blite [B],
Epithets:	From a Dictionary of Botanical Epithets capitatum = with a head;
Systematics:	From a UDSA Plants Database Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Fruit; Leaves; Seed.

Leaves - raw or cooked[27, 106]. Used like spinach[2], they are a good source of vitamins C and A[257]. The young leaves are best[85, 172, 183]. Poor quality[74]. The raw leaves have been used in salad mixtures[257], but should only be eaten in small quantities, see the notes above on toxicity.

Fruit - raw or cooked[2, 27, 172]. An insipid but sweet flavour[85], they can be added to salads[183]. The fruit is about 12mm in diameter[200].

A red food colouring can be obtained from the fruit[74, 99, 172, 183].

Seed - cooked. It can be ground into a meal and mixed with cereal flours in making bread etc[161, 172]. The seed is small and fiddly, it should be soaked in water overnight and thoroughly rinsed before it is used in order to remove any saponins.

Medicinal Uses

Disclaimer

Antiphlogistic; Pectoral.

The plant has been used as a lotion for treating black eyes and head bruises[257].

The juice of the seeds and an infusion of the plant has been used to treat lung congestion[257].

Other Uses

Dye.

Gold/green dyes can be obtained from the whole plant[168].

A red dye is obtained from the fruit, it is used in cosmetics and as a paint[46, 257].

Cultivation details

An easily grown plant, succeeding in most soils but disliking shade[1, 200]. It prefers a moderately fertile soil[200].

A very ornamental plant[74], strawberry blite has at times been cultivated for its edible leaves[61].

Propagation

Seed - sow spring in situ. Most of the seed usually germinates within a few days of sowing.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Chenopodiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

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Author:	(L.) Asch.	Botanical references:	200
Synonyms:	Blitum capitatum (L.)		
Known Hazards:	The leaves and seeds of all members of this genus are more or less edible. However, many of the species in this genus contain saponins, though usually in quantities too small to do any harm. Although toxic, saponins are poorly absorbed by the body and most pass straight through without any problem. They are also broken down to a large extent in the cooking process. Saponins are found in many foods, such as some beans. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K]. The plants also contain some oxalic acid, which in large quantities can lock up some of the nutrients in the food. However, even considering this, they are very nutritious vegetables in reasonable quantities. Cooking the plants will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Europe. A rare casual in Britain[17].		
Habitat:	Rubbish tips etc in Britain[17].		
Plants For A Future Rating (1-5):	3		

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	Blitum foliosum[H]
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Epithets:	From a Dictionary of Botanical Epithets
	capitatum = with a head;
	From a UDSA Plants Database

Systematics:	Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Fruit; Leaves; Seed.

Leaves - raw or cooked[27, 106]. Used like spinach[2], they are a good source of vitamins C and A[257]. The young leaves are best[85, 172, 183]. Poor quality[74]. The raw leaves have been used in salad mixtures[257], but should only be eaten in small quantities, see the notes above on toxicity.

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For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Chenopodiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Chenopodium capitatum

Common name:	Strawberry blite	Family:	Chenopodiaceae
Author:	(L.) Asch.	Botanical references:	200
Synonyms:	Blitum capitatum (L.)		
Known Hazards:	The leaves and seeds of all members of this genus are more or less edible. However, many of the species in this genus contain saponins, though usually in quantities too small to do any harm. Although toxic, saponins are poorly absorbed by the body and most pass straight through without any problem. They are also broken down to a large extent in the cooking process. Saponins are found in many foods, such as some beans. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K]. The plants also contain some oxalic acid, which in large quantities can lock up some of the nutrients in the food. However, even considering this, they are very nutritious vegetables in reasonable quantities. Cooking the plants will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Europe. A rare casual in Britain[17].		
Habitat:	Rubbish tips etc in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Blitum foliosum[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Blite Goosefoot [P,L], Strawberry Blite [H], Strawberry-blite [B],
Epithets:	From a Dictionary of Botanical Epithets
	capitatum = with a head;
	From a UDSA Plants Database

Systematics:	Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 5. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Fruit; Leaves; Seed.

Leaves - raw or cooked[27, 106]. Used like spinach[2], they are a good source of vitamins C and A[257]. The young leaves are best[85, 172, 183]. Poor quality[74]. The raw leaves have been used in salad mixtures[257], but should only be eaten in small quantities, see the notes above on toxicity.

Fruit - raw or cooked[2, 27, 172]. An insipid but sweet flavour[85], they can be added to salads[183]. The fruit is about 12mm in diameter[200].

A red food colouring can be obtained from the fruit[74, 99, 172, 183].

Seed - cooked. It can be ground into a meal and mixed with cereal flours in making bread etc[161, 172]. The seed is small and fiddly, it should be soaked in water overnight and thoroughly rinsed before it is used in order to remove any saponins.

Medicinal Uses

Disclaimer

Antiphlogistic; Pectoral.

The plant has been used as a lotion for treating black eyes and head bruises[257].

The juice of the seeds and an infusion of the plant has been used to treat lung congestion[257].

Other Uses

Dye.

Gold/green dyes can be obtained from the whole plant[168].

A red dye is obtained from the fruit, it is used in cosmetics and as a paint[46, 257].

Cultivation details

An easily grown plant, succeeding in most soils but disliking shade[1, 200]. It prefers a moderately fertile soil[200].

A very ornamental plant[74], strawberry blite has at times been cultivated for its edible leaves[61].

Propagation

Seed - sow spring in situ. Most of the seed usually germinates within a few days of sowing.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Chenopodium capitatum*

Subject:

Chenopodium capitatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Chenopodium capitatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:38:47 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Crocosmia aurea

Common name:	Montbretia	Family:	Iridaceae
Author:	(Hook.) Planch.	Botanical references:	200
Synonyms:	Tritonia aurea ((Hook.)Planch.)		
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	Shady forest areas in moist country, 2000 - 2500 metres from East Cape province and north to Mozambique, Malawi etc[79]. Especially common in conifer plantations[90].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	aurea = golden;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 1m by 0.5m at a fast rate. It is hardy to zone 7. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Colouring.

A yellow dye is obtained from the flowers and used as a saffron substitute for colouring foods[61, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

None known

Cultivation details

A very easily grown plant, it succeeds in almost all soils other than very heavy clays or bogs[233], though it prefers a light rich sandy soil[1, 79] in full sun or light dappled shade[200, 233]. Another report says that it prefers a fairly shady position and plenty of moisture in the growing season[79].

The corms are hardy to about -10°c[200] but in cold areas it is wise to lift them when the plants die down in the autumn, store them in a cool frost-free place over the winter and plant them out in the spring[1]. Make sure the corms do not dry out[1]. It is best to avoid lifting the corms if at all possible since the new corms seem to derive some nutrition from the old corms that have flowered[200].

Plants can divide quite freely when growing in a suitable location[233].

Although the fresh flowers have no perfume, when dried and immersed in warm water they release a scent like that of the saffron crocus[245].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold greenhouse[1]. The seed usually germinates in 3 - 9 weeks at 20 - 25°c[164]. Stored seed can be sown in early spring in a greenhouse[164]. Sow the seed thinly so that the plants can be grown on undisturbed in their pot for the first year, but give the seedlings an occasional liquid feed to ensure they do not become nutrient deficient. Once the plants are dormant in the autumn, pot up the bulbs putting 2 - 3 bulbs in each pot. Grow them on for another year or two in the greenhouse before planting them out when they are dormant in the autumn.

Division in spring as new growth commences[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Scent

Flowers: Dried

> Although the fresh flowers have no perfume, when dried and immersed in warm water they release a scent like that of the saffron crocus.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

> lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
> Lower Manor Cottage
> Thornbury
> Holsworthy
> Devon
> EX22 7DD
> Distribution: UK
> How to order: Direct from Wildwood by email/phone
> Last Updated: March 03
> **Item: *Crocosmia crocosmiiflora* (monbretia)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Crocosmia aurea

Pam Peirce Wed Aug 21 17:07:23 2002

I have been researching this plant for a book. I know the general texts on economic botany say it is used as a dye and a saffron substitute, but I can find no evidence of its use as a saffron substitute. I know that the man who named it (Planchon) gave it its name because the dried flowers, soaked in water, smelled like saffron, but I can find no evidence that anyone ever used it for this purpose. Without more evidence, I have to assume that this use was suggested by the smell, but never became common.

I did find one business in England that sells plants for dyers to grow as dye sources who sells this plant as a dye plant and says it has been used to dye silk.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Your Name:	
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Submit

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Author:	(Hook.) Planch.	Botanical references:	200
Synonyms:	Tritonia aurea ((Hook.)Planch.)		
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	Shady forest areas in moist country, 2000 - 2500 metres from East Cape province and north to Mozambique, Malawi etc[79]. Especially common in conifer plantations[90].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	aurea = golden;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 1m by 0.5m at a fast rate. It is hardy to zone 7. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Colouring.

A yellow dye is obtained from the flowers and used as a saffron substitute for colouring foods[61, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

None known

Cultivation details

A very easily grown plant, it succeeds in almost all soils other than very heavy clays or bogs[233], though it prefers a light rich sandy soil[1, 79] in full sun or light dappled shade[200, 233]. Another report says that it prefers a fairly shady position and plenty of moisture in the growing season[79].

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Scent

Flowers: Dried

> Although the fresh flowers have no perfume, when dried and immersed in warm water they release a scent like that of the saffron crocus.

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lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Crocosmia crocosmiiflora* (monbretia)

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Crocosmia aurea

Pam Peirce Wed Aug 21 17:07:23 2002

I have been researching this plant for a book. I know the general texts on economic botany say it is used as a dye and a saffron substitute, but I can find no evidence of its use as a saffron substitute. I know that the man who named it (Planchon) gave it its name because the dried flowers, soaked in water, smelled like saffron, but I can find no evidence that anyone ever used it for this purpose. Without more evidence, I have to assume that this use was suggested by the smell, but never became common.

I did find one business in England that sells plants for dyers to grow as dye sources who sells this plant as a dye plant and says it has been used to dye silk.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Crocosmia aurea

Common name:	Montbretia	Family:	Iridaceae
Author:	(Hook.) Planch.	Botanical references:	200
Synonyms:	Tritonia aurea ((Hook.)Planch.)		
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	Shady forest areas in moist country, 2000 - 2500 metres from East Cape province and north to Mozambique, Malawi etc[79]. Especially common in conifer plantations[90].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	aurea = golden;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 1m by 0.5m at a fast rate. It is hardy to zone 7. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Colouring.

A yellow dye is obtained from the flowers and used as a saffron substitute for colouring foods[61, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

None known

Cultivation details

A very easily grown plant, it succeeds in almost all soils other than very heavy clays or bogs[233], though it prefers a light rich sandy soil[1, 79] in full sun or light dappled shade[200, 233]. Another report says that it prefers a fairly shady position and plenty of moisture in the growing season[79].

The corms are hardy to about -10°c[200] but in cold areas it is wise to lift them when the plants die down in the autumn, store them in a cool frost-free place over the winter and plant them out in the spring[1]. Make sure the corms do not dry out[1]. It is best to avoid lifting the corms if at all possible since the new corms seem to derive some nutrition from the old corms that have flowered[200].

Plants can divide quite freely when growing in a suitable location[233].

Although the fresh flowers have no perfume, when dried and immersed in warm water they release a scent like that of the saffron crocus[245].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold greenhouse[1]. The seed usually germinates in 3 - 9 weeks at 20 - 25°c[164]. Stored seed can be sown in early spring in a greenhouse[164]. Sow the seed thinly so that the plants can be grown on undisturbed in their pot for the first year, but give the seedlings an occasional liquid feed to ensure they do not become nutrient deficient. Once the plants are dormant in the autumn, pot up the bulbs putting 2 - 3 bulbs in each pot. Grow them on for another year or two in the greenhouse before planting them out when they are dormant in the autumn.

Division in spring as new growth commences[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Scent

Flowers: Dried

> Although the fresh flowers have no perfume, when dried and immersed in warm water they release a scent like that of the saffron crocus.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

> lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
> Lower Manor Cottage
> Thornbury
> Holsworthy
> Devon
> EX22 7DD
> Distribution: UK
> How to order: Direct from Wildwood by email/phone
> Last Updated: March 03
> **Item: *Crocosmia crocosmiiflora* (monbretia)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Crocosmia aurea*

Subject:

Crocosmia aurea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Crocosmia aurea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 03:39:13 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Crocus nudiflorus

Common name:		Family:	Iridaceae
Author:	Sm.	Botanical references:	200
Synonyms:			
Known Hazards:	The following reports are for C. sativus. They quite possibly also apply to this species. The plant is poisonous[21]. The plant is perfectly safe in normal usage but 5 - 10 grams of saffron has been known to cause death[65].		
Range:	S. Europe - S.W. France to N.E. Spain.		
Habitat:	Meadows[90].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	florus = flowered; nudiflorus = naked flowering;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 0.2m. It is hardy to zone 5 and is not frost tender. It is in flower from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and butterflies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Lawn, Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Colouring; Condiment; Tea.

This species has been used as a saffron substitute[200]. The following notes are for the genuine saffron, C. sativus:-

The flower styles are used as a flavouring and yellow colouring for various foods such as bread, soups, sauces, rice and puddings[2, 4, 7, 14, 21, 27, 34, 183]. Extremely rich in riboflavin[137]. Water soluble[171]. Yields per plant are extremely low, about 4000 stigmas yield 25g of saffron[89]. Saffron is the world's most expensive spice, it takes 150,000 flowers and 400 hours work to produce 1 kilo of dried saffron[238]. About 25 kilos of styles can be harvested from a hectare of the plant[4].

The flower styles are used as a tea substitute[183].

Medicinal Uses

Disclaimer

Anodyne; Antispasmodic; Aphrodisiac; Appetizer; Carminative; Diaphoretic; Emmenagogue; Expectorant; Sedative.

This species has been used as a saffron substitute[200]. The following notes are for the genuine saffron, C. sativus:-

Saffron is a famous medicinal herb with a long history of effective use[4, 7]. The flower styles and stigmas are the parts used, but since these are very small and fiddly to harvest they are very expensive and consequently often adulterated by lesser products[7]. They are anodyne, antispasmodic, aphrodisiac, appetizer, carminative, diaphoretic, emmenagogue, expectorant, sedative and stimulant[4, 7, 21, 174, 176, 218]. They are used as a diaphoretic for children and to treat chronic haemorrhages in the uterus of adults[4]. A dental analgesic is obtained from the stigmas[7]. The styles are harvested in the autumn when the plant is in flower and are dried for later use[4], they do not store well and should be used within 12 months[238]. This remedy should be used with caution[21], large doses can be narcotic[240] and quantities of 10g or more can cause an abortion[218].

Other Uses

Dye.

The yellow dye obtained from the stigmas has been used for many centuries to colour cloth[4, 7, 14, 21]. It is the favoured colouring for the cloth of Indian swamis who have renounced the material world.

A blue or green dye is obtained from the petals[168].

Cultivation details

Prefers a well-drained sandy or loamy soil that is free from clay[137]. Prefers some shade from the hottest sun in summer and at least a modicum of moisture during its summer dormancy[200]. Succeeds in grass, so long as this is not mown until the leaves die down, it also grows well under deep-rooting deciduous trees and shrubs[200]. It can also be grown with very low shallow-rooting groundcover plants such as lawn camomile (Chamaemelum nobile 'Treneague')[200].

Plants are very frost hardy[137].

Plants tend to move considerably from their original planting place because of their means of vegetative reproduction, it is therefore wise not to grow different species in close proximity[1]. The corms should be planted about 5 - 8cm deep in the soil[200].

Any planting out is best done in late spring or early summer[245].

Plants take 4 - 5 years to come into flowering from seed.

The flowers are only open during the day time, closing at night[245].

Propagation

Seed - best sown as soon as it is ripe in a light sandy soil in pots in a cold frame[1]. The seed can also be sown in a cold frame in early spring[1]. Sow thinly because the seed usually germinates freely[1], within 1 - 6 months at 18°c[164]. Unless the seed has been sown too thickly, do not transplant the seedlings in their first year of growth, but give them regular liquid feeds to make sure they do not become deficient. Divide the small bulbs once the plants have died down, planting 2 - 3 bulbs per 8cm pot. Grow them on for another 2 years in a greenhouse or frame and plant them out into their permanent positions when dormant in late summer[K]. Plants take 3 - 4 years to flower from seed[200].

Division of the clumps after the leaves die down in spring[1, 200]. The bulbs can be replanted direct into their permanent positions if required.

Cultivars

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> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good

photographs.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[90] **Phillips. R. and Rix. M.** *Bulbs* Pan Books 1989 ISBN 0-330-30253-1
Superbly illustrated, it gives brief details on cultivation and native habitat.

[137] **?** *The Plantsman. Vol. 9. 1986 - 1987.* Royal Horticultural Society 1986
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Carya spp and Crocus sativus.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese

Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

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Email Address:	

Submit

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Crocus nudiflorus

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Range:	S. Europe - S.W. France to N.E. Spain.		
Habitat:	Meadows[90].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	florus = flowered; nudiflorus = naked flowering;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 0.2m. It is hardy to zone 5 and is not frost tender. It is in flower from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and butterflies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Lawn, Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Colouring; Condiment; Tea.

This species has been used as a saffron substitute[200]. The following notes are for the genuine saffron, C. sativus:-

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A blue or green dye is obtained from the petals[168].

Cultivation details

Prefers a well-drained sandy or loamy soil that is free from clay[137]. Prefers some shade from the hottest sun in summer and at least a modicum of moisture during its summer dormancy[200]. Succeeds in grass, so long as this is not mown until the leaves die down, it also grows well under deep-rooting deciduous trees and shrubs[200]. It can also be grown with very low shallow-rooting groundcover plants such as lawn camomile (Chamaemelum nobile 'Treneague')[200].

Plants are very frost hardy[137].

Plants tend to move considerably from their original planting place because of their means of vegetative reproduction, it is therefore wise not to grow different species in close proximity[1]. The corms should be planted about 5 - 8cm deep in the soil[200].

Any planting out is best done in late spring or early summer[245].

Plants take 4 - 5 years to come into flowering from seed.

The flowers are only open during the day time, closing at night[245].

Propagation

Seed - best sown as soon as it is ripe in a light sandy soil in pots in a cold frame[1]. The seed can also be sown in a cold frame in early spring[1]. Sow thinly because the seed usually germinates freely[1], within 1 - 6 months at 18°c[164]. Unless the seed has been sown too thickly, do not transplant the seedlings in their first year of growth, but give them regular liquid feeds to make sure they do not become deficient. Divide the small bulbs once the plants have died down, planting 2 - 3 bulbs per 8cm pot. Grow them on for another 2 years in a greenhouse or frame and plant them out into their permanent positions when dormant in late summer[K]. Plants take 3 - 4 years to flower from seed[200].

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[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
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Superbly illustrated, it gives brief details on cultivation and native habitat.

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Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Carya spp and Crocus sativus.

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Crocus nudiflorus

Common name:		Family:	Iridaceae
Author:	Sm.	Botanical references:	200
Synonyms:			
Known Hazards:	The following reports are for C. sativus. They quite possibly also apply to this species. The plant is poisonous[21]. The plant is perfectly safe in normal usage but 5 - 10 grams of saffron has been known to cause death[65].		
Range:	S. Europe - S.W. France to N.E. Spain.		
Habitat:	Meadows[90].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	florus = flowered; nudiflorus = naked flowering;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 0.2m. It is hardy to zone 5 and is not frost tender. It is in flower from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and butterflies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Lawn, Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Colouring; Condiment; Tea.

This species has been used as a saffron substitute[200]. The following notes are for the genuine saffron, C. sativus:-

The flower styles are used as a flavouring and yellow colouring for various foods such as bread, soups, sauces, rice and puddings[2, 4, 7, 14, 21, 27, 34, 183]. Extremely rich in riboflavin[137]. Water soluble[171]. Yields per plant are extremely low, about 4000 stigmas yield 25g of saffron[89]. Saffron is the world's most expensive spice, it takes 150,000 flowers and 400 hours work to produce 1 kilo of dried saffron[238]. About 25 kilos of styles can be harvested from a hectare of the plant[4].

The flower styles are used as a tea substitute[183].

Medicinal Uses

Disclaimer

Anodyne; Antispasmodic; Aphrodisiac; Appetizer; Carminative; Diaphoretic; Emmenagogue; Expectorant; Sedative.

This species has been used as a saffron substitute[200]. The following notes are for the genuine saffron, C. sativus:-

Saffron is a famous medicinal herb with a long history of effective use[4, 7]. The flower styles and stigmas are the parts used, but since these are very small and fiddly to harvest they are very expensive and consequently often adulterated by lesser products[7]. They are anodyne, antispasmodic, aphrodisiac, appetizer, carminative, diaphoretic, emmenagogue, expectorant, sedative and stimulant[4, 7, 21, 174, 176, 218]. They are used as a diaphoretic for children and to treat chronic haemorrhages in the uterus of adults[4]. A dental analgesic is obtained from the stigmas[7]. The styles are harvested in the autumn when the plant is in flower and are dried for later use[4], they do not store well and should be used within 12 months[238]. This remedy should be used with caution[21], large doses can be narcotic[240] and quantities of 10g or more can cause an abortion[218].

Other Uses

Dye.

The yellow dye obtained from the stigmas has been used for many centuries to colour cloth[4, 7, 14, 21]. It is the favoured colouring for the cloth of Indian swamis who have renounced the material world.

A blue or green dye is obtained from the petals[168].

Cultivation details

Prefers a well-drained sandy or loamy soil that is free from clay[137]. Prefers some shade from the hottest sun in summer and at least a modicum of moisture during its summer dormancy[200]. Succeeds in grass, so long as this is not mown until the leaves die down, it also grows well under deep-rooting deciduous trees and shrubs[200]. It can also be grown with very low shallow-rooting groundcover plants such as lawn camomile (Chamaemelum nobile 'Treneague')[200].

Plants are very frost hardy[137].

Plants tend to move considerably from their original planting place because of their means of vegetative reproduction, it is therefore wise not to grow different species in close proximity[1]. The corms should be planted about 5 - 8cm deep in the soil[200].

Any planting out is best done in late spring or early summer[245].

Plants take 4 - 5 years to come into flowering from seed.

The flowers are only open during the day time, closing at night[245].

Propagation

Seed - best sown as soon as it is ripe in a light sandy soil in pots in a cold frame[1]. The seed can also be sown in a cold frame in early spring[1]. Sow thinly because the seed usually germinates freely[1], within 1 - 6 months at 18°c[164]. Unless the seed has been sown too thickly, do not transplant the seedlings in their first year of growth, but give them regular liquid feeds to make sure they do not become deficient. Divide the small bulbs once the plants have died down, planting 2 - 3 bulbs per 8cm pot. Grow them on for another 2 years in a greenhouse or frame and plant them out into their permanent positions when dormant in late summer[K]. Plants take 3 - 4 years to flower from seed[200].

Division of the clumps after the leaves die down in spring[1, 200]. The bulbs can be replanted direct into their permanent positions if required.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Crocus nudiflorus*

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Crocus nudiflorus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Crocus nudiflorus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:39:38 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Crocus sativus

Common name:	Saffron	Family:	Iridaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant is poisonous[21]. The plant is perfectly safe in normal usage but 5 - 10 grams of saffron has been known to cause death[65].		
Range:	S. Europe - Greece to W. Asia.		
Habitat:	Not known in a truly wild location[90].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Asian Saffron [H], Azafran [E], Bulgarian Saffron [H], Crocus [E], Fan Hung Hua [E], Greek Saffron [H], Italian Saffron [H], Koema-koema [E], Kumkum [E], Persian Saffron [H], Po Fu Lan [E], Sa Fa Ang [E], Sa'Faran [E], Saffron [E,H], Saffron Crocus [H,P], Safran [E], Sahuran [E],
Epithets:	From a Dictionary of Botanical Epithets
	sativus = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database
	China; Egypt; Europe; France; India; Iraq; Japan; Java; Spain; Turkey

Physical Characteristics

Corm growing to 0.1m by 0.1m . It is hardy to zone 6 and is not frost tender. It is in leaf from October to May, in flower in October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and butterflies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Lawn, Cultivated Beds.

Edible Uses

Colouring; Condiment; Root; Tea.

The flower styles are commonly used as a flavouring and yellow colouring for various foods such as bread, soups, sauces, rice and puddings[2, 4, 7, 14, 21, 27, 34, 183]. They are an essential ingredient of many traditional dishes such as paella, bouillabaisse, risotto milanese and various other Italian dishes[244]. The styles are extremely rich in riboflavin[137]. Water soluble[171]. Yields per plant are extremely low, about 4000 stigmas yield 25g of saffron[89]. Saffron is the world's most expensive spice, it takes 150,000 flowers and 400 hours work to produce 1 kilo of dried saffron[238]. About 25 kilos of styles can be harvested from a hectare of the plant[4]. Fortunately, only very small quantities of the herb are required to impart their colour and flavour to dishes[244]. Because of the cost, saffron is frequently adulterated with cheaper substitutes such as marigold flowers and safflower[244].

The flower styles are used as a tea substitute[183].

Root - cooked[183]. The corms are toxic to young animals[218] so this report of edibility should be treated with some caution[K].

Medicinal Uses

Disclaimer

Abortifacient; Anodyne; Antispasmodic; Aphrodisiac; Appetizer; Carminative; Diaphoretic; Emmenagogue; Expectorant; Narcotic; Sedative; Stimulant.

Saffron is a famous medicinal herb with a long history of effective use, though it is little used at present because cheaper and more effective herbs are available[4, 7, 254]. The flower styles and stigmas are the parts used, but since these are very small and fiddly to harvest they are very expensive and consequently often adulterated by lesser products[7].

The styles and stigmas are anodyne, antispasmodic, aphrodisiac, appetizer, carminative, diaphoretic, emmenagogue, expectorant, sedative and stimulant[4, 7, 21, 174, 176, 218]. They are used as a diaphoretic for children, to treat chronic haemorrhages in the uterus of adults, to induce menstruation, treat period pains and calm indigestion and colic[4, 254]. A dental analgesic is obtained from the stigmas[7]. The styles are harvested in the autumn when the plant is in flower and are dried for later use[4], they do not store well and should be used within 12 months[238]. This remedy should be used with caution[21], large doses can be narcotic[240] and quantities of 10g or more can cause an abortion[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye.

The yellow dye obtained from the stigmas has been used for many centuries to colour cloth[4, 7, 14, 21]. It is the favoured colouring for the cloth of Indian swamis who have renounced the material world.

A blue or green dye is obtained from the petals[168].

Cultivation details

Prefers a well-drained sandy or loamy soil that is free from clay[137]. Prefers a sunny position[238]. Grows well on calcareous soils[27] and on hot sheltered stony banks[42].

Plants are very frost hardy[137]. They also thrive in areas with poor summers, though they usually fail to flower in such conditions[238].

Plants produce less saffron when grown on rich soils[137]. They do not flower very freely in Britain[90].

Saffron has been cultivated for over 4,000 years for the edible dye obtained from the flower stigmas[1]. It was at one time commercially grown in Britain and the town Saffron Walden obtained its name because of this. There is at least one named form. 'Cashmirianus' comes from Kashmir and has large high quality corms. It yields about 27 kilos of rich orange stigmas per hectare[183].

When inhaled near to, the flowers have a delicate perfume[245]. Unlike most members of this genus, the flowers do not close of a night time or in dull weather[245]. The flowers are only produced after hot, dry summers[245].

Plants tend to move considerably from their original planting place because of their means of vegetative reproduction, it is therefore wise not to grow different species in close proximity[1].

Any planting out is best done in late spring or early summer[245].

Plants take 4 - 5 years to come into flowering from seed.

Propagation

Seed - according to some reports this species is a sterile triploid and so does not produce fertile seed[90, 238]. However, if seed is obtained then it is best sown as soon as it is ripe in a cold frame[1]. Stored seed can be sown in the spring in a cold frame[1]. Germination can take 1 - 6 months at 18°c[164]. Unless the seed has been sown too thickly, do not transplant the seedlings in their first year of growth, but give them regular liquid feeds to make sure they do not become deficient. Divide the small bulbs once the plants have died down, planting 2 - 3 bulbs per 8cm pot. Grow them on for another 2 years in a greenhouse or frame and plant them out into their permanent positions when dormant in late summer[K]. It takes 3 years for plants to flower from seed[244].

Division of the clumps in late summer after the plant has died down[1, 4, 14]. The bulbs can be planted out direct into their permanent positions.

Scent

Flowers: Fresh Dried

When inhaled near to, the flowers have a delicate perfume[245].

Cultivars

'Cashmirianus'

A cultivar with large high quality corms. It yields about 27 kilos of rich orange stigmas per hectare[183].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Species Database Bibliography

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN

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[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Crocus+sativus`

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Plants For A Future: Database Search Results

Crocus sativus

Common name:	Saffron	Family:	Iridaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant is poisonous[21]. The plant is perfectly safe in normal usage but 5 - 10 grams of saffron has been known to cause death[65].		
Range:	S. Europe - Greece to W. Asia.		
Habitat:	Not known in a truly wild location[90].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Asian Saffron [H], Azafran [E], Bulgarian Saffron [H], Crocus [E], Fan Hung Hua [E], Greek Saffron [H], Italian Saffron [H], Koema-koema [E], Kumkum [E], Persian Saffron [H], Po Fu Lan [E], Sa Fa Ang [E], Sa'Faran [E], Saffron [E,H], Saffron Crocus [H,P], Safran [E], Sahuran [E],
Epithets:	From a Dictionary of Botanical Epithets
	sativus = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database
	China; Egypt; Europe; France; India; Iraq; Japan; Java; Spain; Turkey

Physical Characteristics

Corm growing to 0.1m by 0.1m . It is hardy to zone 6 and is not frost tender. It is in leaf from October to May, in flower in October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and butterflies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in

very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Lawn, Cultivated Beds.

Edible Uses

Colouring; Condiment; Root; Tea.

The flower styles are commonly used as a flavouring and yellow colouring for various foods such as bread, soups, sauces, rice and puddings[2, 4, 7, 14, 21, 27, 34, 183]. They are an essential ingredient of many traditional dishes such as paella, bouillabaisse, risotto milanese and various other Italian dishes[244]. The styles are extremely rich in riboflavin[137]. Water soluble[171]. Yields per plant are extremely low, about 4000 stigmas yield 25g of saffron[89]. Saffron is the world's most expensive spice, it takes 150,000 flowers and 400 hours work to produce 1 kilo of dried saffron[238]. About 25 kilos of styles can be harvested from a hectare of the plant[4]. Fortunately, only very small quantities of the herb are required to impart their colour and flavour to dishes[244]. Because of the cost, saffron is frequently adulterated with cheaper substitutes such as marigold flowers and safflower[244].

The flower styles are used as a tea substitute[183].

Root - cooked[183]. The corms are toxic to young animals[218] so this report of edibility should be treated with some caution[K].

Medicinal Uses

Disclaimer

Abortifacient; Anodyne; Antispasmodic; Aphrodisiac; Appetizer; Carminative; Diaphoretic; Emmenagogue; Expectorant; Narcotic; Sedative; Stimulant.

Saffron is a famous medicinal herb with a long history of effective use, though it is little used at present because cheaper and more effective herbs are available[4, 7, 254]. The flower styles and stigmas are the parts used, but since these are very small and fiddly to harvest they are very expensive and consequently often adulterated by lesser products[7].

The styles and stigmas are anodyne, antispasmodic, aphrodisiac, appetizer, carminative, diaphoretic, emmenagogue, expectorant, sedative and stimulant[4, 7, 21, 174, 176, 218]. They are used as a diaphoretic for children, to treat chronic haemorrhages in the uterus of adults, to induce menstruation, treat period pains and calm indigestion and colic[4, 254]. A dental analgesic is obtained from the stigmas[7]. The styles are harvested in the autumn when the plant is in flower and are dried for later use[4], they do not store well and should be used within 12 months[238].

This remedy should be used with caution[21], large doses can be narcotic[240] and quantities of 10g or more can cause an abortion[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye.

The yellow dye obtained from the stigmas has been used for many centuries to colour cloth[4, 7, 14, 21]. It is the favoured colouring for the cloth of Indian swamis who have renounced the material world.

A blue or green dye is obtained from the petals[168].

Cultivation details

Prefers a well-drained sandy or loamy soil that is free from clay[137]. Prefers a sunny position[238]. Grows well on calcareous soils[27] and on hot sheltered stony banks[42].

Plants are very frost hardy[137]. They also thrive in areas with poor summers, though they usually fail to flower in such conditions[238].

Plants produce less saffron when grown on rich soils[137]. They do not flower very freely in Britain[90].

Saffron has been cultivated for over 4,000 years for the edible dye obtained from the flower stigmas[1]. It was at one time commercially grown in Britain and the town Saffron Walden obtained its name because of this. There is at least one named form. 'Cashmirianus' comes from Kashmir and has large high quality corms. It yields about 27 kilos of rich orange stigmas per hectare[183].

When inhaled near to, the flowers have a delicate perfume[245]. Unlike most members of this genus, the flowers do not close of a night time or in dull weather[245]. The flowers are only produced after hot, dry summers[245].

Plants tend to move considerably from their original planting place because of their means of vegetative reproduction, it is therefore wise not to grow different species in close proximity[1].

Any planting out is best done in late spring or early summer[245].

Plants take 4 - 5 years to come into flowering from seed.

Propagation

Seed - according to some reports this species is a sterile triploid and so does not produce fertile seed[90, 238]. However, if seed is obtained then it is best sown as soon as it is ripe in a cold frame[1]. Stored seed can be sown in the spring in a cold frame[1]. Germination can take 1 - 6 months at 18°c[164]. Unless the seed has been sown too thickly, do not transplant the seedlings in their first year of growth, but give them regular liquid feeds to make sure they do not become deficient. Divide the small bulbs once the plants have died down, planting 2 - 3 bulbs per 8cm pot. Grow them on for another 2 years in a greenhouse or frame and plant them out into their permanent positions when dormant in late summer[K]. It takes 3 years for plants to flower from seed[244].

Division of the clumps in late summer after the plant has died down[1, 4, 14]. The bulbs can be planted out direct into their permanent positions.

Scent

Flowers: Fresh Dried

> When inhaled near to, the flowers have a delicate perfume[245].

Cultivars

'Cashmirianus'

> A cultivar with large high quality corms. It yields about 27 kilos of rich orange stigmas per hectare[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Species Database Bibliography

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[42] **Grey. C. H.** *Hardy Bulbs.* Williams & Norgate. 1938
Rather dated now, but an immense work on bulbs for temperate zones and how to grow them. Three large volumes.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[90] **Phillips. R. and Rix. M.** *Bulbs* Pan Books 1989 ISBN 0-330-30253-1
Superbly illustrated, it gives brief details on cultivation and native habitat.

[137] **?** *The Plantsman. Vol. 9. 1986 - 1987.* Royal Horticultural Society 1986
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Carya spp and Crocus sativus.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Crocus sativus

Common name:	Saffron	Family:	Iridaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant is poisonous[21]. The plant is perfectly safe in normal usage but 5 - 10 grams of saffron has been known to cause death[65].		
Range:	S. Europe - Greece to W. Asia.		
Habitat:	Not known in a truly wild location[90].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	sativus = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database
	China; Egypt; Europe; France; India; Iraq; Japan; Java; Spain; Turkey

Physical Characteristics

Corm growing to 0.1m by 0.1m . It is hardy to zone 6 and is not frost tender. It is in leaf from October to May, in flower in October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and butterflies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in

very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Lawn, Cultivated Beds.

Edible Uses

Colouring; Condiment; Root; Tea.

The flower styles are commonly used as a flavouring and yellow colouring for various foods such as bread, soups, sauces, rice and puddings[2, 4, 7, 14, 21, 27, 34, 183]. They are an essential ingredient of many traditional dishes such as paella, bouillabaisse, risotto milanese and various other Italian dishes[244]. The styles are extremely rich in riboflavin[137]. Water soluble[171]. Yields per plant are extremely low, about 4000 stigmas yield 25g of saffron[89]. Saffron is the world's most expensive spice, it takes 150,000 flowers and 400 hours work to produce 1 kilo of dried saffron[238]. About 25 kilos of styles can be harvested from a hectare of the plant[4]. Fortunately, only very small quantities of the herb are required to impart their colour and flavour to dishes[244]. Because of the cost, saffron is frequently adulterated with cheaper substitutes such as marigold flowers and safflower[244].

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Root - cooked[183]. The corms are toxic to young animals[218] so this report of edibility should be treated with some caution[K].

Medicinal Uses

Disclaimer

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Other Uses

Dye.

The yellow dye obtained from the stigmas has been used for many centuries to colour cloth[4, 7, 14, 21]. It is the favoured colouring for the cloth of Indian swamis who have renounced the material world.

A blue or green dye is obtained from the petals[168].

Cultivation details

Prefers a well-drained sandy or loamy soil that is free from clay[137]. Prefers a sunny position[238]. Grows well on calcareous soils[27] and on hot sheltered stony banks[42].

Plants are very frost hardy[137]. They also thrive in areas with poor summers, though they usually fail to flower in such conditions[238].

Plants produce less saffron when grown on rich soils[137]. They do not flower very freely in Britain[90].

Saffron has been cultivated for over 4,000 years for the edible dye obtained from the flower stigmas[1]. It was at one time commercially grown in Britain and the town Saffron Walden obtained its name because of this. There is at least one named form. 'Cashmirianus' comes from Kashmir and has large high quality corms. It yields about 27 kilos of rich orange stigmas per hectare[183].

When inhaled near to, the flowers have a delicate perfume[245]. Unlike most members of this genus, the flowers do not close of a night time or in dull weather[245]. The flowers are only produced after hot, dry summers[245].

Plants tend to move considerably from their original planting place because of their means of vegetative reproduction, it is therefore wise not to grow different species in close proximity[1].

Any planting out is best done in late spring or early summer[245].

Plants take 4 - 5 years to come into flowering from seed.

Propagation

Seed - according to some reports this species is a sterile triploid and so does not produce fertile seed[90, 238]. However, if seed is obtained then it is best sown as soon as it is ripe in a cold frame[1]. Stored seed can be sown in the spring in a cold frame[1]. Germination can take 1 - 6 months at 18°c[164]. Unless the seed has been sown too thickly, do not transplant the seedlings in their first year of growth, but give them regular liquid feeds to make sure they do not become deficient. Divide the small bulbs once the plants have died down, planting 2 - 3 bulbs per 8cm pot. Grow them on for another 2 years in a greenhouse or frame and plant them out into their permanent positions when dormant in late summer[K]. It takes 3 years for plants to flower from seed[244].

Division of the clumps in late summer after the plant has died down[1, 4, 14]. The bulbs can be planted out direct into their permanent positions.

Scent

Flowers: Fresh Dried

When inhaled near to, the flowers have a delicate perfume[245].

Cultivars

'Cashmirianus'

A cultivar with large high quality corms. It yields about 27 kilos of rich orange stigmas per hectare[183].

Suppliers

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Add a comment on: *Crocus sativus*

Subject:

Crocus sativus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Crocus sativus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Crocus serotinus

Common name:		Family:	Iridaceae
Author:	Salisb.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Southern Europe to Northern Africa and Western Asia.		
Habitat:	Stony slopes in scrub and open pine woods[90].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	serotinus = late;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 0.05m. It is hardy to zone 6 and is not frost tender. It is in leaf from November to May, in flower from November to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and butterflies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Colouring; Condiment.

The flowers are used as a saffron substitute in flavouring food and colouring it yellow[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

The yellow dye obtained from the stigmas yields a yellow dye, it is a saffron substitute[177].

Cultivation details

Succeeds in most soils, conditions and positions[1]. Plants grow well in a peaty soil in a bulb frame and should succeed outdoors in a sandy peaty soil[90]. The subspecies C. serotinus austriacus can be naturalized in grass or beneath deep rooting trees on light well-drained soils[200].

Plants tend to move considerably from their original planting place because of their means of vegetative reproduction, it is therefore wise not to grow different species in close proximity[1].

Any planting out is best done in late spring or early summer[245].

Mice are very fond of the corms of this species[1].

Plants take 3 - 4 years to flower from seed[200].

The flowers are only open during the day time, closing at night[245].

Propagation

Seed - best sown as soon as it is ripe in a light sandy soil in pots in a cold frame[1]. The seed can also be sown in a cold frame in early spring[1]. Sow thinly because the seed usually germinates freely[1], within 1 - 6 months at 18°c[164]. Unless the seed has been sown too thickly, do not transplant the seedlings in their first year of growth, but give them regular liquid feeds to make sure they do not become deficient. Divide the small bulbs once the plants have died down, planting 2 - 3 bulbs per 8cm pot. Grow them on for another 2 years in a greenhouse or frame and plant them out into their permanent positions when dormant in late summer[K]. Plants take 3 - 4 years to flower from seed[200].

Division f the clumps after the leaves die down in spring[1, 200]. The bulbs can be planted out direct into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[90] **Phillips. R. and Rix. M.** *Bulbs* Pan Books 1989 ISBN 0-330-30253-1
Superbly illustrated, it gives brief details on cultivation and native habitat.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990

Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Crocus serotinus

Common name:		Family:	Iridaceae
Author:	Salisb.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Southern Europe to Northern Africa and Western Asia.		
Habitat:	Stony slopes in scrub and open pine woods[90].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	serotinus = late;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 0.05m. It is hardy to zone 6 and is not frost tender. It is in leaf from November to May, in flower from November to December. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and butterflies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Colouring; Condiment.

The flowers are used as a saffron substitute in flavouring food and colouring it yellow[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

The yellow dye obtained from the stigmas yields a yellow dye, it is a saffron substitute[177].

Cultivation details

Succeeds in most soils, conditions and positions[1]. Plants grow well in a peaty soil in a bulb frame and should succeed outdoors in a sandy peaty soil[90]. The subspecies C. serotinus austriacus can be naturalized in grass or beneath deep rooting trees on light well-drained soils[200].

Plants tend to move considerably from their original planting place because of their means of vegetative reproduction, it is therefore wise not to grow different species in close proximity[1].

Any planting out is best done in late spring or early summer[245].

Mice are very fond of the corms of this species[1].

Plants take 3 - 4 years to flower from seed[200].

The flowers are only open during the day time, closing at night[245].

Propagation

Seed - best sown as soon as it is ripe in a light sandy soil in pots in a cold frame[1]. The seed can also be sown in a cold frame in early spring[1]. Sow thinly because the seed usually germinates freely[1], within 1 - 6 months at 18°c[164]. Unless the seed has been sown too thickly, do not transplant the seedlings in their first year of growth, but give them regular liquid feeds to make sure they do not become deficient. Divide the small bulbs once the plants have died down, planting

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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Systematics:	From a UDSA Plants Database
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Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Colouring; Condiment.

The flowers are used as a saffron substitute in flavouring food and colouring it yellow[177, 183].

Medicinal Uses

Disclaimer

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Other Uses

Dye.

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Crocus serotinus*

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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Crocus serotinus

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Euonymus europaeus

Common name:	Spindle tree	Family:	Celastraceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Poisonous. No further details.		
Range:	Britain.		
Habitat:	Woods, scrub and hedges, usually on calcareous soils[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. europaea[B,P] E. europaeus f. atrorubens[G] E. vulgaris[G] Evonymus europaeus[L]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Spindle Tree [H], European Spindle Tree [L], European Spindletree [P], Evonimo [E], Igagaci [E], Spindle Bush [E], Spindle Tree [H,MS,L], Wilde Kardinaalsmuts [D],
Epithets:	From a Dictionary of Botanical Epithets
	europaeus = European;
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Bittersweet family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

A decidious shrub growing to 6m. It is hardy to zone 3. It is in flower from May to June, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Manna.

An edible yellow dye is obtained from the fruit and seed[46, 61, 103, 183]. Pink from the fruit case, orange from the seed[141]. These reports should be treated with some caution since many members of this genus are poisonous.

One report suggests that the plant is a source of a manna[183], there are no further details.

Medicinal Uses

Disclaimer

Alterative; Cholagogue; Hepatic; Laxative; Purgative; Stimulant; Tonic.

The bark is alterative, cholagogue, hepatic, laxative, stimulant and tonic[4, 7]. The root bark is the part normally used, though bark from the stems is sometimes employed as a substitute[4]. In small doses it stimulates the appetite, in larger doses it irritates the intestines[4]. The bark is especially useful in the treatment of liver disorders which follow or accompany fevers[4].

The seeds are strongly emetic and purgative[4].

The fresh leaves, and the dried fruit and seeds, are used externally to treat scabies, lice (head, body or pubic), ticks and other skin parasites[268].

Other Uses

Charcoal; Dye; Insecticide; Latex; Oil; Parasiticide; Wood.

The whole plant yields a volatile oil that is used in soap making[13, 46]. Other reports say that the oil is obtained from the seed[46, 61, 103, 115]. It is possible that there are two oils, an essential oil from the plant and an oil from the seed[K].

A good yellow dye is obtained from the fleshy coating around the seeds[4]. This becomes green with the addition of alum, but unfortunately both colours are rather fugitive[4].

The baked and powdered berries are used to remove lice from the hair[6, 19, 66], they are also used as an insecticide[15]. The leaves are used[115].

Roots yield up to 4% gutta-percha, a non elastic rubber used as an electrical insulation and for making plastics[74].

Wood - very hard, easily split, fine-grained, not durable[4, 6, 13, 46]. Used for spindles, skewers, knitting needles, toothpicks, carving etc[6, 100, 103]. A high quality charcoal is obtained from the wood, it is used by artists[46, 74, 103, 115].

Cultivation details

An easily grown plant, it thrives in almost any soil, including chalk, and is particularly suited to dry shaded areas[200]. Prefers a well-drained loamy soil[1]. If cultivated for its latex it is best grown in a dry open position[74].

A very cold-hardy plant, tolerating temperatures down to about -25°c[184].

A very ornamental plant, there are many named varieties[11].

This species is often damaged by caterpillars during the flowering season[11]. It is a favoured home for blackfly, so should not be grown near broad beans[121].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed requires 8 - 12 weeks warm followed by 8 - 16 weeks cold stratification and can then be sown in a cold frame[98]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

One report says that the seed can be sown in an outdoors seedbed in early spring with good results[78]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions.

Cuttings of half-ripe wood, 5 - 8cm long taken at a node or with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, November in a frame[113].

Layering in July/August. Takes 14 months[78].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Euonymus europaeus* (Spindle)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Euonymus europaea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Evonymus europaeus* (a possible synonym).

References for *euonymus europaeus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Celastraceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[103] **Haywood. V. H.** *Flowering Plants of the World.* Oxford University Press ISBN 0-19-217674-9
Very readable and well illustrated, it lists plants by families giving the basic diagnostic features and some details of plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[121] **?** *The Plantsman. Vol. 3. 1981 - 1982.* Royal Horticultural Society 1981

Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Plants For A Future: Database Search Results

Euonymus europaeus

Common name:	Spindle tree	Family:	Celastraceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	Poisonous. No further details.		
Range:	Britain.		
Habitat:	Woods, scrub and hedges, usually on calcareous soils[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. europaea[B,P] E. europaeus f. atrorubens[G] E. vulgaris[G] Evonymus europaeus[L]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Spindle Tree [H], European Spindle Tree [L], European Spindletree [P], Evonimo [E], Igagaci [E], Spindle Bush [E], Spindle Tree [H,MS,L], Wilde Kardinaalsmuts [D],
Epithets:	From a Dictionary of Botanical Epithets
	europaeus = European;
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Bittersweet family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

A decidious shrub growing to 6m. It is hardy to zone 3. It is in flower from May to June, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Manna.

An edible yellow dye is obtained from the fruit and seed[46, 61, 103, 183]. Pink from the fruit case, orange from the seed[141]. These reports should be treated with some caution since many members of this genus are poisonous.

One report suggests that the plant is a source of a manna[183], there are no further details.

Medicinal Uses

Disclaimer

Alterative; Cholagogue; Hepatic; Laxative; Purgative; Stimulant; Tonic.

The bark is alterative, cholagogue, hepatic, laxative, stimulant and tonic[4, 7]. The root bark is the part normally used, though bark from the stems is sometimes employed as a substitute[4]. In small doses it stimulates the appetite, in larger doses it irritates the intestines[4]. The bark is especially useful in the treatment of liver disorders which follow or accompany fevers[4].

The seeds are strongly emetic and purgative[4].

The fresh leaves, and the dried fruit and seeds, are used externally to treat scabies, lice (head, body or pubic), ticks and other skin parasites[268].

Other Uses

Charcoal; Dye; Insecticide; Latex; Oil; Parasiticide; Wood.

The whole plant yields a volatile oil that is used in soap making[13, 46]. Other reports say that the oil is obtained from the seed[46, 61, 103, 115]. It is possible that there are two oils, an essential oil from the plant and an oil from the seed[K].

A good yellow dye is obtained from the fleshy coating around the seeds[4]. This becomes green with the addition of alum, but unfortunately both colours are rather fugitive[4].

The baked and powdered berries are used to remove lice from the hair[6, 19, 66], they are also used as an insecticide[15]. The leaves are used[115].

Roots yield up to 4% gutta-percha, a non elastic rubber used as an electrical insulation and for making plastics[74].

Wood - very hard, easily split, fine-grained, not durable[4, 6, 13, 46]. Used for spindles, skewers, knitting needles, toothpicks, carving etc[6, 100, 103]. A high quality charcoal is obtained from the wood, it is used by artists[46, 74, 103, 115].

Cultivation details

An easily grown plant, it thrives in almost any soil, including chalk, and is particularly suited to dry shaded areas[200]. Prefers a well-drained loamy soil[1]. If cultivated for its latex it is best grown in a dry open position[74].

A very cold-hardy plant, tolerating temperatures down to about -25°c[184].

A very ornamental plant, there are many named varieties[11].

This species is often damaged by caterpillars during the flowering season[11]. It is a favoured home for blackfly, so should not be grown near broad beans[121].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed requires 8 - 12 weeks warm followed by 8 - 16 weeks cold stratification and can then be sown in a cold frame[98]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

One report says that the seed can be sown in an outdoors seedbed in early spring with good results[78]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions.

Cuttings of half-ripe wood, 5 - 8cm long taken at a node or with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, November in a frame[113].

Layering in July/August. Takes 14 months[78].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Euonymus europaeus* (Spindle)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Euonymus europaea* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Evonymus europaeus* (a possible synonym).

References for *euonymus europaeus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Celastraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[103] **Haywood. V. H.** *Flowering Plants of the World.* Oxford University Press ISBN 0-19-217674-9
Very readable and well illustrated, it lists plants by families giving the basic diagnostic features and some details of plant uses.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[121] **?** *The Plantsman. Vol. 3. 1981 - 1982.* Royal Horticultural Society 1981
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants..

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

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Plants For A Future Rating (1-5):	3		

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Epithets:	From a Dictionary of Botanical Epithets
	europaeus = European;
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Bittersweet family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

A decidious shrub growing to 6m. It is hardy to zone 3. It is in flower from May to June, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

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Colouring; Manna.

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The fresh leaves, and the dried fruit and seeds, are used externally to treat scabies, lice (head, body or pubic), ticks and other skin parasites[268].

Other Uses

Charcoal; Dye; Insecticide; Latex; Oil; Parasiticide; Wood.

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Roots yield up to 4% gutta-percha, a non elastic rubber used as an electrical insulation and for making plastics[74].

Wood - very hard, easily split, fine-grained, not durable[4, 6, 13, 46]. Used for spindles, skewers, knitting needles, toothpicks, carving etc[6, 100, 103]. A high quality charcoal is obtained from the wood, it is used by artists[46, 74, 103, 115].

Cultivation details

An easily grown plant, it thrives in almost any soil, including chalk, and is particularly suited to dry shaded areas[200]. Prefers a well-drained loamy soil[1]. If cultivated for its latex it is best grown in a dry open position[74].

A very cold-hardy plant, tolerating temperatures down to about -25°c[184].

A very ornamental plant, there are many named varieties[11].

This species is often damaged by caterpillars during the flowering season[11]. It is a favoured home for blackfly, so should not be grown near broad beans[121].

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One report says that the seed can be sown in an outdoors seedbed in early spring with good results[78]. Grow the seedlings on for two years in the seedbed before planting them out into their permanent positions.

Cuttings of half-ripe wood, 5 - 8cm long taken at a node or with a heel, July/August in a frame. Very easy[78].

Cuttings of mature wood, November in a frame[113].

Layering in July/August. Takes 14 months[78].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Euonymus europaeus* (Spindle)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Euonymus europaeus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Euonymus japonicus

Common name:	Japanese spindle tree	Family:	Celastraceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	The seed is probably poisonous, other parts of the plant may also be poisonous[65].		
Range:	E. Asia - Japan. Locally naturalized in S. Europe.		
Habitat:	Slopes in thickets and woods, especially near the sea[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. japonica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Spindletree [P],
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Bittersweet family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen shrub growing to 4.5m by 2m at a medium rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Leaves.

Young leaves - boiled[2, 177, 183]. The old leaves are powdered and used to colour food[105, 177, 183]. These reports should be treated with some caution due to the report of toxicity - see above.

Medicinal Uses

Disclaimer

Antirheumatic; Diuretic; Tonic; Women's complaints.

The stem bark is antirheumatic, diuretic and tonic[218].

The leaf is used in cases of difficult delivery[218].

Other Uses

Hedge; Latex.

Roots and stems yield up to 7% gutta-percha, a non elastic rubber used as an electrical insulator and in making plastics etc[61, 74, 103].

Can be grown as a hedge, it is very tolerant of trimming and succeeds in severe maritime exposure[11, 75, 200].

Cultivation details

Thriving in almost any soil, including chalk and sandy soils, it is particularly suited to dry shaded areas[200]. Grows well in heavy clay soils. Shade tolerant but does not fruit well in such a position[11]. Prefers a well-drained loamy soil[11]. Plants are very tolerant of maritime exposure, succeeding even when grown on the sea shore[166], but they can be killed by cold drying winds[75, 184].

A very ornamental plant[1], there are a number of named varieties[184]. It is only hardy in S. England[11] tolerating temperatures down to about -10°c[184]. Plants are more likely to succumb to the cold if they are regularly trimmed (this exposes young growth to the cold), this regular trimming also leads to mildew especially when plants are growing in very dry ground[182].

The Japanese spindle tree is cultivated in Russia and Spain for the latex contained in the root. It is best grown in a dry soil and an open position when being grown for its latex[61, 74].

Plants are often slow to get established.

Plants can be susceptible to attacks by caterpillars[182] and are often damaged during the flowering season[11]. They are also a host of the sugar beet fly[49].

This species is notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[121]. Stored seed requires 3 months cold stratification, so should be sown as early in the year as possible in a cold frame[113]. Seed can take 18 months to germinate[74]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 7cm long taken at a node or with a heel, July/August in a frame. Very easy[200].

Cuttings of mature wood, October in a frame78, 113]. Cuttings will root readily at any time of the year if given bottom heat[1].

Root cuttings in winter.

Cultivars

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Plants For A Future: Database Search Results

Euonymus japonicus

Common name:	Japanese spindle tree	Family:	Celastraceae
Author:	Thunb.	Botanical references:	11, 58, 200
Synonyms:			
Known Hazards:	The seed is probably poisonous, other parts of the plant may also be poisonous[65].		
Range:	E. Asia - Japan. Locally naturalized in S. Europe.		
Habitat:	Slopes in thickets and woods, especially near the sea[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. japonica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Spindletree [P],
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Bittersweet family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen shrub growing to 4.5m by 2m at a medium rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Leaves.

Young leaves - boiled[2, 177, 183]. The old leaves are powdered and used to colour food[105, 177, 183]. These reports should be treated with some caution due to the report of toxicity - see above.

Medicinal Uses

Disclaimer

Antirheumatic; Diuretic; Tonic; Women's complaints.

The stem bark is antirheumatic, diuretic and tonic[218].

The leaf is used in cases of difficult delivery[218].

Other Uses

Hedge; Latex.

Roots and stems yield up to 7% gutta-percha, a non elastic rubber used as an electrical insulator and in making plastics etc[61, 74, 103].

Can be grown as a hedge, it is very tolerant of trimming and succeeds in severe maritime exposure[11, 75, 200].

Cultivation details

Thriving in almost any soil, including chalk and sandy soils, it is particularly suited to dry shaded areas[200]. Grows well in heavy clay soils. Shade tolerant but does not fruit well in such a position[11]. Prefers a well-drained loamy soil[11]. Plants are very tolerant of maritime exposure, succeeding even when grown on the sea shore[166], but they can be killed by cold drying winds[75, 184].

A very ornamental plant[1], there are a number of named varieties[184]. It is only hardy in S. England[11] tolerating temperatures down to about -10°c[184]. Plants are more likely to succumb to the cold if they are regularly trimmed (this exposes young growth to the cold), this regular trimming also leads to mildew especially when plants are growing in very dry ground[182].

The Japanese spindle tree is cultivated in Russia and Spain for the latex contained in the root. It is best grown in a dry soil and an open position when being grown for its latex[61, 74].

Plants are often slow to get established.

Plants can be susceptible to attacks by caterpillars[182] and are often damaged during the flowering season[11]. They are also a host of the sugar beet fly[49].

This species is notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[121]. Stored seed requires 3 months cold stratification, so should be sown as early in the year as possible in a cold frame[113]. Seed can take 18 months to germinate[74]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 7cm long taken at a node or with a heel, July/August in a frame. Very easy[200].

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Range:	E. Asia - Japan. Locally naturalized in S. Europe.		
Habitat:	Slopes in thickets and woods, especially near the sea[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	Order: Celastrales . Bittersweet family
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Physical Characteristics

An evergreen shrub growing to 4.5m by 2m at a medium rate. It is hardy to zone 7. It is in leaf all year, in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

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Euonymus japonicus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Name of Site:

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Euonymus japonicus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Hibiscus rosa-sinensis

Common name:	Chinese hibiscus	Family:	Malvaceae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. E. Asia.		
Habitat:	Not known in a truly wild situation		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. rosasinensis[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bunga Raya [E], Bussoge [E], Cayena [E], Ch'Ih Chin [E], China Rose [E], Chinese Hibiscus [H], Chu Chin [E], Cin Gulu [E], Feuilles Choublak [E], Fu Sang [E], Gumamela [E], Jih Chi [E], Khatmah Siniyah [E], Rose Of China [H,E], Ru Sang [E], Shoe-Black [E], Shoe-back-plant [B], Shoebackplant [P], Woro-wari [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	Annamese; China; Dominican Republic; Ghana; Haiti; India(Santal); Indonesia; Iraq; Java; Kelantan; Malaysia; Mexico; Philippines; Samoa; Trinidad; Turkey

Physical Characteristics

An evergreen shrub growing to 2.5m by 2.5m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Colouring; Flowers; Leaves; Root.

Young leaves are sometimes used as a spinach substitute[177, 183]. A nutritional analysis is available[218].

Flowers - raw or cooked[240]. They can also be made into a kind of pickle or used as a purple dye for colouring foods such as preserved fruits and cooked vegetables[177, 183]. A nutritional analysis is available[218].

Root - it is edible but very fibrousy[144]. Mucilaginous, without very much flavour[144].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 15.4 Fat: 3.5 Carbohydrate: 69.7 Fibre: 15.5 Ash: 11.4
In milligrammes per 100g weight of food:
Calcium: 1670 Phosphorus: 520
Source: [218]

Fruit (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 353 Protein: 3.9 Fat: 3.9 Carbohydrate: 86.3 Fibre: 15.7 Ash: 5.9
In milligrammes per 100g weight of food:
Calcium: 39 Phosphorus: 265 Iron: 17 Thiamine: 0.29 Riboflavin: 0.49 Niacin: 5.9 VitaminC: 39
Source: [218]

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In grammes per 100g weight of food:
Water: 89.8 Protein: 0.06 Fat: 0.4 Fibre: 1.56
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Calcium: 4 Phosphorus: 27 Iron: 1.7 Thiamine: 0.03 Riboflavin: 0.05 Niacin: 0.6 VitaminC: 4.2
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Medicinal Uses

Disclaimer

Anodyne; Antispasmodic; Aperient; Aphrodisiac; Astringent; Demulcent; Emmenagogue; Emollient; Poultice; Refrigerant.

Chinese hibiscus is a sweet, astringent, cooling herb that checks bleeding, soothes irritated tissues and relaxes spasms[238].

The flowers are aphrodisiac, demulcent, emmenagogue, emollient and refrigerant[240]. They are used internally in the treatment of excessive and painful menstruation, cystitis, venereal diseases, feverish illnesses, bronchial catarrh, coughs and to promote hair growth[238, 240].

The leaves are anodyne, aperient, emollient and laxative[240]. A decoction is used as a lotion in the treatment of fevers[240].

The leaves and flowers are beaten into a paste and poulticed onto cancerous swellings and mumps[218]. The flowers are used in the treatment of carbuncles, mumps, fever and sores[218].

The root is a good source of mucilage and is used as a substitute for marsh mallow (Althaea officinalis) in the treatment of coughs[240].

Other Uses

Cosmetic; Fibre; Hedge; Polish.

The juice from the petals is used in China as shoe-blacking and mascara[238].

A good quality fibre is obtained from the stems[74]. In warm sub-tropical areas the fibres can be up to 3 metres long, but in Britain they are likely to be much shorter. The fibre is used for coarse fabrics, nets and paper[74].

Plants are often used for hedges and screens, though since they are not very cold hardy they are not suitable for this use in Britain[200].

Cultivation details

Prefers a well-drained humus rich fertile soil in a warm, sheltered position in full sun[200, 260].

A very ornamental plant[1], it is not very frost-tolerant and needs to be grown in essentially frost-free areas. It might succeed outdoors in the very mildest areas of the country if given a very sheltered warm position. Alternatively, it might be possible to grow the plant as a tender annual by starting it off early in a warm greenhouse. If well-grown it can flower and set seed in its first year. This species grows very well in a frost-free conservatory in Northern Europe so long as it is in a sunny position and free from draughts[260].

Plants will often lose most of their leaves in cool winters, though they will normally regenerate quickly as the warmer weather returns[260].

The flowers of Chinese hibiscus are very important in Hindu devotional ceremonies, being sacred to the Elephant God, Ganesh[238]. Individual flowers are short-lived, in many modern cultivars the flowers wither after 24 hours though in many of the older cultivars they can last for 48 hours[260].

There are many named forms, selected for their ornamental value[200].

Propagation

Seed - sow early spring in a warm greenhouse. Germination is usually fairly rapid. Prick out the seedlings into individual pots when they are large enough to handle. If growing them as annuals, plant them out into their permanent positions in early summer and protect them with a frame or cloche until they are growing away well. If hoping to grow them as perennials, then it is better to grow them on in the greenhouse for their first year and to plant them out in early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. Overwinter them in a warm greenhouse and plant out after the last expected frosts.

Cultivars

'White Wings'

> Its compact habit makes this form a good candidate for pot cultivation. It produces large white flowers to 15cm across and is frequently used for hedging in tropical climates[260].

'Norman Lee'

> A vigorous variety of medium height, it blooms profusely producing flowers up to 20cm across[260].

'Lady Bird'

An upright form of average height, the flowers are up to 20cm across and are larger than most other cultivars[260].

'Hula Girl'

A very free-flowering form, the flowers are up to 16cm in diameter[260].

'Florida Sunset'

A compact form that grows well in containers, the flowers at 10cm in diameter are smaller than most other cultivars[260].

'Diamond Head'

A compact form, and thus suitable for pot culture, it produces double flowers about 15cm across over a long season[260].

'Cooperi'

At about 10cm across, the flowers are smaller than most cultivars, but the plant is quite compact and thus suitable for pot culture[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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See the PFAF Links Pages for other sources

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References

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[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
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Readers Comments

Hibiscus rosa-sinensis

Bárbara Aguila Gil (becerra@infomed.sld.cu) Mon Jul 14 21:21:47 2003

The flowers from hibiscus rosa-sinensis are very for phytopharmac. I need more information Thank you, very much.

Bárbara Aguila Laboratorio Mario Muñoz

Link: napralert

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Hibiscus rosa-sinensis

Common name:	Chinese hibiscus	Family:	Malvaceae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. E. Asia.		
Habitat:	Not known in a truly wild situation		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. rosasinensis[E]
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Other Common Names:	Bunga Raya [E], Bussoge [E], Cayena [E], Ch'Ih Chin [E], China Rose [E], Chinese Hibiscus [H], Chu Chin [E], Cin Gulu [E], Feuilles Choublak [E], Fu Sang [E], Gumamela [E], Jih Chi [E], Khatmah Siniyah [E], Rose Of China [H,E], Ru Sang [E], Shoe-Black [E], Shoe-back-plant [B], Shoebackplant [P], Woro-wari [E],
Systematics:	From a UDSA Plants Database
	Order: Malvales . Mallow family
Other Range Info:	From the Ethnobotany Database
	Annamese; China; Dominican Republic; Ghana; Haiti; India(Santal); Indonesia; Iraq; Java; Kelantan; Malaysia; Mexico; Philippines; Samoa; Trinidad; Turkey

Physical Characteristics

An evergreen shrub growing to 2.5m by 2.5m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Colouring; Flowers; Leaves; Root.

Young leaves are sometimes used as a spinach substitute[177, 183]. A nutritional analysis is available[218].

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Link: napralert

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Plants are often used for hedges and screens, though since they are not very cold hardy they are not suitable for this use in Britain[200].

Cultivation details

Prefers a well-drained humus rich fertile soil in a warm, sheltered position in full sun[200, 260].

A very ornamental plant[1], it is not very frost-tolerant and needs to be grown in essentially frost-free areas. It might succeed outdoors in the very mildest areas of the country if given a very sheltered warm position. Alternatively, it might be possible to grow the plant as a tender annual by starting it off early in a warm greenhouse. If well-grown it can flower and set seed in its first year. This species grows very well in a frost-free conservatory in Northern Europe so long as it is in a sunny position and free from draughts[260].

Plants will often lose most of their leaves in cool winters, though they will normally regenerate quickly as the warmer weather returns[260].

The flowers of Chinese hibiscus are very important in Hindu devotional ceremonies, being sacred to the Elephant God, Ganesh[238]. Individual flowers are short-lived, in many modern cultivars the flowers wither after 24 hours though in many of the older cultivars they can last for 48 hours[260].

There are many named forms, selected for their ornamental value[200].

Propagation

Seed - sow early spring in a warm greenhouse. Germination is usually fairly rapid. Prick out the seedlings into individual pots when they are large enough to handle. If growing them as annuals, plant them out into their permanent positions in early summer and protect them with a frame or cloche until they are growing away well. If hoping to grow them as perennials, then it is better to grow them on in the greenhouse for their first year and to plant them out in early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. Overwinter them in a warm greenhouse and plant out after the last expected frosts.

Cultivars

'White Wings'

Its compact habit makes this form a good candidate for pot cultivation. It produces large white flowers to 15cm across and is frequently used for hedging in tropical climates[260].

'Norman Lee'

A vigorous variety of medium height, it blooms profusely producing flowers up to 20cm across[260].

'Lady Bird'

An upright form of average height, the flowers are up to 20cm across and are larger than most other cultivars[260].

'Hula Girl'

A very free-flowering form, the flowers are up to 16cm in diameter[260].

'Florida Sunset'

A compact form that grows well in containers, the flowers at 10cm in diameter are smaller than most other cultivars[260].

'Diamond Head'

A compact form, and thus suitable for pot culture, it produces double flowers about 15cm across over a long season[260].

'Cooperi'

At about 10cm across, the flowers are smaller than most cultivars, but the plant is quite compact and thus suitable for pot culture[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hibiscus rosa-sinensis*

Subject:

Hibiscus rosa-sinensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

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Please use the exact Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Hierochloe odorata

Common name:	Holy grass	Family:	Gramineae
Author:	(L.) Beauv.	Botanical references:	17
Synonyms:	Hierochloe borealis ((Schrad.)Roem.&Schult.)		
Known Hazards:	The plant contains coumarin, this is toxic if taken internally[169] and is sometimes considered to be carcinogenic[222].		
Range:	Britain.		
Habitat:	Wet banks in only a few sites in Scotland[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anthoxanthum nitens[B] H. alpina ssp. alpina[B,C,CAL,P] H. fragrans[B] H. nashii[B] H. odorata ssp. dahurica[B] H. odorata var. fragrans[B] Holcus odoratus[B,G] Savastana alpina[B,P] Savastana nashii[B] Savastana odorata[B] Torresia odorata[B,G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Sweetgrass [P], Buffalo Grass [H], Pai Mao Hsiang [E], Russian Buffalo Grass [H], Seneca Grass [L], Sweet Grass [S,H,FEIS], Sweetgrass [P], Vanilla Grass [L,B], Vanilla-scented Grass [H], Veenreukgras [D], Zebrovka [H], Zubrowski [H],
Epithets:	From a Dictionary of Botanical Epithets
	odorata = scented; odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database

	China; Us(Blackfoot); Us(Flathead)

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 5 and is not frost tender. It is in flower from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Bog Garden.

Edible Uses

Colouring; Condiment; Seed.

Seed - cooked[105]. Small and fiddly to use. It almost certainly does not contain coumarin and should be safe to use.

An essential oil from the leaves is used as a food flavouring in sweets and soft drinks. It has a strong vanilla-like flavour[183].

The leaves are added to vodka as a flavouring[238].

The plant is said to be used as a colouring agent[183] but no more details are given.

Medicinal Uses

Disclaimer

Birthing aid; Febrifuge; Skin; VD.

A tea made from the leaves is used in the treatment of fevers, coughs, sore throats, chafing and venereal infections[222, 257]. It is also used to stop vaginal bleeding and to expel afterbirth[222]. The stems can be soaked in water and used to treat windburn and chapping and as an eyewash[257]. Some caution is advised when using this plant internally, see the notes above on toxicity[222]. The leaves are harvested in the summer and dried for later use[238].

Smoke from the burning leaves has been inhaled in the treatment of colds[257].

Other Uses

Basketry; Hair; Incense; Repellent; Soil stabilization; Strewing; Stuffing.

The dried leaves are used as an incense[46, 61, 99], they were formerly also used as a strewing herb[1, 46, 238] and have been used as a stuffing in pillows and mattresses[257]. They have also been used as an insect repellent in the clothes cupboard where they impart a nice smell to the clothes[99, 238].

The leaves are used to make aromatic baskets[46, 61, 99, 169, 171]. The wet leaves can be sewn together, dried until they are tight and then resin used over the stitches to make a waterproof container[257].

The leaves can be soaked in water to make a tonic hair wash[257].

An essential oil distilled from the leaves is used in perfumery where it acts as an excitant and fixative for other aromas[238].

The plant has a very aggressive root system and has been planted to stabilize banks[74].

Cultivation details

Prefers a damp position in a rich soil but succeeds in most soils including quite dry conditions[162]. Grows best in a sunny position[238].

The plants have a running root system and can spread aggressively when grown in suitable conditions[74].

The plant, as it dries, emits a powerful scent of newly mown hay[245].

Propagation

Seed - sow spring in situ and only just cover the seed[162]. Germination usually takes place within 2 weeks.

If the seed is in short supply it can be sown in the cold frame in the spring. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Division in spring or summer[162]. Very simple, virtually any part of the root will regrow to make a new plant[K].

Scent

Plant: Dried

The plant, as it dries, emits a powerful scent of newly mown hay.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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References for *Hierochloe alpina ssp. alpina* (a possible synonym).

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References

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Hierochloe odorata

Common name:	Holy grass	Family:	Gramineae
Author:	(L.) Beauv.	Botanical references:	17
Synonyms:	Hierochloe borealis ((Schrad.)Roem.&Schult.)		
Known Hazards:	The plant contains coumarin, this is toxic if taken internally[169] and is sometimes considered to be carcinogenic[222].		
Range:	Britain.		
Habitat:	Wet banks in only a few sites in Scotland[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anthoxanthum nitens[B] H. alpina ssp. alpina[B,C,CAL,P] H. fragrans[B] H. nashii[B] H. odorata ssp. dahurica[B] H. odorata var. fragrans[B] Holcus odoratus[B,G] Savastana alpina[B,P] Savastana nashii[B] Savastana odorata[B] Torresia odorata[B,G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Sweetgrass [P], Buffalo Grass [H], Pai Mao Hsiang [E], Russian Buffalo Grass [H], Seneca Grass [L], Sweet Grass [S,H,FEIS], Sweetgrass [P], Vanilla Grass [L,B], Vanilla-scented Grass [H], Veenreukgras [D], Zebrovka [H], Zubrowski [H],
Epithets:	From a Dictionary of Botanical Epithets
	odorata = scented; odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China; Us(Blackfoot); Us(Flathead)

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 5 and is not frost tender. It is in flower from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Bog Garden.

Edible Uses

Colouring; Condiment; Seed.

Seed - cooked[105]. Small and fiddly to use. It almost certainly does not contain coumarin and should be safe to use.

An essential oil from the leaves is used as a food flavouring in sweets and soft drinks. It has a strong vanilla-like flavour[183].

The leaves are added to vodka as a flavouring[238].

The plant is said to be used as a colouring agent[183] but no more details are given.

Medicinal Uses

Disclaimer

Birthing aid; Febrifuge; Skin; VD.

A tea made from the leaves is used in the treatment of fevers, coughs, sore throats, chafing and venereal infections[222, 257]. It is also used to stop vaginal bleeding and to expel afterbirth[222]. The stems can be soaked in water and used to treat windburn and chapping and as an eyewash[257]. Some caution is advised when using this plant internally, see the notes above on toxicity[222]. The leaves are harvested in the summer and dried for later use[238].

Smoke from the burning leaves has been inhaled in the treatment of colds[257].

Other Uses

Basketry; Hair; Incense; Repellent; Soil stabilization; Strewing; Stuffing.

The dried leaves are used as an incense[46, 61, 99], they were formerly also used as a strewing herb[1, 46, 238] and have been used as a stuffing in pillows and mattresses[257]. They have also been used as an insect repellent in the clothes cupboard where they impart a nice smell to the clothes[99, 238].

The leaves are used to make aromatic baskets[46, 61, 99, 169, 171]. The wet leaves can be sewn together, dried until they are tight and then resin used over the stitches to make a waterproof container[257].

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An essential oil distilled from the leaves is used in perfumery where it acts as an excitant and fixative for other aromas[238].

The plant has a very aggressive root system and has been planted to stabilize banks[74].

Cultivation details

Prefers a damp position in a rich soil but succeeds in most soils including quite dry conditions[162]. Grows best in a sunny position[238].

The plants have a running root system and can spread aggressively when grown in suitable conditions[74].

The plant, as it dries, emits a powerful scent of newly mown hay[245].

Propagation

Seed - sow spring in situ and only just cover the seed[162]. Germination usually takes place within 2 weeks.

If the seed is in short supply it can be sown in the cold frame in the spring. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Division in spring or summer[162]. Very simple, virtually any part of the root will regrow to make a new plant[K].

Scent

Plant: Dried

The plant, as it dries, emits a powerful scent of newly mown hay.

Suppliers

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Plants For A Future: Database Search Results

Hierochloe odorata

Common name:	Holy grass	Family:	Gramineae
Author:	(L.) Beauv.	Botanical references:	17
Synonyms:	Hierochloe borealis ((Schrad.)Roem.&Schult.)		
Known Hazards:	The plant contains coumarin, this is toxic if taken internally[169] and is sometimes considered to be carcinogenic[222].		
Range:	Britain.		
Habitat:	Wet banks in only a few sites in Scotland[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anthoxanthum nitens[B] H. alpina ssp. alpina[B,C,CAL,P] H. fragrans[B] H. nashii[B] H. odorata ssp. dahurica[B] H. odorata var. fragrans[B] Holcus odoratus[B,G] Savastana alpina[B,P] Savastana nashii[B] Savastana odorata[B] Torresia odorata[B,G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alpine Sweetgrass [P], Buffalo Grass [H], Pai Mao Hsiang [E], Russian Buffalo Grass [H], Seneca Grass [L], Sweet Grass [S,H,FEIS], Sweetgrass [P], Vanilla Grass [L,B], Vanilla-scented Grass [H], Veenreukgras [D], Zebrovka [H], Zubrowski [H],
Epithets:	From a Dictionary of Botanical Epithets
	odorata = scented; odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Renamed to Poaceae -- Grass family
Other Range Info:	From the Ethnobotany Database
	China; Us(Blackfoot); Us(Flathead)

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 5 and is not frost tender. It is in flower from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry moist or wet soil.

Habitats and Possible Locations

Bog Garden.

Edible Uses

Colouring; Condiment; Seed.

Seed - cooked[105]. Small and fiddly to use. It almost certainly does not contain coumarin and should be safe to use.

An essential oil from the leaves is used as a food flavouring in sweets and soft drinks. It has a strong vanilla-like flavour[183].

The leaves are added to vodka as a flavouring[238].

The plant is said to be used as a colouring agent[183] but no more details are given.

Medicinal Uses

Disclaimer

Birthing aid; Febrifuge; Skin; VD.

A tea made from the leaves is used in the treatment of fevers, coughs, sore throats, chafing and venereal infections[222, 257]. It is also used to stop vaginal bleeding and to expel afterbirth[222]. The stems can be soaked in water and used to treat windburn and chapping and as an eyewash[257]. Some caution is advised when using this plant internally, see the notes above on toxicity[222]. The leaves are harvested in the summer and dried for later use[238].

Smoke from the burning leaves has been inhaled in the treatment of colds[257].

Other Uses

Basketry; Hair; Incense; Repellent; Soil stabilization; Strewing; Stuffing.

The dried leaves are used as an incense[46, 61, 99], they were formerly also used as a strewing herb[1, 46, 238] and have been used as a stuffing in pillows and mattresses[257]. They have also been used as an insect repellent in the clothes cupboard where they impart a nice smell to the clothes[99, 238].

The leaves are used to make aromatic baskets[46, 61, 99, 169, 171]. The wet leaves can be sewn together, dried until they are tight and then resin used over the stitches to make a waterproof container[257].

The leaves can be soaked in water to make a tonic hair wash[257].

An essential oil distilled from the leaves is used in perfumery where it acts as an excitant and fixative for other aromas[238].

The plant has a very aggressive root system and has been planted to stabilize banks[74].

Cultivation details

Prefers a damp position in a rich soil but succeeds in most soils including quite dry conditions[162]. Grows best in a sunny position[238].

The plants have a running root system and can spread aggressively when grown in suitable conditions[74].

The plant, as it dries, emits a powerful scent of newly mown hay[245].

Propagation

Seed - sow spring in situ and only just cover the seed[162]. Germination usually takes place within 2 weeks.

If the seed is in short supply it can be sown in the cold frame in the spring. When large enough to handle, prick the seedlings out into individual pots and plant them out in early summer.

Division in spring or summer[162]. Very simple, virtually any part of the root will regrow to make a new plant[K].

Scent

Plant: Dried

The plant, as it dries, emits a powerful scent of newly mown hay.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hierochloe odorata*

Subject:

Hierochloe odorata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hierochloe odorata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Lithospermum canescens

Common name:	Paint Indian	Family:	Boraginaceae
Author:	(Michx.) Lehm.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Ontario to Georgia, west to Saskatchewan and Texas.		
Habitat:	Dry or sandy open woods, prairies etc[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Batschia canescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Hoary Puccoon [B,P], Puccoon [L],
Epithets:	From a Dictionary of Botanical Epithets canescens = grayed;
Systematics:	From a UDSA Plants Database Order: Lamiales . Borage family

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 3. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Colouring.

The roots have been chewed with gum in order to colour the gum red[257].

The flowers have been chewed with gum in order to colour it yellow[257].

Medicinal Uses

Disclaimer

Miscellany.

A tea made from the leaves is applied externally in the treatment of fevers accompanied by spasms[222].

Other Uses

Dye.

A red dye is obtained from the root[46, 61, 207].

Cultivation details

Requires a warm sunny position in a moderately fertile well-drained lime-free sandy soil[1, 200].

Propagation

Seed - sow spring in a cold frame. It is best sown in a soilless medium[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings.

Division.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Boraginaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Lithospermum canescens

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Author:	(Michx.) Lehm.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Ontario to Georgia, west to Saskatchewan and Texas.		
Habitat:	Dry or sandy open woods, prairies etc[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Batschia canescens[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	canescens = grayed;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Borage family

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 3. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Colouring.

The roots have been chewed with gum in order to colour the gum red[257].

The flowers have been chewed with gum in order to colour it yellow[257].

Medicinal Uses

Disclaimer

Miscellany.

A tea made from the leaves is applied externally in the treatment of fevers accompanied by spasms[222].

Other Uses

Dye.

A red dye is obtained from the root[46, 61, 207].

Cultivation details

Requires a warm sunny position in a moderately fertile well-drained lime-free sandy soil[1, 200].

Propagation

Seed - sow spring in a cold frame. It is best sown in a soilless medium[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings.

Division.

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Range:	Eastern N. America - Ontario to Georgia, west to Saskatchewan and Texas.		
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Plants For A Future Rating (1-5):	1		

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Epithets:	From a Dictionary of Botanical Epithets
	canescens = grayed;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Borage family

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 3. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Colouring.

The roots have been chewed with gum in order to colour the gum red[257].

The flowers have been chewed with gum in order to colour it yellow[257].

Medicinal Uses

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Other Uses

Dye.

A red dye is obtained from the root[46, 61, 207].

Cultivation details

Requires a warm sunny position in a moderately fertile well-drained lime-free sandy soil[1, 200].

Propagation

Seed - sow spring in a cold frame. It is best sown in a soilless medium[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings.

Division.

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Subject:

Lithospermum canescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lithospermum canescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Lythrum salicaria

Common name:	Purple loosestrife	Family:	Lythraceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Reed swamps, fens and marshes, avoiding acid soils[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. L. salicaria var. gracilior[B,P] L. salicaria var. tomentosum[B,P] L. salicaria var. vulgare[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Ezo-Miso-Hagi [E], Farandal [E], Grote Kattenstaart [D], Kirmizi Hevhulma [E], Loosestrife [S], Loosestrife, Purple [S], Purple Loosestrife [FEIS,H,S,B,L,P], Purple Willow-herb [H], Salicaria [E], Spiked Loosestrife [L],
Epithets:	From a Dictionary of Botanical Epithets salicaria = Salix like;
Systematics:	From a UDSA Plants Database Order: Myrtales . Loosestrife family
Other Range Info:	From the Ethnobotany Database Britain; Iraq; Spain; Turkey

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona, California, Colorado, Florida, Idaho, Indiana, Iowa, Minnesota, Missouri, Montana, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Washington, Wisconsin.

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 3. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Colouring; Leaves; Root.

Leaves - cooked[13, 46, 61, 105]. Rich in calcium[179].

Root - cooked[13].

An edible dye is obtained from the flowers[13].

Medicinal Uses

Disclaimer

Antibiotic; Astringent; Hypoglycaemic; Styptic; Vulnerary.

Purple loosestrife is an astringent herb that is mainly employed as a treatment for diarrhoea and dysentery. It can be safely taken by people of all ages and has been used to help arrest diarrhoea in breast-feeding babies[254]. It can also be used to treat heavy periods and inter-menstrual bleeding[254]. Modern research has shown the whole plant to be antibiotic and to be particularly effective against the micro-organism that causes typhus[254].

The flowering plant is antibiotic, highly astringent, hypoglycaemic, styptic and vulnerary[4, 7, 9, 21, 152, 218, 238]. It is valued as an intestinal disinfectant, especially in cases of enteritis[7], an infusion is used internally in the treatment of diarrhoea, internal bleeding, excessive menstruation etc[9, 222, 238]. The flowering plant is harvested in the summer and can be used fresh or dried[9].

Externally, the plant is used as a cleansing and healing wash for wounds, sores, impetigo, eczema, excess vaginal discharge, vaginal itching etc[7, 222, 238, 254]. The powdered plant is used as a haemostatic in cases of severe nosebleeds[7].

The stems are regarded as gum stimulators and are given to children to chew in order to strengthen weak or bleeding gums[7].

Other Uses

Cosmetic; Dye; Preservative; Tannin; Teeth.

A decoction of the plant is impregnated into wood, rope etc to prevent it rotting in water[74]. The leaves contain about 12% tannin, the stems 10.5%, the flowers 13.7% and the roots 8.5%[218]. It is probably these tannins that preserve the wood etc[218].

The powdered plant is used cosmetically in face-packs to counteract reddened skin[7].

Cultivation details

Succeeds in ordinary garden soil, especially if it is damp[1]. Prefers a neutral to alkaline soil[238]. Grows well in heavy clay soils. Grows well in marshy soils[24] and succeeds in shallow water at the edges of ponds[56]. Succeeds in full sun or partial shade[188].

A very hardy plant, tolerating temperatures down to at least -25°c[187].

A very ornamental plant[1]. A good bee and butterfly plant[24].

Plants usually self-sow when well sited[200].

Propagation

Seed - sow in the autumn or the spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

If you have sufficient seed it could be worthwhile trying a sowing in situ in the autumn or the spring.

Division in March or October[188]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Basal cuttings in the spring[238]. Harvest the shoots with plenty of underground stem when they are about 8 - 10cm above the ground. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Suppliers

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Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
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Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Lythrum salicaria* (purple loosestrife)

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Web References

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *lythrum salicaria* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References for the family Lythraceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Lythrum salicaria

Common name:	Purple loosestrife	Family:	Lythraceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Reed swamps, fens and marshes, avoiding acid soils[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. L. salicaria var. gracilior[B,P] L. salicaria var. tomentosum[B,P] L. salicaria var. vulgare[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Ezo-Miso-Hagi [E], Farandal [E], Grote Kattenstaart [D], Kirmizi Hevhulma [E], Loosestrife [S], Loosestrife, Purple [S], Purple Loosestrife [FEIS,H,S,B,L,P], Purple Willow-herb [H], Salicaria [E], Spiked Loosestrife [L],
Epithets:	From a Dictionary of Botanical Epithets salicaria = Salix like;
Systematics:	From a UDSA Plants Database Order: Myrtales . Loosestrife family
Other Range Info:	From the Ethnobotany Database Britain; Iraq; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Arizona, California, Colorado, Florida, Idaho, Indiana, Iowa, Minnesota, Missouri, Montana, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Washington, Wisconsin.

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 3. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil and can grow in water.

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Colouring; Leaves; Root.

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lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Lythrum salicaria* (purple loosestrife)

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Plants For A Future: Database Search Results

Lythrum salicaria

Common name:	Purple loosestrife	Family:	Lythraceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Reed swamps, fens and marshes, avoiding acid soils[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	Britain; Iraq; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Arizona, California, Colorado, Florida, Idaho, Indiana, Iowa, Minnesota, Missouri, Montana, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Washington, Wisconsin.

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The stems are regarded as gum stimulators and are given to children to chew in order to strengthen weak or bleeding gums[7].

Other Uses

Cosmetic; Dye; Preservative; Tannin; Teeth.

A decoction of the plant is impregnated into wood, rope etc to prevent it rotting in water[74]. The leaves contain about 12% tannin, the stems 10.5%, the flowers 13.7% and the roots 8.5%[218]. It is probably these tannins that preserve the wood etc[218].

The powdered plant is used cosmetically in face-packs to counteract reddened skin[7].

Cultivation details

Succeeds in ordinary garden soil, especially if it is damp[1]. Prefers a neutral to alkaline soil[238]. Grows well in heavy clay soils. Grows well in marshy soils[24] and succeeds in shallow water at the edges of ponds[56]. Succeeds in full sun or partial shade[188].

A very hardy plant, tolerating temperatures down to at least -25°c[187].

A very ornamental plant[1]. A good bee and butterfly plant[24].

Plants usually self-sow when well sited[200].

Propagation

Seed - sow in the autumn or the spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

If you have sufficient seed it could be worthwhile trying a sowing in situ in the autumn or the spring.

Division in March or October[188]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Basal cuttings in the spring[238]. Harvest the shoots with plenty of underground stem when they are about 8 - 10cm above the ground. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Lythrum salicaria* (purple loosestrife)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Lythrum salicaria*

Subject:

Lythrum salicaria

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lythrum salicaria

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Mirabilis jalapa

Common name:	Marvel of Peru	Family:	Nyctaginaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	S. America - Peru. Naturalized in France and possibly other places in Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	M. jalapa ssp. lindheimeri[B,P] M. lindheimeri[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	mirabilis = wonderful, marvelous, extraordinary; mira = marvelous;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Four o'clock family

Other Range Info:	From the Ethnobotany Database
	Africa; China; Dominican Republic; Haiti; Hawaii; India; Iraq; Japan; Java; Malaya; Mexico; Pakistan; Spain; Turkey; Us; Venezuela; Wi

Physical Characteristics

Perennial growing to 0.6m by 0.45m . It is hardy to zone 8 and is frost tender. It is in flower from July to October, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves.

Leaves - cooked[105, 183]. An emergency food, only eaten when all else fails[177].

An edible crimson dye is obtained from the flowers[46, 61, 105, 177]. It is used for colouring cakes and jellies[183].

The seed is crushed and used as a pepper substitute[105, 177, 183].

Medicinal Uses

Disclaimer

Diuretic; Purgative; Vulnerary.

The root is aphrodisiac, diuretic and purgative. It is used in the treatment of dropsy[46, 61, 154, 218, 240].

The leaves are used to reduce inflammation[240]. A decoction of them is used to treat abscesses[218]. The leaf juice is used to treat wounds[218].

Other Uses

Cosmetic; Dye.

The powdered seed is used as a cosmetic[46, 61].

Cultivation details

Succeeds in almost any ordinary garden soil[1]. Prefers a fertile well-drained soil in full sun or part day shade[200].

This species is not very hardy in Britain. The top growth is cut back by frost but the tuber survives the winter outdoors if the temperature does not fall much below -5°c, a good mulch would be beneficial[200]. Tubers can be lifted and stored over winter in a cool frost free place in the same way that dahlia tubers are stored[1, 200]. The marvel of Peru is usually grown as a half-hardy annual in temperate zones, it flowers freely in its first year[200]. Plants also self-sow freely in warmer areas (these seedlings can be easily transplanted) and they can become a weed in such situations due to their deep rooting habit[200].

The flowers are sweetly scented and do not open until the afternoon[233].

The young growth is particularly susceptible to aphis infestation[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow spring in a greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in early summer, after the last expected frosts. The seed remains viable for several years[196].

Division in spring as the plant comes into growth[200].

Scent

Flowers: Fresh

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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References

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Plants For A Future: Database Search Results

Mirabilis jalapa

Common name:	Marvel of Peru	Family:	Nyctaginaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	S. America - Peru. Naturalized in France and possibly other places in Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	Order: Caryophyllales . Four o'clock family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Perennial growing to 0.6m by 0.45m . It is hardy to zone 8 and is frost tender. It is in flower from July to October, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

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Habitat:	Not known		
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Physical Characteristics

Perennial growing to 0.6m by 0.45m . It is hardy to zone 8 and is frost tender. It is in flower from July to October, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves.

Leaves - cooked[105, 183]. An emergency food, only eaten when all else fails[177].

An edible crimson dye is obtained from the flowers[46, 61, 105, 177]. It is used for colouring cakes and jellies[183].

The seed is crushed and used as a pepper substitute[105, 177, 183].

Medicinal Uses

Disclaimer

Diuretic; Purgative; Vulnerary.

The root is aphrodisiac, diuretic and purgative. It is used in the treatment of dropsy[46, 61, 154, 218, 240].

The leaves are used to reduce inflammation[240]. A decoction of them is used to treat abscesses[218]. The leaf juice is used to treat wounds[218].

Other Uses

Cosmetic; Dye.

The powdered seed is used as a cosmetic[46, 61].

Cultivation details

Succeeds in almost any ordinary garden soil[1]. Prefers a fertile well-drained soil in full sun or part day shade[200].

This species is not very hardy in Britain. The top growth is cut back by frost but the tuber survives the winter outdoors if the temperature does not fall much below -5°c, a good mulch would be beneficial[200]. Tubers can be lifted and stored over winter in a cool frost free place in the same way that dahlia tubers are stored[1, 200]. The marvel of Peru is usually grown as a half-hardy annual in temperate zones, it flowers freely in its first year[200]. Plants also self-sow freely in warmer areas (these seedlings can be easily transplanted) and they can become a weed in such situations due to their deep rooting habit[200].

The flowers are sweetly scented and do not open until the afternoon[233].

The young growth is particularly susceptible to aphis infestation[200].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow spring in a greenhouse. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in early summer, after the last expected frosts. The seed remains viable for several years[196].

Division in spring as the plant comes into growth[200].

Scent

Flowers: Fresh

> The flowers are sweetly scented and do not open until the afternoon[245].

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Mirabilis jalapa*

Subject:

Mirabilis jalapa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Mirabilis jalapa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Onopordum acanthium

Common name:	Scotch thistle	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Waste places and arable land, especially on chalky and sandy soils, avoiding shade[4, 9]. Also found on slightly acid soils[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Onopordon acanthium[HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Acanto Bastardo [E], Acanzio [E], Cardo Asinino [E], Cardo Borriquero [E], Cardo Timonero [E], Chardon Aux Anes [E], Cotton Thistle [L,E], Eselsdistel [E], Krebsdistel [E], Schotse Distel [E], Scotch Cottonthistle [P], Scotch Thistle [L,H,E], Scotch-thistle [B], Toba [E], Tobah [E], Wegdistel [D,E],
Epithets:	From a Dictionary of Botanical Epithets
	acanthium = spiny;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Britain; France; Germany; Iraq; Italy; Netherlands; Portugal; Spain

Physical Characteristics

Biennial growing to 1.5m by 1m at a slow rate. It is hardy to zone 6. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves; Oil; Stem.

Flower buds - cooked. A globe artichoke substitute[2, 4, 9, 115, 183], though they are much smaller and very fiddly to use[K].

Stems - cooked. Used as a vegetable, they are a cardoon (Cynara cardunculus) substitute[2, 4]. The stems are cooked in water like asparagus or rhubarb[12]. They are best if the rind is removed[4, 115, 183].

Leaves and young plants - cooked[9, 105]. They are harvested before the flowers develop and the prickles must be removed prior to cooking[9].

The petals are an adulterant for saffron[46, 61, 105, 183], used as a yellow food colouring and flavouring.

A good quality edible oil is obtained from the seed[2, 4, 183]. The seed contains about 25% oil[4].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiotonic.

The flowering plant is cardiotonic[9]. It is used in some proprietary heart medicines[9].

The juice of the plant has been used with good effect in the treatment of cancers and ulcers[4].

A decoction of the root is astringent[4]. It is used to diminish discharges from mucous membranes[4].

Other Uses

Oil; Stuffing.

The stem hairs are sometimes collected and used to stuff pillows[4].

An oil obtained from the seed is used as a fuel for lamps[4].

Cultivation details

An easily grown plant, it succeeds in almost any ordinary garden soil[1, 111]. Requires a well-drained soil, preferably in full sun though it tolerates light shade[200]. Prefers a slightly alkaline soil[200]. Grows very well in poor soils, succeeding in hot dry situations and tolerating drought when it is established[190]. A slow-growing plant[188].

Hardy to about -15°c[200].

A very ornamental plant[1], the flowers are very attractive to bees[200]. Plants are prone to slug and snail damage[188].

Often self-sows, sometimes to the point of nuisance, though the seedlings can easily be hoed out and can also be transplanted if they are moved whilst still small[200].

Propagation

Seed - sow spring in situ[200]. The seed can also be sown in situ in autumn[200].

If the seed is in short supply then it can be sown in a pot in the greenhouse in the spring. Prick out the seedlings into individual pots as soon as they are large enough to handle and plant them out into their permanent positions in early summer.

Suppliers

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Web References

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References for *Onopordon acanthium* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

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Plants For A Future: Database Search Results

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Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Waste places and arable land, especially on chalky and sandy soils, avoiding shade[4, 9]. Also found on slightly acid soils[200].		
Plants For A Future Rating (1-5):	2		

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Other Range Info:	From the Ethnobotany Database
	Britain; France; Germany; Iraq; Italy; Netherlands; Portugal; Spain

Physical Characteristics

Biennial growing to 1.5m by 1m at a slow rate. It is hardy to zone 6. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves; Oil; Stem.

Flower buds - cooked. A globe artichoke substitute[2, 4, 9, 115, 183], though they are much smaller and very fiddly to use[K].

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Stems - cooked. Used as a vegetable, they are a cardoon (Cynara cardunculus) substitute[2, 4]. The stems are cooked in water like asparagus or rhubarb[12]. They are best if the rind is removed[4, 115, 183].

Leaves and young plants - cooked[9, 105]. They are harvested before the flowers develop and the prickles must be removed prior to cooking[9].

The petals are an adulterant for saffron[46, 61, 105, 183], used as a yellow food colouring and flavouring.

A good quality edible oil is obtained from the seed[2, 4, 183]. The seed contains about 25% oil[4].

Medicinal Uses

Disclaimer

Astringent; Cancer; Cardiotonic.

The flowering plant is cardiotonic[9]. It is used in some proprietary heart medicines[9].

The juice of the plant has been used with good effect in the treatment of cancers and ulcers[4].

A decoction of the root is astringent[4]. It is used to diminish discharges from mucous membranes[4].

Other Uses

Oil; Stuffing.

The stem hairs are sometimes collected and used to stuff pillows[4].

An oil obtained from the seed is used as a fuel for lamps[4].

Cultivation details

An easily grown plant, it succeeds in almost any ordinary garden soil[1, 111]. Requires a well-drained soil, preferably in full sun though it tolerates light shade[200]. Prefers a slightly alkaline soil[200]. Grows very well in poor soils, succeeding in hot dry situations and tolerating drought when it is established[190]. A slow-growing plant[188].

Hardy to about -15°c[200].

A very ornamental plant[1], the flowers are very attractive to bees[200]. Plants are prone to slug and snail damage[188].

Often self-sows, sometimes to the point of nuisance, though the seedlings can easily be hoed out and can also be transplanted if they are moved whilst still small[200].

Propagation

Seed - sow spring in situ[200]. The seed can also be sown in situ in autumn[200].

If the seed is in short supply then it can be sown in a pot in the greenhouse in the spring. Prick out the seedlings into individual pots as soon as they are large enough to handle and plant them out into their permanent positions in early summer.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List](#) or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Onopordum acanthium*

Subject:

Onopordum acanthium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Onopordum acanthium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Papaver rhoeas

Common name:	Corn poppy	Family:	Papaveraceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	This plant is toxic to mammals, though the toxicity is low[76]. The seed is not toxic[76].		
Range:	Britain.		
Habitat:	A common weed of cultivated land and waste places, avoiding acid soils[17]. Becoming far less frequent on cultivated land due to modern agricultural practices.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Amapola [E], Bon Garaoune [E], Common Poppy [L], Coquelot [E], Corn Poppy [H,P,L,B], Gelincik [E], Grote Klaproos [D], Hina-Gesi [E], Khash Khash [E], Li Ch'Un Ts'Ao [E], Pavot [E], Pavot Rouge [E], Poppy [E], Poppy, Red [S], Poppy,Corn [E], Red Poppy [H,S], Shirley Poppies [H],
Systematics:	From a UDSA Plants Database
	Order: Papaverales . Poppy family
Other Range Info:	From the Ethnobotany Database
	Chile; China; Dominican Republic; Egypt; Europe; Haiti; India; Iraq; Japan; Morocco; Spain; Turkey

Physical Characteristics

Annual growing to 0.6m by 0.15m . It is hardy to zone 5 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves; Oil; Seed.

Seed - raw or cooked. Much used as a flavouring in cakes, bread, fruit salads etc[4, 5, 21, 183], it imparts a very nice nutty flavour[K]. The seeds are rather small, but they are contained in fairly large seed pods and so are easy to harvest. The seeds are perfectly safe to eat, containing none of the alkaloids associated with other parts of the plant[238].

Leaves - raw or cooked[7, 52]. Used like spinach or as a flavouring in soups and salads[132, 183]. The leaves should not be used after the flower buds have formed[7]. Some caution is advised, see the notes above on toxicity.

An edible oil is obtained from the seed[2, 4]. Said to be an excellent substitute for olive oil[4, 183], it can be used in salad dressings or for cooking[2].

A syrup can be prepared from the scarlet flower petals, it is used in soups, gruels etc[4, 183].

A red dye from the petals is used as a food flavouring, especially in wine[183].

Medicinal Uses

Disclaimer

Anodyne; Cancer; Emmenagogue; Emollient; Expectorant; Hypnotic; Sedative; Tonic.

The flowers of corn poppy have a long history of medicinal usage, especially for ailments in the elderly and children[244, 254]. Chiefly employed as a mild pain reliever and as a treatment for irritable coughs, it also helps to reduce nervous over-activity[254]. Unlike the related opium poppy

(P. somniferum) it is non-addictive[244]. However, the plant does contain alkaloids, which are still under investigation, and so should only be used under the supervision of a qualified herbalist[244].

The flowers and petals are anodyne, emollient, emmenagogue, expectorant, hypnotic, slightly narcotic and sedative[4, 7, 9, 13, 46, 53]. An infusion is taken internally in the treatment of bronchial complaints and coughs, insomnia, poor digestion, nervous digestive disorders and minor painful conditions[9, 238]. The flowers are also used in the treatment of jaundice[218]. The petals are harvested as the flowers open and are dried for later use[238]. They should be collected on a dry day and can be dried or made into a syrup[4].

The latex in the seedpods is narcotic and slightly sedative[240]. It can be used in very small quantities, and under expert supervision, as a sleep-inducing drug[7].

The leaves and seeds are tonic[240]. They are useful in the treatment of low fevers[240].

The plant has anticancer properties[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Ink; Pot-pourri.

A red dye is obtained from the flowers[7, 46, 61], though it is very fugitive[4]. A syrup made from the petals has been used as a colouring matter for old inks[4, 13, 89].

The red petals are used to add colour to pot-pourri[238].

Cultivation details

Prefers a well-drained sandy loam in a sunny position[1, 200]. Does not do well on wet clay soils but succeeds in most other soils[115].

Plants usually self-sow freely when growing in suitable conditions so long as the soil surface is disturbed[238].

There are several named varieties selected for their ornamental value[200].

A polymorphic species, varying in leaf shape and flower colour[17].

When growing in cereal fields, poppies decrease the yields of nearby cereal plants[18, 20].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

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Seed - sow spring or autumn in situ[200].

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> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

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Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31

A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Papaver rhoeas

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Physical Characteristics

Annual growing to 0.6m by 0.15m . It is hardy to zone 5 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

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Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves; Oil; Seed.

Seed - raw or cooked. Much used as a flavouring in cakes, bread, fruit salads etc[4, 5, 21, 183], it imparts a very nice nutty flavour[K]. The seeds are rather small, but they are contained in fairly large seed pods and so are easy to harvest. The seeds are perfectly safe to eat, containing none of the alkaloids associated with other parts of the plant[238].

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[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
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[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

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Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Papaver rhoeas

Common name:	Corn poppy	Family:	Papaveraceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	This plant is toxic to mammals, though the toxicity is low[76]. The seed is not toxic[76].		
Range:	Britain.		
Habitat:	A common weed of cultivated land and waste places, avoiding acid soils[17]. Becoming far less frequent on cultivated land due to modern agricultural practices.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Amapola [E], Bon Garaoune [E], Common Poppy [L], Coquelot [E], Corn Poppy [H,P,L,B], Gelincik [E], Grote Klaproos [D], Hina-Gesi [E], Khash Khash [E], Li Ch'Un Ts'Ao [E], Pavot [E], Pavot Rouge [E], Poppy [E], Poppy, Red [S], Poppy,Corn [E], Red Poppy [H,S], Shirley Poppies [H],
Systematics:	From a UDSA Plants Database
	Order: Papaverales . Poppy family
Other Range Info:	From the Ethnobotany Database
	Chile; China; Dominican Republic; Egypt; Europe; Haiti; India; Iraq; Japan; Morocco; Spain; Turkey

Physical Characteristics

Annual growing to 0.6m by 0.15m . It is hardy to zone 5 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Flowers; Leaves; Oil; Seed.

Seed - raw or cooked. Much used as a flavouring in cakes, bread, fruit salads etc[4, 5, 21, 183], it imparts a very nice nutty flavour[K]. The seeds are rather small, but they are contained in fairly large seed pods and so are easy to harvest. The seeds are perfectly safe to eat, containing none of the alkaloids associated with other parts of the plant[238].

Leaves - raw or cooked[7, 52]. Used like spinach or as a flavouring in soups and salads[132, 183]. The leaves should not be used after the flower buds have formed[7]. Some caution is advised, see the notes above on toxicity.

An edible oil is obtained from the seed[2, 4]. Said to be an excellent substitute for olive oil[4, 183], it can be used in salad dressings or for cooking[2].

A syrup can be prepared from the scarlet flower petals, it is used in soups, gruels etc[4, 183].

A red dye from the petals is used as a food flavouring, especially in wine[183].

Medicinal Uses

Disclaimer

Anodyne; Cancer; Emmenagogue; Emollient; Expectorant; Hypnotic; Sedative; Tonic.

The flowers of corn poppy have a long history of medicinal usage, especially for ailments in the elderly and children[244, 254]. Chiefly employed as a mild pain reliever and as a treatment for irritable coughs, it also helps to reduce nervous over-activity[254]. Unlike the related opium poppy (P. somniferum) it is non-addictive[244]. However, the plant does contain alkaloids, which are still under investigation, and so should only be used under the supervision of a qualified herbalist[244].

The flowers and petals are anodyne, emollient, emmenagogue, expectorant, hypnotic, slightly narcotic and sedative[4, 7, 9, 13, 46, 53]. An infusion is taken internally in the treatment of bronchial complaints and coughs, insomnia, poor digestion, nervous digestive disorders and minor painful conditions[9, 238]. The flowers are also used in the treatment of jaundice[218]. The petals are harvested as the flowers open and are dried for later use[238]. They should be collected on a dry day and can be dried or made into a syrup[4].

The latex in the seedpods is narcotic and slightly sedative[240]. It can be used in very small quantities, and under expert supervision, as a sleep-inducing drug[7].

The leaves and seeds are tonic[240]. They are useful in the treatment of low fevers[240].

The plant has anticancer properties[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Ink; Pot-pourri.

A red dye is obtained from the flowers[7, 46, 61], though it is very fugitive[4]. A syrup made from the petals has been used as a colouring matter for old inks[4, 13, 89].

The red petals are used to add colour to pot-pourri[238].

Cultivation details

Prefers a well-drained sandy loam in a sunny position[1, 200]. Does not do well on wet clay soils but succeeds in most other soils[115].

Plants usually self-sow freely when growing in suitable conditions so long as the soil surface is disturbed[238].

There are several named varieties selected for their ornamental value[200].

A polymorphic species, varying in leaf shape and flower colour[17].

When growing in cereal fields, poppies decrease the yields of nearby cereal plants[18, 20].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - sow spring or autumn in situ[200].

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Papaver rhoeas*

Subject:

Papaver rhoeas

Group:
Plant Information

Comment:

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Papaver rhoeas

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Perilla frutescens

Common name:	Shiso	Family:	Labiatae
Author:	(L.) Britt.	Botanical references:	58, 200
Synonyms:	Perilla ocimoides (L.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, India.		
Habitat:	Hills and mountains of central and southern Japan[58]. Sunny and fertile situations in China[147].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dentidia nankinensis[G] Ocimum frutescens[G] P. arguta[G,P] P. frutescens var. japonica[G] P. nankinensis[G] P. ocymoides[E,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aka Shiso [H], Ao Shiso [H], Beefsteakplant [B,P], Ji Soo [H], Kuei Jen [E], Nd [E], Pai Su [E], Perilla [H,S], Purple Perilla [H], Shiso [H], Tsu Su [E],
Epithets:	From a Dictionary of Botanical Epithets
	frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Annual/Perennial growing to 0.6m by 0.3m . It is hardy to zone 8 and is frost tender. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Flowers; Leaves; Oil; Seed.

Edible young leaves and seedlings - raw or cooked[46, 116, 178, 183]. The flavour is strange to western palates at first, some people detecting cinnamon, others coriander or citrus[206]. Seedlings are added to salads, older leaves are used as a garnish or flavouring[206]. Older leaves are also salted and used as a condiment for tofu and as a garnish for tempura[183]. Leaves from purple cultivars are used to colour preserved fruits[238]. The leaves can also be dried for later use[206]. The leaves contain about 3.1% protein, 0.8% fat, 4.1% carbohydrate, 1.1% ash[179].

Immature flower clusters are used as a garnish for soups and chilled tofu[183]. Older flower clusters are fried and eaten[183].

The seeds are preserved in salt or are used as a spice in pickles, tempura and miso[183, 206]. They are one of the ingredients in 'Shichimi' or 'seven spice' mixture[206]. The seed can also be eaten cooked[105, 178]. Seeds from purple-leafed forms of the plant are preferred for culinary use[238]. The seed contains about 21.5% protein, 43.4% fat, 11.3% carbohydrate, 4.4% ash[179].

An edible drying oil is obtained from the seed[46, 171, 183]. It is rich in linolenic acid[57].

The plant yields an essential oil which is used as a food flavouring in candies and sauces[183].

Medicinal Uses

Disclaimer

Antiasthmatic; Antibacterial; Antidote; Antipyretic; Antiseptic; Antispasmodic; Antitussive; Aromatic; Carminative; Diaphoretic; Emollient; Expectorant; Pectoral; Stomachic; Tonic.

The leaves, stems and seeds of shiso are often used in Oriental medicine. It is a pungent, aromatic, warming herb that is antibacterial, antidote, antipyretic, antiseptic, antispasmodic, antitussive, aromatic, carminative, diaphoretic, emollient, expectorant, pectoral, stomachic and tonic[116, 147, 174, 176, 218, 238].

The leaves are used in the treatment of colds, chest stuffiness, vomiting, abdominal pain etc[176].

The seed is antiasthmatic, antitussive, emollient and expectorant[176]. It is used internally in the treatment of asthma, colds and chills, nausea, abdominal pain, food poisoning and allergic reactions (especially from seafood), bronchitis and constipation[218, 238].

The stems are a traditional Chinese remedy for morning sickness[238].].

This herb should be avoided by pregnant women[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Oil.

A drying oil obtained from the seed is used in making paints, varnishes, water proofing etc[46, 57, 105, 171, 238].

The plant yields 0.3 - 1.3% essential oil, which contains 20% citral[240]. It is used as a food flavouring and in dental products[238].

Cultivation details

Prefers a light soil[1, 206]. Requires a rich well-drained moisture-retentive soil in full sun[200]. Plants require a well-drained soil but do not need particularly fertile soil[206]. Prefers an acid soil with a pH between 5.5 and 6[206].

The plant is not frost hardy and requires temperatures above 18°c if it is to grow well[206]. The plant requires short days in order to flower[206].

Shiso is often cultivated in the Orient as a food flavouring. There are some named varieties, those with purple leaves being preferred for seed production[183, 206, 238]. Shiso is also cultivated for the oil obtained from its seed[50, 171]. It is sometimes used in sub-tropical bedding schemes in Britain[1].

Propagation

Surface-sow or only lightly cover the seed in mid spring in a greenhouse. The seed germinates best at 20°c, though it also succeeds at slightly lower temperatures[206]. Germination is usually quick, prick out the seedlings into trays or individual pots when they are large enough to handle and plant them out into their permanent positions in early summer[200, K]. Give the plants some protection such as a cloche until they are growing away well. The seed has a short viability and should be used when less than a year old[206].

Scent

Leaves:

No details on scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Perilla ocymoides* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *perilla frutescens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese

methods.

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Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

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A translation of an ancient Chinese book on edible wild foods. Fascinating.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Name of Site:	
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Details:	

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Perilla frutescens

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Range:	E. Asia - China, Japan, India.		
Habitat:	Hills and mountains of central and southern Japan[58]. Sunny and fertile situations in China[147].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dentidia nankinensis[G] Ocimum frutescens[G] P. arguta[G,P] P. frutescens var. japonica[G] P. nankinensis[G] P. ocymoides[E,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aka Shiso [H], Ao Shiso [H], Beefsteakplant [B,P], Ji Soo [H], Kuei Jen [E], Nd [E], Pai Su [E], Perilla [H,S], Purple Perilla [H], Shiso [H], Tsu Su [E],
Epithets:	From a Dictionary of Botanical Epithets
	frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Annual/Perennial growing to 0.6m by 0.3m . It is hardy to zone 8 and is frost tender. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Flowers; Leaves; Oil; Seed.

Edible young leaves and seedlings - raw or cooked[46, 116, 178, 183]. The flavour is strange to western palates at first, some people detecting cinnamon, others coriander or citrus[206]. Seedlings are added to salads, older leaves are used as a garnish or flavouring[206]. Older leaves are also salted and used as a condiment for tofu and as a garnish for tempura[183]. Leaves from purple cultivars are used to colour preserved fruits[238]. The leaves can also be dried for later use[206]. The leaves contain about 3.1% protein, 0.8% fat, 4.1% carbohydrate, 1.1% ash[179].

Immature flower clusters are used as a garnish for soups and chilled tofu[183]. Older flower clusters are fried and eaten[183].

The seeds are preserved in salt or are used as a spice in pickles, tempura and miso[183, 206]. They are one of the ingredients in 'Shichimi' or 'seven spice' mixture[206]. The seed can also be eaten cooked[105, 178]. Seeds from purple-leafed forms of the plant are preferred for culinary use[238]. The seed contains about 21.5% protein, 43.4% fat, 11.3% carbohydrate, 4.4% ash[179].

An edible drying oil is obtained from the seed[46, 171, 183]. It is rich in linolenic acid[57].

The plant yields an essential oil which is used as a food flavouring in candies and sauces[183].

Medicinal Uses

Disclaimer

Antiasthmatic; Antibacterial; Antidote; Antipyretic; Antiseptic; Antispasmodic; Antitussive; Aromatic; Carminative; Diaphoretic; Emollient; Expectorant; Pectoral; Stomachic; Tonic.

The leaves, stems and seeds of shiso are often used in Oriental medicine. It is a pungent, aromatic, warming herb that is antibacterial, antidote, antipyretic, antiseptic, antispasmodic, antitussive, aromatic, carminative, diaphoretic, emollient, expectorant, pectoral, stomachic and tonic[116, 147, 174, 176, 218, 238].

The leaves are used in the treatment of colds, chest stuffiness, vomiting, abdominal pain etc[176].

The seed is antiasthmatic, antitussive, emollient and expectorant[176]. It is used internally in the treatment of asthma, colds and chills, nausea, abdominal pain, food poisoning and allergic reactions (especially from seafood), bronchitis and constipation[218, 238].

The stems are a traditional Chinese remedy for morning sickness[238].].

This herb should be avoided by pregnant women[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Oil.

A drying oil obtained from the seed is used in making paints, varnishes, water proofing etc[46, 57, 105, 171, 238].

The plant yields 0.3 - 1.3% essential oil, which contains 20% citral[240]. It is used as a food flavouring and in dental products[238].

Cultivation details

Prefers a light soil[1, 206]. Requires a rich well-drained moisture-retentive soil in full sun[200]. Plants require a well-drained soil but do not need particularly fertile soil[206]. Prefers an acid soil with a pH between 5.5 and 6[206].

The plant is not frost hardy and requires temperatures above 18°c if it is to grow well[206]. The plant requires short days in order to flower[206].

Shiso is often cultivated in the Orient as a food flavouring. There are some named varieties, those with purple leaves being preferred for seed production[183, 206, 238]. Shiso is also cultivated for the oil obtained from its seed[50, 171]. It is sometimes used in sub-tropical bedding schemes in Britain[1].

Propagation

Surface-sow or only lightly cover the seed in mid spring in a greenhouse. The seed germinates best at 20°c, though it also succeeds at slightly lower temperatures[206]. Germination is usually quick, prick out the seedlings into trays or individual pots when they are large enough to handle and plant them out into their permanent positions in early summer[200, K]. Give the plants some protection such as a cloche until they are growing away well. The seed has a short viability and should be used when less than a year old[206].

Scent

Leaves:

No details on scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Perilla ocymoides* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *perilla frutescens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[174] **Kariyone. T.** *Atlas of Medicinal Plants.*
A good Japanese herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese

Medicine, Los Angeles 1985
A very good Chinese herbal.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Perilla+frutescens`
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Plants For A Future: Database Search Results

Perilla frutescens

Common name:	Shiso	Family:	Labiatae
Author:	(L.) Britt.	Botanical references:	58, 200
Synonyms:	Perilla ocimoides (L.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, India.		
Habitat:	Hills and mountains of central and southern Japan[58]. Sunny and fertile situations in China[147].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dentidia nankinensis[G] Ocimum frutescens[G] P. arguta[G,P] P. frutescens var. japonica[G] P. nankinensis[G] P. ocymoides[E,P]
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Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

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Habitats and Possible Locations

Cultivated Beds.

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Colouring; Condiment; Flowers; Leaves; Oil; Seed.

Edible young leaves and seedlings - raw or cooked[46, 116, 178, 183]. The flavour is strange to western palates at first, some people detecting cinnamon, others coriander or citrus[206]. Seedlings are added to salads, older leaves are used as a garnish or flavouring[206]. Older leaves are also salted and used as a condiment for tofu and as a garnish for tempura[183]. Leaves from purple cultivars are used to colour preserved fruits[238]. The leaves can also be dried for later use[206]. The leaves contain about 3.1% protein, 0.8% fat, 4.1% carbohydrate, 1.1% ash[179].

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Medicinal Uses

Disclaimer

Antiasthmatic; Antibacterial; Antidote; Antipyretic; Antiseptic; Antispasmodic; Antitussive; Aromatic; Carminative; Diaphoretic; Emollient; Expectorant; Pectoral; Stomachic; Tonic.

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Shiso is often cultivated in the Orient as a food flavouring. There are some named varieties, those with purple leaves being preferred for seed production[183, 206, 238]. Shiso is also cultivated for the oil obtained from its seed[50, 171]. It is sometimes used in sub-tropical bedding schemes in Britain[1].

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Surface-sow or only lightly cover the seed in mid spring in a greenhouse. The seed germinates best at 20°c, though it also succeeds at slightly lower temperatures[206]. Germination is usually quick, prick out the seedlings into trays or individual pots when they are large enough to handle and plant them out into their permanent positions in early summer[200, K]. Give the plants some protection such as a cloche until they are growing away well. The seed has a short viability and should be used when less than a year old[206].

Scent

Leaves:

No details on scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Perilla frutescens*

Subject:

Perilla frutescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Perilla frutescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 03:44:29 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Perilla frutescens nankinensis

Common name:	Purple shiso	Family:	Labiatae
Author:	(Lour.) Britt.	Botanical references:	74, 200
Synonyms:	Perilla nankinensis, Perilla crispa ((Thunb.)Tan.), Perilla arguta (Benth.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Banks of streams and wet places[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dentidia nankinensis[G] Ocimum frutescens[G] P. frutescens[B,E,G,H,HPIC,HORTIPLEX,Spr,P] P. frutescens var. japonica[G] P. ocimoides[G] P. ocymoides[P]
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	Aka Shiso [H], Ao Shiso [H], Beefsteakplant [P,B], Ji Soo [H], Kuei Jen [E], Nd [E], Pai Su [E], Perilla [S,H], Purple Perilla [H], Shiroso [E], Shiso [H], Tsu Su [E],
Epithets:	From a Dictionary of Botanical Epithets
	frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Singapore

Physical Characteristics

Annual/Perennial growing to 0.6m by 0.3m . It is hardy to zone 8 and is frost tender. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

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Colouring; Condiment; Leaves; Oil; Seed.

Edible young leaves and seedlings - raw or cooked[46, 116, 178, 183]. The flavour is strange to western palates at first, some people detecting cinnamon, others coriander or citrus[206]. Seedlings are added to salads, older leaves are used as a garnish or flavouring[206]. Older leaves are also salted and used as a condiment for tofu and as a garnish for tempura[183]. Leaves from purple cultivars are used to colour preserved fruits[238]. The leaves can also be dried for later use[206]. The leaves contain about 3.1% protein, 0.8% fat, 4.1% carbohydrate, 1.1% ash[179].

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An edible drying oil is obtained from the seed[46, 171, 183]. It is rich in linolenic acid[57].

The plant yields an essential oil which is used as a food flavouring in candies and sauces[183].

An edible purple dye is obtained from the plant[2, 46, 61]. The part of the plant is not specified, but it is almost certainly the leaves[K].

Medicinal Uses

Disclaimer

Antibacterial; Antipyretic; Antispasmodic; Aromatic; Carminative; Diaphoretic; Emollient; Expectorant; Pectoral; Stomachic.

The leaves, stems and seeds of shiso are often used in Oriental medicine. It is a pungent, aromatic, warming herb that is antibacterial, antidote, antipyretic, antiseptic, antispasmodic, antitussive, aromatic, carminative, diaphoretic, emollient, expectorant, pectoral, stomachic and tonic[116, 147, 174, 176, 218, 238].

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The plant yields 0.3 - 1.3% essential oil, which contains 20% citral[240]. It is used as a food flavouring and in dental products[238].

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The plant is not frost hardy and requires temperatures above 18°c if it is to grow well[206]. The plant requires short days in order to flower[206].

Shiso is often cultivated in the Orient as a food flavouring. This is a very ornamental form of the plant with particularly deep red leaves[74, 206]. Shiso is also cultivated for the oil obtained from its seed[50, 171]. It is sometimes used in sub-tropical bedding schemes in Britain[1].

Propagation

Surface-sow or only lightly cover the seed in mid spring in a greenhouse. The seed germinates best at 20°c, though it also succeeds at slightly lower temperatures[206]. Germination is usually quick, prick out the seedlings into trays or individual pots when they are large enough to handle and plant them out into their permanent positions in early summer[200, K]. Give the plants some protection such as a cloche until they are growing away well. The seed has a short viability and should be used when less than a year old[206].

Scent

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No details on scent.

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Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
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References for *Perilla arguta* (a possible synonym).

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Plants For A Future: Database Search Results

Perilla frutescens nankinensis

Common name:	Purple shiso	Family:	Labiatae
Author:	(Lour.) Britt.	Botanical references:	74, 200
Synonyms:	Perilla nankinensis, Perilla crispa ((Thunb.)Tan.), Perilla arguta (Benth.)		
Known Hazards:	None known		
Range:	E. Asia - China.		
Habitat:	Banks of streams and wet places[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Dentidia nankinensis[G] Ocimum frutescens[G] P. frutescens[B,E,G,H,HPIC,HORTIPLEX,Spr,P] P. frutescens var. japonica[G] P. ocimoides[G] P. ocymoides[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aka Shiso [H], Ao Shiso [H], Beefsteakplant [P,B], Ji Soo [H], Kuei Jen [E], Nd [E], Pai Su [E], Perilla [S,H], Purple Perilla [H], Shiroso [E], Shiso [H], Tsu Su [E],
Epithets:	From a Dictionary of Botanical Epithets
	frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Singapore

Physical Characteristics

Annual/Perennial growing to 0.6m by 0.3m . It is hardy to zone 8 and is frost tender. It is in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Leaves; Oil; Seed.

Edible young leaves and seedlings - raw or cooked[46, 116, 178, 183]. The flavour is strange to western palates at first, some people detecting cinnamon, others coriander or citrus[206]. Seedlings are added to salads, older leaves are used as a garnish or flavouring[206]. Older leaves are also salted and used as a condiment for tofu and as a garnish for tempura[183]. Leaves from purple cultivars are used to colour preserved fruits[238]. The leaves can also be dried for later use[206]. The leaves contain about 3.1% protein, 0.8% fat, 4.1% carbohydrate, 1.1% ash[179].

Immature flower clusters are used as a garnish for soups and chilled tofu[183]. Older flower clusters are fried and eaten[183].

The seeds are preserved in salt or are used as a spice in pickles, tempura and miso[183, 206]. They are one of the ingredients in 'Shichimi' or 'seven spice' mixture[206]. The seed can also be eaten cooked[105, 178]. Seeds from purple-leafed forms of the plant are preferred for culinary use[238]. The seed contains about 21.5% protein, 43.4% fat, 11.3% carbohydrate, 4.4% ash[179].

An edible drying oil is obtained from the seed[46, 171, 183]. It is rich in linolenic acid[57].

The plant yields an essential oil which is used as a food flavouring in candies and sauces[183].

An edible purple dye is obtained from the plant[2, 46, 61]. The part of the plant is not specified, but it is almost certainly the leaves[K].

Medicinal Uses

Disclaimer

Antibacterial; Antipyretic; Antispasmodic; Aromatic; Carminative; Diaphoretic; Emollient; Expectorant; Pectoral; Stomachic.

The leaves, stems and seeds of shiso are often used in Oriental medicine. It is a pungent, aromatic, warming herb that is antibacterial, antidote, antipyretic, antiseptic, antispasmodic, antitussive, aromatic, carminative, diaphoretic, emollient, expectorant, pectoral, stomachic and tonic[116, 147, 174, 176, 218, 238].

The leaves are used in the treatment of colds, chest stuffiness, vomiting, abdominal pain etc[176].

The seed is antiasthmatic, antitussive, emollient and expectorant[176]. It is used internally in the treatment of asthma, colds and chills, nausea, abdominal pain, food poisoning and allergic reactions (especially from seafood), bronchitis and constipation[218, 238].

The stems are a traditional Chinese remedy for morning sickness[238].].

This herb should be avoided by pregnant women[222].

Other Uses

Essential; Oil.

A drying oil obtained from the seed is used in making paints, varnishes, water proofing etc[46, 57, 105, 171, 238].

The plant yields 0.3 - 1.3% essential oil, which contains 20% citral[240]. It is used as a food flavouring and in dental products[238].

Cultivation details

Prefers a light soil[1, 206]. Requires a rich well-drained moisture-retentive soil in full sun[200]. Plants require a well-drained soil but do not need particularly fertile soil[206]. Prefers an acid soil with a pH between 5.5 and 6[206].

The plant is not frost hardy and requires temperatures above 18°c if it is to grow well[206]. The plant requires short days in order to flower[206].

Shiso is often cultivated in the Orient as a food flavouring. This is a very ornamental form of the plant with particularly deep red leaves[74, 206]. Shiso is also cultivated for the oil obtained from its seed[50, 171]. It is sometimes used in sub-tropical bedding schemes in Britain[1].

Propagation

Surface-sow or only lightly cover the seed in mid spring in a greenhouse. The seed germinates best at 20°c, though it also succeeds at slightly lower temperatures[206]. Germination is usually quick, prick out the seedlings into trays or individual pots when they are large enough to handle and plant them out into their permanent positions in early summer[200, K]. Give the plants some protection such as a cloche until they are growing away well. The seed has a short viability and should be used when less than a year old[206].

Scent

Leaves:

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Propagation

Surface-sow or only lightly cover the seed in mid spring in a greenhouse. The seed germinates best at 20°c, though it also succeeds at slightly lower temperatures[206]. Germination is usually quick, prick out the seedlings into trays or individual pots when they are large enough to handle and plant them out into their permanent positions in early summer[200, K]. Give the plants some protection such as a cloche until they are growing away well. The seed has a short viability and should be used when less than a year old[206].

Scent

Leaves:

No details on scent.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Perilla frutescens nankinensis*

Subject:

Perilla frutescens nankinensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Perilla frutescens nankinensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:44:56 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Petroselinum crispum

Common name:	Parsley	Family:	Umbelliferae
Author:	(Mill.) Nyman.	Botanical references:	17, 200
Synonyms:	Petroselinum sativum (Hoffm.), Petroselinum hortense (Hoffm.), Carum petroselinum ((L.)Benth.&Hook.), Apium petroselinum (L.)		
Known Hazards:	Parsley is said to contain the alleged 'psychotroph' myristicine[218]. Although perfectly safe to eat and nutritious in amounts that are given in recipes, parsley is toxic in excess, especially when used as an essential oil[238].		
Range:	C. and S. Europe. Naturalized in Britain.		
Habitat:	Grassy waste places on walls and rocks[17], especially on limestone and near the coast[165].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Apium crispum[G] Apium hortense[H] P. vulgare[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Parsley [L], Curled Parsley [H], Garden Parsley [L], Ma'Danos [E], Maydanoz [E], Moss Curled Parsley [H], Parsley [H,P,E,B], Perejil [E], Persil [E], Persil Vert [E], Tuinpeterselie [D],
Epithets:	From a Dictionary of Botanical Epithets
	crispum = curly;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Other Range Info:	From the Ethnobotany Database
	Chile; Dominican Republic; Europe; France; Haiti; Iraq; Mexico; Paraguay; Spain; Turkey; Venezuela

Physical Characteristics

Biennial growing to 0.6m by 0.3m . It is not frost tender. It is in flower from June to August, and the seeds ripen from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, Walls.

Edible Uses

Colouring; Leaves; Tea.

Leaves - raw or cooked[2, 4, 5, 9, 16, 21, 27]. Parsley is frequently used as a garnish or as a flavouring in salads and many cooked dishes, but has too strong a flavour to be eaten in quantity for most palates. It is an ingredient of the herb mix 'bouquet garni'[244]. The leaves should be harvested regularly in order to encourage fresh growth and get maximum yields[244]. The leaves are difficult to dry but are easily frozen[200]. For drying they require a well-ventilated room that receives long hours of sunlight - the leaves need to be quite crisp if they are to store[245]. Very rich in iron, iodine and magnesium, parsley is also a good source of other minerals and the vitamins A, B and C[201, 244].

The stems can be dried and ground and used as a food colouring[183].

A tea is made from the fresh or dried leaves, it is rich in vitamin C[21, 183].

An essential oil is obtained mainly from the leaves - it is used as a commercial food flavouring[46]. The leaves yields about 1% essential oil, whilst about 6% is obtained from the seed[7]. Some caution is advised on the use of this plant, especially the essential oil. See the notes above on toxicity.

Medicinal Uses

Disclaimer

Antidandruff; Antispasmodic; Aperient; Birthing aid; Cancer; Carminative; Digestive; Diuretic; Emmenagogue; Expectorant; Galactofuge; Kidney; Odontalgic; Ophthalmic; Poultice; Skin; Stings; Stomachic; Tonic.

Parsley is a commonly grown culinary and medicinal herb that is often used as a domestic medicine. The fresh leaves are highly nutritious and can be considered a natural vitamin and mineral supplement in their own right[254]. The plants prime use is as a diuretic where it is effective in ridding the body of stones and in treating jaundice, dropsy, cystitis etc[4, 238]. It is also a good detoxifier, helping the body to get rid of toxins via the urine and therefore helping in the treatment of a wide range of diseases such as rheumatism[254]. The seed is a safe herb at normal doses, but in excess it can have toxic effects[254]. Parsley should not be used by pregnant women because it is used to stimulate menstrual flow and can therefore provoke a miscarriage[7, 238].

All parts of the plant can be used medicinally, the root is the part most often used though the seeds have a stronger action. Parsley is antidandruff, antispasmodic, aperient, carminative, digestive, diuretic, emmenagogue, expectorant, galactofuge, kidney, stomachic and tonic[4, 7, 9, 21, 165, 201, 238]. An infusion of the roots and seeds is taken after childbirth to promote lactation and help contract the uterus[238]. Parsley is also a mild laxative and is useful for treating anaemia and convalescents[244].

Caution is advised on the internal use of this herb, especially in the form of the essential oil. Excessive doses can cause liver and kidney damage, nerve inflammation and gastro-intestinal haemorrhage[238]. It should not be prescribed for pregnant women or people with kidney diseases[238].

A poultice of the leaves has been applied externally to soothe bites and stings[4, 7], it is also said to be of value in treating tumours of a cancerous nature[4]. It has been used to treat eye infections, whilst a wad of cotton soaked in the juice will relieve toothache or earache[244]. It is also said to prevent hair loss and to make freckles disappear[244].

If the leaves are kept close to the breasts of a nursing mother for a few days, the milk flow will cease[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hair; Repellent.

A good companion plant, repelling insects from nearby plants[20, 54]. The juice is an effective mosquito repellent when it is rubbed into the skin and is also used to relieve the pain of stings and bites[7, 244].

An essential oil obtained from the plant is used in perfumeries for men[238].

An infusion of the leaves is an excellent rinse for dark hair and also helps in the treatment of dandruff[201].

Cultivation details

Prefers a moist well-drained soil in sun or partial shade[4, 16, 31, 37, 52, 200]. Prefers a good light soil that is not too light or acid[1], growing poorly in light acid soils[200].

Parsley is commonly cultivated for its edible leaves[46], there are many named varieties[183]. Three main groups of varieties have developed over a period of time and these have been grouped into subspecies as detailed below:-

P. crispum crispum. The curly leafed forms of parsley. This is the more ornamental form, especially when used as a dressing in salads, cooked meals etc. It also has a milder flavour. However the curly leaves tend to hold on to surface water and so they are more likely to contract fungal diseases in the winter.

P. crispum neapolitanum Danert. Italian parsley. This has flat, or plain leaves and is considered to have a stronger flavour. This group is also hardier, in part at least because the leaves can shed water easily.

P. crispum tuberosum (Bernh.)Crov. Hamburg parsley is a very distinct form with a swollen root that is used as a vegetable. The leaves are not of such good quality as the preceding forms, but can still be used as a flavouring.

Parsley is fairly winter-hardy, though it usually dies down in the cold weather, coming back into growth in early spring. By moving some plants into a protected area such as a greenhouse in the winter, or by putting a frame around them, leaves can usually be made available all winter[200].

Parsley has a long history of use. The ancient Greeks believed that it sprang from the blood of Archemorus, the forerunner of death, and so did not eat it but used it for making wreaths to adorn the dead[244]. The Romans wore garlands of it at feasts in the belief that it would prevent intoxication[244]. They kept it away from nursing mothers, however, believing that it could cause epilepsy in the infant[244].

Parsley is superficially similar to several poisonous species, including Fool's Parsley (Aethusa cynapium)[244]. Great care should be exercised if harvesting the plant from the wild[7, 244].

A good bee plant[18, 20, 201].

A good companion plant, especially for growing near roses, tomatoes, carrots, chives and asparagus[18, 20, 54, 201], giving them all added vigour and protection against certain pests, especially carrot root fly and rose beetles[201].

Propagation

Seed - Three sowings can provide a year round supply of fresh leaves.

The first sowing is made in a greenhouse in late winter. Prick out the seedlings into individual pots when they are large enough to handle and plant them out in mid to late spring.

The second sowing is made outdoors in situ in the middle of spring and the third is also made in situ outdoors, this time in mid to late summer[1, 134].

Germination usually takes place in about 7 days at 25°c, though it can take 4 - 6 weeks[200]. Germination time can be reduced by pre-soaking the seed for 12 hours in hot water that is allowed to cool quickly, but be careful not to overdo the heat and cook the seed. The seed remains viable in normal storage for 2 - 3 years.

Scent

Seed: Fresh Crushed Dried

> The seed is aromatic[45].

Leaves: Crushed

> The leaves are aromatic.

Cultivars

'Dwarf Green'

> This is said to be the best cultivar for use as a garnish[245]. It is a plant of compact habit with extremely dark-green densely curled leaves[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Apium petroselinum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Carum petroselinum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Petroselinum hortense* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Petroselinum sativum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *petroselinum crispum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Name of Site:
URL for Site: http://
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Petroselinum crispum

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Author:	(Mill.) Nyman.	Botanical references:	17, 200
Synonyms:	Petroselinum sativum (Hoffm.), Petroselinum hortense (Hoffm.), Carum petroselinum ((L.)Benth.&Hook.), Apium petroselinum (L.)		
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Plants For A Future Rating (1-5):	4		

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Cultivated Beds, Walls.

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Parsley is fairly winter-hardy, though it usually dies down in the cold weather, coming back into growth in early spring. By moving some plants into a protected area such as a greenhouse in the winter, or by putting a frame around them, leaves can usually be made available all winter[200].

Parsley has a long history of use. The ancient Greeks believed that it sprang from the blood of Archemorus, the forerunner of death, and so did not eat it but used it for making wreaths to adorn the dead[244]. The Romans wore garlands of it at feasts in the belief that it would prevent intoxication[244]. They kept it away from nursing mothers, however, believing that it could cause epilepsy in the infant[244].

Parsley is superficially similar to several poisonous species, including Fool's Parsley (Aethusa cynapium)[244]. Great care should be exercised if harvesting the plant from the wild[7, 244].

A good bee plant[18, 20, 201].

A good companion plant, especially for growing near roses, tomatoes, carrots, chives and asparagus[18, 20, 54, 201], giving them all added vigour and protection against certain pests, especially carrot root fly and rose beetles[201].

Propagation

Seed - Three sowings can provide a year round supply of fresh leaves.

The first sowing is made in a greenhouse in late winter. Prick out the seedlings into individual pots when they are large enough to handle and plant them out in mid to late spring.

The second sowing is made outdoors in situ in the middle of spring and the third is also made in situ outdoors, this time in mid to late summer[1, 134].

Germination usually takes place in about 7 days at 25°c, though it can take 4 - 6 weeks[200]. Germination time can be reduced by pre-soaking the seed for 12 hours in hot water that is allowed to cool quickly, but be careful not to overdo the heat and cook the seed. The seed remains viable in normal storage for 2 - 3 years.

Scent

Seed: Fresh Crushed Dried

> The seed is aromatic[45].

Leaves: Crushed

> The leaves are aromatic.

Cultivars

'Dwarf Green'

> This is said to be the best cultivar for use as a garnish[245]. It is a plant of compact habit with extremely dark-green densely curled leaves[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Apium petroselinum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Carum petroselinum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Petroselinum hortense* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Petroselinum sativum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *petroselinum crispum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988

Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Petroselinum+crispum`

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Plants For A Future: Database Search Results

Petroselinum crispum

Common name:	Parsley	Family:	Umbelliferae
Author:	(Mill.) Nyman.	Botanical references:	17, 200
Synonyms:	Petroselinum sativum (Hoffm.), Petroselinum hortense (Hoffm.), Carum petroselinum ((L.)Benth.&Hook.), Apium petroselinum (L.)		
Known Hazards:	Parsley is said to contain the alleged 'psychotroph' myristicine[218]. Although perfectly safe to eat and nutritious in amounts that are given in recipes, parsley is toxic in excess, especially when used as an essential oil[238].		
Range:	C. and S. Europe. Naturalized in Britain.		
Habitat:	Grassy waste places on walls and rocks[17], especially on limestone and near the coast[165].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Apium crispum[G] Apium hortense[H] P. vulgare[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Parsley [L], Curled Parsley [H], Garden Parsley [L], Ma'Danos [E], Maydanoz [E], Moss Curled Parsley [H], Parsley [H,P,E,B], Perejil [E], Persil [E], Persil Vert [E], Tuinpeterselie [D],
Epithets:	From a Dictionary of Botanical Epithets
	crispum = curly;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Chile; Dominican Republic; Europe; France; Haiti; Iraq; Mexico; Paraguay; Spain; Turkey; Venezuela

Physical Characteristics

Biennial growing to 0.6m by 0.3m . It is not frost tender. It is in flower from June to August, and the seeds ripen from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, Walls.

Edible Uses

Colouring; Leaves; Tea.

Leaves - raw or cooked[2, 4, 5, 9, 16, 21, 27]. Parsley is frequently used as a garnish or as a flavouring in salads and many cooked dishes, but has too strong a flavour to be eaten in quantity for most palates. It is an ingredient of the herb mix 'bouquet garni'[244]. The leaves should be harvested regularly in order to encourage fresh growth and get maximum yields[244]. The leaves are difficult to dry but are easily frozen[200]. For drying they require a well-ventilated room that receives long hours of sunlight - the leaves need to be quite crisp if they are to store[245]. Very rich in iron, iodine and magnesium, parsley is also a good source of other minerals and the vitamins A, B and C[201, 244].

The stems can be dried and ground and used as a food colouring[183].

A tea is made from the fresh or dried leaves, it is rich in vitamin C[21, 183].

An essential oil is obtained mainly from the leaves - it is used as a commercial food flavouring[46]. The leaves yields about 1% essential oil, whilst about 6% is obtained from the seed[7]. Some caution is advised on the use of this plant, especially the essential oil. See the notes above on toxicity.

Medicinal Uses

Disclaimer

Antidandruff; Antispasmodic; Aperient; Birthing aid; Cancer; Carminative; Digestive; Diuretic; Emmenagogue; Expectorant; Galactofuge; Kidney; Odontalgic; Ophthalmic; Poultice; Skin; Stings; Stomachic; Tonic.

Parsley is a commonly grown culinary and medicinal herb that is often used as a domestic medicine. The fresh leaves are highly nutritious and can be considered a natural vitamin and mineral supplement in their own right[254]. The plants prime use is as a diuretic where it is effective in ridding the body of stones and in treating jaundice, dropsy, cystitis etc[4, 238]. It is also a good detoxifier, helping the body to get rid of toxins via the urine and therefore helping in the treatment of a wide range of diseases such as rheumatism[254]. The seed is a safe herb at normal doses, but in excess it can have toxic effects[254]. Parsley should not be used by pregnant women because it is used to stimulate menstrual flow and can therefore provoke a miscarriage[7, 238].

All parts of the plant can be used medicinally, the root is the part most often used though the seeds have a stronger action. Parsley is antidandruff, antispasmodic, aperient, carminative, digestive, diuretic, emmenagogue, expectorant, galactofuge, kidney, stomachic and tonic[4, 7, 9, 21, 165, 201, 238]. An infusion of the roots and seeds is taken after childbirth to promote lactation and help contract the uterus[238]. Parsley is also a mild laxative and is useful for treating anaemia and convalescents[244].

Caution is advised on the internal use of this herb, especially in the form of the essential oil. Excessive doses can cause liver and kidney damage, nerve inflammation and gastro-intestinal haemorrhage[238]. It should not be prescribed for pregnant women or people with kidney diseases[238].

A poultice of the leaves has been applied externally to soothe bites and stings[4, 7], it is also said to be of value in treating tumours of a cancerous nature[4]. It has been used to treat eye infections, whilst a wad of cotton soaked in the juice will relieve toothache or earache[244]. It is also said to prevent hair loss and to make freckles disappear[244].

If the leaves are kept close to the breasts of a nursing mother for a few days, the milk flow will cease[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hair; Repellent.

A good companion plant, repelling insects from nearby plants[20, 54]. The juice is an effective mosquito repellent when it is rubbed into the skin and is also used to relieve the pain of stings and bites[7, 244].

An essential oil obtained from the plant is used in perfumeries for men[238].

An infusion of the leaves is an excellent rinse for dark hair and also helps in the treatment of dandruff[201].

Cultivation details

Prefers a moist well-drained soil in sun or partial shade[4, 16, 31, 37, 52, 200]. Prefers a good light soil that is not too light or acid[1], growing poorly in light acid soils[200].

Parsley is commonly cultivated for its edible leaves[46], there are many named varieties[183]. Three main groups of varieties have developed over a period of time and these have been grouped into subspecies as detailed below:-

P. crispum crispum. The curly leafed forms of parsley. This is the more ornamental form, especially when used as a dressing in salads, cooked meals etc. It also has a milder flavour. However the curly leaves tend to hold on to surface water and so they are more likely to contract fungal diseases in the winter.

P. crispum neapolitanum Danert. Italian parsley. This has flat, or plain leaves and is considered to have a stronger flavour. This group is also hardier, in part at least because the leaves can shed water easily.

P. crispum tuberosum (Bernh.)Crov. Hamburg parsley is a very distinct form with a swollen root that is used as a vegetable. The leaves are not of such good quality as the preceding forms, but can still be used as a flavouring.

Parsley is fairly winter-hardy, though it usually dies down in the cold weather, coming back into growth in early spring. By moving some plants into a protected area such as a greenhouse in the winter, or by putting a frame around them, leaves can usually be made available all winter[200].

Parsley has a long history of use. The ancient Greeks believed that it sprang from the blood of Archemorus, the forerunner of death, and so did not eat it but used it for making wreaths to adorn the dead[244]. The Romans wore garlands of it at feasts in the belief that it would prevent intoxication[244]. They kept it away from nursing mothers, however, believing that it could cause epilepsy in the infant[244].

Parsley is superficially similar to several poisonous species, including Fool's Parsley (Aethusa cynapium)[244]. Great care should be exercised if harvesting the plant from the wild[7, 244].

A good bee plant[18, 20, 201].

A good companion plant, especially for growing near roses, tomatoes, carrots, chives and asparagus[18, 20, 54, 201], giving them all added vigour and protection against certain pests, especially carrot root fly and rose beetles[201].

Propagation

Seed - Three sowings can provide a year round supply of fresh leaves.

The first sowing is made in a greenhouse in late winter. Prick out the seedlings into individual pots when they are large enough to handle and plant them out in mid to late spring.

The second sowing is made outdoors in situ in the middle of spring and the third is also made in situ outdoors, this time in mid to late summer[1, 134].

Germination usually takes place in about 7 days at 25°c, though it can take 4 - 6 weeks[200]. Germination time can be reduced by pre-soaking the seed for 12 hours in hot water that is allowed to cool quickly, but be careful not to overdo the heat and cook the seed. The seed remains viable in normal storage for 2 - 3 years.

Scent

Seed: Fresh Crushed Dried

The seed is aromatic[45].

Leaves: Crushed

The leaves are aromatic.

Cultivars

'Dwarf Green'

This is said to be the best cultivar for use as a garnish[245]. It is a plant of compact habit with extremely dark-green densely curled leaves[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Petroselinum crispum*

Subject:

Petroselinum crispum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Petroselinum crispum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Phytolacca americana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pokeweed	Family:	Phytolaccaceae
Author:	L.	Botanical references:	43, 200
Synonyms:	Phytolacca decandra (L.)		
Known Hazards:	The leaves are poisonous[21, 62, 76, 95]. They are said to be safe to eat when young, the toxins developing as the plants grow older. Another report says that the seeds and root are poisonous. The plant sap can cause dermatitis in sensitive people and has also been known to damage chromosomes[222].		
Range:	Northern and Central N. America. Occasionally naturalized in Britain[17].		
Habitat:	Damp rich soils in clearings, woodland margins and roadsides[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Blitum americanum[H] P. americana var. americana[B,P] P. vulgaris[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Poke [H], American Pokeweed [P,B], Bledo Carbonesro [E], Cancer-root [H], Hierba Carmin [E], Inkberry [H], Pigeon Berry [E,H], Pocan [H], Poke [S,E,H], Poke Root [H,S], Pokeberry [E], Pokeroot [S], Pokeweed [E,H], Reujin D Ours [E], Sekerciboyaci [E], Skoke [H], Westerse Karmozijnbes [D], Yoshu-Yama-Gobo [E], Yyamilin [E],

Epithets:	From a Dictionary of Botanical Epithets cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database Order: Caryophyllales . Pokeweed family
Other Range Info:	From the Ethnobotany Database Belgium; China; Cuba; Mexico; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Colonial); Us(Penobscot)

Physical Characteristics

Perennial growing to 2m by 1.5m at a fast rate. It is hardy to zone 4 and is frost tender. It is in flower from August to September, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Colouring; Fruit; Leaves.

Leaves - they must be cooked and even then it is best to change the water once[1, 2, 4, 33, 95]. They are used like spinach[183]. Only the young leaves should be used since they become toxic with age[102]. Caution is advised, see the notes above on toxicity.

Young shoots - cooked[20, 33, 62, 102]. An asparagus substitute[183], they are delicious[159]. The shoots are sometimes blanched before using, or forced in cellars to provide an early crop[183]. The tender clear inner portion of the stem can be rolled in cornmeal and fried[183]. Although cultivated on a small scale in N. America for its shoots, caution is advised, see notes above. A nutritional analysis is available[218].

Fruit - cooked and used in pies[159, 213]. Poisonous raw, causing vomiting and diarrhoea. Even the cooked fruits should be viewed with caution. The fruit is a berry about 12mm in diameter[200].

A red dye is obtained from the fruit and used as a food colouring[183].

Composition

Shoots (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 274 Protein: 31 Fat: 4.8 Carbohydrate: 44 Ash: 20.2
In milligrammes per 100g weight of food:
Calcium: 631 Phosphorus: 524 Iron: 20.2 VitaminA: 62 Thiamine: 0.95 Riboflavin: 3.93
Niacin: 14.3 VitaminC: 1619
Source: [218]

Medicinal Uses

Disclaimer

Alterative; Anodyne; Antiinflammatory; Antiviral; Cancer; Cathartic; Expectorant; Homeopathy; Hypnotic; Narcotic; Purgative.

Pokeweed has a long history of medicinal use, being employed traditionally in the treatment of diseases related to a compromised immune system. The plant has an interesting chemistry and it is currently (1995) being investigated as a potential anti-AIDS drug[238]. It contains potent anti-inflammatory agents, antiviral proteins and substances that affect cell division[238]. These compounds are toxic to many disease-causing organisms, including the water snails that cause schistosomiasis[238].

All parts of the plant are toxic, an excess causing diarrhoea and vomiting[238]. This remedy should be used with caution and preferably under the supervision of a qualified practitioner. It should not be prescribed for pregnant women[238].

The root is alterative, anodyne, anti-inflammatory, cathartic, expectorant, hypnotic, narcotic and purgative[4, 21, 46, 61, 165, 192, 238].

The dried root is used as an anodyne and anti-inflammatory[213]. The root is taken internally in the treatment of auto-immune diseases (especially rheumatoid arthritis), tonsillitis, mumps, glandular fever and other complaints involving swollen glands, chronic catarrh, bronchitis etc[238]. The fresh root is used as a poultice on bruises, rheumatic pains etc, whilst a wash made from the roots is applied to swellings and sprains[222]. The root is best harvested in the autumn and can be dried for later use[238].

The fruit has a similar but milder action to the roots[238].The juice is used in the treatment of cancer, haemorrhoids and tremors[213]. A poultice made from the fruit is applied to sore breasts[222]. A tea made from the fruit is used in the treatment of rheumatism, dysentery etc[222]. The plant has an unusually high potassium content and the ashes, which contain over 45% caustic potash, have been used as a salve for ulcers and cancerous growths[232].

The leaves are cathartic, emetic and expectorant[222].

A homeopathic remedy is made from the fresh root[232]. Its main action is on the throat, breast, muscular tissues and the joints[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Ink; Insecticide; Soap.

A red ink and a dye are obtained from the fruit[46, 50, 57, 100, 102, 159, 169]. A beautiful colour, though it is not very permanent[4]. It makes a good body paint, washing off easily when no longer required, though the slightly toxic nature of the berries should be remembered[K].

The rootstock is rich in saponins and can be used as a soap substitute[169]. Cut the root into small pieces and simmer it in boiling water to obtain the soap.

The plant is currently (1980) being evaluated for its snail-killing properties[213].

Cultivation details

An easily grown plant, succeeding in most soils[1], though preferring a moisture retentive soil in full sun or partial shade[111, 200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233]. Succeeds in an open woodland garden[200], growing well under trees[20].

Whilst the dormant plant is hardy in much of Britain, the young growth in spring can be damaged by late frosts.

A very ornamental plant[1], it often self sows when in a suitable position[200].

Cultivated as a dye plant[50] and on a small scale for its edible young shoots, there is at least one named form. 'White Stem' has white stems and the berries yield a golden-peach dye instead of purple. It is not yet known (1992) if it will breed true from seed[183].

This plant is an alternative host to a number of viral diseases that affect members of the Amaryllidaceae, Liliaceae (broad view, including plants recently [1992] moved into separate families) and Solanaceae[200].

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - sow autumn or spring in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it might be worthwhile trying an outdoor sowing in a seed bed in early spring. Grow the plants on in the seedbed for their first year and plant them out the following spring.

Division in March or October. Use a sharp spade or knife to divide the rootstock, making sure that each section has at least one growth bud. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (O-P)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Phytolacca americana var. americana* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *Phytolacca decandra* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

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- [HP] PhotoFrom Henriette's plant pictures
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References for the family Phytolaccaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9

Not so modern (1930's?) but lots of information, mainly temperate plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
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[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
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[57] **Schery. R. W.** *Plants for Man.*
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4

Another guide to the wild foods of America.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
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[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
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[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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Name of Site:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Phytolacca+americana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Phytolacca+americana`

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Plants For A Future: Database Search Results

Phytolacca americana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pokeweed	Family:	Phytolaccaceae
Author:	L.	Botanical references:	43, 200
Synonyms:	Phytolacca decandra (L.)		
Known Hazards:	The leaves are poisonous[21, 62, 76, 95]. They are said to be safe to eat when young, the toxins developing as the plants grow older. Another report says that the seeds and root are poisonous. The plant sap can cause dermatitis in sensitive people and has also been known to damage chromosomes[222].		
Range:	Northern and Central N. America. Occasionally naturalized in Britain[17].		
Habitat:	Damp rich soils in clearings, woodland margins and roadsides[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Blitum americanum[H] P. americana var. americana[B,P] P. vulgaris[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Poke [H], American Pokeweed [P,B], Bledo Carbonesro [E], Cancer-root [H], Hierba Carmin [E], Inkberry [H], Pigeon Berry [E,H], Pocan [H], Poke [S,E,H], Poke Root [H,S], Pokeberry [E], Pokeroot [S], Pokeweed [E,H], Reujin D Ours [E], Sekerciboyaci [E], Skoke [H], Westerse Karmozijnbes [D], Yoshu-Yama-Gobo [E], Yyamilin [E],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pokeweed family
Other Range Info:	From the Ethnobotany Database

	Belgium; China; Cuba; Mexico; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Colonial); Us(Penobscot)

Physical Characteristics

Perennial growing to 2m by 1.5m at a fast rate. It is hardy to zone 4 and is frost tender. It is in flower from August to September, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Colouring; Fruit; Leaves.

Leaves - they must be cooked and even then it is best to change the water once[1, 2, 4, 33, 95]. They are used like spinach[183]. Only the young leaves should be used since they become toxic with age[102]. Caution is advised, see the notes above on toxicity.

Young shoots - cooked[20, 33, 62, 102]. An asparagus substitute[183], they are delicious[159]. The shoots are sometimes blanched before using, or forced in cellars to provide an early crop[183]. The tender clear inner portion of the stem can be rolled in cornmeal and fried[183]. Although cultivated on a small scale in N. America for its shoots, caution is advised, see notes above. A nutritional analysis is available[218].

Fruit - cooked and used in pies[159, 213]. Poisonous raw, causing vomiting and diarrhoea. Even the cooked fruits should be viewed with caution. The fruit is a berry about 12mm in diameter[200].

A red dye is obtained from the fruit and used as a food colouring[183].

Composition

Shoots (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 274 Protein: 31 Fat: 4.8 Carbohydrate: 44 Ash: 20.2
In milligrammes per 100g weight of food:
Calcium: 631 Phosphorus: 524 Iron: 20.2 VitaminA: 62 Thiamine: 0.95 Riboflavin: 3.93

Niacin: 14.3 VitaminC: 1619
Source: [218]

Medicinal Uses

Disclaimer

Alterative; Anodyne; Antiinflammatory; Antiviral; Cancer; Cathartic; Expectorant; Homeopathy; Hypnotic; Narcotic; Purgative.

Pokeweed has a long history of medicinal use, being employed traditionally in the treatment of diseases related to a compromised immune system. The plant has an interesting chemistry and it is currently (1995) being investigated as a potential anti-AIDS drug[238]. It contains potent anti-inflammatory agents, antiviral proteins and substances that affect cell division[238]. These compounds are toxic to many disease-causing organisms, including the water snails that cause schistosomiasis[238].

All parts of the plant are toxic, an excess causing diarrhoea and vomiting[238]. This remedy should be used with caution and preferably under the supervision of a qualified practitioner. It should not be prescribed for pregnant women[238].

The root is alterative, anodyne, anti-inflammatory, cathartic, expectorant, hypnotic, narcotic and purgative[4, 21, 46, 61, 165, 192, 238].

The dried root is used as an anodyne and anti-inflammatory[213]. The root is taken internally in the treatment of auto-immune diseases (especially rheumatoid arthritis), tonsillitis, mumps, glandular fever and other complaints involving swollen glands, chronic catarrh, bronchitis etc[238]. The fresh root is used as a poultice on bruises, rheumatic pains etc, whilst a wash made from the roots is applied to swellings and sprains[222]. The root is best harvested in the autumn and can be dried for later use[238].

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[232] **Castro. M.** *The Complete Homeopathy Handbook.* Macmillan. London. 1990 ISBN 0-333-55581-3
A concise beginner's guide to the subject. Very readable.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two

separate entries for each plant.

Readers Comments

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Plants For A Future: Database Search Results

Phytolacca americana

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Pokeweed	Family:	Phytolaccaceae
Author:	L.	Botanical references:	43, 200
Synonyms:	Phytolacca decandra (L.)		
Known Hazards:	The leaves are poisonous[21, 62, 76, 95]. They are said to be safe to eat when young, the toxins developing as the plants grow older. Another report says that the seeds and root are poisonous. The plant sap can cause dermatitis in sensitive people and has also been known to damage chromosomes[222].		
Range:	Northern and Central N. America. Occasionally naturalized in Britain[17].		
Habitat:	Damp rich soils in clearings, woodland margins and roadsides[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Blitum americanum[H] P. americana var. americana[B,P] P. vulgaris[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Poke [H], American Pokeweed [P,B], Bledo Carbonesro [E], Cancer-root [H], Hierba Carmin [E], Inkberry [H], Pigeon Berry [E,H], Pocan [H], Poke [S,E,H], Poke Root [H,S], Pokeberry [E], Pokeroot [S], Pokeweed [E,H], Reujin D Ours [E], Sekerciboyaci [E], Skoke [H], Westerse Karmozijnbes [D], Yoshu-Yama-Gobo [E], Yyamilin [E],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pokeweed family
Other Range Info:	From the Ethnobotany Database

	Belgium; China; Cuba; Mexico; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Colonial); Us(Penobscot)

Physical Characteristics

Perennial growing to 2m by 1.5m at a fast rate. It is hardy to zone 4 and is frost tender. It is in flower from August to September, and the seeds ripen from September to November. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Colouring; Fruit; Leaves.

Leaves - they must be cooked and even then it is best to change the water once[1, 2, 4, 33, 95]. They are used like spinach[183]. Only the young leaves should be used since they become toxic with age[102]. Caution is advised, see the notes above on toxicity.

Young shoots - cooked[20, 33, 62, 102]. An asparagus substitute[183], they are delicious[159]. The shoots are sometimes blanched before using, or forced in cellars to provide an early crop[183]. The tender clear inner portion of the stem can be rolled in cornmeal and fried[183]. Although cultivated on a small scale in N. America for its shoots, caution is advised, see notes above. A nutritional analysis is available[218].

Fruit - cooked and used in pies[159, 213]. Poisonous raw, causing vomiting and diarrhoea. Even the cooked fruits should be viewed with caution. The fruit is a berry about 12mm in diameter[200].

A red dye is obtained from the fruit and used as a food colouring[183].

Composition

Shoots (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 274 Protein: 31 Fat: 4.8 Carbohydrate: 44 Ash: 20.2
In milligrammes per 100g weight of food:
Calcium: 631 Phosphorus: 524 Iron: 20.2 VitaminA: 62 Thiamine: 0.95 Riboflavin: 3.93

Niacin: 14.3 VitaminC: 1619
Source: [218]

Medicinal Uses

Disclaimer

Alterative; Anodyne; Antiinflammatory; Antiviral; Cancer; Cathartic; Expectorant; Homeopathy; Hypnotic; Narcotic; Purgative.

Pokeweed has a long history of medicinal use, being employed traditionally in the treatment of diseases related to a compromised immune system. The plant has an interesting chemistry and it is currently (1995) being investigated as a potential anti-AIDS drug[238]. It contains potent anti-inflammatory agents, antiviral proteins and substances that affect cell division[238]. These compounds are toxic to many disease-causing organisms, including the water snails that cause schistosomiasis[238].

All parts of the plant are toxic, an excess causing diarrhoea and vomiting[238]. This remedy should be used with caution and preferably under the supervision of a qualified practitioner. It should not be prescribed for pregnant women[238].

The root is alterative, anodyne, anti-inflammatory, cathartic, expectorant, hypnotic, narcotic and purgative[4, 21, 46, 61, 165, 192, 238].

The dried root is used as an anodyne and anti-inflammatory[213]. The root is taken internally in the treatment of auto-immune diseases (especially rheumatoid arthritis), tonsillitis, mumps, glandular fever and other complaints involving swollen glands, chronic catarrh, bronchitis etc[238]. The fresh root is used as a poultice on bruises, rheumatic pains etc, whilst a wash made from the roots is applied to swellings and sprains[222]. The root is best harvested in the autumn and can be dried for later use[238].

The fruit has a similar but milder action to the roots[238].The juice is used in the treatment of cancer, haemorrhoids and tremors[213]. A poultice made from the fruit is applied to sore breasts[222]. A tea made from the fruit is used in the treatment of rheumatism, dysentery etc[222]. The plant has an unusually high potassium content and the ashes, which contain over 45% caustic potash, have been used as a salve for ulcers and cancerous growths[232].

The leaves are cathartic, emetic and expectorant[222].

A homeopathic remedy is made from the fresh root[232]. Its main action is on the throat, breast, muscular tissues and the joints[232].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

make a credit card donation with PayPal

Other Uses

Ink; Insecticide; Soap.

A red ink and a dye are obtained from the fruit[46, 50, 57, 100, 102, 159, 169]. A beautiful colour, though it is not very permanent[4]. It makes a good body paint, washing off easily when no longer required, though the slightly toxic nature of the berries should be remembered[K].

The rootstock is rich in saponins and can be used as a soap substitute[169]. Cut the root into small pieces and simmer it in boiling water to obtain the soap.

The plant is currently (1980) being evaluated for its snail-killing properties[213].

Cultivation details

An easily grown plant, succeeding in most soils[1], though preferring a moisture retentive soil in full sun or partial shade[111, 200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233]. Succeeds in an open woodland garden[200], growing well under trees[20].

Whilst the dormant plant is hardy in much of Britain, the young growth in spring can be damaged by late frosts.

A very ornamental plant[1], it often self sows when in a suitable position[200].

Cultivated as a dye plant[50] and on a small scale for its edible young shoots, there is at least one named form. 'White Stem' has white stems and the berries yield a golden-peach dye instead of purple. It is not yet known (1992) if it will breed true from seed[183].

This plant is an alternative host to a number of viral diseases that affect members of the Amaryllidaceae, Liliaceae (broad view, including plants recently [1992] moved into separate families) and Solanaceae[200].

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - sow autumn or spring in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it might be worthwhile trying an outdoor sowing in a seed bed in early spring. Grow the plants on in the seedbed for their first year and plant them out the following spring.

Division in March or October. Use a sharp spade or knife to divide the rootstock, making sure that each section has at least one growth bud. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Phytolacca americana*

Subject:

Phytolacca americana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Phytolacca americana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Phytolacca dioica

Common name:	Bella sombra	Family:	Phytolaccaceae
Author:	(L.) Moq.	Botanical references:	200
Synonyms:			
Known Hazards:	The leaves are poisonous. They are said to be alright to eat when young, the toxins developing as they grow older. Other parts of the plant, including the fruit, are likely to be poisonous.		
Range:	S. America - Argentina.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pokeweed family

Physical Characteristics

An evergreen tree growing to 4m. It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Colouring; Fruit; Leaves.

Young leaves and shoots - cooked and used as a vegetable[183]. The leaves should not be eaten raw and only the young leaves should be used since they become toxic with age.

The fruits are made into jellies or jams and are also used as a red colouring for food[183]. Some caution is advised. See notes on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

A red ink is obtained from the fruit.

Cultivation details

An easily grown plant, succeeding in most soils[1], though preferring a moisture retentive fertile soil in full sun or partial shade[200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. A spreading shade-giving tree in its native habitat, it might develop as a shrub in a warm sheltered position in Britain[200]. The young growth in spring can be damaged by late frosts.

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - sow autumn or spring in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it might be worthwhile trying an outdoor sowing in a seed bed in early spring. Grow the plants on in the seedbed for their first year and plant them out the following spring.

Division in March or October. Use a sharp spade or knife to divide the rootstock, making sure that each section has at least one growth bud. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Phytolaccaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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Phytolacca dioica

Common name:	Bella sombra	Family:	Phytolaccaceae
Author:	(L.) Moq.	Botanical references:	200
Synonyms:			
Known Hazards:	The leaves are poisonous. They are said to be alright to eat when young, the toxins developing as they grow older. Other parts of the plant, including the fruit, are likely to be poisonous.		
Range:	S. America - Argentina.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pokeweed family

Physical Characteristics

An evergreen tree growing to 4m. It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Colouring; Fruit; Leaves.

Young leaves and shoots - cooked and used as a vegetable[183]. The leaves should not be eaten raw and only the young leaves should be used since they become toxic with age.

The fruits are made into jellies or jams and are also used as a red colouring for food[183]. Some caution is advised. See notes on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

A red ink is obtained from the fruit.

Cultivation details

An easily grown plant, succeeding in most soils[1], though preferring a moisture retentive fertile soil in full sun or partial shade[200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. A spreading shade-giving tree in its native habitat, it might develop as a shrub in a warm sheltered position in Britain[200]. The young growth in spring can be damaged by late frosts.

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - sow autumn or spring in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Author:	(L.) Moq.	Botanical references:	200
Synonyms:			
Known Hazards:	The leaves are poisonous. They are said to be alright to eat when young, the toxins developing as they grow older. Other parts of the plant, including the fruit, are likely to be poisonous.		
Range:	S. America - Argentina.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pokeweed family

Physical Characteristics

An evergreen tree growing to 4m. It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Colouring; Fruit; Leaves.

Young leaves and shoots - cooked and used as a vegetable[183]. The leaves should not be eaten raw and only the young leaves should be used since they become toxic with age.

The fruits are made into jellies or jams and are also used as a red colouring for food[183]. Some caution is advised. See notes on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

A red ink is obtained from the fruit.

Cultivation details

An easily grown plant, succeeding in most soils[1], though preferring a moisture retentive fertile soil in full sun or partial shade[200]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. A spreading shade-giving tree in its native habitat, it might develop as a shrub in a warm sheltered position in Britain[200]. The young growth in spring can be damaged by late frosts.

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - sow autumn or spring in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it might be worthwhile trying an outdoor sowing in a seed bed in early spring. Grow the plants on in the seedbed for their first year and plant them out the following spring.

Division in March or October. Use a sharp spade or knife to divide the rootstock, making sure that each section has at least one growth bud. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Phytolacca+dioica`
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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Phytolacca dioica*

Subject:

Phytolacca dioica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Phytolacca dioica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:46:34 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Rheum x cultorum

Common name:	Rhubarb	Family:	Polygonaceae
Author:	Thorsrud. & Reis.	Botanical references:	74, 200
Synonyms:	Rheum undulatum (L.)		
Known Hazards:	The leaves contain high concentrations of oxalic acid[34, 76]. Oxalic acid can lock up certain minerals (especially calcium) in the body, leading to nutritional deficiency. Cooking the plant will reduce the concentration of oxalic acid. Another report says that the leaves have the same concentration of oxalic acid in the stems as they do in the leaves and it is not the oxalic acid that makes them poisonous. It says that any toxic properties of the leaves is more likely to be due to the presence of glycosides[142]. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	E. Asia - Siberia.		
Habitat:	Steppe, sparse woods and sandy soils[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. rhabarbarum[B,E,G,H,P] R. rhaponticum[G,H] R. x hybridum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Garden Rhubarb [H,B,P], Kara-Daio [E], Papaz Ravendi [E], Raspontic [E], Rhubarb [H],
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family

Other Range Info:	From the Ethnobotany Database
	Europe; France; Turkey

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 3. It is in leaf from February to October, in flower in June, and the seeds ripen from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Prince Albert'**: Cultivated Beds.
Cultivar **'Victoria'**: Cultivated Beds.
Cultivar **'Timperley Early'**: Cultivated Beds.
Cultivar **'Canada Red'**: Cultivated Beds.
Cultivar **'Glaskin's Perpetual'**: Cultivated Beds.

Edible Uses

Colouring; Flowers; Rutin; Stem.

Leaf stem - raw or cooked[1, 2, 46, 105, 200]. An acid taste, it is used as a fruit substitute in spring, usually stewed with sugar and used in pies, jams etc[183]. The juice strained from stewed rhubarb can add colour and flavour to a fruit punch[183]. It is best not to eat large quantities of the stems because of their oxalic acid content - see the notes above on toxicity.

Immature flowers - cooked and used like cauliflower[183].

One report says that the plant contains 0.7% rutin[240]. It does not specify which part of the plant, though it is likely to be the leaves[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Insecticide.

The leaves can be simmered in hot water to make an insecticide.

Cultivation details

A very easily grown plant, tolerant of considerable neglect, it prefers a deep, fertile, moderately heavy, humus rich, moisture retentive, well-drained soil in sun or semi-shade[200, 264]. It succeeds in most soils provided the drainage is good[200] and will grow in the dappled shade of trees so long as there is sufficient side light[K]. It grows well in heavy clay soils. Tolerates acid conditions but prefers a pH in the range 6.5 to 7[200].

Plants are very cold hardy, tolerating temperatures down to at least -20°c[200]. The plant does not like hot summers, however, and is likely to die in warmer climates[264].

Rhubarb is a long-lived and almost indestructible perennial plant[264]. It is often cultivated for its edible leaf stems, there are many named varieties[74, 183]. Most cultivars produce edible stems from spring to early summer, though 'Glaskin's Perpetual' can be harvested throughout the summer.

By digging up the roots in the autumn and exposing them to frost, earlier growth will be initiated. These roots can then be transferred to a cold frame or other protected area where they will produce their edible stems in late winter. It is also possible to produce earlier crops outdoors by covering the plants with a layer of straw and an upturned bucket.

This species is probably of hybrid origin, R. rhaponticum x R. palmatum[200]. It hybridizes freely with other members of the genus[200].

Plants in this genus seem to be immune to the predations of rabbits[233].

Propagation

Seed - best sown in autumn in a shaded cold frame[200]. The seed can also be sown in spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in the spring. This species is a hybrid and will not necessarily breed true to type from seed. However, this does give the opportunity to look for superior plants from amongst the seedlings.

Division in early spring or autumn[1, 111]. Divide up the rootstock with a sharp spade or knife, making sure that there is at least one growth bud on each division. Larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before

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Cultivars

'Victoria' 'Giant Victoria' Myatt's Victoria'

The leaf stalks are very large, up to 8cm at their broadest diameter and up to 90cm long, they can weigh almost 1 kilo each whe well grown[183]. The stems are greenish, stained with red, the skin is rather thick, the flesh is green and tender, though not uite as sweet as some other cultivars[183]. An extremely heavy producer, it is reliably hardy and is excellent for comercial purposes[183].

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Produces rather thin, bright red stalks[183]. This is the earliest cultivar and most rapid forcer, when forced it can be ready by Christmas, whilst outdoor plants can be harvested in February in mild climates[183].

'Prince Albert' 'Mitchell's Royal Albert' 'Early Albert'

The long, thick, bright red stalks are more angular than channeled[183]. They are of excellent flavour[183]. A very early, hardy and prolific cultivar, it is the best cultivar for forcing under old bottomless buckets etc[183]. It does well from seed, but discard any plants that run to seed[183].

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Greenish stalks of excellent flavour, they do not become bitter as they mature and so can be harvested in the summer much later than most cultivars[183]. They have the lowest oxalic acid content of any rhubarb[183].

'Canada Red' 'Canadian Red'

The long thick stalks are dark red from top to bottom with a strawberry-red flesh[183]. Juicy and sweet, they need less sweetening than many other cultivars and do not lose their colour when cooked[183]. A very tender texture, they never become tough or stringy, the tender skin does not need to be removed[183]. A highly productive plant, the stems can be harvested all summer[183].

Suppliers

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK

How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Rheum x cultorum* (Rhubarb)
Varities: Brandy Carrscarlet, Cawood Delight, Royal Albert, Stockbridge Arrow

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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References for *Rheum undulatum* (a possible synonym).

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References for the family Polygonaceae.

See the PFAF Links Pages for other sources

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References

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An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

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Plants For A Future: Database Search Results

Rheum x cultorum

Common name:	Rhubarb	Family:	Polygonaceae
Author:	Thorsrud. & Reis.	Botanical references:	74, 200
Synonyms:	Rheum undulatum (L.)		
Known Hazards:	The leaves contain high concentrations of oxalic acid[34, 76]. Oxalic acid can lock up certain minerals (especially calcium) in the body, leading to nutritional deficiency. Cooking the plant will reduce the concentration of oxalic acid. Another report says that the leaves have the same concentration of oxalic acid in the stems as they do in the leaves and it is not the oxalic acid that makes them poisonous. It says that any toxic properties of the leaves is more likely to be due to the presence of glycosides[142]. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	E. Asia - Siberia.		
Habitat:	Steppe, sparse woods and sandy soils[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
	Europe; France; Turkey

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 3. It is in leaf from February to October, in flower in June, and the seeds ripen from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

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Edible Uses

Colouring; Flowers; Rutin; Stem.

Leaf stem - raw or cooked[1, 2, 46, 105, 200]. An acid taste, it is used as a fruit substitute in spring, usually stewed with sugar and used in pies, jams etc[183]. The juice strained from stewed rhubarb can add colour and flavour to a fruit punch[183]. It is best not to eat large quantities of the stems because of their oxalic acid content - see the notes above on toxicity.

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Disclaimer

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By digging up the roots in the autumn and exposing them to frost, earlier growth will be initiated. These roots can then be transferred to a cold frame or other protected area where they will produce their edible stems in late winter. It is also possible to produce earlier crops outdoors by covering the plants with a layer of straw and an upturned bucket.

This species is probably of hybrid origin, R. rhaponticum x R. palmatum[200]. It hybridizes freely with other members of the genus[200].

Plants in this genus seem to be immune to the predations of rabbits[233].

Propagation

Seed - best sown in autumn in a shaded cold frame[200]. The seed can also be sown in spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in the spring. This species is a hybrid and will not necessarily breed true to type from seed. However, this does give the opportunity to look for superior plants from amongst the seedlings.

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10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK

How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
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Item: *Rheum x cultorum* (Rhubarb)
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[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

Readers Comments

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Plants For A Future: Database Search Results

Rheum x cultorum

Common name:	Rhubarb	Family:	Polygonaceae
Author:	Thorsrud. & Reis.	Botanical references:	74, 200
Synonyms:	Rheum undulatum (L.)		
Known Hazards:	The leaves contain high concentrations of oxalic acid[34, 76]. Oxalic acid can lock up certain minerals (especially calcium) in the body, leading to nutritional deficiency. Cooking the plant will reduce the concentration of oxalic acid. Another report says that the leaves have the same concentration of oxalic acid in the stems as they do in the leaves and it is not the oxalic acid that makes them poisonous. It says that any toxic properties of the leaves is more likely to be due to the presence of glycosides[142]. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	E. Asia - Siberia.		
Habitat:	Steppe, sparse woods and sandy soils[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	R. rhabarbarum[B,E,G,H,P] R. rhaponticum[G,H] R. x hybridum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Garden Rhubarb [H,B,P], Kara-Daio [E], Papaz Ravendi [E], Rapontic [E], Rhubarb [H],
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database
	Europe; France; Turkey

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 3. It is in leaf from February to October, in flower in June, and the seeds ripen from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Prince Albert'**: Cultivated Beds.
Cultivar **'Victoria'**: Cultivated Beds.
Cultivar **'Timperley Early'**: Cultivated Beds.
Cultivar **'Canada Red'**: Cultivated Beds.
Cultivar **'Glaskin's Perpetual'**: Cultivated Beds.

Edible Uses

Colouring; Flowers; Rutin; Stem.

Leaf stem - raw or cooked[1, 2, 46, 105, 200]. An acid taste, it is used as a fruit substitute in spring, usually stewed with sugar and used in pies, jams etc[183]. The juice strained from stewed rhubarb can add colour and flavour to a fruit punch[183]. It is best not to eat large quantities of the stems because of their oxalic acid content - see the notes above on toxicity.

Immature flowers - cooked and used like cauliflower[183].

One report says that the plant contains 0.7% rutin[240]. It does not specify which part of the plant, though it is likely to be the leaves[K].

Medicinal Uses

Disclaimer

None known

Other Uses

Insecticide.

The leaves can be simmered in hot water to make an insecticide.

Cultivation details

A very easily grown plant, tolerant of considerable neglect, it prefers a deep, fertile, moderately heavy, humus rich, moisture retentive, well-drained soil in sun or semi-shade[200, 264]. It succeeds in most soils provided the drainage is good[200] and will grow in the dappled shade of trees so long as there is sufficient side light[K]. It grows well in heavy clay soils. Tolerates acid conditions but prefers a pH in the range 6.5 to 7[200].

Plants are very cold hardy, tolerating temperatures down to at least -20°c[200]. The plant does not like hot summers, however, and is likely to die in warmer climates[264].

Rhubarb is a long-lived and almost indestructible perennial plant[264]. It is often cultivated for its edible leaf stems, there are many named varieties[74, 183]. Most cultivars produce edible stems from spring to early summer, though 'Glaskin's Perpetual' can be harvested throughout the summer.

By digging up the roots in the autumn and exposing them to frost, earlier growth will be initiated. These roots can then be transferred to a cold frame or other protected area where they will produce their edible stems in late winter. It is also possible to produce earlier crops outdoors by covering the plants with a layer of straw and an upturned bucket.

This species is probably of hybrid origin, R. rhaponticum x R. palmatum[200]. It hybridizes freely with other members of the genus[200].

Plants in this genus seem to be immune to the predations of rabbits[233].

Propagation

Seed - best sown in autumn in a shaded cold frame[200]. The seed can also be sown in spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in the spring. This species is a hybrid and will not necessarily breed true to type from seed. However, this does give the opportunity to look for superior plants from amongst the seedlings.

Division in early spring or autumn[1, 111]. Divide up the rootstock with a sharp spade or knife, making sure that there is at least one growth bud on each division. Larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before

planting them out in late spring or early summer.

Cultivars

'Victoria' 'Giant Victoria' Myatt's Victoria'

The leaf stalks are very large, up to 8cm at their broadest diameter and up to 90cm long, they can weigh almost 1 kilo each whe well grown[183]. The stems are greenish, stained with red, the skin is rather thick, the flesh is green and tender, though not uite as sweet as some other cultivars[183]. An extremely heavy producer, it is reliably hardy and is excellent for comercial purposes[183].

'Timperley Early'

Produces rather thin, bright red stalks[183]. This is the earliest cultivar and most rapid forcer, when forced it can be ready by Christmas, whilst outdoor plants can be harvested in February in mild climates[183].

'Prince Albert' 'Mitchell's Royal Albert' 'Early Albert'

The long, thick, bright red stalks are more angular than channeled[183]. They are of excellent flavour[183]. A very early, hardy and prolific cultivar, it is the best cultivar for forcing under old bottomless buckets etc[183]. It does well from seed, but discard any plants that run to seed[183].

'Glaskin's Perpetual'

Greenish stalks of excellent flavour, they do not become bitter as they mature and so can be harvested in the summer much later than most cultivars[183]. They have the lowest oxalic acid content of any rhubarb[183].

'Canada Red' 'Canadian Red'

The long thick stalks are dark red from top to bottom with a strawberry-red flesh[183]. Juicy and sweet, they need less sweetening than many other cultivars and do not lose their colour when cooked[183]. A very tender texture, they never become tough or stringy, the tender skin does not need to be removed[183]. A highly productive plant, the stems can be harvested all summer[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK

How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Rheum x cultorum* (Rhubarb)
Varities: Brandy Carrscarlet, Cawood Delight, Royal Albert, Stockbridge Arrow

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Rheum x cultorum*

Subject:

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Rheum x cultorum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Sambucus nigra

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Elderberry	Family:	Caprifoliaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	The leaves and stems are poisonous[9, 76]. The fruit of many species (although no records have been seen for this species) has been known to cause stomach upsets to some people. Any toxin the fruit might contain is liable to be of very low toxicity and is destroyed when the fruit is cooked[65, 76].		
Range:	Britain.		
Habitat:	Hedgerows, scrub, woods, roadsides, waste places etc, especially on disturbed base-rich and nitrogen rich soils[9, 17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. nigra f. alba[G] S. nigra f. aurea[G] S. nigra f. laciniata[G] S. nigra f. pendula[G] S. nigrum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Elder [H], Bore Tree [H], Bour Tree [H], Bourtree [H], Common Elder [H,MS], Elder [H,L], Elder Rind [E], Elderberry [E], Ellhorn [H], European Black Elder [P,B], European Elder [E,H], Gewone Vlier [D], Khaman Kabir [E], Murver Agaci [E], Pipe Tree [H], Pipetree [H], Sauco [E], Seiyo-Niwatoko [E], Zovika [E],
Epithets:	From a Dictionary of Botanical Epithets
	nigra = black;

Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Iraq; Spain; Turkey; Yugoslavia(Bosnia)

Physical Characteristics

A decidious shrub growing to 6m by 6m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in leaf from March to November, in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Cultivar **'Alba'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Flowers; Fruit; Tea.

Fruit - raw or cooked[2, 3, 5, 46, 61]. The flavour of the raw fruit is not acceptable to many tastes, though when cooked it makes delicious jams, preserves, pies and so forth[K]. It can be used fresh or dried, the dried fruit being less bitter[12, 183, 238]. The fruit is used to add flavour and colour to preserves, jams, pies, sauces, chutneys etc, it is also often used to make wine[13, 183]. The fruit is about 8mm in diameter and is borne in large clusters[200]. Some caution is advised, see the notes above on toxicity.

Flowers - raw or cooked[2, 5, 12, 53]. They can also be dried for later use[21]. The flowers are crisp and somewhat juicy, they have an aromatic smell and flavour and are delicious raw as a refreshing snack on a summers day, though look out for the insects[K]. The flowers are used to add a muscatel flavour to stewed fruits, jellies and jams (especially gooseberry jam)[238]. They are often used to make a sparkling wine[183].

A sweet tea is made from the dried flowers[21, 183].

The leaves are used to impart a green colouring to oils and fats[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Aperient; Diaphoretic; Diuretic; Emetic; Emollient; Expectorant; Galactogogue; Haemostatic; Laxative; Ophthalmic; Purgative; Salve; Stimulant.

Elder has a very long history of household use as a medicinal herb and is also much used by herbalists[4]. The plant has been called 'the medicine chest of country people'[4]. The flowers are the main part used in modern herbalism, though all parts of the plant have been used at times[238].

Stimulant[9, 53, 165].

The inner bark is collected from young trees in the autumn and is best sun-dried[4]. It is diuretic, a strong purgative and in large doses emetic[4, 7]. It is used in the treatment of constipation and arthritic conditions[238]. An emollient ointment is made from the green inner bark[4].

The leaves can be used both fresh or dry. For drying, they are harvested in periods of fine weather during June and July. The leaves are purgative, but are more nauseous than the bark[4]. They are also diaphoretic, diuretic, expectorant and haemostatic[4, 7]. The juice is said to be a good treatment for inflamed eyes[4]. An ointment made from the leaves is emollient and is used in the treatment of bruises, sprains, chilblains, wounds etc[4].

The fresh flowers are used in the distillation of 'Elder Flower Water'. The flowers can be preserved with salt to make them available for distillation later in the season[4]. The water is mildly astringent and a gentle stimulant. It is mainly used as a vehicle for eye and skin lotions[4].

The dried flowers are diaphoretic, diuretic, expectorant, galactogogue and pectoral[4, 7]. An infusion is very effective in the treatment of chest complaints and is also used to bathe inflamed eyes[4]. The infusion is also a very good spring tonic and blood cleanser[4]. Externally, the flowers are used in poultices to ease pain and abate inflammation[4]. Used as an ointment, it treats chilblains, burns, wounds, scalds etc[4].

The fruit is depurative, weakly diaphoretic and gently laxative[4, 7]. A tea made from the dried berries is said to be a good remedy for colic and diarrhoea[4]. The fruit is widely used for making wines, preserves etc., and these are said to retain the medicinal properties of the fruit[4].

The pith of young stems is used in treating burns and scalds[46, 61, 100].

The root is no longer used in herbal medicine but it formerly had a high reputation as an emetic and purgative that was very effective against dropsy[4].

A homeopathic remedy is made from the fresh inner bark of young branches[4]. It relieves asthmatic symptoms and spurious croup in children[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Fungicide; Hedge; Insecticide; Litmus; Microscope; Musical; Pioneer; Pipes; Repellent; Wood.

The plant is a valuable addition to the compost heap[14, 18], its flowers are an alternative ingredient of 'QR' herbal compost activator[32] and the roots of the plant improve fermentation of the compost heap when growing nearby[18].

The leaves are used as an insect repellent[4, 6, 14, 66], very effective when rubbed on the skin though they do impart their own unique fragrance[K]. They can be powdered and placed amongst plants to act as a deterrent[14], or made into a spray when they act as an insecticide[7]. This is prepared by boiling 3 - 4 handfuls of leaves in a litre of water, then straining and allowing to cool before applying[201]. Effective against many insects, it also treats various fungal infections such as leaf rot and powdery mildew[201].The dried flowering shoots are used to repel insects, rodents etc[101].

The flowers are used in skin lotions, oils and ointments[238].

Tolerant of salt-laden gales, this species can be grown as a shelter hedge in exposed maritime areas[29, 75], it is rather bare in the winter though[K].

This is an excellent pioneer species to use when re-establishing woodlands. It is very tough and wind-resistant, grows quickly and provides shelter for longer-lived and taller woodland species to establish. It will generally maintain itself in the developing woodland, though usually in the sunnier positions[K].

A dye is obtained from the fruit and the bark[13, 15]. The bark of older branches and the root have been used as an ingredient in dyeing black[4].

A green dye is obtained from the leaves when alum is used as a mordant[4].

The berries yield various shades of blue and purple dyes[4]. They have also been used as a hair dye, turning the hair black[4].

The blue colouring matter from the fruit can be used as a litmus to test if something is acid or alkaline. It turns green in an alkaline solution and red in an acid solution[4].

The pith in the stems of young branches pushes out easily and the hollow stems thus made have been used as pipes for blowing air into a fire[4]. They can also be made into musical instruments[4].

The pith of the wood is used for making microscope slides and also for treating burns and scalds[46, 61, 100].

The mature wood is white and fine-grained. It is easily cut and polishes well[4]. Valued highly by carpenters, it has many used, for making skewers, mathematical instruments, toys etc[4, 13, 100, 244].

Cultivation details

A very easily grown plant, it tolerates most soils and situations[11, 28, 98], growing well on chalk[28, 98, 186], but prefers a moist loamy soil[200]. Grows well in heavy clay soils. Tolerates some shade but fruits better in a sunny position[37, 200]. Tolerates atmospheric pollution and coastal situations[200]. Another report says that it is intolerant of very smoky atmospheres[186].

The elder is very occasionally cultivated for its edible fruit, there are some named varieties though most of these have been developed for their ornamental value[182]. The sub-species S. nigra alba has white/green fruits that are nicer than the type species and are quite nice raw[K]. The elder also has a very long history of folk use, both medicinally and for a wide range of other uses. All in all it is a very valuable plant to have in the garden.

The leaves often begin to open as early as January and are fully open in April[186]. The leaves fall in October/November in exposed sites, later in sheltered positions[186]. Young stems can be killed by late frosts but they are soon replaced from the ground level[186]. Very tolerant of pruning, plants can be cut back to ground level and will regrow from the base[186].

The flowers have a sweet, almost overpowering smell, not exactly pleasant when inhaled near to for it has fishy undertones, but from a distance its musky scent is appealing[245].

Very resistant to the predations of rabbits[17, 186].

The flowers are very attractive to insects[186]. The fruit is very attractive to birds[186] and this can draw them away from other cultivated fruits[14, 186].

The elder is an early colonizer of derelict land, the seed arriving in the defecations of birds and mammals[186]. It is a very good pioneer species for re-establishing woodlands.

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame, when it should germinate in early spring. Stored seed can be sown in the spring in a cold frame but will probably germinate better if it is given 2 months warm followed by 2 months cold stratification first[78, 98, 113]. Prick out the seedlings into individual pots when they are large enough to handle. If good growth is made, the young plants can be placed in their permanent positions during the early summer. Otherwise, either put them in a sheltered nursery bed, or keep them in their pots in a sheltered position and plant them out in spring of the following year.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame[78].

Cuttings of mature wood of the current season's growth, 15 - 20cm with a heel, late autumn in a frame or a sheltered outdoor bed[78].

Division of suckers in the dormant season.

Scent

Leaves: Crushed

> The crushed foliage has a strong aroma.

Flowers: Fresh

> The flowers have a sweet, almost overpowering smell, not exactly pleasant when inhaled near to for it has fishy undertones, but from a distance its musky scent is appealing[245].

Cultivars

'Alba'

> The fruit of this form is very pale and seems to be much more acceptable to the human palate than the type species. In a taste test all 7 people found the raw fruit of this form quite acceptable to eat[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants

- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: S
- PFAF Plant Catalogue (S)
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Sambucus nigrum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *sambucus nigra* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and*

Man. HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN

0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Sambucus+nigra`

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Plants For A Future: Database Search Results

Sambucus nigra

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Elderberry	Family:	Caprifoliaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	The leaves and stems are poisonous[9, 76]. The fruit of many species (although no records have been seen for this species) has been known to cause stomach upsets to some people. Any toxin the fruit might contain is liable to be of very low toxicity and is destroyed when the fruit is cooked[65, 76].		
Range:	Britain.		
Habitat:	Hedgerows, scrub, woods, roadsides, waste places etc, especially on disturbed base-rich and nitrogen rich soils[9, 17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. nigra f. alba[G] S. nigra f. aurea[G] S. nigra f. laciniata[G] S. nigra f. pendula[G] S. nigrum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Elder [H], Bore Tree [H], Bour Tree [H], Bourtree [H], Common Elder [H,MS], Elder [H,L], Elder Rind [E], Elderberry [E], Ellhorn [H], European Black Elder [P,B], European Elder [E,H], Gewone Vlier [D], Khaman Kabir [E], Murver Agaci [E], Pipe Tree [H], Pipetree [H], Sauco [E], Seiyo-Niwatoko [E], Zovika [E],
Epithets:	From a Dictionary of Botanical Epithets
	nigra = black;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Iraq; Spain; Turkey; Yugoslavia(Bosnia)

Physical Characteristics

A decidious shrub growing to 6m by 6m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in leaf from March to November, in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Cultivar **'Alba'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Flowers; Fruit; Tea.

Fruit - raw or cooked[2, 3, 5, 46, 61]. The flavour of the raw fruit is not acceptable to many tastes, though when cooked it makes delicious jams, preserves, pies and so forth[K]. It can be used fresh or dried, the dried fruit being less bitter[12, 183, 238]. The fruit is used to add flavour and colour to preserves, jams, pies, sauces, chutneys etc, it is also often used to make wine[13, 183]. The fruit is about 8mm in diameter and is borne in large clusters[200]. Some caution is advised, see the notes above on toxicity.

Flowers - raw or cooked[2, 5, 12, 53]. They can also be dried for later use[21]. The flowers are crisp and somewhat juicy, they have an aromatic smell and flavour and are delicious raw as a refreshing snack on a summers day, though look out for the insects[K]. The flowers are used to add a muscatel flavour to stewed fruits, jellies and jams (especially gooseberry jam)[238]. They are often used to make a sparkling wine[183].

A sweet tea is made from the dried flowers[21, 183].

The leaves are used to impart a green colouring to oils and fats[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Aperient; Diaphoretic; Diuretic; Emetic; Emollient; Expectorant;

Galactogogue; Haemostatic; Laxative; Ophthalmic; Purgative; Salve; Stimulant.

Elder has a very long history of household use as a medicinal herb and is also much used by herbalists[4]. The plant has been called 'the medicine chest of country people'[4]. The flowers are the main part used in modern herbalism, though all parts of the plant have been used at times[238].

Stimulant[9, 53, 165].

The inner bark is collected from young trees in the autumn and is best sun-dried[4]. It is diuretic, a strong purgative and in large doses emetic[4, 7]. It is used in the treatment of constipation and arthritic conditions[238]. An emollient ointment is made from the green inner bark[4].

The leaves can be used both fresh or dry. For drying, they are harvested in periods of fine weather during June and July. The leaves are purgative, but are more nauseous than the bark[4]. They are also diaphoretic, diuretic, expectorant and haemostatic[4, 7]. The juice is said to be a good treatment for inflamed eyes[4]. An ointment made from the leaves is emollient and is used in the treatment of bruises, sprains, chilblains, wounds etc[4].

The fresh flowers are used in the distillation of 'Elder Flower Water'. The flowers can be preserved with salt to make them available for distillation later in the season[4]. The water is mildly astringent and a gentle stimulant. It is mainly used as a vehicle for eye and skin lotions[4].

The dried flowers are diaphoretic, diuretic, expectorant, galactogogue and pectoral[4, 7]. An infusion is very effective in the treatment of chest complaints and is also used to bathe inflamed eyes[4]. The infusion is also a very good spring tonic and blood cleanser[4]. Externally, the flowers are used in poultices to ease pain and abate inflammation[4]. Used as an ointment, it treats chilblains, burns, wounds, scalds etc[4].

The fruit is depurative, weakly diaphoretic and gently laxative[4, 7]. A tea made from the dried berries is said to be a good remedy for colic and diarrhoea[4]. The fruit is widely used for making wines, preserves etc., and these are said to retain the medicinal properties of the fruit[4].

The pith of young stems is used in treating burns and scalds[46, 61, 100].

The root is no longer used in herbal medicine but it formerly had a high reputation as an emetic and purgative that was very effective against dropsy[4].

A homeopathic remedy is made from the fresh inner bark of young branches[4]. It relieves asthmatic symptoms and spurious croup in children[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Fungicide; Hedge; Insecticide; Litmus; Microscope; Musical; Pioneer; Pipes; Repellent; Wood.

The plant is a valuable addition to the compost heap[14, 18], its flowers are an alternative ingredient of 'QR' herbal compost activator[32] and the roots of the plant improve fermentation of the compost heap when growing nearby[18].

The leaves are used as an insect repellent[4, 6, 14, 66], very effective when rubbed on the skin though they do impart their own unique fragrance[K]. They can be powdered and placed amongst plants to act as a deterrent[14], or made into a spray when they act as an insecticide[7]. This is prepared by boiling 3 - 4 handfuls of leaves in a litre of water, then straining and allowing to cool before applying[201]. Effective against many insects, it also treats various fungal infections such as leaf rot and powdery mildew[201].The dried flowering shoots are used to repel insects, rodents etc[101].

The flowers are used in skin lotions, oils and ointments[238].

Tolerant of salt-laden gales, this species can be grown as a shelter hedge in exposed maritime areas[29, 75], it is rather bare in the winter though[K].

This is an excellent pioneer species to use when re-establishing woodlands. It is very tough and wind-resistant, grows quickly and provides shelter for longer-lived and taller woodland species to establish. It will generally maintain itself in the developing woodland, though usually in the sunnier positions[K].

A dye is obtained from the fruit and the bark[13, 15]. The bark of older branches and the root have been used as an ingredient in dyeing black[4].

A green dye is obtained from the leaves when alum is used as a mordant[4].

The berries yield various shades of blue and purple dyes[4]. They have also been used as a hair dye, turning the hair black[4].

The blue colouring matter from the fruit can be used as a litmus to test if something is acid or alkaline. It turns green in an alkaline solution and red in an acid solution[4].

The pith in the stems of young branches pushes out easily and the hollow stems thus made have been used as pipes for blowing air into a fire[4]. They can also be made into musical instruments[4].

The pith of the wood is used for making microscope slides and also for treating burns and scalds[46, 61, 100].

The mature wood is white and fine-grained. It is easily cut and polishes well[4]. Valued highly by carpenters, it has many used, for making skewers, mathematical instruments, toys etc[4, 13, 100, 244].

Cultivation details

A very easily grown plant, it tolerates most soils and situations[11, 28, 98], growing well on chalk[28, 98, 186], but prefers a moist loamy soil[200]. Grows well in heavy clay soils. Tolerates some shade but fruits better in a sunny position[37, 200]. Tolerates atmospheric pollution and coastal situations[200]. Another report says that it is intolerant of very smoky atmospheres[186].

The elder is very occasionally cultivated for its edible fruit, there are some named varieties though most of these have been developed for their ornamental value[182]. The sub-species S. nigra alba has white/green fruits that are nicer than the type species and are quite nice raw[K]. The elder also has a very long history of folk use, both medicinally and for a wide range of other uses. All in all it is a very valuable plant to have in the garden.

The leaves often begin to open as early as January and are fully open in April[186]. The leaves fall in October/November in exposed sites, later in sheltered positions[186]. Young stems can be killed by late frosts but they are soon replaced from the ground level[186]. Very tolerant of pruning, plants can be cut back to ground level and will regrow from the base[186].

The flowers have a sweet, almost overpowering smell, not exactly pleasant when inhaled near to for it has fishy undertones, but from a distance its musky scent is appealing[245].

Very resistant to the predations of rabbits[17, 186].

The flowers are very attractive to insects[186]. The fruit is very attractive to birds[186] and this can draw them away from other cultivated fruits[14, 186].

The elder is an early colonizer of derelict land, the seed arriving in the defecations of birds and mammals[186]. It is a very good pioneer species for re-establishing woodlands.

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame, when it should germinate in early spring. Stored seed can be sown in the spring in a cold frame but will probably germinate better if it is given 2 months warm followed by 2 months cold stratification first[78, 98, 113]. Prick out the seedlings into individual pots when they are large enough to handle. If good growth is made, the young plants can be placed in their permanent positions during the early summer. Otherwise, either put them in a sheltered nursery bed, or keep them in their pots in a sheltered position and plant them out in spring of the following year.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame[78].

Cuttings of mature wood of the current season's growth, 15 - 20cm with a heel, late autumn in a frame or a sheltered outdoor bed[78].

Division of suckers in the dormant season.

Scent

Leaves: Crushed

> The crushed foliage has a strong aroma.

Flowers: Fresh

> The flowers have a sweet, almost overpowering smell, not exactly pleasant when inhaled near to for it has fishy undertones, but from a distance its musky scent is appealing[245].

Cultivars

'Alba'

> The fruit of this form is very pale and seems to be much more acceptable to the human palate than the type species. In a taste test all 7 people found the raw fruit of this form quite acceptable to eat[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: S-T
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: S
- PFAF Plant Catalogue (S)
- Checklist of plants suitable for hedging and windbreaks.

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Sambucus nigrum* (a possible synonym).

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- [HP] PhotoFrom Henriette's plant pictures
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References for the family Caprifoliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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A small booklet packed with information on trees and shrubs for hedging and shelterbelts in exposed maritime areas.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[186] **Beckett. G. and K.** *Planting Native Trees and Shrubs.* Jarrold 1979
An excellent guide to native British trees and shrubs with lots of details about the plants.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Sambucus nigra

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Elderberry	Family:	Caprifoliaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	The leaves and stems are poisonous[9, 76]. The fruit of many species (although no records have been seen for this species) has been known to cause stomach upsets to some people. Any toxin the fruit might contain is liable to be of very low toxicity and is destroyed when the fruit is cooked[65, 76].		
Range:	Britain.		
Habitat:	Hedgerows, scrub, woods, roadsides, waste places etc, especially on disturbed base-rich and nitrogen rich soils[9, 17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. nigra f. alba[G] S. nigra f. aurea[G] S. nigra f. laciniata[G] S. nigra f. pendula[G] S. nigrum[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Elder [H], Bore Tree [H], Bour Tree [H], Bourtree [H], Common Elder [H,MS], Elder [H,L], Elder Rind [E], Elderberry [E], Ellhorn [H], European Black Elder [P,B], European Elder [E,H], Gewone Vlier [D], Khaman Kabir [E], Murver Agaci [E], Pipe Tree [H], Pipetree [H], Sauco [E], Seiyo-Niwatoko [E], Zovika [E],
Epithets:	From a Dictionary of Botanical Epithets
	nigra = black;
Systematics:	From a UDSA Plants Database
	Order: Dipsacales . Honeysuckle family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Iraq; Spain; Turkey; Yugoslavia(Bosnia)

Physical Characteristics

A decidious shrub growing to 6m by 6m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in leaf from March to November, in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Cultivar **'Alba'**: Hedge, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Flowers; Fruit; Tea.

Fruit - raw or cooked[2, 3, 5, 46, 61]. The flavour of the raw fruit is not acceptable to many tastes, though when cooked it makes delicious jams, preserves, pies and so forth[K]. It can be used fresh or dried, the dried fruit being less bitter[12, 183, 238]. The fruit is used to add flavour and colour to preserves, jams, pies, sauces, chutneys etc, it is also often used to make wine[13, 183]. The fruit is about 8mm in diameter and is borne in large clusters[200]. Some caution is advised, see the notes above on toxicity.

Flowers - raw or cooked[2, 5, 12, 53]. They can also be dried for later use[21]. The flowers are crisp and somewhat juicy, they have an aromatic smell and flavour and are delicious raw as a refreshing snack on a summers day, though look out for the insects[K]. The flowers are used to add a muscatel flavour to stewed fruits, jellies and jams (especially gooseberry jam)[238]. They are often used to make a sparkling wine[183].

A sweet tea is made from the dried flowers[21, 183].

The leaves are used to impart a green colouring to oils and fats[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Aperient; Diaphoretic; Diuretic; Emetic; Emollient; Expectorant;

Galactogogue; Haemostatic; Laxative; Ophthalmic; Purgative; Salve; Stimulant.

Elder has a very long history of household use as a medicinal herb and is also much used by herbalists[4]. The plant has been called 'the medicine chest of country people'[4]. The flowers are the main part used in modern herbalism, though all parts of the plant have been used at times[238].

Stimulant[9, 53, 165].

The inner bark is collected from young trees in the autumn and is best sun-dried[4]. It is diuretic, a strong purgative and in large doses emetic[4, 7]. It is used in the treatment of constipation and arthritic conditions[238]. An emollient ointment is made from the green inner bark[4].

The leaves can be used both fresh or dry. For drying, they are harvested in periods of fine weather during June and July. The leaves are purgative, but are more nauseous than the bark[4]. They are also diaphoretic, diuretic, expectorant and haemostatic[4, 7]. The juice is said to be a good treatment for inflamed eyes[4]. An ointment made from the leaves is emollient and is used in the treatment of bruises, sprains, chilblains, wounds etc[4].

The fresh flowers are used in the distillation of 'Elder Flower Water'. The flowers can be preserved with salt to make them available for distillation later in the season[4]. The water is mildly astringent and a gentle stimulant. It is mainly used as a vehicle for eye and skin lotions[4].

The dried flowers are diaphoretic, diuretic, expectorant, galactogogue and pectoral[4, 7]. An infusion is very effective in the treatment of chest complaints and is also used to bathe inflamed eyes[4]. The infusion is also a very good spring tonic and blood cleanser[4]. Externally, the flowers are used in poultices to ease pain and abate inflammation[4]. Used as an ointment, it treats chilblains, burns, wounds, scalds etc[4].

The fruit is depurative, weakly diaphoretic and gently laxative[4, 7]. A tea made from the dried berries is said to be a good remedy for colic and diarrhoea[4]. The fruit is widely used for making wines, preserves etc., and these are said to retain the medicinal properties of the fruit[4].

The pith of young stems is used in treating burns and scalds[46, 61, 100].

The root is no longer used in herbal medicine but it formerly had a high reputation as an emetic and purgative that was very effective against dropsy[4].

A homeopathic remedy is made from the fresh inner bark of young branches[4]. It relieves asthmatic symptoms and spurious croup in children[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Fungicide; Hedge; Insecticide; Litmus; Microscope; Musical; Pioneer; Pipes; Repellent; Wood.

The plant is a valuable addition to the compost heap[14, 18], its flowers are an alternative ingredient of 'QR' herbal compost activator[32] and the roots of the plant improve fermentation of the compost heap when growing nearby[18].

The leaves are used as an insect repellent[4, 6, 14, 66], very effective when rubbed on the skin though they do impart their own unique fragrance[K]. They can be powdered and placed amongst plants to act as a deterrent[14], or made into a spray when they act as an insecticide[7]. This is prepared by boiling 3 - 4 handfuls of leaves in a litre of water, then straining and allowing to cool before applying[201]. Effective against many insects, it also treats various fungal infections such as leaf rot and powdery mildew[201].The dried flowering shoots are used to repel insects, rodents etc[101].

The flowers are used in skin lotions, oils and ointments[238].

Tolerant of salt-laden gales, this species can be grown as a shelter hedge in exposed maritime areas[29, 75], it is rather bare in the winter though[K].

This is an excellent pioneer species to use when re-establishing woodlands. It is very tough and wind-resistant, grows quickly and provides shelter for longer-lived and taller woodland species to establish. It will generally maintain itself in the developing woodland, though usually in the sunnier positions[K].

A dye is obtained from the fruit and the bark[13, 15]. The bark of older branches and the root have been used as an ingredient in dyeing black[4].

A green dye is obtained from the leaves when alum is used as a mordant[4].

The berries yield various shades of blue and purple dyes[4]. They have also been used as a hair dye, turning the hair black[4].

The blue colouring matter from the fruit can be used as a litmus to test if something is acid or alkaline. It turns green in an alkaline solution and red in an acid solution[4].

The pith in the stems of young branches pushes out easily and the hollow stems thus made have been used as pipes for blowing air into a fire[4]. They can also be made into musical instruments[4].

The pith of the wood is used for making microscope slides and also for treating burns and scalds[46, 61, 100].

The mature wood is white and fine-grained. It is easily cut and polishes well[4]. Valued highly by carpenters, it has many used, for making skewers, mathematical instruments, toys etc[4, 13, 100, 244].

Cultivation details

A very easily grown plant, it tolerates most soils and situations[11, 28, 98], growing well on chalk[28, 98, 186], but prefers a moist loamy soil[200]. Grows well in heavy clay soils. Tolerates some shade but fruits better in a sunny position[37, 200]. Tolerates atmospheric pollution and coastal situations[200]. Another report says that it is intolerant of very smoky atmospheres[186].

The elder is very occasionally cultivated for its edible fruit, there are some named varieties though most of these have been developed for their ornamental value[182]. The sub-species S. nigra alba has white/green fruits that are nicer than the type species and are quite nice raw[K]. The elder also has a very long history of folk use, both medicinally and for a wide range of other uses. All in all it is a very valuable plant to have in the garden.

The leaves often begin to open as early as January and are fully open in April[186]. The leaves fall in October/November in exposed sites, later in sheltered positions[186]. Young stems can be killed by late frosts but they are soon replaced from the ground level[186]. Very tolerant of pruning, plants can be cut back to ground level and will regrow from the base[186].

The flowers have a sweet, almost overpowering smell, not exactly pleasant when inhaled near to for it has fishy undertones, but from a distance its musky scent is appealing[245].

Very resistant to the predations of rabbits[17, 186].

The flowers are very attractive to insects[186]. The fruit is very attractive to birds[186] and this can draw them away from other cultivated fruits[14, 186].

The elder is an early colonizer of derelict land, the seed arriving in the defecations of birds and mammals[186]. It is a very good pioneer species for re-establishing woodlands.

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame, when it should germinate in early spring. Stored seed can be sown in the spring in a cold frame but will probably germinate better if it is given 2 months warm followed by 2 months cold stratification first[78, 98, 113]. Prick out the seedlings into individual pots when they are large enough to handle. If good growth is made, the young plants can be placed in their permanent positions during the early summer. Otherwise, either put them in a sheltered nursery bed, or keep them in their pots in a sheltered position and plant them out in spring of the following year.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in a frame[78].

Cuttings of mature wood of the current season's growth, 15 - 20cm with a heel, late autumn in a frame or a sheltered outdoor bed[78].

Division of suckers in the dormant season.

Scent

Leaves: Crushed

The crushed foliage has a strong aroma.

Flowers: Fresh

The flowers have a sweet, almost overpowering smell, not exactly pleasant when inhaled near to for it has fishy undertones, but from a distance its musky scent is appealing[245].

Cultivars

'Alba'

The fruit of this form is very pale and seems to be much more acceptable to the human palate than the type species. In a taste test all 7 people found the raw fruit of this form quite acceptable to eat[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Sambucus nigra*

Subject:

Sambucus nigra

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Sambucus nigra

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Spinacia oleracea

Common name:	Spinach	Family:	Chenopodiaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The leaves of most varieties of spinach are high in oxalic acid[218]. Although not toxic, this substance does lock up certain minerals in a meal, especially calcium, making them unavailable to the body. Therefore mineral deficiencies can result from eating too much of any leaf that contains oxalic acid. However, the mineral content of spinach leaves is quite high so the disbenifits are to a large extent outweighed by the benefits. There are also special low-oxalic varieties of spinach that have been developed. Cooking the leaves will also reduce the content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	The origin of this plant is uncertain, it probably arose in S.W. Asia.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. inermis[G] S. oleracea var. inermis[G] S. spinosa[G] Spinaca oleracea[H]
	From various places around the Web, may not be correct. See below.

Other Common Names:	Ch'Ih Ken Ts'Ai [E], Epinard [E], Espinaca [E], Ispanak [E], Ispinakh [E], Po Leng Ts'Ai [E], Po Ssu Ts'Ao [E], Po Ts'Ai [E], Spinach [B,H,E,P,L], Spinagh [E], Spinazie [D],	
Epithets:	From a Dictionary of Botanical Epithets	
	oleracea = vegetable like;	
Systematics:	From a UDSA Plants Database	
	Order: Caryophyllales . Goosefoot family	
Other Range Info:	From the Ethnobotany Database	
	China; Dominican Republic; Haiti; Iraq; Turkey; Us	
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.	
	Plant Passport Required for commercial growers in the UK/Europe.	

Physical Characteristics

Annual growing to 0.3m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in leaf all year, in flower from June to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - raw or cooked[1, 2, 16, 37, 132]. Tender young leaves can be added to salads, older leaves are used as greens or added to soups etc[183, 201]. The leaves contain oxalic acid (6 - 8% in young leaves, 23 - 27% in the cotyledons)[218], see the notes above on toxicity. A nutritional analysis of the leaves is available[218].

Seeds - raw or cooked. It can be sprouted and added to salads[183].

Chlorophyll extracted from the leaves is used as an edible green dye[142].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 285 Protein: 28 Fat: 5.5 Carbohydrate: 40 Fibre: 8 Ash: 23
In milligrammes per 100g weight of food:
Calcium: 800 Phosphorus: 415 Iron: 80 Sodium: 650 Potassium: 4500 VitaminA: 50
Thiamine: 0.7 Riboflavin: 2 Niacin: 8 VitaminC: 600
Source: [218]
Notes: The values here are based on the median figures of those quoted in the report. Vitamin A figures are in milligrammes.

Medicinal Uses

Disclaimer

Carminative; Febrifuge; Hypoglycaemic; Laxative.

The plant is carminative and laxative[218]. In experiments it has been shown to have hypoglycaemic properties[218]. It has been used in the treatment of urinary calculi[240].

The leaves have been used in the treatment of febrile conditions, inflammation of the lungs and the bowels[240].

The seeds are laxative and cooling[240]. They have been used in the treatment of difficult breathing, inflammation of the liver and jaundice[240].

Other Uses

Dye.

A yellow dye is obtained from the leaves[100].

Cultivation details

Plants grow best and produce their heaviest crop of leaves on a nitrogen-rich soil[16, 37, 200]. They dislike very heavy or very light soils[37]. They also dislike acid soils, preferring a neutral to slightly alkaline soil[200]. Plants require plenty of moisture in the growing season, dry summers causing the plants to quickly run to seed[27]. Summer crops do best in light shade to encourage more leaf production before the plant goes to seed[27], winter crops require a warm dry sunny position[1, 27].

Young plants are hardy to about -9°c[200].

Spinach is often cultivated for its edible leaves, there are some named varieties[132, 183]. These varieties can be grouped into two main types as detailed below:-

Forms with prickly seeds. These are the more primitive forms. Their leaves are more lobed and they are in general more cold tolerant and also more resistant of summer heat[264]. They were more often used to produce a crop in the winter[200, 264].

Forms with round seeds have been developed in cultivation, These have broader leaves, tend to be less cold hardy and were also more prone to bolt in hot weather[264]. They were used mainly for the summer crop[200]. Most new cultivars are of the round seeded variety and these have been developed to be more resistant to bolting in hot weather, more cold tolerant, to produce more leaves and also to be lower in calcium oxalate which causes bitterness and also has negative nutritional effects upon the body[264].

Some modern varieties have been developed that are low in oxalic acid. Edible leaves can be obtained all year round from successional sowings[200]. The summer varieties tend to run to seed fairly quickly, especially in hot dry summers and so you need to make successional sowings every few weeks if a constant supply is required. Winter varieties provide leaves for a longer period, though they soon run to seed when the weather warms up.

Spinach grows well with strawberries[18, 20]. It also grows well with cabbages, onions, peas and celery[201]. A fast-growing plant, the summer crop can be interplanted between rows of slower growing plants such as Brussels sprouts. The spinach would have been harvested before the other crop needs the extra space[200]. Spinach is a bad companion for grapes and hyssop[201].

Propagation

Seed - sow in situ from March to June for a summer crop. Make successional sowings, perhaps once a month, to ensure a continuity of supply. The seed germinates within about 2 weeks and the first leaves can be harvested about 6 weeks later. Seed is sown in situ during August and September for a winter crop.

Cultivars

"

> There are some named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Spinaca oleracea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Chenopodiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants*

(Including the Supplement). Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with

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Readers Comments

Spinacia oleracea

Klaus Dichtel Fri Jan 24 13:56:40 2003

Last june I cooked besides the leaves of "Monopa" & "Matador" the flowers and flowerstems. This meal gave an unpleasant burning in the mouth and had to be quit.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Spinacia+oleracea`
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Plants For A Future: Database Search Results

Spinacia oleracea

Common name:	Spinach	Family:	Chenopodiaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The leaves of most varieties of spinach are high in oxalic acid[218]. Although not toxic, this substance does lock up certain minerals in a meal, especially calcium, making them unavailable to the body. Therefore mineral deficiencies can result from eating too much of any leaf that contains oxalic acid. However, the mineral content of spinach leaves is quite high so the disbenifits are to a large extent outweighed by the benefits. There are also special low-oxalic varieties of spinach that have been developed. Cooking the leaves will also reduce the content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	The origin of this plant is uncertain, it probably arose in S.W. Asia.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	S. inermis[G] S. oleracea var. inermis[G] S. spinosa[G] Spinaca oleracea[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ih Ken Ts'Ai [E], Epinard [E], Espinaca [E], Ispanak [E], Ispinakh [E], Po Leng Ts'Ai [E], Po Ssu Ts'Ao [E], Po Ts'Ai [E], Spinach [B,H,E,P,L], Spinagh [E], Spinazie [D],
Epithets:	From a Dictionary of Botanical Epithets

	oleracea = vegetable like;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; Iraq; Turkey; Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.3m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in leaf all year, in flower from June to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

Leaves - raw or cooked[1, 2, 16, 37, 132]. Tender young leaves can be added to salads, older leaves are used as greens or added to soups etc[183, 201]. The leaves contain oxalic acid (6 - 8% in young leaves, 23 - 27% in the cotyledons)[218], see the notes above on toxicity. A nutritional analysis of the leaves is available[218].

Seeds - raw or cooked. It can be sprouted and added to salads[183].

Chlorophyll extracted from the leaves is used as an edible green dye[142].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 285 Protein: 28 Fat: 5.5 Carbohydrate: 40 Fibre: 8 Ash: 23
In milligrammes per 100g weight of food:
Calcium: 800 Phosphorus: 415 Iron: 80 Sodium: 650 Potassium: 4500 VitaminA: 50
Thiamine: 0.7 Riboflavin: 2 Niacin: 8 VitaminC: 600
Source: [218]
Notes: The values here are based on the median figures of those quoted in the report. Vitamin A figures are in milligrammes.

Medicinal Uses

Disclaimer

Carminative; Febrifuge; Hypoglycaemic; Laxative.

The plant is carminative and laxative[218]. In experiments it has been shown to have hypoglycaemic properties[218]. It has been used in the treatment of urinary calculi[240].

The leaves have been used in the treatment of febrile conditions, inflammation of the lungs and the bowels[240].

The seeds are laxative and cooling[240]. They have been used in the treatment of difficult breathing, inflammation of the liver and jaundice[240].

Other Uses

Dye.

A yellow dye is obtained from the leaves[100].

Cultivation details

Plants grow best and produce their heaviest crop of leaves on a nitrogen-rich soil[16, 37, 200]. They dislike very heavy or very light soils[37]. They also dislike acid soils, preferring a neutral to slightly alkaline soil[200]. Plants require plenty of moisture in the growing season, dry summers causing the plants to quickly run to seed[27]. Summer crops do best in light shade to encourage more leaf production before the plant goes to seed[27], winter crops require a warm dry sunny position[1, 27].

Young plants are hardy to about -9°c[200].

Spinach is often cultivated for its edible leaves, there are some named varieties[132, 183]. These varieties can be grouped into two main types as detailed below:-

Forms with prickly seeds. These are the more primitive forms. Their leaves are more lobed and they are in general more cold tolerant and also more resistant of summer heat[264]. They were more often used to produce a crop in the winter[200, 264].

Forms with round seeds have been developed in cultivation, These have broader leaves, tend to be less cold hardy and were also more prone to bolt in hot weather[264]. They were used mainly for the summer crop[200]. Most new cultivars are of the round seeded variety and these have been developed to be more resistant to bolting in hot weather, more cold tolerant, to produce more leaves and also to be lower in calcium oxalate which causes bitterness and also has negative nutritional effects upon the body[264].

Some modern varieties have been developed that are low in oxalic acid. Edible leaves can be obtained all year round from successional sowings[200]. The summer varieties tend to run to seed fairly quickly, especially in hot dry summers and so you need to make successional sowings every few weeks if a constant supply is required. Winter varieties provide leaves for a longer period, though they soon run to seed when the weather warms up.

Spinach grows well with strawberries[18, 20]. It also grows well with cabbages, onions, peas and celery[201]. A fast-growing plant, the summer crop can be interplanted between rows of slower growing plants such as Brussels sprouts. The spinach would have been harvested before the other crop needs the extra space[200]. Spinach is a bad companion for grapes and hyssop[201].

Propagation

Seed - sow in situ from March to June for a summer crop. Make successional sowings, perhaps once a month, to ensure a continuity of supply. The seed germinates within about 2 weeks and the first leaves can be harvested about 6 weeks later. Seed is sown in situ during August and September for a winter crop.

Cultivars

"

> There are some named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Spinaca oleracea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Chenopodiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

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Range:	The origin of this plant is uncertain, it probably arose in S.W. Asia.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets

	oleracea = vegetable like;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Haiti; Iraq; Turkey; Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.3m at a fast rate. It is hardy to zone 5 and is not frost tender. It is in leaf all year, in flower from June to September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Leaves; Seed.

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Seeds - raw or cooked. It can be sprouted and added to salads[183].

Chlorophyll extracted from the leaves is used as an edible green dye[142].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 285 Protein: 28 Fat: 5.5 Carbohydrate: 40 Fibre: 8 Ash: 23
In milligrammes per 100g weight of food:
Calcium: 800 Phosphorus: 415 Iron: 80 Sodium: 650 Potassium: 4500 VitaminA: 50
Thiamine: 0.7 Riboflavin: 2 Niacin: 8 VitaminC: 600
Source: [218]
Notes: The values here are based on the median figures of those quoted in the report. Vitamin A figures are in milligrammes.

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Disclaimer

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The leaves have been used in the treatment of febrile conditions, inflammation of the lungs and the bowels[240].

The seeds are laxative and cooling[240]. They have been used in the treatment of difficult breathing, inflammation of the liver and jaundice[240].

Other Uses

Dye.

A yellow dye is obtained from the leaves[100].

Cultivation details

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Spinach grows well with strawberries[18, 20]. It also grows well with cabbages, onions, peas and celery[201]. A fast-growing plant, the summer crop can be interplanted between rows of slower growing plants such as Brussels sprouts. The spinach would have been harvested before the other crop needs the extra space[200]. Spinach is a bad companion for grapes and hyssop[201].

Propagation

Seed - sow in situ from March to June for a summer crop. Make successional sowings, perhaps once a month, to ensure a continuity of supply. The seed germinates within about 2 weeks and the first leaves can be harvested about 6 weeks later. Seed is sown in situ during August and September for a winter crop.

Cultivars

"

> There are some named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

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Add a comment on: *Spinacia oleracea*

Subject:

Spinacia oleracea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Spinacia oleracea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:47:55 2004

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Symplocos caudata

Common name:		Family:	Symplocaceae
Author:	Wallich.	Botanical references:	58, 109
Synonyms:	Symplocos prunifolia (Siebold.&Zucc.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods, 1000 - 1300 metres in W. Hupeh[109].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Shan Fan [E],
Epithets:	From a Dictionary of Botanical Epithets
	caudata = with tail; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Sweetleaf family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen tree. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Edible Uses

Colouring; Condiment; Leaves; Seed.

Leaves - cooked. A sweetish/sour taste[178]. The leaves are also used as a food colouring and a flavouring[177].

Seed[178]. No more details are given.

Medicinal Uses

Disclaimer

Miscellany.

The leaves are used in the treatment of dysentery[218].

Other Uses

Dye; Mordant; Parasiticide.

A purplish/black dye is obtained from the plant, it does not require a mordant[178]. No more details are given, the dye is probably obtained from the leaves[K].

A decoction with ginger is used as a parasiticide and is effective against fleas[178, 213]. The part used is not specified[K].

We have no specific information for this species but many species in this genus contain alum and can be used as mordants when dyeing[168].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Succeeds in a sunny position in any well-drained fertile neutral to acid soil[182, 200].

Self-sterile, it needs cross-pollination with a different plant in the same species if seed and fruit are to be produced[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires stratification and is best sown in a cold frame in late winter, it can take 12 months to germinate[11]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the cold frame for their first winter. Plant out in late spring or early summer.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in individual pots in a cold frame[78, 200]. Roots are formed in about 4 weeks. Good percentage[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Symplocos prunifolia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Symplocaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[109] **Wilson. E. H.** *Plantae Wilsonae.*
Details of the palnts collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Readers Comments

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Plants For A Future: Database Search Results

Symplocos caudata

Common name:		Family:	Symplocaceae
Author:	Wallich.	Botanical references:	58, 109
Synonyms:	Symplocos prunifolia (Siebold.&Zucc.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods, 1000 - 1300 metres in W. Hupeh[109].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Shan Fan [E],
Epithets:	From a Dictionary of Botanical Epithets
	caudata = with tail; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Sweetleaf family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen tree. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Edible Uses

Colouring; Condiment; Leaves; Seed.

Leaves - cooked. A sweetish/sour taste[178]. The leaves are also used as a food colouring and a flavouring[177].

Seed[178]. No more details are given.

Medicinal Uses

Disclaimer

Miscellany.

The leaves are used in the treatment of dysentery[218].

Other Uses

Dye; Mordant; Parasiticide.

A purplish/black dye is obtained from the plant, it does not require a mordant[178]. No more details are given, the dye is probably obtained from the leaves[K].

A decoction with ginger is used as a parasiticide and is effective against fleas[178, 213]. The part used is not specified[K].

We have no specific information for this species but many species in this genus contain alum and can be used as mordants when dyeing[168].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Succeeds in a sunny position in any well-drained fertile neutral to acid soil[182, 200].

Self-sterile, it needs cross-pollination with a different plant in the same species if seed and fruit are to be produced[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires stratification and is best sown in a cold frame in late winter, it can take 12 months to germinate[11]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the cold frame for their first winter. Plant out in late spring or early summer.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in individual pots in a cold frame[78, 200]. Roots are formed in about 4 weeks. Good percentage[78].

Suppliers

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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References

[K] **Ken Fern**
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Plants For A Future: Database Search Results

Symplocos caudata

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Author:	Wallich.	Botanical references:	58, 109
Synonyms:	Symplocos prunifolia (Siebold.&Zucc.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Woods, 1000 - 1300 metres in W. Hupeh[109].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Shan Fan [E],
Epithets:	From a Dictionary of Botanical Epithets
	caudata = with tail; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Ebenales . Sweetleaf family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

An evergreen tree. . It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge.

Edible Uses

Colouring; Condiment; Leaves; Seed.

Leaves - cooked. A sweetish/sour taste[178]. The leaves are also used as a food colouring and a flavouring[177].

Seed[178]. No more details are given.

Medicinal Uses

Disclaimer

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The leaves are used in the treatment of dysentery[218].

Other Uses

Dye; Mordant; Parasiticide.

A purplish/black dye is obtained from the plant, it does not require a mordant[178]. No more details are given, the dye is probably obtained from the leaves[K].

A decoction with ginger is used as a parasiticide and is effective against fleas[178, 213]. The part used is not specified[K].

We have no specific information for this species but many species in this genus contain alum and can be used as mordants when dyeing[168].

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it could succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Succeeds in a sunny position in any well-drained fertile neutral to acid soil[182, 200].

Self-sterile, it needs cross-pollination with a different plant in the same species if seed and fruit are to be produced[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stored seed requires stratification and is best sown in a cold frame in late winter, it can take 12 months to germinate[11]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the cold frame for their first winter. Plant out in late spring or early summer.

Cuttings of half-ripe wood, 7 - 10cm with a heel, July/August in individual pots in a cold frame[78, 200]. Roots are formed in about 4 weeks. Good percentage[78].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Subject:

Symplocos caudata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Symplocos caudata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Tagetes erecta

Common name:	African marigold	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Grows in the pine-oak forest zone[181]. A garden escape in the USA where it grows along the sides of roads[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. major[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	African Marigold [H], Aztec Marigold [B,P], Big Marigold [E], Chambergo [E], Clavel De Los Muertos [E], Fleurs Souci [E], Souci [E],
Epithets:	From a Dictionary of Botanical Epithets
	erecta = erect; recta = erect;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Brazil; China; Cuba; Dominican Republic; Haiti; India; Mexico; Mexico(Chinantec); Panama; Panama(Choco); Us

Physical Characteristics

Annual growing to 1m by 0.4m . It is hardy to zone 9 and is frost tender. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Yellow Climax'**: Cultivated Beds.

Edible Uses

Colouring; Condiment; Flowers.

The petals of the flowers of some varieties can be eaten[183].

A yellow dye obtained from the flowers can be used as a saffron substitute for colouring and flavouring foods[183].

The plant is used as a condiment[177]. (This probably refers to the use of the flowers as an edible dye)

Medicinal Uses

Disclaimer

Anthelmintic; Aromatic; Digestive; Diuretic; Emmenagogue; Ophthalmic; Sedative; Skin; Stomachic.

The whole herb is anthelmintic, aromatic, digestive, diuretic, emmenagogue, sedative and stomachic[61, 238]. It is used internally in the treatment of indigestion, colic, severe constipation[238], coughs and dysentery[218]. Externally, it is used to treat sores, ulcers, eczema. sore eyes and rheumatism[218, 238, 257]. The leaves are harvested as required for immediate use during the growing season, whilst the flowering plant can be dried and stored for later use[238].

A decoction of the flowers is used to treat colds, conjunctivitis, mumps, sore eyes etc[218].

Other Uses

Dye; Insecticide; Repellent.

Secretions from the roots of growing plants have an insecticidal effect on the soil, effective against nematodes and to some extent against keeled slugs. These secretions are produced about 3 - 4 months after sowing[200]. The flower petals also have nematacidal properties[218]. The growing plant is also said to repel insects and can be grown amongst crops such as potatoes and tomatoes.

A yellow dye is obtained from the flowers[169, 257].

Cultivation details

Requires a well-drained moderately fertile soil in a sunny position[200]. Grows well in heavy clay soils and in sandy soils[188].

Although not very frost resistant, it can be grown as a tender annual in Britain, sowing the seed in a greenhouse in the spring and planting out after the last expected frosts.

A number of named forms have been developed for their ornamental value[183]. The cultivar 'Yellow Climax' has mild flavoured edible flowers that can be used as colourful garnishes[183].

All parts of the plant emit an unpleasant smell similar to that of stale urine when they are bruised[245].

Removing dead flowers before the seed is formed will extend the flowering season[188].

Plants are prone to attacks by slugs, snails and botrytis[188].

Propagation

Seed - sow March in a greenhouse. Only just cover the seed. Germination usually takes place within 2 weeks. When they are large enough to handle, prick the seedlings out into individual pots and plant them out after the last expected frosts.

Scent

Plant: Crushed

> All parts of the plant emit an unpleasant smell similar to that of stale urine when they are bruised[245].

Cultivars

'Yellow Climax'

A form with mild flavoured edible flowers that can be used as colourful garnishes[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN

3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[181] **Pesman. M. W.** *Meet Flora Mexicana.* Dale S. King. Arizona. 1962
Very readable flora but rather lacking botanically. A few notes on useful plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Tagetes+erecta`
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Plants For A Future: Database Search Results

Tagetes erecta

Common name:	African marigold	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Grows in the pine-oak forest zone[181]. A garden escape in the USA where it grows along the sides of roads[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. major[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	African Marigold [H], Aztec Marigold [B,P], Big Marigold [E], Chambergo [E], Clavel De Los Muertos [E], Fleurs Souci [E], Souci [E],
Epithets:	From a Dictionary of Botanical Epithets
	erecta = erect; recta = erect;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Brazil; China; Cuba; Dominican Republic; Haiti; India; Mexico; Mexico(Chinantec); Panama; Panama(Choco); Us

Physical Characteristics

Annual growing to 1m by 0.4m . It is hardy to zone 9 and is frost tender. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Yellow Climax'**: Cultivated Beds.

Edible Uses

Colouring; Condiment; Flowers.

The petals of the flowers of some varieties can be eaten[183].

A yellow dye obtained from the flowers can be used as a saffron substitute for colouring and flavouring foods[183].

The plant is used as a condiment[177]. (This probably refers to the use of the flowers as an edible dye)

Medicinal Uses

Disclaimer

Anthelmintic; Aromatic; Digestive; Diuretic; Emmenagogue; Ophthalmic; Sedative; Skin; Stomachic.

The whole herb is anthelmintic, aromatic, digestive, diuretic, emmenagogue, sedative and stomachic[61, 238]. It is used internally in the treatment of indigestion, colic, severe constipation[238], coughs and dysentery[218]. Externally, it is used to treat sores, ulcers, eczema. sore eyes and rheumatism[218, 238, 257]. The leaves are harvested as required for immediate use during the growing season, whilst the flowering plant can be dried and stored for later use[238].

A decoction of the flowers is used to treat colds, conjunctivitis, mumps, sore eyes etc[218].

Other Uses

Dye; Insecticide; Repellent.

Secretions from the roots of growing plants have an insecticidal effect on the soil, effective against nematodes and to some extent against keeled slugs. These secretions are produced about 3 - 4 months after sowing[200]. The flower petals also have nematacidal properties[218]. The growing plant is also said to repel insects and can be grown amongst crops such as potatoes and tomatoes.

A yellow dye is obtained from the flowers[169, 257].

Cultivation details

Requires a well-drained moderately fertile soil in a sunny position[200]. Grows well in heavy clay soils and in sandy soils[188].

Although not very frost resistant, it can be grown as a tender annual in Britain, sowing the seed in a greenhouse in the spring and planting out after the last expected frosts.

A number of named forms have been developed for their ornamental value[183]. The cultivar 'Yellow Climax' has mild flavoured edible flowers that can be used as colourful garnishes[183].

All parts of the plant emit an unpleasant smell similar to that of stale urine when they are bruised[245].

Removing dead flowers before the seed is formed will extend the flowering season[188].

Plants are prone to attacks by slugs, snails and botrytis[188].

Propagation

Seed - sow March in a greenhouse. Only just cover the seed. Germination usually takes place within 2 weeks. When they are large enough to handle, prick the seedlings out into individual pots and plant them out after the last expected frosts.

Scent

Plant: Crushed

> All parts of the plant emit an unpleasant smell similar to that of stale urine when they are bruised[245].

Cultivars

'Yellow Climax'

> A form with mild flavoured edible flowers that can be used as colourful garnishes[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[181] **Pesman. M. W.** *Meet Flora Mexicana.* Dale S. King. Arizona. 1962
Very readable flora but rather lacking botanically. A few notes on useful plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

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Range:	Southern N. America - Mexico.		
Habitat:	Grows in the pine-oak forest zone[181]. A garden escape in the USA where it grows along the sides of roads[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. major[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	African Marigold [H], Aztec Marigold [B,P], Big Marigold [E], Chambergo [E], Clavel De Los Muertos [E], Fleurs Souci [E], Souci [E],
Epithets:	From a Dictionary of Botanical Epithets
	erecta = erect; recta = erect;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Brazil; China; Cuba; Dominican Republic; Haiti; India; Mexico; Mexico(Chinantec); Panama; Panama(Choco); Us

Physical Characteristics

Annual growing to 1m by 0.4m . It is hardy to zone 9 and is frost tender. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Cultivar **'Yellow Climax'**: Cultivated Beds.

Edible Uses

Colouring; Condiment; Flowers.

The petals of the flowers of some varieties can be eaten[183].

A yellow dye obtained from the flowers can be used as a saffron substitute for colouring and flavouring foods[183].

The plant is used as a condiment[177]. (This probably refers to the use of the flowers as an edible dye)

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Disclaimer

Anthelmintic; Aromatic; Digestive; Diuretic; Emmenagogue; Ophthalmic; Sedative; Skin; Stomachic.

The whole herb is anthelmintic, aromatic, digestive, diuretic, emmenagogue, sedative and stomachic[61, 238]. It is used internally in the treatment of indigestion, colic, severe constipation[238], coughs and dysentery[218]. Externally, it is used to treat sores, ulcers, eczema. sore eyes and rheumatism[218, 238, 257]. The leaves are harvested as required for immediate use during the growing season, whilst the flowering plant can be dried and stored for later use[238].

A decoction of the flowers is used to treat colds, conjunctivitis, mumps, sore eyes etc[218].

Other Uses

Dye; Insecticide; Repellent.

Secretions from the roots of growing plants have an insecticidal effect on the soil, effective against nematodes and to some extent against keeled slugs. These secretions are produced about 3 - 4 months after sowing[200]. The flower petals also have nematacidal properties[218]. The growing plant is also said to repel insects and can be grown amongst crops such as potatoes and tomatoes.

A yellow dye is obtained from the flowers[169, 257].

Cultivation details

Requires a well-drained moderately fertile soil in a sunny position[200]. Grows well in heavy clay soils and in sandy soils[188].

Although not very frost resistant, it can be grown as a tender annual in Britain, sowing the seed in a greenhouse in the spring and planting out after the last expected frosts.

A number of named forms have been developed for their ornamental value[183]. The cultivar 'Yellow Climax' has mild flavoured edible flowers that can be used as colourful garnishes[183].

All parts of the plant emit an unpleasant smell similar to that of stale urine when they are bruised[245].

Removing dead flowers before the seed is formed will extend the flowering season[188].

Plants are prone to attacks by slugs, snails and botrytis[188].

Propagation

Seed - sow March in a greenhouse. Only just cover the seed. Germination usually takes place within 2 weeks. When they are large enough to handle, prick the seedlings out into individual pots and plant them out after the last expected frosts.

Scent

Plant: Crushed

> All parts of the plant emit an unpleasant smell similar to that of stale urine when they are bruised[245].

Cultivars

'Yellow Climax'

> A form with mild flavoured edible flowers that can be used as colourful garnishes[183].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Tagetes erecta*

Subject:

Tagetes erecta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Tagetes erecta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:48:46 2004

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Tagetes patula

Common name:	French marigold	Family:	Compositae
Author:	L.	Botanical references:	71, 181
Synonyms:	Tagetes lunulata (Ortega.)		
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	The pine-oak forest zone[181]. Naturalized in California where it grows on waste ground[71].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. corymbosa[B,P] T. remotiflora[B,P] T. signata[P] T. tenuifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Clavel De Los Muertos [E], Copada [E], Flewurs Souci [E], French Marigold [P,B], Gula Zard [E], Ja'Fari [E], Qadifah [E], Souci [E],
Epithets:	From a Dictionary of Botanical Epithets
	patula = spreading;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; China; Colombia; Dominican Republic; Haiti; Iraq; Kurdistan; Philippines; Venezuela

Physical Characteristics

Annual growing to 0.5m by 0.3m . It is hardy to zone 9 and is frost tender. It is in flower from July to October, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Drink.

The flowers are used in refreshing drinks[177, 183].

The leaves are used as a food flavouring[183, 238]. No further details are given.

The essential oil is used as a food flavouring, though it is inferior to the oil obtained from T. minuta[238].

The dried flowers are an adulterant of saffron(Crocus sativus), used for colouring foods yellow[183, 238].

Medicinal Uses

Disclaimer

Aromatic; Digestive; Diuretic; Sedative.

The whole herb is aromatic, digestive, diuretic and sedative[238]. It is used internally in the treatment of indigestion, colic, severe constipation[238], coughs and dysentery[218]. Externally, it is used to treat sore eyes and rheumatism[238]. The leaves are harvested as required for immediate use during the growing season, whilst the flowering plant can be dried and stored for later use[238].

Other Uses

Dye; Essential; Insecticide; Repellent.

Secretions from the roots of growing plants have an insecticidal effect on the soil, effective against nematodes and to some extent against keeled slugs[18, 20, 200, 218]. These secretions are produced about 3 - 4 months after sowing[200].

The whole plant is harvested when in flower and distilled for its essential oil[218, 238].The oil is used in perfumery, it is blended with sandalwood oil to produce 'attar genda' perfume[238]. About 35 kilos of oil can be extracted from 1 hectare of the plant (yielding 2,500 kilos of flowers and 25,000 kilos of herbage)[218].

The whole plant contains substances that are toxic to cockroaches[218].

The growing plant repels whitefly and can be grown near tomatoes to keep that crop free of the insect[18, 20].

A yellow dye is obtained from the flowers[169]. It is used to colour foods and textiles[238]. The flowers are sometimes used as an adulterant of saffron (obtained from Crocus sativus)[238].

Cultivation details

Requires a well-drained moderately fertile soil in a sunny position[200]. Grows well in heavy clay soils and in sandy soils[188].

A very ornamental plant[1], there are many named varieties[188].

A good butterfly plant[30].

Removing dead flowers before the seed is formed will extend the flowering season[188].

The bruised leaves emit a refreshing pungent smell[245].

Plants are prone to slugs, snails and botrytis[188].

The French marigold is often used as a companion plant, especially for growing amongst tomatoes and potatoes where it helps to repel pests[238]. See 'Other uses' below for more details.

Propagation

Seed - sow March in a greenhouse. Only just cover the seed. Germination usually takes place within 2 weeks. When they are large enough to handle, prick the seedlings out into individual pots and plant them out after the last expected frosts.

Scent

Leaves: Crushed

The bruised leaves emit a refreshing pungent smell[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Tagetes patula

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Author:	L.	Botanical references:	71, 181
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Range:	Southern N. America - Mexico.		
Habitat:	The pine-oak forest zone[181]. Naturalized in California where it grows on waste ground[71].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. corymbosa[B,P] T. remotiflora[B,P] T. signata[P] T. tenuifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Clavel De Los Muertos [E], Copada [E], Flewurs Souci [E], French Marigold [P,B], Gula Zard [E], Ja'Fari [E], Qadifah [E], Souci [E],
Epithets:	From a Dictionary of Botanical Epithets
	patula = spreading;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; China; Colombia; Dominican Republic; Haiti; Iraq; Kurdistan; Philippines; Venezuela

Physical Characteristics

Annual growing to 0.5m by 0.3m . It is hardy to zone 9 and is frost tender. It is in flower from July to October, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it

3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Drink.

The flowers are used in refreshing drinks[177, 183].

The leaves are used as a food flavouring[183, 238]. No further details are given.

The essential oil is used as a food flavouring, though it is inferior to the oil obtained from T. minuta[238].

The dried flowers are an adulterant of saffron(Crocus sativus), used for colouring foods yellow[183, 238].

Medicinal Uses

Disclaimer

Aromatic; Digestive; Diuretic; Sedative.

The whole herb is aromatic, digestive, diuretic and sedative[238]. It is used internally in the treatment of indigestion, colic, severe constipation[238], coughs and dysentery[218]. Externally, it is used to treat sore eyes and rheumatism[238]. The leaves are harvested as required for immediate use during the growing season, whilst the flowering plant can be dried and stored for later use[238].

Other Uses

Dye; Essential; Insecticide; Repellent.

Secretions from the roots of growing plants have an insecticidal effect on the soil, effective against nematodes and to some extent against keeled slugs[18, 20, 200, 218]. These secretions are produced about 3 - 4 months after sowing[200].

The whole plant is harvested when in flower and distilled for its essential oil[218, 238].The oil is used in perfumery, it is blended with sandalwood oil to produce 'attar genda' perfume[238]. About 35 kilos of oil can be extracted from 1 hectare of the plant (yielding 2,500 kilos of flowers and 25,000 kilos of herbage)[218].

The whole plant contains substances that are toxic to cockroaches[218].

The growing plant repels whitefly and can be grown near tomatoes to keep that crop free of the insect[18, 20].

A yellow dye is obtained from the flowers[169]. It is used to colour foods and textiles[238]. The flowers are sometimes used as an adulterant of saffron (obtained from Crocus sativus)[238].

Cultivation details

Requires a well-drained moderately fertile soil in a sunny position[200]. Grows well in heavy clay soils and in sandy soils[188].

A very ornamental plant[1], there are many named varieties[188].

A good butterfly plant[30].

Removing dead flowers before the seed is formed will extend the flowering season[188].

The bruised leaves emit a refreshing pungent smell[245].

Plants are prone to slugs, snails and botrytis[188].

The French marigold is often used as a companion plant, especially for growing amongst tomatoes and potatoes where it helps to repel pests[238]. See 'Other uses' below for more details.

Propagation

Seed - sow March in a greenhouse. Only just cover the seed. Germination usually takes place within 2 weeks. When they are large enough to handle, prick the seedlings out into individual pots and plant them out after the last expected frosts.

Scent

Leaves: Crushed

> The bruised leaves emit a refreshing pungent smell[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[181] **Pesman. M. W.** *Meet Flora Mexicana.* Dale S. King. Arizona. 1962
Very readable flora but rather lacking botanically. A few notes on useful plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Tagetes patula

Common name:	French marigold	Family:	Compositae
Author:	L.	Botanical references:	71, 181
Synonyms:	Tagetes lunulata (Ortega.)		
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	The pine-oak forest zone[181]. Naturalized in California where it grows on waste ground[71].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	T. corymbosa[B,P] T. remotiflora[B,P] T. signata[P] T. tenuifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Clavel De Los Muertos [E], Copada [E], Flewurs Souci [E], French Marigold [P,B], Gula Zard [E], Ja'Fari [E], Qadifah [E], Souci [E],
Epithets:	From a Dictionary of Botanical Epithets
	patula = spreading;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Argentina; China; Colombia; Dominican Republic; Haiti; Iraq; Kurdistan; Philippines; Venezuela

Physical Characteristics

Annual growing to 0.5m by 0.3m . It is hardy to zone 9 and is frost tender. It is in flower from July to October, and the seeds ripen in September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it

3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Colouring; Condiment; Drink.

The flowers are used in refreshing drinks[177, 183].

The leaves are used as a food flavouring[183, 238]. No further details are given.

The essential oil is used as a food flavouring, though it is inferior to the oil obtained from T. minuta[238].

The dried flowers are an adulterant of saffron(Crocus sativus), used for colouring foods yellow[183, 238].

Medicinal Uses

Disclaimer

Aromatic; Digestive; Diuretic; Sedative.

The whole herb is aromatic, digestive, diuretic and sedative[238]. It is used internally in the treatment of indigestion, colic, severe constipation[238], coughs and dysentery[218]. Externally, it is used to treat sore eyes and rheumatism[238]. The leaves are harvested as required for immediate use during the growing season, whilst the flowering plant can be dried and stored for later use[238].

Other Uses

Dye; Essential; Insecticide; Repellent.

Secretions from the roots of growing plants have an insecticidal effect on the soil, effective against nematodes and to some extent against keeled slugs[18, 20, 200, 218]. These secretions are produced about 3 - 4 months after sowing[200].

The whole plant is harvested when in flower and distilled for its essential oil[218, 238].The oil is used in perfumery, it is blended with sandalwood oil to produce 'attar genda' perfume[238]. About 35 kilos of oil can be extracted from 1 hectare of the plant (yielding 2,500 kilos of flowers and 25,000 kilos of herbage)[218].

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A yellow dye is obtained from the flowers[169]. It is used to colour foods and textiles[238]. The flowers are sometimes used as an adulterant of saffron (obtained from Crocus sativus)[238].

Cultivation details

Requires a well-drained moderately fertile soil in a sunny position[200]. Grows well in heavy clay soils and in sandy soils[188].

A very ornamental plant[1], there are many named varieties[188].

A good butterfly plant[30].

Removing dead flowers before the seed is formed will extend the flowering season[188].

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Plants are prone to slugs, snails and botrytis[188].

The French marigold is often used as a companion plant, especially for growing amongst tomatoes and potatoes where it helps to repel pests[238]. See 'Other uses' below for more details.

Propagation

Seed - sow March in a greenhouse. Only just cover the seed. Germination usually takes place within 2 weeks. When they are large enough to handle, prick the seedlings out into individual pots and plant them out after the last expected frosts.

Scent

Leaves: Crushed

> The bruised leaves emit a refreshing pungent smell[245].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Tagetes patula

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Tagetes patula

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Tritonia crocata

Common name:		Family:	Iridaceae
Author:	(L.) Ker-Gawl.	Botanical references:	200
Synonyms:	Tritonia hyalina ((L.f.)Ker Gawl.)		
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	Dry clay flats and slopes in the southern Cape[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Ixia crocata[G] Ixia hyalina[G]
Epithets:	From a Dictionary of Botanical Epithets
	crocata = saffron yellow;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 0.5m by 0.1m . It is hardy to zone 9. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Sunny Edge.

Edible Uses

Colouring; Condiment.

The flowers are used as an adulterant of saffron in flavouring food and colouring it yellow[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sunny position, preferring a well-drained neutral to slightly acid soil with a pH in the range 6.5 to 7[200]. Requires moisture in the winter and spring followed by a dry period in the summer and early autumn[260].

A difficult plant to grow outdoors in Britain, it comes into growth in the winter and flowers in the spring[214, 260]. The growing plant is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Closely related to T. squallida, apparently differing only in the colour of the flowers[200].

Propagation

Seed - sow early spring in a greenhouse at 15°c[200]. It usually germinates freely[1]. Seed can also be sown as soon as it is ripe in the autumn in a warm greenhouse[200]. Sow the seed thinly so that the seedlings can be left undisturbed in the pot for their first two years of growth. Give them an occasional liquid feed in the growing season to ensure they do not become nutrient deficient. When the plants become dormant in the summer, pot up the small bulbs placing 2 - 3 bulbs in each pot. Grow them on for another one or two years in the greenhouse before planting them out when they are dormant in late summer.

Division. Dig up the corms in October, dry them in well ventilated conditions at about 20°c and then store them in a cool but frost-free place over the winter, planting them out about 10cm deep in April[1, 200]. Corms should be planted out in the autumn[188].

Cormlets harvested when digging up the corms in the autumn can be stored in a similar manner to the corms[200]. Larger cormlets can be planted out in spring, smaller ones may be best grown on for a year in the greenhouse.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Tritonia hyalina* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Excellent range of photographs, some cultivation details but very little information on plant uses.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Tritonia crocata

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Author:	(L.) Ker-Gawl.	Botanical references:	200
Synonyms:	Tritonia hyalina ((L.f.)Ker Gawl.)		
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	Dry clay flats and slopes in the southern Cape[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	crocata = saffron yellow;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Sunny Edge.

Edible Uses

Colouring; Condiment.

The flowers are used as an adulterant of saffron in flavouring food and colouring it yellow[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sunny position, preferring a well-drained neutral to slightly acid soil with a pH in the range 6.5 to 7[200]. Requires moisture in the winter and spring followed by a dry period in the summer and early autumn[260].

A difficult plant to grow outdoors in Britain, it comes into growth in the winter and flowers in the spring[214, 260]. The growing plant is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Closely related to T. squallida, apparently differing only in the colour of the flowers[200].

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Division. Dig up the corms in October, dry them in well ventilated conditions at about 20°c and then store them in a cool but frost-free place over the winter, planting them out about 10cm deep in April[1, 200]. Corms should be planted out in the autumn[188].

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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[214] **Matthews. V.** *The New Plantsman. Volume 1, 1994.* Royal Horticultural Society 1994 ISBN 1352-4186
A quarterly magazine, it has articles on Himalayacalamus hookerianus, hardy Euphorbias and an excellent article on Hippophae spp.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Tritonia+crocata`
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Plants For A Future: Database Search Results

Tritonia crocata

Common name:		Family:	Iridaceae
Author:	(L.) Ker-Gawl.	Botanical references:	200
Synonyms:	Tritonia hyalina ((L.f.)Ker Gawl.)		
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	Dry clay flats and slopes in the southern Cape[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Ixia crocata[G] Ixia hyalina[G]
Epithets:	From a Dictionary of Botanical Epithets
	crocata = saffron yellow;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Corm growing to 0.5m by 0.1m . It is hardy to zone 9. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Sunny Edge.

Edible Uses

Colouring; Condiment.

The flowers are used as an adulterant of saffron in flavouring food and colouring it yellow[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sunny position, preferring a well-drained neutral to slightly acid soil with a pH in the range 6.5 to 7[200]. Requires moisture in the winter and spring followed by a dry period in the summer and early autumn[260].

A difficult plant to grow outdoors in Britain, it comes into growth in the winter and flowers in the spring[214, 260]. The growing plant is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Closely related to T. squallida, apparently differing only in the colour of the flowers[200].

Propagation

Seed - sow early spring in a greenhouse at 15°c[200]. It usually germinates freely[1]. Seed can also be sown as soon as it is ripe in the autumn in a warm greenhouse[200]. Sow the seed thinly so that the seedlings can be left undisturbed in the pot for their first two years of growth. Give them an occasional liquid feed in the growing season to ensure they do not become nutrient deficient. When the plants become dormant in the summer, pot up the small bulbs placing 2 - 3 bulbs in each pot. Grow them on for another one or two years in the greenhouse before planting them out when they are dormant in late summer.

Division. Dig up the corms in October, dry them in well ventilated conditions at about 20°c and then store them in a cool but frost-free place over the winter, planting them out about 10cm deep in April[1, 200]. Corms should be planted out in the autumn[188].

Cormlets harvested when digging up the corms in the autumn can be stored in a similar manner to the corms[200]. Larger cormlets can be planted out in spring, smaller ones may be best grown on for a year in the greenhouse.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Tritonia+crocata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Tritonia+crocata`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Tritonia crocata*

Subject:

Tritonia crocata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Tritonia crocata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Urtica dioica

Common name:	Stinging nettle	Family:	Urticaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The leaves of the plants have stinging hairs, causing irritation to the skin[21, 200]. This action is neutralized by heat or by thorough drying, so the cooked leaves are perfectly safe and nutritious[200]. However, only young leaves should be used because older leaves develop gritty particles called cystoliths which act as an irritant to the kidneys[172].		
Range:	Britain.		
Habitat:	Waste ground, hedgerows, woods etc, preferring a rich soil and avoiding acid soils[4, 9].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bigstring Nettle [E], Common Nettle [L], Common Stinging Nettle [H], Gerrais [E], Greater Nettle [H], Grote Brandnetel [D], Isirgan [E], Kazink [E], Nabat Al Nar [E], Nettle [H], Nettle, Stinging [S], Nettle,Common [E], Ortiga Mayor [E], Stinging Nettle [P,S,B,FEIS,H,E,L], Stinging Nettles [S],
Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
	Order: Urticales . Nettle family

Other Range Info:	From the Ethnobotany Database
	Britain; Canada(Kwakiutl); Canada(Nootka); Czechoslovakia; Europe; India; Iraq; Kurdistan; Spain; Turkey; Us; Us(Flathead); Ussr

Physical Characteristics

Perennial growing to 1.2m by 1m at a fast rate. It is not frost tender. It is in leaf from March to November, in flower from May to October, and the seeds ripen from June to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Curdling agent; Drink; Leaves.

Young leaves - cooked as a potherb and added to soups etc[1, 2, 9, 12, 13, 36, 183]. They can also be dried for winter use[12]. Nettles are a very valuable addition to the diet[244], they are a very nutritious food that is easily digested and is high in minerals (especially iron) and vitamins (especially A and C)[4, 201, 238]. Only use young leaves (see the notes above on toxicity) and wear stout gloves when harvesting them to prevent being stung. Cooking the leaves, or thoroughly drying them, neutralizes the sting, rendering the leaf safe to eat[4, 244]. The young shoots, harvested in the spring when 15 - 20cm long complete with the underground stem are very nice[85]. Old leaves can be laxative[5].

The plants are harvested commercially for extraction of the chlorophyll, which is used as a green colouring agent (E140) in foods and medicines[238].

A tea is made from the dried leaves, it is warming on a winters day[21, 183]. A bland flavour, it can be added as a tonic to China tea[238].

The juice of the leaves, or a decoction of the herb, can be used as a rennet substitute in curdling plant milks[183].

Nettle beer is brewed from the young shoots[200].

Medicinal Uses

Disclaimer

Antiasthmatic; Antidandruff; Astringent; Diuretic; Galactogogue; Haemostatic; Hypoglycaemic; Stings; Tonic.

Nettles have a long history of use in the home as a herbal remedy and nutritious addition to the diet[K]. A tea made from the leaves has traditionally been used as a cleansing tonic and blood purifier so the plant is often used in the treatment of hay fever, arthritis, anaemia etc[254].

The whole plant is antiasthmatic, antidandruff, astringent, depurative, diuretic, galactogogue, haemostatic, hypoglycaemic and a stimulating tonic[4, 9, 21, 36, 165, 238]. An infusion of the plant is very valuable in stemming internal bleeding[4], it is also used to treat anaemia, excessive menstruation, haemorrhoids, arthritis, rheumatism and skin complaints, especially eczema[238]. Externally, the plant is used to treat skin complaints, arthritic pain, gout, sciatica, neuralgia, haemorrhoids, hair problems etc[238].

The fresh leaves of nettles have been rubbed or beaten onto the skin in the treatment of rheumatism etc[257]. This practice, called urtification, causes intense irritation to the skin as it is stung by the nettles. It is believed that this treatment works in two ways. Firstly, it acts as a counter-irritant, bringing more blood to the area to help remove the toxins that cause rheumatism. Secondly, the formic acid from the nettles is believed to have a beneficial effect upon the rheumatic joints.

For medicinal purposes, the plant is best harvested in May or June as it is coming into flower and dried for later use[4, 238].

This species merits further study for possible uses against kidney and urinary system ailments[222].

The juice of the nettle can be used as an antidote to stings from the leaves and an infusion of the fresh leaves is healing and soothing as a lotion for burns[4].

The root has been shown to have a beneficial effect upon enlarged prostate glands[254].

A homeopathic remedy is made from the leaves[4]. It is used in the treatment of rheumatic gout, nettle rash and chickenpox, externally is applied to bruises[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

make a credit card donation with PayPal

Other Uses

Biomass; Compost; Dye; Fibre; Hair; Liquid feed; Oil; Repellent; Waterproofing.

A strong flax-like fibre is obtained from the stems[200]. Used for making string and cloth[1, 4, 6, 13, 36], it also makes a good quality paper[115]. It is harvested as the plant begins to die down in early autumn and is retted before the fibres are extracted[4, 99]. The fibre is produced in less abundance than from flax (Linun usitatissimum) and is also more difficult to extract[4].

The plant matter left over after the fibres have been extracted are a good source of biomass and have been used in the manufacture of sugar, starch, protein and ethyl alcohol[4].

An oil obtained from the seeds is used as an illuminant[4].

An essential ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. The leaves are also an excellent addition to the compost heap[12, 18, 20] and they can be soaked for 7 - 21 days in water to make a very nutritious liquid feed for plants[54]. This liquid feed is both insect repellent and a good foliar feed[14, 18, 53].

The growing plant increases the essential oil content of other nearby plants, thus making them more resistant to insect pests[18, 20, 54].

Although many different species of insects feed on nettles, flies are repelled by the plant so a bunch of freshly cut stems has been used as a repellent in food cupboards[4].

The juice of the plant, or a decoction formed by boiling the herb in a strong solution of salt, will curdle milks and thus acts as a rennet substitute[4]. This same juice, if rubbed into small seams of leaky wooden tubs, will coagulate and make the tub watertight again[4].

A hair wash is made from the infused leaves and this is used as a tonic and antidandruff treatment[172, 201].

A beautiful and permanent green dye is obtained from a decoction of the leaves and stems[4, 115].

A yellow dye is obtained from the root when boiled with alum[4, 115].

Cultivation details

Prefers a soil rich in phosphates and nitrogen. Plants must be grown in a deep rich soil if good quality fibre is required[4, 115].

Nettles are one of the most undervalued of economic plants. They have a wide range of uses, for food, medicines, fibres etc and are also a very important plant for wildlife. There at least 30 species of insects that feed on it and the caterpillars of several lepidoptera species are dependant upon it for food[30]. Especially when growing in rich soils, the plant can spread vigorously and is very difficult to eradicate. It is said that cutting the plant down three times a year for three years will kill it[4]. It is a good companion plant to grow in the orchard and amongst soft fruit[53, 54]. So long as it is not allowed to totally over-run the plants, it seems to improve the health of soft fruit that grows nearby and also to protect the fruit from birds, but it makes harvesting very difficult.

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a cold frame, only just covering the seed. Prick out the seedlings into individual pots when they are large enough to handle, and plant them out in the summer.

Division succeeds at almost any time in the growing season. Very easy, plant them straight out into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Help
- PFAF Species Database Bibliography
- PFAF Database Search: Canned Queries
- Fiber Plants
- Why Perennials
- Woodland Garden Plants

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life

forms

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [R] Rainforest medicinal Data (common names, medicinal uses, images) from the Rain-Tree.

References for *urtica dioica* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x

An excellent book on Lepidoptera, it also lists their favourite food plants.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[36] **The Herb Society** *Herbal Review. Vol.11. 3.* The Herb Society 1986 ISBN 0264-9853
A very interesting article on the stinging nettle, Urtica dioica, giving a lot of information on its uses. Also details on Tanacetum parthenifolium and Melaleuca alternifolium.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N.*

America. Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Urtica+dioica`
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Plants For A Future: Database Search Results

Urtica dioica

Common name:	Stinging nettle	Family:	Urticaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The leaves of the plants have stinging hairs, causing irritation to the skin[21, 200]. This action is neutralized by heat or by thorough drying, so the cooked leaves are perfectly safe and nutritious[200]. However, only young leaves should be used because older leaves develop gritty particles called cystoliths which act as an irritant to the kidneys[172].		
Range:	Britain.		
Habitat:	Waste ground, hedgerows, woods etc, preferring a rich soil and avoiding acid soils[4, 9].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bigstring Nettle [E], Common Nettle [L], Common Stinging Nettle [H], Gerrais [E], Greater Nettle [H], Grote Brandnetel [D], Isirgan [E], Kazink [E], Nabat Al Nar [E], Nettle [H], Nettle, Stinging [S], Nettle,Common [E], Ortiga Mayor [E], Stinging Nettle [P,S,B,FEIS,H,E,L], Stinging Nettles [S],
Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
	Order: Urticales . Nettle family
Other Range Info:	From the Ethnobotany Database
	Britain; Canada(Kwakiutl); Canada(Nootka); Czechoslovakia; Europe; India; Iraq; Kurdistan; Spain; Turkey; Us; Us(Flathead); Ussr

Physical Characteristics

Perennial growing to 1.2m by 1m at a fast rate. It is not frost tender. It is in leaf from March to November, in flower from May to October, and the seeds ripen from June to October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Colouring; Curdling agent; Drink; Leaves.

Young leaves - cooked as a potherb and added to soups etc[1, 2, 9, 12, 13, 36, 183]. They can also be dried for winter use[12]. Nettles are a very valuable addition to the diet[244], they are a very nutritious food that is easily digested and is high in minerals (especially iron) and vitamins (especially A and C)[4, 201, 238]. Only use young leaves (see the notes above on toxicity) and wear stout gloves when harvesting them to prevent being stung. Cooking the leaves, or thoroughly drying them, neutralizes the sting, rendering the leaf safe to eat[4, 244]. The young shoots, harvested in the spring when 15 - 20cm long complete with the underground stem are very nice[85]. Old leaves can be laxative[5].

The plants are harvested commercially for extraction of the chlorophyll, which is used as a green colouring agent (E140) in foods and medicines[238].

A tea is made from the dried leaves, it is warming on a winters day[21, 183]. A bland flavour, it can be added as a tonic to China tea[238].

The juice of the leaves, or a decoction of the herb, can be used as a rennet substitute in curdling plant milks[183].

Nettle beer is brewed from the young shoots[200].

Medicinal Uses

Disclaimer

Antiasthmatic; Antidandruff; Astringent; Diuretic; Galactogogue; Haemostatic; Hypoglycaemic; Stings; Tonic.

Nettles have a long history of use in the home as a herbal remedy and nutritious addition to the diet[K]. A tea made from the leaves has traditionally been used as a cleansing tonic and blood purifier so the plant is often used in the treatment of hay fever, arthritis, anaemia etc[254].

The whole plant is antiasthmatic, antidandruff, astringent, depurative, diuretic, galactogogue, haemostatic, hypoglycaemic and a stimulating tonic[4, 9, 21, 36, 165, 238]. An infusion of the plant is very valuable in stemming internal bleeding[4], it is also used to treat anaemia, excessive menstruation, haemorrhoids, arthritis, rheumatism and skin complaints, especially eczema[238]. Externally, the plant is used to treat skin complaints, arthritic pain, gout, sciatica, neuralgia, haemorrhoids, hair problems etc[238].

The fresh leaves of nettles have been rubbed or beaten onto the skin in the treatment of rheumatism etc[257]. This practice, called urtification, causes intense irritation to the skin as it is stung by the nettles. It is believed that this treatment works in two ways. Firstly, it acts as a counter-irritant, bringing more blood to the area to help remove the toxins that cause rheumatism. Secondly, the formic acid from the nettles is believed to have a beneficial effect upon the rheumatic joints.

For medicinal purposes, the plant is best harvested in May or June as it is coming into flower and dried for later use[4, 238].

This species merits further study for possible uses against kidney and urinary system ailments[222].

The juice of the nettle can be used as an antidote to stings from the leaves and an infusion of the fresh leaves is healing and soothing as a lotion for burns[4].

The root has been shown to have a beneficial effect upon enlarged prostate glands[254].

A homeopathic remedy is made from the leaves[4]. It is used in the treatment of rheumatic gout, nettle rash and chickenpox, externally is applied to bruises[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Biomass; Compost; Dye; Fibre; Hair; Liquid feed; Oil; Repellent; Waterproofing.

A strong flax-like fibre is obtained from the stems[200]. Used for making string and cloth[1, 4, 6, 13, 36], it also makes a good quality paper[115]. It is harvested as the plant begins to die down in early autumn and is retted before the fibres are extracted[4, 99]. The fibre is produced in less abundance than from flax (Linun usitatissimum) and is also more difficult to extract[4].

The plant matter left over after the fibres have been extracted are a good source of biomass and have been used in the manufacture of sugar, starch, protein and ethyl alcohol[4].

An oil obtained from the seeds is used as an illuminant[4].

An essential ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K]. The leaves are also an excellent addition to the compost heap[12, 18, 20] and they can be soaked for 7 - 21 days in water to make a very nutritious liquid feed for plants[54]. This liquid feed is both insect repellent and a good foliar feed[14, 18, 53].

The growing plant increases the essential oil content of other nearby plants, thus making them more resistant to insect pests[18, 20, 54].

Although many different species of insects feed on nettles, flies are repelled by the plant so a bunch of freshly cut stems has been used as a repellent in food cupboards[4].

The juice of the plant, or a decoction formed by boiling the herb in a strong solution of salt, will curdle milks and thus acts as a rennet substitute[4]. This same juice, if rubbed into small seams of leaky wooden tubs, will coagulate and make the tub watertight again[4].

A hair wash is made from the infused leaves and this is used as a tonic and antidandruff treatment[172, 201].

A beautiful and permanent green dye is obtained from a decoction of the leaves and stems[4, 115].

A yellow dye is obtained from the root when boiled with alum[4, 115].

Cultivation details

Prefers a soil rich in phosphates and nitrogen. Plants must be grown in a deep rich soil if good quality fibre is required[4, 115].

Nettles are one of the most undervalued of economic plants. They have a wide range of uses, for food, medicines, fibres etc and are also a very important plant for wildlife. There are at least 30 species of insects that feed on it and the caterpillars of several lepidoptera species are dependant upon it for food[30]. Especially when growing in rich soils, the plant can spread vigorously and is very difficult to eradicate. It is said that cutting the plant down three times a year for three years will kill it[4]. It is a good companion plant to grow in the orchard and amongst soft fruit[53, 54]. So long as it is not allowed to totally over-run the plants, it seems to improve the health of soft fruit that grows nearby and also to protect the fruit from birds, but it makes harvesting very difficult.

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a cold frame, only just covering the seed. Prick out the seedlings into individual pots when they are large enough to handle, and plant them out in the summer.

Division succeeds at almost any time in the growing season. Very easy, plant them straight out into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Help
- PFAF Species Database Bibliography
- PFAF Database Search: Canned Queries
- Fiber Plants
- Why Perennials
- Woodland Garden Plants

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [R] Rainforest medicinal Data (common names, medicinal uses, images) from the Rain-Tree.

References for *urtica dioica* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951

Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[32] **Bruce. M. E.** *Commonsense Compost Making.* Faber 1977 ISBN 0-571-09990-4
Excellent little booklet dealing with how to make compost by using herbs to activate the heap. Gives full details of the herbs that are used.

[36] **The Herb Society** *Herbal Review. Vol.11. 3.* The Herb Society 1986 ISBN 0264-9853

A very interesting article on the stinging nettle, Urtica dioica, giving a lot of information on its uses. Also details on Tanacetum parthenifolium and Melaleuca alternifolium.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31

A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Urtica+dioica`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Urtica+dioica`

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Plants For A Future: Database Search Results

Urtica dioica

Common name:	Stinging nettle	Family:	Urticaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	The leaves of the plants have stinging hairs, causing irritation to the skin[21, 200]. This action is neutralized by heat or by thorough drying, so the cooked leaves are perfectly safe and nutritious[200]. However, only young leaves should be used because older leaves develop gritty particles called cystoliths which act as an irritant to the kidneys[172].		
Range:	Britain.		
Habitat:	Waste ground, hedgerows, woods etc, preferring a rich soil and avoiding acid soils[4, 9].		
Plants For A Future Rating (1-5):	5		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bigstring Nettle [E], Common Nettle [L], Common Stinging Nettle [H], Gerrais [E], Greater Nettle [H], Grote Brandnetel [D], Isirgan [E], Kazink [E], Nabat Al Nar [E], Nettle [H], Nettle, Stinging [S], Nettle,Common [E], Ortiga Mayor [E], Stinging Nettle [P,S,B,FEIS,H,E,L], Stinging Nettles [S],
Epithets:	From a Dictionary of Botanical Epithets
	dioica = dioecious (lit. 2 houses referring to male and female parts on different plants);
Systematics:	From a UDSA Plants Database
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Edible Uses

Colouring; Curdling agent; Drink; Leaves.

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Other Uses

Biomass; Compost; Dye; Fibre; Hair; Liquid feed; Oil; Repellent; Waterproofing.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Urtica dioica*

Subject:

Urtica dioica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Urtica dioica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Search for

Edible Use: Condiment (548);

Latin Name	Common Name	Description	PFAF Rating
Abelmoschus moschatus	Musk mallow	Condiment	2
Abies balsamea	Balsam fir	Condiment	3
Abies fraseri	She balsam	Condiment	2
Acer glabrum	Rock maple	Condiment	3
Achillea ageratum	Mace	Condiment	2
Achillea millefolium	Yarrow	Condiment	4
Acinos alpinus	Alpine calamint	Condiment	1
Acinos arvensis	Basil thyme	Condiment	2
Acinos rotundifolius		Condiment	1
Acorus calamus	Sweet flag	Condiment	4
Acorus gramineus		Condiment	3
Agastache cana	Hoary balm of gilead	Condiment	2
Agastache rugosa	Korean mint	Condiment	4
Aloysia triphylla	Lemon verbena	Condiment	4
Ammi majus	Bishop's weed	Condiment	3
Amorpha fruticosa	False indigo	Condiment	3
Anethum graveolens	Dill	Condiment	4
Angelica archangelica	Angelica	Condiment	4
Angelica genuflexa	Kneeling angelica	Condiment	3
Angelica glauca		Condiment	3
Angelica japonica		Condiment	3
Angelica sylvestris	Wild angelica	Condiment	3
Anthriscus cerefolium	Chervil	Condiment	3

Apium graveolens	Wild celery	Condiment	3
Apium graveolens dulce	Celery	Condiment	4
Apium graveolens rapaceum	Celeriac	Condiment	4
Aralia nudicaulis	Wild sarsaparilla	Condiment	4
Aralia racemosa	American spikenard	Condiment	4
Armoracia rusticana	Horseradish	Condiment	3
Arracacia xanthorrhiza	Arracacha	Condiment	3
Artemisia abrotanum	Southernwood	Condiment	4
Artemisia absinthum	Wormwood	Condiment	3
Artemisia annua	Qing Hao	Condiment	1
Artemisia dracunculus	Tarragon	Condiment	4
Artemisia frigida	Fringed wormwood	Condiment	2
Artemisia glacialis	Glacier wormwood	Condiment	2
Artemisia indica		Condiment	1
Artemisia ludoviciana	White sage	Condiment	2
Artemisia maritima	Sea wormwood	Condiment	2
Artemisia princeps		Condiment	2
Artemisia stelleriana	Beach wormwood	Condiment	1
Artemisia stolonifera		Condiment	1
Artemisia sylvatica		Condiment	1
Artemisia tilesii	Wormwood	Condiment	1
Artemisia tridentata	Sage brush	Condiment	3
Artemisia umbelliformis	Alpine wormwood	Condiment	1
Artemisia vulgaris	Mugwort	Condiment	2
Asarum canadense	Snake root	Condiment	4
Asarum caudatum	Wild ginger	Condiment	3
Asarum dilatatum		Condiment	2
Asarum reflexum		Condiment	2
Asarum shuttleworthii		Condiment	2
Aspalathus linearis	Rooibos	Condiment	3
Athamantha cretensis	Candy carrot	Condiment	1
Atriplex argentea expansa	Silverscale saltbush	Condiment	2

Atriplex serenana	Bractscale	Condiment	2
Berberis vulgaris	Barberry	Condiment	3
Betula alleghaniensis	Yellow birch	Condiment	3
Betula glandulosa	Scrub birch	Condiment	2
Betula kenaica	Kenai birch	Condiment	3
Betula lenta	Cherry birch	Condiment	4
Betula nana	Dwarf birch	Condiment	2
Betula occidentalis	Water birch	Condiment	3
Bidens bipinnata	Spanish needles	Condiment	2
Brassica carinata	Abyssinian cabbage	Condiment	3
Brassica juncea	Brown mustard	Condiment	4
Brassica juncea crispifolia	Curled mustard	Condiment	4
Brassica juncea foliosa	Leaf mustard	Condiment	4
Brassica juncea multiceps	Green in the snow	Condiment	4
Brassica juncea napiformis	Root mustard	Condiment	4
Brassica juncea rugosa	Head mustard	Condiment	4
Brassica juncea tumida	Swollen-stem mustard	Condiment	4
Brassica napus	Colza	Condiment	3
Brassica napus arvensis	Coleseed	Condiment	3
Brassica napus napus	Rape	Condiment	3
Bunium bulbocastanum	Pig nut	Condiment	4
Bunium persicum	Black caraway	Condiment	3
Buxus sempervirens	Box	Condiment	2
Cacalia atriplicifolia		Condiment	1
Cakile maritima	Sea rocket	Condiment	2
Calamintha grandiflora	Large-flowered calamint	Condiment	2
Calamintha nepeta	Lesser calamint	Condiment	3
Calamintha sylvatica	Calamint	Condiment	3
Calluna vulgaris	Heather	Condiment	3
Calocedrus decurrens	Incense cedar	Condiment	1
Calycanthus floridus	Carolina allspice	Condiment	3
Calycanthus floridus glaucus	Eastern sweetshrub	Condiment	2

Calycanthus occidentalis	Californian allspice	Condiment	3
Camellia sinensis	Tea plant	Condiment	2
Capparis spinosa	Caper	Condiment	2
Capsella bursa-pastoris	Shepherd's purse	Condiment	3
Capsicum annuum	Sweet pepper	Condiment	3
Capsicum baccatum	Locoto	Condiment	3
Capsicum frutescens	Tabasco pepper	Condiment	3
Capsicum pubescens	Tree pepper	Condiment	3
Cardamine bulbosa	Bulbous bittercress	Condiment	2
Cardamine pennsylvanica		Condiment	2
Cardaria draba	Hoary cress	Condiment	2
Carum carvi	Caraway	Condiment	3
Centaurium erythraea	Centaury	Condiment	1

Next List by genus

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Abies balsamea

Common name:	Balsam fir	Family:	Pinaceae
Author:	(L.) Mill.	Botanical references:	11, 43, 200
Synonyms:	Pinus balsamea (L.)		
Known Hazards:	The oleoresin (Canada balsam) is reported to produce dermatitis when applied as perfume[222, 269]. The foliage has also induced contact dermatitis[269].		
Range:	North-eastern N. America - Newfoundland to Virginia, west to Alberta, Michigan and Ohio.		
Habitat:	Low swampy grounds where it is often the major component of forests[82]. Also found on well-drained hillsides[82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Silver Fir [H], Balm Of Gilead Fir [H], Balm Of Gilead Fir (Europ [H], Balsam Fir [L,DEN1,E,FEIS,B,P], Balsam,Canada [E], Canada Balsam [H], Fir [E],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir; balsamea = balsam like;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Belgium; Canada; Canada(Caughnawaga); Us; Us(Amerindian)

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m by 5m at a slow rate. It is hardy to zone 2 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen from September to October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant is not wind tolerant.

Habitats and Possible Locations

Woodland, Canopy, Deep Shade.

Edible Uses

Condiment; Gum; Inner bark; Tea.

Inner bark - cooked. It is usually dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[105, 177]. Fir bark is a delight to chew in winter or early spring, slightly mucilaginous and sweetish, better raw than cooked[269]. Another report says that it is an emergency food and is only used when all else fails[183].

An aromatic resinous pitch is found in blisters in the bark[64]. When eaten raw it is delicious and chewy[101, 183]. Another report says that the balsam or pitch, in extreme emergency, forms a highly concentrated, though disagreeable, food[269]. An oleoresin from the pitch is used as a flavouring in sweets, baked goods, ice cream and drinks[183].

Tips of young shoots are used as a tea substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiscorbutic; Antiseptic; Diuretic; Poultice; Stimulant; Tonic; VD.

The resin obtained from the balsam fir (see 'Uses notes' below) has been used throughout the world and is a very effective antiseptic and healing agent. It is used as a healing and analgesic protective covering for burns, bruises, wounds and sores[213, 222, 226]. It is also used to treat sore nipples[213] and is said to be one of the best curatives for a sore throat[245]. The buds, resin, and/or sap are used in folk remedies for treating cancers, corns, and warts[269].

The resin is also antiscorbutic, diaphoretic, diuretic, stimulant and tonic[4, 171, 222]. It is used internally in propriety mixtures to treat coughs and diarrhoea, though taken in excess it is purgative[238].

A warm liquid of the gummy sap was drunk as a treatment for gonorrhoea[212].

A tea made from the leaves is antiscorbutic[4, 171]. It is used in the treatment of coughs, colds and fevers[222]. The leaves and young shoots are best harvested in the spring and dried for later use[238].

This plant was widely used medicinally by various North American Indian tribes[257]. The resin was used as an antiseptic healing agent applied externally to wounds, sores, bites etc., it was used as an inhalant to treat headaches and was also taken internally to treat colds, sore throats and various other complaints[257].

Other Uses

Adhesive; Fibre; Kindling; Microscope; Repellent; Resin; Stuffing; Waterproofing; Wood.

The balsamic resin 'Balm of Gilead'[11, 46] or 'Canada Balsam' according to other reports[64, 226, 238] is obtained during July and August from blisters in the bark or by cutting pockets in the wood[222]. Another report says that it is a turpentine[171]. The term Canada Balsam is a misnomer because balsams are supposed to contain benzoic and cinnamic acids, both absent from the Canada oleoresin[269]. Turpentine is also a misnomer, implying that the oleoresin is entirely steam volatile. Actually it contains 70 - 80% resin, only 16 - 20% volatile oil[269]. Canada Balsam yields 15 - 25% volatile oil, the resin being used for caulking and incense[269]. It is used medicinally and in dentistry, also in the manufacture of glues, candles and as a cement for microscopes and slides - it has a high refractive index resembling that of glass[11, 46, 64, 82, 222, 226, 238]. The pitch has also been used as a waterproofing material for the seams of canoes[257]. The average yield is about 8 - 10 oz per tree[171]. The resin is also a fixative in soaps and perfumery[171, 238]. "Turpentine" is usually collected during July-August by breaking the turpentine blisters into small metal cans with sharp-pointed lids. Trees are then allowed to recuperate for 1 - 2 years before being harvested again[269].

The leaves and young branches are used as a stuffing material for pillows etc - they impart a pleasant scent[46, 61, 257] and also repel moths[169].

The leaves contain an average of 0.65% essential oil, though it can go up to 1.4% or even higher[269]. One analysis of the essential oils reports 14.6% bornyl acetate, 36.1% b-pinene, 11.1% 3-carene, 11.1% limonene, 6.8% camphene, and 8.4% a-pinene[269]. To harvest the oil, it would appear that the branches should be snipped off younger trees in early spring[269]. Fifteen year old trees yield 70% more leaf oil than 110-year-old trees; oil yields are highest in January - March and September, they are lowest from April to August[269].

A thread can be made from the roots[257].

Wood - light, soft, coarse grained, not strong, not very durable. Weighs 24lb per cubic foot[235]. Used mainly for pulp, it is not used much for lumber except in the manufacture of crates etc[46, 82, 226, 229]. The wood is commercially valuable for timber even though it is relatively soft, weak, and perishable[269]. Balsam fir is used in the US for timber and plywood, and is the mainstay of the pulp wood industry in the Northeast. The wood, which is rich in pitch, burns well and can be used as a kindling[257]

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils. Very shade tolerant, especially when young[81, 126], but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Prefers slightly acid conditions down to a pH of about5[200], though the cultivar 'Hudsonia' is more tolerant of alkaline conditions[238]. Prefers growing on a north-facing slope[200]. A shallow-rooted plant, making it vulnerable to high winds[229]. Balsam fir is estimated to tolerate an annual precipitation of 60 to 150cm, an annual temperature range of 5 to 12°C, and a pH of 4.5 to 7.5[269].

The balsam fir is a fast-growing tree in its native environment[229], but it is fairly short-lived and slow growing in Britain, becoming ungainly after about 20 years[11, 64, 81]. It grows best in the Perthshire valleys of Scotland[11, 185]. New growth takes place from late May to the end of July[185]. Trees are very cold hardy but are often excited into premature growth in mild winters and this new growth is susceptible to damage by late frosts[11]. Female strobili may be wholly or partially aborted up to 6 to 8 weeks after bud burst by late spring frosts[269]. Pollen dispersal can be reduced by adverse weather[269].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Trees have a thin bark and are therefore susceptible to forest fires[229].

This species is closely related to A. fraseri[11].

Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200]. The cones break up on the tree and if seed is required it should be harvested before the cones break up in early autumn[80].

Whilst the typical species is too large for most gardens, there are some named slow-growing dwarf forms that can be grown[238]. Whilst these will not provide the resin, their leaves can be used medicinally[K].

The leaves are strongly aromatic of balsam when crushed[185]. The tree is sometimes grown and used as a 'Christmas tree'[226].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. Stored seeds should be moist stratified 14 - 28 days at 1 - 5°C, though fresh seed may be sown in autumn without stratification, with target seedling densities in the nursery ca 450 - 500/m2, often mulched with sawdust. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Of slow initial growth, the stock is usually outplanted as 2- to 3-year-old seedlings or 3- to 4-year-old transplants

Alternatively, if you have sufficient seed, it is possible to sow in an outdoor seedbed. One report says that it is best to grow the seedlings on in the shade at a density of about 550 plants per square metre[78] whilst another report says that they are best grown on in a sunny position[80].

Trees often self-layer in the wild[226], so this might be a means of increasing named varieties in cultivation[K].

Scent

Leaves: Crushed

> The leaves are strongly aromatic of balsam when crushed.

Cultivars

"

> There are many named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9

Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984

Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van

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A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Reprint of a 1913 Flora, but still a very useful book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Habitat:	Low swampy grounds where it is often the major component of forests[82]. Also found on well-drained hillsides[82].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Silver Fir [H], Balm Of Gilead Fir [H], Balm Of Gilead Fir (Europ [H], Balsam Fir [L,DEN1,E,FEIS,B,P], Balsam,Canada [E], Canada Balsam [H], Fir [E],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir; balsamea = balsam like;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Belgium; Canada; Canada(Caughnawaga); Us; Us(Amerindian)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m by 5m at a slow rate. It is hardy to zone 2 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen from September to October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant is not wind tolerant.

Habitats and Possible Locations

Woodland, Canopy, Deep Shade.

Edible Uses

Condiment; Gum; Inner bark; Tea.

Inner bark - cooked. It is usually dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[105, 177]. Fir bark is a delight to chew in winter or early spring, slightly mucilaginous and sweetish, better raw than cooked[269]. Another report says that it is an emergency food and is only used when all else fails[183].

An aromatic resinous pitch is found in blisters in the bark[64]. When eaten raw it is delicious and chewy[101, 183]. Another report says that the balsam or pitch, in extreme emergency, forms a highly concentrated, though disagreeable, food[269]. An oleoresin from the pitch is used as a flavouring in sweets, baked goods, ice cream and drinks[183].

Tips of young shoots are used as a tea substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiscorbutic; Antiseptic; Diuretic; Poultice; Stimulant; Tonic; VD.

The resin obtained from the balsam fir (see 'Uses notes' below) has been used throughout the world and is a very effective antiseptic and healing agent. It is used as a healing and analgesic protective covering for burns, bruises, wounds and sores[213, 222, 226]. It is also used to treat sore nipples[213] and is said to be one of the best curatives for a sore throat[245]. The buds, resin, and/or sap are used in folk remedies for treating cancers, corns, and warts[269].

The resin is also antiscorbutic, diaphoretic, diuretic, stimulant and tonic[4, 171, 222]. It is used internally in propriety mixtures to treat coughs and diarrhoea, though taken in excess it is purgative[238].

A warm liquid of the gummy sap was drunk as a treatment for gonorrhoea[212].

A tea made from the leaves is antiscorbutic[4, 171]. It is used in the treatment of coughs, colds and fevers[222]. The leaves and young shoots are best harvested in the spring and dried for later use[238].

This plant was widely used medicinally by various North American Indian tribes[257]. The resin was used as an antiseptic healing agent applied externally to wounds, sores, bites etc., it was used as an inhalant to treat headaches and was also taken internally to treat colds, sore throats and various other complaints[257].

Other Uses

Adhesive; Fibre; Kindling; Microscope; Repellent; Resin; Stuffing; Waterproofing; Wood.

The balsamic resin 'Balm of Gilead'[11, 46] or 'Canada Balsam' according to other reports[64, 226, 238] is obtained during July and August from blisters in the bark or by cutting pockets in the wood[222]. Another report says that it is a turpentine[171]. The term Canada Balsam is a misnomer because balsams are supposed to contain benzoic and cinnamic acids, both absent from the Canada oleoresin[269]. Turpentine is also a misnomer, implying that the oleoresin is entirely steam volatile. Actually it contains 70 - 80% resin, only 16 - 20% volatile oil[269]. Canada Balsam yields 15 - 25% volatile oil, the resin being used for caulking and incense[269]. It is used medicinally and in dentistry, also in the manufacture of glues, candles and as a cement for microscopes and slides - it has a high refractive index resembling that of glass[11, 46, 64, 82, 222, 226, 238]. The pitch has also been used as a waterproofing material for the seams of canoes[257]. The average yield is about 8 - 10 oz per tree[171]. The resin is also a fixative in soaps and perfumery[171, 238]. "Turpentine" is usually collected during July-August by breaking the turpentine blisters into small metal cans with sharp-pointed lids. Trees are then allowed to recuperate for 1 - 2 years before being harvested again[269].

The leaves and young branches are used as a stuffing material for pillows etc - they impart a pleasant scent[46, 61, 257] and also repel moths[169].

The leaves contain an average of 0.65% essential oil, though it can go up to 1.4% or even higher[269]. One analysis of the essential oils reports 14.6% bornyl acetate, 36.1% b-pinene, 11.1% 3-carene, 11.1% limonene, 6.8% camphene, and 8.4% a-pinene[269]. To harvest the oil, it would appear that the branches should be snipped off younger trees in early spring[269]. Fifteen year old trees yield 70% more leaf oil than 110-year-old trees; oil yields are highest in January - March and September, they are lowest from April to August[269].

A thread can be made from the roots[257].

Wood - light, soft, coarse grained, not strong, not very durable. Weighs 24lb per cubic foot[235]. Used mainly for pulp, it is not used much for lumber except in the manufacture of crates etc[46, 82, 226, 229]. The wood is commercially valuable for timber even though it is relatively soft, weak, and perishable[269]. Balsam fir is used in the US for timber and plywood, and is the mainstay of the pulp wood industry in the Northeast. The wood, which is rich in pitch, burns well and can be used as a kindling[257]

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils. Very shade tolerant, especially when young[81, 126], but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Prefers slightly acid conditions down to a pH of about5[200], though the cultivar 'Hudsonia' is more tolerant of alkaline conditions[238]. Prefers growing on a north-facing slope[200]. A shallow-rooted plant, making it vulnerable to high winds[229]. Balsam fir is estimated to tolerate an annual precipitation of 60 to 150cm, an annual temperature range of 5 to 12°C, and a pH of 4.5 to 7.5[269].

The balsam fir is a fast-growing tree in its native environment[229], but it is fairly short-lived and slow growing in Britain, becoming ungainly after about 20 years[11, 64, 81]. It grows best in the Perthshire valleys of Scotland[11, 185]. New growth takes place from late May to the end of July[185]. Trees are very cold hardy but are often excited into premature growth in mild winters and this new growth is susceptible to damage by late frosts[11]. Female strobili may be wholly or partially aborted up to 6 to 8 weeks after bud burst by late spring frosts[269]. Pollen dispersal can be reduced by adverse weather[269].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Trees have a thin bark and are therefore susceptible to forest fires[229].

This species is closely related to A. fraseri[11].

Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200]. The cones break up on the tree and if seed is required it should be harvested before the cones break up in early autumn[80].

Whilst the typical species is too large for most gardens, there are some named slow-growing dwarf forms that can be grown[238]. Whilst these will not provide the resin, their leaves can be used medicinally[K].

The leaves are strongly aromatic of balsam when crushed[185]. The tree is sometimes grown and used as a 'Christmas tree'[226].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. Stored seeds should be moist stratified 14 - 28 days at 1 - 5°C, though fresh seed may be sown in autumn without stratification, with target seedling densities in the nursery ca 450 - 500/m2, often mulched with sawdust. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Of slow initial growth, the stock is usually outplanted as 2- to 3-year-old seedlings or 3- to 4-year-old transplants

Alternatively, if you have sufficient seed, it is possible to sow in an outdoor seedbed. One report says that it is best to grow the seedlings on in the shade at a density of about 550 plants per square metre[78] whilst another report says that they are best grown on in a sunny position[80].

Trees often self-layer in the wild[226], so this might be a means of increasing named varieties in cultivation[K].

Scent

Leaves: Crushed

> The leaves are strongly aromatic of balsam when crushed.

Cultivars

"

> There are many named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950

A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

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Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Abies+balsamea`

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Plants For A Future: Database Search Results

Abies balsamea

Common name:	Balsam fir	Family:	Pinaceae
Author:	(L.) Mill.	Botanical references:	11, 43, 200
Synonyms:	Pinus balsamea (L.)		
Known Hazards:	The oleoresin (Canada balsam) is reported to produce dermatitis when applied as perfume[222, 269]. The foliage has also induced contact dermatitis[269].		
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Woodland, Canopy, Deep Shade.

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The leaves are strongly aromatic of balsam when crushed[185]. The tree is sometimes grown and used as a 'Christmas tree'[226].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. Stored seeds should be moist stratified 14 - 28 days at 1 - 5°C, though fresh seed may be sown in autumn without stratification, with target seedling densities in the nursery ca 450 - 500/m2, often mulched with sawdust. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Of slow initial growth, the stock is usually outplanted as 2- to 3-year-old seedlings or 3- to 4-year-old transplants

Alternatively, if you have sufficient seed, it is possible to sow in an outdoor seedbed. One report says that it is best to grow the seedlings on in the shade at a density of about 550 plants per square metre[78] whilst another report says that they are best grown on in a sunny position[80].

Trees often self-layer in the wild[226], so this might be a means of increasing named varieties in cultivation[K].

Scent

Leaves: Crushed

> The leaves are strongly aromatic of balsam when crushed.

Cultivars

"

> There are many named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Abies+balsamea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Abies+balsamea`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Abies balsamea

Group:
Plant Information

Comment:

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Abies balsamea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Abies fraseri

Common name:	She balsam	Family:	Pinaceae
Author:	(Pursh.) Poir.	Botanical references:	11, 82
Synonyms:	Pinus fraseri (Pursh.)		
Known Hazards:	The oleoresin (Canada balsam) can cause dermatitis in some people[222].		
Range:	South-eastern N. America - Virginia and West Virginia to North Carolina and Tennessee.		
Habitat:	Mountains, often forming forests of considerable extent at elevations of 1200 - 1800 metres[11, 82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Fraser Fir [L,FEIS,DEN1], Fraser's Fir [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m at a fast rate. It is hardy to zone 4 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant is not wind tolerant.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Gum; Inner bark; Tea.

The following uses are for the closely related A. balsamea. Since this species also has blisters of resin in the bark[81], the uses quite probably also apply here.

Inner bark - cooked. It is usually dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[105, 177]. An emergency food, it is only used when all else fails[183].

An aromatic resinous pitch is found in blisters in the bark[64]. When eaten raw it is delicious and chewy[101, 183]. An oleoresin from the pitch is used as a flavouring in sweets, baked goods, ice cream and drinks[183].

Tips of young shoots are used as a tea substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiscorbutic; Antiseptic; Diuretic; Poultice; Stimulant; Tonic; VD.

The following uses are for the closely related A. balsamea. Since this species also has blisters of resin in the bark[81], the uses quite probably also apply here.

The resin obtained from this tree (see 'Uses notes' below) has been used throughout the world and is a very effective antiseptic and healing agent. It is used as a healing and analgesic protective covering for burns, bruises, wounds and sores[213, 222, 226]. It is also used to treat sore nipples[213] and is said to be one of the best curatives for a sore throat[245].

The resin is also antiscorbutic, diuretic, stimulant and tonic[4, 171, 222]. It is used internally in propriety mixtures to treat coughs and diarrhoea, though taken in excess it is purgative[238].

A warm liquid of the gummy sap was drunk as a treatment for gonorrhoea[212].

A tea made from the leaves is antiscorbutic[4, 171]. It is used in the treatment of coughs, colds and fevers[222]. The leaves and young shoots are best harvested in the spring and dried for later use[238].

Other Uses

Adhesive; Microscope; Repellent; Resin; Stuffing; Wood.

Wood - light, soft, coarse grained, not strong[82]. It is occasionally manufactured into lumber[82].

The following uses are for the closely related A. balsamea. Since this species also has blisters of resin in the bark[81], the uses quite probably also apply here.

The balsamic resin 'Balm of Gilead'[11, 46] or 'Canada Balsam' according to other reports[64, 226] is obtained during July and August from blisters in the bark or by cutting pockets in the wood[222].. Another report says that it is a turpentine[171]. It is used medicinally, also in the manufacture of glues, candles and as a cement for microscopes and slides - it has a high refractive index resembling that of glass[11, 46, 64, 82, 222, 226]. The average yield is about 8 - 10 oz per tree[171]. The resin is also a fixative in soaps and perfumery[171].

Leaves are a stuffing material for pillows etc - they impart a pleasant scent[46, 61] and also repel moths[169]

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils. Very shade tolerant, especially when young[81, 126], but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Prefers slightly acid conditions down to a pH of about5[200]. Prefers growing on a north-facing slope[200]. A shallow-rooted plant, making it vulnerable to high winds[229]. A fast-growing but short-lived species[200].

Trees are very cold hardy but are often excited into premature growth in mild winters and this new growth is susceptible to damage by late frosts[11].

No other member of this genus has proved to be of as little value, or so short-lived as this species; there is scarcely a good tree in the country, though it is attractive when young[11]. Usually short-lived in cultivation, though bearing its interesting cones whilst still young[81]. Young trees can be handsome and vigorous, one grew 120cm in two years, but growth soon slows[185]. Trees are known to have lived more than 60 years[185].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Trees have a thin bark and are therefore susceptible to forest fires[229].

This species is closely related to A. balsamea[11, 229].

There are some named forms selected for their ornamental value[200].

Trees can produce cones when only 2 metres tall[200]. Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200]. The cones break up on the tree and if seed is required it should be harvested before the cones break up in early autumn[80].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Cultivars

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Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus

colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Abies fraseri

Common name:	She balsam	Family:	Pinaceae
Author:	(Pursh.) Poir.	Botanical references:	11, 82
Synonyms:	Pinus fraseri (Pursh.)		
Known Hazards:	The oleoresin (Canada balsam) can cause dermatitis in some people[222].		
Range:	South-eastern N. America - Virginia and West Virginia to North Carolina and Tennessee.		
Habitat:	Mountains, often forming forests of considerable extent at elevations of 1200 - 1800 metres[11, 82].		
Plants For A Future Rating (1-5):	2		

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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

An evergreen tree growing to 15m at a fast rate. It is hardy to zone 4 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant is not wind tolerant.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Gum; Inner bark; Tea.

The following uses are for the closely related A. balsamea. Since this species also has blisters of resin in the bark[81], the uses quite probably also apply here.

Inner bark - cooked. It is usually dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[105, 177]. An emergency food, it is only used when all else fails[183].

An aromatic resinous pitch is found in blisters in the bark[64]. When eaten raw it is delicious and chewy[101, 183]. An oleoresin from the pitch is used as a flavouring in sweets, baked goods, ice cream and drinks[183].

Tips of young shoots are used as a tea substitute[177, 183].

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Analgesic; Antiscorbutic; Antiseptic; Diuretic; Poultice; Stimulant; Tonic; VD.

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Other Uses

Adhesive; Microscope; Repellent; Resin; Stuffing; Wood.

Wood - light, soft, coarse grained, not strong[82]. It is occasionally manufactured into lumber[82].

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Leaves are a stuffing material for pillows etc - they impart a pleasant scent[46, 61] and also repel moths[169]

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Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils. Very shade tolerant, especially when young[81, 126], but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Prefers slightly acid conditions down to a pH of about5[200]. Prefers growing on a north-facing slope[200]. A shallow-rooted plant, making it vulnerable to high winds[229]. A fast-growing but short-lived species[200].

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For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Pinaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9

Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

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A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

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Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

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Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[101] **Turner. N. J. and Szczawinski. A.** *Edible Wild Fruits and Nuts of Canada.* National Museum of Natural Sciences 1978
A very readable guide to some wild foods of Canada.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[126] **?** *The Plantsman. Vol. 6. 1984 - 1985.* Royal Horticultural Society 1984
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Actinidia and Wisteria species.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a

few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Abies+fraseri`
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Plants For A Future: Database Search Results

Abies fraseri

Common name:	She balsam	Family:	Pinaceae
Author:	(Pursh.) Poir.	Botanical references:	11, 82
Synonyms:	Pinus fraseri (Pursh.)		
Known Hazards:	The oleoresin (Canada balsam) can cause dermatitis in some people[222].		
Range:	South-eastern N. America - Virginia and West Virginia to North Carolina and Tennessee.		
Habitat:	Mountains, often forming forests of considerable extent at elevations of 1200 - 1800 metres[11, 82].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Fraser Fir [L,FEIS,DEN1], Fraser's Fir [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	abies = fir;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Pine family
Other Range Info:	From the Ethnobotany Database
	Us
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 15m at a fast rate. It is hardy to zone 4 and is frost tender. It is in leaf all year, in flower in May, and the seeds ripen from September to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant is not wind tolerant.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Gum; Inner bark; Tea.

The following uses are for the closely related A. balsamea. Since this species also has blisters of resin in the bark[81], the uses quite probably also apply here.

Inner bark - cooked. It is usually dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread[105, 177]. An emergency food, it is only used when all else fails[183].

An aromatic resinous pitch is found in blisters in the bark[64]. When eaten raw it is delicious and chewy[101, 183]. An oleoresin from the pitch is used as a flavouring in sweets, baked goods, ice cream and drinks[183].

Tips of young shoots are used as a tea substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiscorbutic; Antiseptic; Diuretic; Poultice; Stimulant; Tonic; VD.

The following uses are for the closely related A. balsamea. Since this species also has blisters of resin in the bark[81], the uses quite probably also apply here.

The resin obtained from this tree (see 'Uses notes' below) has been used throughout the world and is a very effective antiseptic and healing agent. It is used as a healing and analgesic protective covering for burns, bruises, wounds and sores[213, 222, 226]. It is also used to treat sore nipples[213] and is said to be one of the best curatives for a sore throat[245].

The resin is also antiscorbutic, diuretic, stimulant and tonic[4, 171, 222]. It is used internally in propriety mixtures to treat coughs and diarrhoea, though taken in excess it is purgative[238].

A warm liquid of the gummy sap was drunk as a treatment for gonorrhoea[212].

A tea made from the leaves is antiscorbutic[4, 171]. It is used in the treatment of coughs, colds and fevers[222]. The leaves and young shoots are best harvested in the spring and dried for later use[238].

Other Uses

Adhesive; Microscope; Repellent; Resin; Stuffing; Wood.

Wood - light, soft, coarse grained, not strong[82]. It is occasionally manufactured into lumber[82].

The following uses are for the closely related A. balsamea. Since this species also has blisters of resin in the bark[81], the uses quite probably also apply here.

The balsamic resin 'Balm of Gilead'[11, 46] or 'Canada Balsam' according to other reports[64, 226] is obtained during July and August from blisters in the bark or by cutting pockets in the wood[222].. Another report says that it is a turpentine[171]. It is used medicinally, also in the manufacture of glues, candles and as a cement for microscopes and slides - it has a high refractive index resembling that of glass[11, 46, 64, 82, 222, 226]. The average yield is about 8 - 10 oz per tree[171]. The resin is also a fixative in soaps and perfumery[171].

Leaves are a stuffing material for pillows etc - they impart a pleasant scent[46, 61] and also repel moths[169]

Cultivation details

Prefers a good moist but not water-logged soil[1]. Grows well in heavy clay soils. Very shade tolerant, especially when young[81, 126], but growth is slower in dense shade[81]. Intolerant of atmospheric pollution[1]. Prefers slightly acid conditions down to a pH of about5[200]. Prefers growing on a north-facing slope[200]. A shallow-rooted plant, making it vulnerable to high winds[229]. A fast-growing but short-lived species[200].

Trees are very cold hardy but are often excited into premature growth in mild winters and this new growth is susceptible to damage by late frosts[11].

No other member of this genus has proved to be of as little value, or so short-lived as this species;

there is scarcely a good tree in the country, though it is attractive when young[11]. Usually short-lived in cultivation, though bearing its interesting cones whilst still young[81]. Young trees can be handsome and vigorous, one grew 120cm in two years, but growth soon slows[185]. Trees are known to have lived more than 60 years[185].

Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm in height. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance[200].

Trees have a thin bark and are therefore susceptible to forest fires[229].

This species is closely related to A. balsamea[11, 229].

There are some named forms selected for their ornamental value[200].

Trees can produce cones when only 2 metres tall[200]. Plants are strongly outbreeding, self-fertilized seed usually grows poorly[200]. They hybridize freely with other members of this genus[200]. The cones break up on the tree and if seed is required it should be harvested before the cones break up in early autumn[80].

Propagation

Seed - sow early February in a greenhouse or outdoors in March[78]. Germination is often poor, usually taking about 6 - 8 weeks[78]. Stratification is said to produce a more even germination so it is probably best to sow the seed in a cold frame as soon as it is ripe in the autumn[80, 113]. The seed remains viable for up to 5 years if it is well stored[113]. When large enough to handle, prick the seedlings out into individual pots and grow them on for at least their first winter in pots. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Alternatively, if you have sufficient seed, it is possible to sow in an outdoor seedbed. One report says that it is best to grow the seedlings on in the shade at a density of about 550 plants per square metre[78] whilst another report says that they are best grown on in a sunny position[80].

Trees often self-layer in the wild[226], so this might be a means of increasing named varieties in cultivation[K].

Cultivars

"

> There are many named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this

database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Abies fraseri*

Subject:

Abies fraseri

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Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Abies fraseri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Acer glabrum

Common name:	Rock maple	Family:	Aceraceae
Author:	Torr.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - Alaska to California, west to New Mexico.		
Habitat:	Edges of mountain streams, on rocks and in coniferous woods, 1500 - 2000 metres[82, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Rocky Mountain Maple [FEIS,DEN1,B,P,L],
Epithets:	From a Dictionary of Botanical Epithets
	acer = sharp, pungent; glabrum = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Maple family

Physical Characteristics

A decidious tree growing to 9m. It is hardy to zone 5. It is in flower in April, and the seeds ripen in September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil

and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Inner bark; Leaves; Seed.

Edible young shoots - cooked. They are used like asparagus[85]. The seedlings, gathered in early spring, are eaten fresh or can be dried for later use[213].

The dried crushed leaves have been used as a spice[257].

Seeds - cooked. The wings are removed and the seeds boiled then eaten hot[213]. The seeds are about 6mm long[82].

Inner bark[85]. No more details are given but inner bark is often dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread. An emergency food, it is usually only used when all else fails[85].

Medicinal Uses

Disclaimer

Antiemetic; Birthing aid; Cathartic; Galactogogue.

A decoction of the wood and bark is said to cure nausea[213]. Another report says that this is specifically the nausea caused by smelling a corpse[257]. An infusion of the bark has been used as a cathartic[257]. A decoction of the branches, together with the branches of Amelanchier sp., was used to heal a woman's insides after childbirth and also to promote lactation[257].

Other Uses

Containers; Fibre; Fuel; Preservative; Wood.

The leaves are packed around apples, rootcrops etc to help preserve them[18, 20].

A fibre obtained from the inner bark is used for making mats, rope etc[99, 257].

The bark has been used to make spoons, paint containers etc[257].

Wood - tough, hard, heavy, close grained, pliable[82, 99]. It weighs 37lb per cubic foot[235]. The wood can also be used as friction sticks[99]. The green wood can be moulded.[99] The wood is too small for commercial exploitation, though it makes a good fuel[99, 229]. It was often used by native North American Indian tribes for making small items such as snowshoes, drum hoops, bows and pegs[257].

Cultivation details

Of easy cultivation, it succeeds in any soil, preferring a good moist well-drained soil[11]. Prefers a sunny position but tolerates some shade[11, 200]. Grows well in heavy clay soils. Chlorosis can sometimes develop as a result of iron deficiency when the plants are grown in alkaline soils, but in general maples are not fussy as to soil pH.

Hardy to about -25°c[184].

This species grows well at Kew, a specimen was 12 metres tall in 1967[11].

The tree is almost fastigiate[11].

Most maples are bad companion plants, inhibiting the growth of nearby plants[18, 20].

Trees are usually dioecious. Male and female trees must be grown if seed is required[226].

Propagation

Seed - best sown as soon as it is ripe in a cold frame, it usually germinates in the following spring. Pre-soak stored seed for 24 hours and then stratify for 2 - 4 months at 1 - 8°c. The seed has a hard coat and can be slow to germinate, often taking 2 years. The seed can be harvested 'green' (when it has fully developed but before it has dried and produced any germination inhibitors) and sown immediately. It should germinate in late winter. If the seed is harvested too soon it will produce very weak plants or no plants at all[80, 113]. When large enough to handle, prick the seedlings out into individual pots and grow them on until they are 20cm or more tall before planting them out in their permanent positions.

Layering, which takes about 12 months, is successful with most species in this genus.

Cuttings of young shoots in June or July. The cuttings should have 2 - 3 pairs of leaves, plus one pair of buds at the base. Remove a very thin slice of bark at the base of the cutting, rooting is improved if a rooting hormone is used. The rooted cuttings must show new growth during the summer before being potted up otherwise they are unlikely to survive the winter. It is very difficult to find suitable wood for cuttings.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Aceraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

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Fairly good.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Plants For A Future: Database Search Results

Acer glabrum

Common name:	Rock maple	Family:	Aceraceae
Author:	Torr.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - Alaska to California, west to New Mexico.		
Habitat:	Edges of mountain streams, on rocks and in coniferous woods, 1500 - 2000 metres[82, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Rocky Mountain Maple [FEIS,DEN1,B,P,L],
Epithets:	From a Dictionary of Botanical Epithets
	acer = sharp, pungent; glabrum = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Maple family

Physical Characteristics

A decidious tree growing to 9m. It is hardy to zone 5. It is in flower in April, and the seeds ripen in September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Inner bark; Leaves; Seed.

Edible young shoots - cooked. They are used like asparagus[85]. The seedlings, gathered in early spring, are eaten fresh or can be dried for later use[213].

The dried crushed leaves have been used as a spice[257].

Seeds - cooked. The wings are removed and the seeds boiled then eaten hot[213]. The seeds are about 6mm long[82].

Inner bark[85]. No more details are given but inner bark is often dried, ground into a powder and then used as a thickening in soups etc or mixed with cereals when making bread. An emergency food, it is usually only used when all else fails[85].

Medicinal Uses

Disclaimer

Antiemetic; Birthing aid; Cathartic; Galactogogue.

A decoction of the wood and bark is said to cure nausea[213]. Another report says that this is specifically the nausea caused by smelling a corpse[257]. An infusion of the bark has been used as a cathartic[257]. A decoction of the branches, together with the branches of Amelanchier sp., was used to heal a woman's insides after childbirth and also to promote lactation[257].

Other Uses

Containers; Fibre; Fuel; Preservative; Wood.

The leaves are packed around apples, rootcrops etc to help preserve them[18, 20].

A fibre obtained from the inner bark is used for making mats, rope etc[99, 257].

The bark has been used to make spoons, paint containers etc[257].

Wood - tough, hard, heavy, close grained, pliable[82, 99]. It weighs 37lb per cubic foot[235]. The wood can also be used as friction sticks[99]. The green wood can be moulded.[99] The wood is too small for commercial exploitation, though it makes a good fuel[99, 229]. It was often used by native North American Indian tribes for making small items such as snowshoes, drum hoops, bows and pegs[257].

Cultivation details

Of easy cultivation, it succeeds in any soil, preferring a good moist well-drained soil[11]. Prefers a sunny position but tolerates some shade[11, 200]. Grows well in heavy clay soils. Chlorosis can sometimes develop as a result of iron deficiency when the plants are grown in alkaline soils, but in general maples are not fussy as to soil pH.

Hardy to about -25°c[184].

This species grows well at Kew, a specimen was 12 metres tall in 1967[11].

The tree is almost fastigiate[11].

Most maples are bad companion plants, inhibiting the growth of nearby plants[18, 20].

Trees are usually dioecious. Male and female trees must be grown if seed is required[226].

Propagation

Seed - best sown as soon as it is ripe in a cold frame, it usually germinates in the following spring. Pre-soak stored seed for 24 hours and then stratify for 2 - 4 months at 1 - 8°c. The seed has a hard coat and can be slow to germinate, often taking 2 years. The seed can be harvested 'green' (when it has fully developed but before it has dried and produced any germination inhibitors) and sown immediately. It should germinate in late winter. If the seed is harvested too soon it will produce very weak plants or no plants at all[80, 113]. When large enough to handle, prick the seedlings out into individual pots and grow them on until they are 20cm or more tall before planting them out in their permanent positions.

Layering, which takes about 12 months, is successful with most species in this genus.

Cuttings of young shoots in June or July. The cuttings should have 2 - 3 pairs of leaves, plus one pair of buds at the base. Remove a very thin slice of bark at the base of the cutting, rooting is improved if a rooting hormone is used. The rooted cuttings must show new growth during the summer before being potted up otherwise they are unlikely to survive the winter. It is very difficult to find suitable wood for cuttings.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Aceraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978
ISBN 0-88266-064-0

Fairly good.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a

few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

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Plants For A Future: Database Search Results

Acer glabrum

Common name:	Rock maple	Family:	Aceraceae
Author:	Torr.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	None known		
Range:	Western N. America - Alaska to California, west to New Mexico.		
Habitat:	Edges of mountain streams, on rocks and in coniferous woods, 1500 - 2000 metres[82, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	acer = sharp, pungent; glabrum = glabrous;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Maple family

Physical Characteristics

A decidious tree growing to 9m. It is hardy to zone 5. It is in flower in April, and the seeds ripen in September. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Inner bark; Leaves; Seed.

Edible young shoots - cooked. They are used like asparagus[85]. The seedlings, gathered in early spring, are eaten fresh or can be dried for later use[213].

The dried crushed leaves have been used as a spice[257].

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Antiemetic; Birthing aid; Cathartic; Galactogogue.

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Cultivation details

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Hardy to about -25°c[184].

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The tree is almost fastigiate[11].

Most maples are bad companion plants, inhibiting the growth of nearby plants[18, 20].

Trees are usually dioecious. Male and female trees must be grown if seed is required[226].

Propagation

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Layering, which takes about 12 months, is successful with most species in this genus.

Cuttings of young shoots in June or July. The cuttings should have 2 - 3 pairs of leaves, plus one pair of buds at the base. Remove a very thin slice of bark at the base of the cutting, rooting is improved if a rooting hormone is used. The rooted cuttings must show new growth during the summer before being potted up otherwise they are unlikely to survive the winter. It is very difficult to find suitable wood for cuttings.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Acer glabrum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acer glabrum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Achillea ageratum

Common name:	Mace	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:	Achillea serrata (Hort.), Achillea decolorans (Schrad.)		
Known Hazards:	None known		
Range:	Europe - Greece.		
Habitat:	The origin of this plant is uncertain, it is possibly a hybrid, A. ptarmica x A. macrocephala[187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Balsamita faemina[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Agerato [E], Ageraton [E], Garden Mace [H], Mace [H], Mace Yarrow [H], Maudlin [H], Nutmeg Thyme [H], Sweet Milfoil [H], Sweet Nancy [H], Sweet Yarrow [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 7 and is not frost tender. It is in flower from July to September, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

Leaves - raw or cooked. The initial flavour is mild and pleasant, though it becomes stronger and aromatic when the leaves are chewed, and leaves a tingly sensation in the mouth[K]. They make an acceptable addition to mixed salads, the plant is very productive, though the leaves are rather small and fiddly to pick in quantity[K]. They are also used in soups, stews etc., and as a flavouring in potato salad etc[183].

The aromatic leaves are used as a tea substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils but prefers a well-drained soil in a sunny position[1, 200]. It also succeeds in partial shade[187]. Plants live longer in a poor soil[200]. Established plants are very drought tolerant, they can show distress in very severe droughts but usually recover[190]. Plants succeed in maritime gardens[233].

Hardy to about -20°c[187].

An excellent plant to grow in a large pot, the long stems will tend to arch down and continue to flower for a long time[244]. The leaves have a pungent aroma, especially when the plant is grown in a hot sunny position[245].

The plant is intermediate between A. millefolium and A. ptarmica in its characteristics[233]. There is at least one named variety, selected for its ornamental value[233].

Hybridizes freely with other members of the genus[200].

Propagation

Seed - sow spring or early autumn in a cold frame[133]. The seed usually germinates in 1 - 3 months[133]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer. If this species is a hybrid it might not breed true from seed.

Division in spring or autumn. Very easy, the divisions can be planted direct into their permanent positions.

Basal cuttings of new shoots in spring. Very easy, collect the shoots when they are about 10cm tall, potting them up individually in pots and keeping them in a warm but lightly shaded position. They should root within 3 weeks and will be ready to plant out in the summer.

Scent

Leaves: Crushed

> The leaves have a pungent aroma, especially when grown in a hot sunny position.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Achillea decolorans* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990
ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Achillea ageratum

Common name:	Mace	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:	Achillea serrata (Hort.), Achillea decolorans (Schrad.)		
Known Hazards:	None known		
Range:	Europe - Greece.		
Habitat:	The origin of this plant is uncertain, it is possibly a hybrid, A. ptarmica x A. macrocephala[187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Balsamita faemina[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Agerato [E], Ageraton [E], Garden Mace [H], Mace [H], Mace Yarrow [H], Maudlin [H], Nutmeg Thyme [H], Sweet Milfoil [H], Sweet Nancy [H], Sweet Yarrow [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 7 and is not frost tender. It is in flower from July to September, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

Leaves - raw or cooked. The initial flavour is mild and pleasant, though it becomes stronger and aromatic when the leaves are chewed, and leaves a tingly sensation in the mouth[K]. They make an acceptable addition to mixed salads, the plant is very productive, though the leaves are rather small and fiddly to pick in quantity[K]. They are also used in soups, stews etc., and as a flavouring in potato salad etc[183].

The aromatic leaves are used as a tea substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils but prefers a well-drained soil in a sunny position[1, 200]. It also succeeds in partial shade[187]. Plants live longer in a poor soil[200]. Established plants are very drought tolerant, they can show distress in very severe droughts but usually recover[190]. Plants succeed in maritime gardens[233].

Hardy to about -20°c[187].

An excellent plant to grow in a large pot, the long stems will tend to arch down and continue to flower for a long time[244]. The leaves have a pungent aroma, especially when the plant is grown in a hot sunny position[245].

The plant is intermediate between A. millefolium and A. ptarmica in its characteristics[233]. There is at least one named variety, selected for its ornamental value[233].

Hybridizes freely with other members of the genus[200].

Propagation

Seed - sow spring or early autumn in a cold frame[133]. The seed usually germinates in 1 - 3 months[133]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer. If this species is a hybrid it might not breed true from seed.

Division in spring or autumn. Very easy, the divisions can be planted direct into their permanent positions.

Basal cuttings of new shoots in spring. Very easy, collect the shoots when they are about 10cm tall, potting them up individually in pots and keeping them in a warm but lightly shaded position. They should root within 3 weeks and will be ready to plant out in the summer.

Scent

Leaves: Crushed

> The leaves have a pungent aroma, especially when grown in a hot sunny position.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Achillea decolorans* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8

A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Achillea ageratum

Common name:	Mace	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:	Achillea serrata (Hort.), Achillea decolorans (Schrad.)		
Known Hazards:	None known		
Range:	Europe - Greece.		
Habitat:	The origin of this plant is uncertain, it is possibly a hybrid, A. ptarmica x A. macrocephala[187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Balsamita faemina[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Agerato [E], Ageraton [E], Garden Mace [H], Mace [H], Mace Yarrow [H], Maudlin [H], Nutmeg Thyme [H], Sweet Milfoil [H], Sweet Nancy [H], Sweet Yarrow [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 7 and is not frost tender. It is in flower from July to September, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

Leaves - raw or cooked. The initial flavour is mild and pleasant, though it becomes stronger and aromatic when the leaves are chewed, and leaves a tingly sensation in the mouth[K]. They make an acceptable addition to mixed salads, the plant is very productive, though the leaves are rather small and fiddly to pick in quantity[K]. They are also used in soups, stews etc., and as a flavouring in potato salad etc[183].

The aromatic leaves are used as a tea substitute[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils but prefers a well-drained soil in a sunny position[1, 200]. It also succeeds in partial shade[187]. Plants live longer in a poor soil[200]. Established plants are very drought tolerant, they can show distress in very severe droughts but usually recover[190]. Plants succeed in maritime gardens[233].

Hardy to about -20°c[187].

An excellent plant to grow in a large pot, the long stems will tend to arch down and continue to flower for a long time[244]. The leaves have a pungent aroma, especially when the plant is grown in a hot sunny position[245].

The plant is intermediate between A. millefolium and A. ptarmica in its characteristics[233]. There is at least one named variety, selected for its ornamental value[233].

Hybridizes freely with other members of the genus[200].

Propagation

Seed - sow spring or early autumn in a cold frame[133]. The seed usually germinates in 1 - 3 months[133]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer. If this species is a hybrid it might not breed true from seed.

Division in spring or autumn. Very easy, the divisions can be planted direct into their permanent positions.

Basal cuttings of new shoots in spring. Very easy, collect the shoots when they are about 10cm tall, potting them up individually in pots and keeping them in a warm but lightly shaded position. They should root within 3 weeks and will be ready to plant out in the summer.

Scent

Leaves: Crushed

> The leaves have a pungent aroma, especially when grown in a hot sunny position.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Achillea ageratum*

Subject:

Achillea ageratum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Achillea ageratum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Achillea millefolium

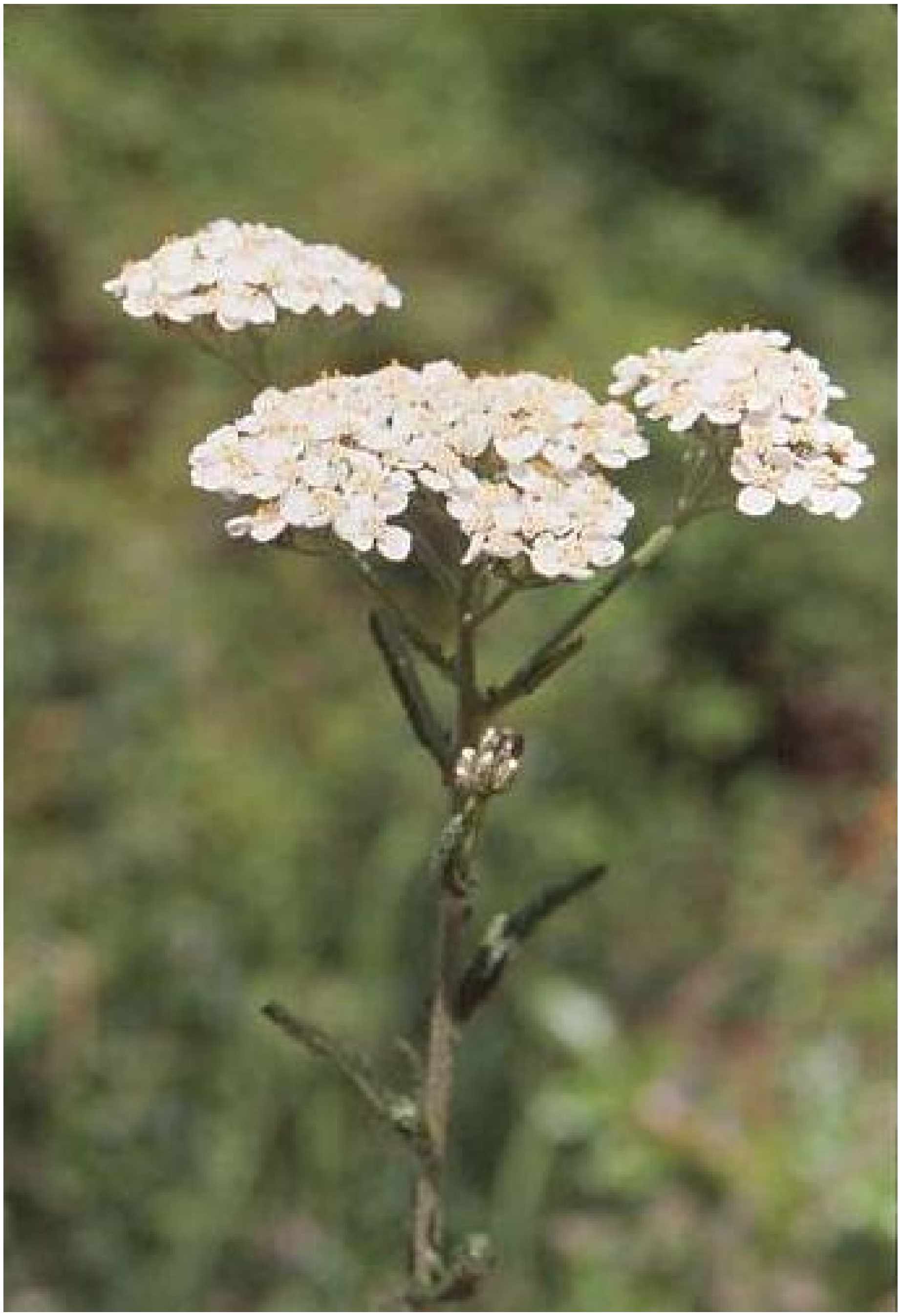

Photo by Derrick Ditchburn

Common name:	Yarrow	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:	Achillea lanulosa (Nutt.)		
Known Hazards:	Extended use of this plant, either medicinally or in the diet, can cause allergic skin rashes or lead to photosensitivity in some people[21, 238].		
Range:	Britain.		
Habitat:	Meadows, pastures, lawns etc. on all but the poorest soils[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. angustissima[B,P] A. aspleniifolia[B] A. aspleniifolia auct. non[P] A. borealis[G] A. eradiata[B,P] A. gracilis[B,P] A. lanulosa ssp. typica[B,P] A. lanulosa var. arachnoidea[P] A. lanulosa var. eradiata[P] A. laxiflora[P] A. magna[G] A. millefolia[E] A. millefolium ssp. lanulosa[P] A. millefolium ssp. occidentalis[P] A. millefolium ssp. pallidotegula[P] A. millefolium subsp. borealis[G] A. millefolium subsp. lanulosa[G] A. millefolium var. aspleniifolia[P] A. millefolium var. gracilis[P] A. millefolium var. lanulosa[P] A. millefolium var. occidentale[G] A. millefolium var. occidentalis[B,P] A. millefolium var. rosea[P] A. millefolium var. russeolata[P] A. occidentalis[P] A. rosea[P] A. tomentosa[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Biranjasif [E], Cickafarkkoro [E], Civanpercemi [E], Common Yarrow [P,L,B], Duizendblad [E], Gewoon Duizendblad [D], Milefolio [E], Milenrama [E], Milfoil [H,L], Millefeuille [E], Millefoglio [E], Millefolium [E], Plumajillo [S], Rojmari [E], Rolleka [E], Rollike [E], Schafgarbe [E], Soldiers Woundwort [H], Staunchweed [H], Thousand Seal [H], Tlalquequetzal [E], Western Yarrow [L,P,FEIS], Woundwort [H], Yarrow [H,S,L,E], Yarrow, Plumajillo [S],
Epithets:	From a Dictionary of Botanical Epithets
	millefolium = 1,000 leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Britain; Canada(Kwakiutl); Canada(Salish); China; Denmark; Europe; France; Germany; Hungary; India; Italy; Mexico; Mexico(Kickapoo); Netherlands; Portugal; Spain; Sweden; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot); Us(Flathead); Ussr

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 2 and is not frost tender. It is in flower from June to August, and the seeds ripen from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Lawn, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

Leaves - raw or cooked[4, 5, 46, 52]. A rather bitter flavour, they make an acceptable addition to mixed salads and are best used when young[9, 183, K]. The leaves are also used as a hop-substitute for flavouring and as a preservative for beer etc[2, 9, 53, 183]. Although in general yarrow is a very nutritious and beneficial plant to add to the diet, some caution should be exercised[K]. See the notes above on possible toxicity.

An aromatic tea is made from the flowers and leaves[183].

An essential oil from the flowering heads is used as a flavouring for soft drinks[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Antiseptic; Antispasmodic; Aromatic; Astringent; Carminative; Cholagogue; Diaphoretic; Digestive; Emmenagogue; Odontalgic; Stimulant; Tonic; Vasodilator; Vulnerary.

Yarrow has a high reputation and is widely employed in herbal medicine, administered both internally and externally. It is used in the treatment of a very wide range of disorders but is particularly valuable for treating wounds, stopping the flow of blood, treating colds, fevers, kidney diseases, menstrual pain etc[218, 238, 254, 257]. The whole plant is used, both fresh and dried, and is best harvested when in flower[222]. Some caution should be exercised in the use of this herb since large or frequent doses taken over a long period may be potentially harmful[222], causing allergic rashes and making the skin more sensitive to sunlight[238]. The herb combines well with Sambucus nigra flowers (Elder) and Mentha x piperita vulgaris (Peppermint) for treating colds and influenza[268].

The herb is antiseptic, antispasmodic, mildly aromatic, astringent, carminative, cholagogue, diaphoretic, digestive, emmenagogue, odontalgic, stimulant, bitter tonic, vasodilator and vulnerary[4, 9, 14, 21, 54, 145, 165, 172, 238, 240, 254]. It also contains the anti-inflammatory agent azulene, though the content of this varies even between plants in the same habitat[238]. The herb is harvested in the summer when in flower and can be dried for later use[4].

The fresh leaf can be applied direct to an aching tooth in order to relieve the pain[268].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Essential; Ground cover; Hair; Liquid feed; Repellent.

The growing plant repels beetles, ants and flies[14, 99, 172]. The plant has been burnt in order to ward off mosquitoes[257].

A liquid plant feed can be made from the leaves[54]. You fill a container with the leaves and then add some water. Leave it to soak for a week or two and then dilute the rather smelly dark liquid, perhaps 10 - 1 with water though this figure is not crucial[K].

This plant is an essential ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

The fragrant seeds have been used to impart a pleasant smell indoors[257].

An essential oil obtained from the leaves is used medicinally[17, 46, 61]. The leaves contain from 0.6 to 0.85% essential oil[240].

The leaves have been used as a cosmetic cleanser for greasy skin[268].

Yellow and green dyes are obtained from the flowers[168].

A good ground cover plant, spreading quickly by its roots[208].

Cultivation details

Succeeds in most soils and situations but prefers a well-drained soil in a sunny position[1, 14]. Shade tolerant[13]. Plants live longer when grown in a poor soil[200] and also do well on lime[208]. Established plants are very drought tolerant[200], they can show distress in very severe droughts but usually recover[190]. It remains green after grass has turned brown in a drought[187]. Plants succeed in maritime gardens[233]. The plant has a very spreading root system and is usually quite invasive[233, K].

A very hardy plant, tolerating temperatures down to about -25°c[187].

Yarrow is an excellent plant for growing in lawns, meadows, orchards etc., it is tolerant of repeated close cutting and of being walked on[20, 54]. It works to improve the soil fertility[20, 54]. A very good companion plant, it improves the health of plants growing nearby and enhances their essential oil content thus making them more resistant to insect predations[14, 18, 20, 53].

There are some named forms, selected for their ornamental value[183, 238]. 'Pink' (syn. 'Rosea') has very aromatic foliage and deep pink flowers[183].

Hybridizes freely with other members of this genus[200].

A good bee plant, it is an important nectar source for many insects[24].

Propagation

Seed - sow spring or early autumn in a cold frame[133]. The seed usually germinates in 1 - 3 months[133]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn. Very easy, the divisions can be planted direct into their permanent positions. Divisions succeed at any time of the year.

Basal cuttings of new shoots in spring. Very easy, collect the shoots when they are about 10cm tall, potting them up individually in pots and keeping them in a warm but lightly shaded position. They should root within 3 weeks and will be ready to plant out in the summer.

Scent

Leaves: Crushed

> The leaves have a pungent aroma, especially when grown in a hot sunny position. The leaves of the cultivar 'Pink' are especially aromatic.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- PFAF Catalogue: Checklist of plants
- The Edible Lawn
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine

- [S] Illustration from the Southwest School of Botanical Medicine
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Achillea lanulosa* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Achillea millefolium var. occidentalis* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *achillea millefolium* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Achillea+millefolium`

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Plants For A Future: Database Search Results

Achillea millefolium

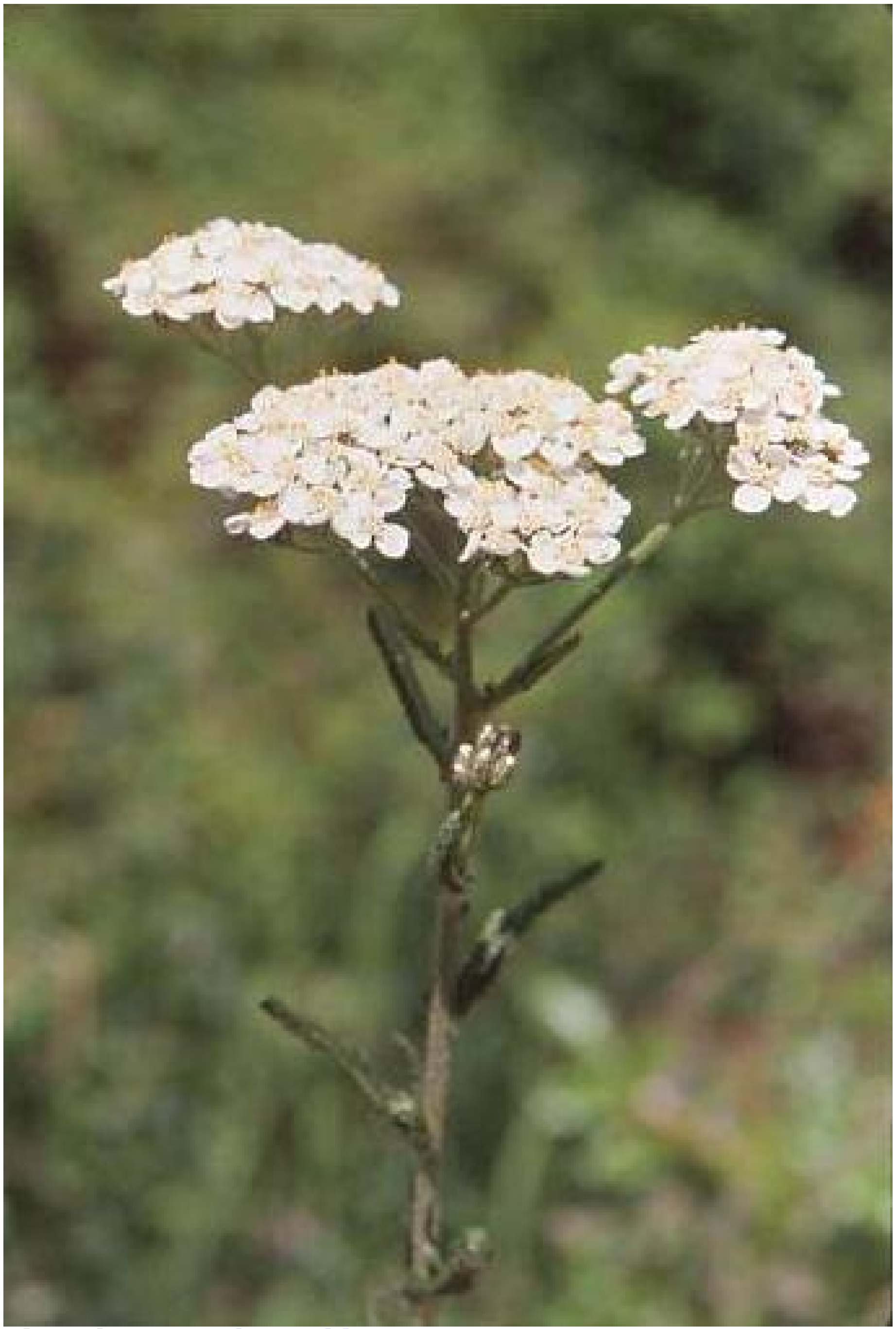

Photo by Derrick Ditchburn

Common name:	Yarrow	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:	Achillea lanulosa (Nutt.)		

Known Hazards:	Extended use of this plant, either medicinally or in the diet, can cause allergic skin rashes or lead to photosensitivity in some people[21, 238].
Range:	Britain.
Habitat:	Meadows, pastures, lawns etc. on all but the poorest soils[17].
Plants For A Future Rating (1-5):	4

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. angustissima[B,P] A. aspleniifolia[B] A. aspleniifolia auct. non[P] A. borealis[G] A. eradiata[B,P] A. gracilis[B,P] A. lanulosa ssp. typica[B,P] A. lanulosa var. arachnoidea[P] A. lanulosa var. eradiata[P] A. laxiflora[P] A. magna[G] A. millefolia[E] A. millefolium ssp. lanulosa[P] A. millefolium ssp. occidentalis[P] A. millefolium ssp. pallidotegula[P] A. millefolium subsp. borealis[G] A. millefolium subsp. lanulosa[G] A. millefolium var. aspleniifolia[P] A. millefolium var. gracilis[P] A. millefolium var. lanulosa[P] A. millefolium var. occidentale[G] A. millefolium var. occidentalis[B,P] A. millefolium var. rosea[P] A. millefolium var. russeolata[P] A. occidentalis[P] A. rosea[P] A. tomentosa[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Biranjasif [E], Cickafarkkoro [E], Civanpercemi [E], Common Yarrow [P,L,B], Duizendblad [E], Gewoon Duizendblad [D], Milefolio [E], Milenrama [E], Milfoil [H,L], Millefeuille [E], Millefoglio [E], Millefolium [E], Plumajillo [S], Rojmari [E], Rolleka [E], Rollike [E], Schafgarbe [E], Soldiers Woundwort [H], Staunchweed [H], Thousand Seal [H], Tlalquequetzal [E], Western Yarrow [L,P,FEIS], Woundwort [H], Yarrow [H,S,L,E], Yarrow, Plumajillo [S],
Epithets:	From a Dictionary of Botanical Epithets
	millefolium = 1,000 leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Canada(Kwakiutl); Canada(Salish); China; Denmark; Europe; France; Germany; Hungary; India; Italy; Mexico; Mexico(Kickapoo); Netherlands; Portugal; Spain; Sweden; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot); Us(Flathead); Ussr

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 2 and is not frost tender. It is in flower from June to August, and the seeds ripen from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Lawn, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

Leaves - raw or cooked[4, 5, 46, 52]. A rather bitter flavour, they make an acceptable addition to mixed salads and are best used when young[9, 183, K]. The leaves are also used as a hop-substitute for flavouring and as a preservative for beer etc[2, 9, 53, 183]. Although in general yarrow is a very nutritious and beneficial plant to add to the diet, some caution should be exercised[K]. See the notes above on possible toxicity.

An aromatic tea is made from the flowers and leaves[183].

An essential oil from the flowering heads is used as a flavouring for soft drinks[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Antiseptic; Antispasmodic; Aromatic; Astringent; Carminative; Cholagogue; Diaphoretic; Digestive; Emmenagogue; Odontalgic; Stimulant; Tonic; Vasodilator; Vulnerary.

Yarrow has a high reputation and is widely employed in herbal medicine, administered both internally and externally. It is used in the treatment of a very wide range of disorders but is particularly valuable for treating wounds, stopping the flow of blood, treating colds, fevers, kidney diseases, menstrual pain etc[218, 238, 254, 257]. The whole plant is used, both fresh and dried, and is best harvested when in flower[222]. Some caution should be exercised in the use of this herb since large or frequent doses taken over a long period may be potentially harmful[222], causing allergic rashes and making the skin more sensitive to sunlight[238]. The herb combines well with Sambucus nigra flowers (Elder) and Mentha x piperita vulgaris (Peppermint) for treating colds and influenza[268].

The herb is antiseptic, antispasmodic, mildly aromatic, astringent, carminative, cholagogue, diaphoretic, digestive, emmenagogue, odontalgic, stimulant, bitter tonic, vasodilator and vulnerary[4, 9, 14, 21, 54, 145, 165, 172, 238, 240, 254]. It also contains the anti-inflammatory agent azulene, though the content of this varies even between plants in the same habitat[238]. The herb is harvested in the summer when in flower and can be dried for later use[4].

The fresh leaf can be applied direct to an aching tooth in order to relieve the pain[268].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Essential; Ground cover; Hair; Liquid feed; Repellent.

The growing plant repels beetles, ants and flies[14, 99, 172]. The plant has been burnt in order to ward off mosquitoes[257].

A liquid plant feed can be made from the leaves[54]. You fill a container with the leaves and then add some water. Leave it to soak for a week or two and then dilute the rather smelly dark liquid, perhaps 10 - 1 with water though this figure is not crucial[K].

This plant is an essential ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

The fragrant seeds have been used to impart a pleasant smell indoors[257].

An essential oil obtained from the leaves is used medicinally[17, 46, 61]. The leaves contain from 0.6 to 0.85% essential oil[240].

The leaves have been used as a cosmetic cleanser for greasy skin[268].

Yellow and green dyes are obtained from the flowers[168].

A good ground cover plant, spreading quickly by its roots[208].

Cultivation details

Succeeds in most soils and situations but prefers a well-drained soil in a sunny position[1, 14]. Shade tolerant[13]. Plants live longer when grown in a poor soil[200] and also do well on lime[208]. Established plants are very drought tolerant[200], they can show distress in very severe droughts but usually recover[190]. It remains green after grass has turned brown in a drought[187]. Plants succeed in maritime gardens[233]. The plant has a very spreading root system and is usually quite invasive[233, K].

A very hardy plant, tolerating temperatures down to about -25°c[187].

Yarrow is an excellent plant for growing in lawns, meadows, orchards etc., it is tolerant of repeated close cutting and of being walked on[20, 54]. It works to improve the soil fertility[20, 54]. A very good companion plant, it improves the health of plants growing nearby and enhances their essential oil content thus making them more resistant to insect predations[14, 18, 20, 53].

There are some named forms, selected for their ornamental value[183, 238]. 'Pink' (syn. 'Rosea') has very aromatic foliage and deep pink flowers[183].

Hybridizes freely with other members of this genus[200].

A good bee plant, it is an important nectar source for many insects[24].

Propagation

Seed - sow spring or early autumn in a cold frame[133]. The seed usually germinates in 1 - 3 months[133]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn. Very easy, the divisions can be planted direct into their permanent positions. Divisions succeed at any time of the year.

Basal cuttings of new shoots in spring. Very easy, collect the shoots when they are about 10cm tall, potting them up individually in pots and keeping them in a warm but lightly shaded position. They should root within 3 weeks and will be ready to plant out in the summer.

Scent

Leaves: Crushed

> The leaves have a pungent aroma, especially when grown in a hot sunny position. The leaves of the cultivar 'Pink' are especially aromatic.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- PFAF Catalogue: Checklist of plants
- The Edible Lawn
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine
- [S] Illustration from the Southwest School of Botanical Medicine
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Achillea millefolium

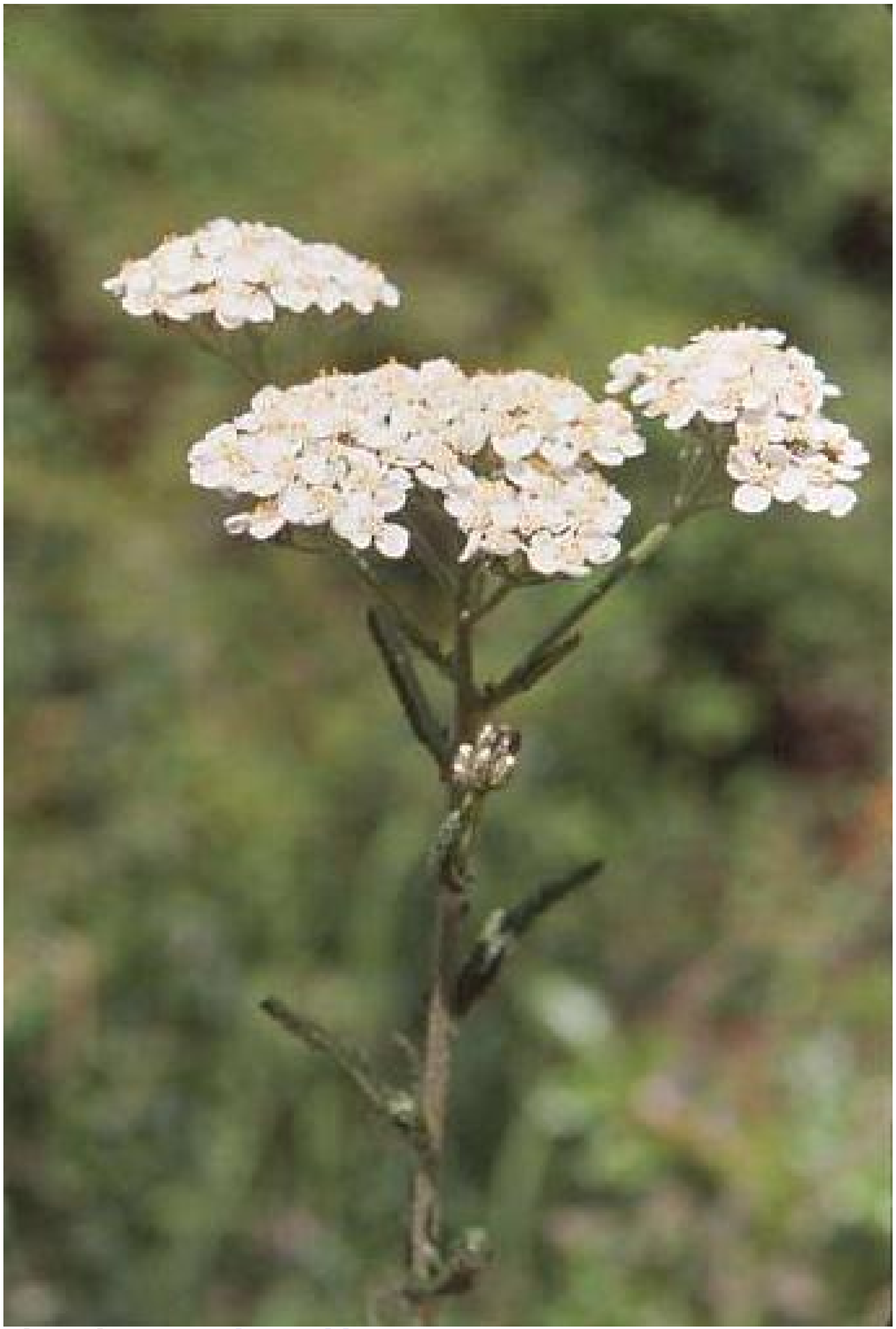

Photo by Derrick Ditchburn

Common name:	Yarrow	Family:	Compositae
Author:	L.	Botanical references:	17, 200
Synonyms:	Achillea lanulosa (Nutt.)		

Known Hazards:	Extended use of this plant, either medicinally or in the diet, can cause allergic skin rashes or lead to photosensitivity in some people[21, 238].
Range:	Britain.
Habitat:	Meadows, pastures, lawns etc. on all but the poorest soils[17].
Plants For A Future Rating (1-5):	4

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. angustissima[B,P] A. aspleniifolia[B] A. aspleniifolia auct. non[P] A. borealis[G] A. eradiata[B,P] A. gracilis[B,P] A. lanulosa ssp. typica[B,P] A. lanulosa var. arachnoidea[P] A. lanulosa var. eradiata[P] A. laxiflora[P] A. magna[G] A. millefolia[E] A. millefolium ssp. lanulosa[P] A. millefolium ssp. occidentalis[P] A. millefolium ssp. pallidotegula[P] A. millefolium subsp. borealis[G] A. millefolium subsp. lanulosa[G] A. millefolium var. aspleniifolia[P] A. millefolium var. gracilis[P] A. millefolium var. lanulosa[P] A. millefolium var. occidentale[G] A. millefolium var. occidentalis[B,P] A. millefolium var. rosea[P] A. millefolium var. russeolata[P] A. occidentalis[P] A. rosea[P] A. tomentosa[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Biranjasif [E], Cickafarkkoro [E], Civanpercemi [E], Common Yarrow [P,L,B], Duizendblad [E], Gewoon Duizendblad [D], Milefolio [E], Milenrama [E], Milfoil [H,L], Millefeuille [E], Millefoglio [E], Millefolium [E], Plumajillo [S], Rojmari [E], Rolleka [E], Rollike [E], Schafgarbe [E], Soldiers Woundwort [H], Staunchweed [H], Thousand Seal [H], Tlalquequetzal [E], Western Yarrow [L,P,FEIS], Woundwort [H], Yarrow [H,S,L,E], Yarrow, Plumajillo [S],
Epithets:	From a Dictionary of Botanical Epithets
	millefolium = 1,000 leaved;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Canada(Kwakiutl); Canada(Salish); China; Denmark; Europe; France; Germany; Hungary; India; Italy; Mexico; Mexico(Kickapoo); Netherlands; Portugal; Spain; Sweden; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot); Us(Flathead); Ussr

Physical Characteristics

Perennial growing to 0.6m by 0.6m . It is hardy to zone 2 and is not frost tender. It is in flower from June to August, and the seeds ripen from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Meadow, Lawn, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

Leaves - raw or cooked[4, 5, 46, 52]. A rather bitter flavour, they make an acceptable addition to mixed salads and are best used when young[9, 183, K]. The leaves are also used as a hop-substitute for flavouring and as a preservative for beer etc[2, 9, 53, 183]. Although in general yarrow is a very nutritious and beneficial plant to add to the diet, some caution should be exercised[K]. See the notes above on possible toxicity.

An aromatic tea is made from the flowers and leaves[183].

An essential oil from the flowering heads is used as a flavouring for soft drinks[183].

Medicinal Uses

Disclaimer

Antiinflammatory; Antiseptic; Antispasmodic; Aromatic; Astringent; Carminative; Cholagogue; Diaphoretic; Digestive; Emmenagogue; Odontalgic; Stimulant; Tonic; Vasodilator; Vulnerary.

Yarrow has a high reputation and is widely employed in herbal medicine, administered both internally and externally. It is used in the treatment of a very wide range of disorders but is particularly valuable for treating wounds, stopping the flow of blood, treating colds, fevers, kidney diseases, menstrual pain etc[218, 238, 254, 257]. The whole plant is used, both fresh and dried, and is best harvested when in flower[222]. Some caution should be exercised in the use of this herb since large or frequent doses taken over a long period may be potentially harmful[222], causing allergic rashes and making the skin more sensitive to sunlight[238]. The herb combines well with Sambucus nigra flowers (Elder) and Mentha x piperita vulgaris (Peppermint) for treating colds and influenza[268].

The herb is antiseptic, antispasmodic, mildly aromatic, astringent, carminative, cholagogue, diaphoretic, digestive, emmenagogue, odontalgic, stimulant, bitter tonic, vasodilator and vulnerary[4, 9, 14, 21, 54, 145, 165, 172, 238, 240, 254]. It also contains the anti-inflammatory agent azulene, though the content of this varies even between plants in the same habitat[238]. The herb is harvested in the summer when in flower and can be dried for later use[4].

The fresh leaf can be applied direct to an aching tooth in order to relieve the pain[268].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Cosmetic; Dye; Essential; Ground cover; Hair; Liquid feed; Repellent.

The growing plant repels beetles, ants and flies[14, 99, 172]. The plant has been burnt in order to ward off mosquitoes[257].

A liquid plant feed can be made from the leaves[54]. You fill a container with the leaves and then add some water. Leave it to soak for a week or two and then dilute the rather smelly dark liquid, perhaps 10 - 1 with water though this figure is not crucial[K].

This plant is an essential ingredient of 'Quick Return' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

The fragrant seeds have been used to impart a pleasant smell indoors[257].

An essential oil obtained from the leaves is used medicinally[17, 46, 61]. The leaves contain from 0.6 to 0.85% essential oil[240].

The leaves have been used as a cosmetic cleanser for greasy skin[268].

Yellow and green dyes are obtained from the flowers[168].

A good ground cover plant, spreading quickly by its roots[208].

Cultivation details

Succeeds in most soils and situations but prefers a well-drained soil in a sunny position[1, 14]. Shade tolerant[13]. Plants live longer when grown in a poor soil[200] and also do well on lime[208]. Established plants are very drought tolerant[200], they can show distress in very severe droughts but usually recover[190]. It remains green after grass has turned brown in a drought[187]. Plants succeed in maritime gardens[233]. The plant has a very spreading root system and is usually quite invasive[233, K].

A very hardy plant, tolerating temperatures down to about -25°c[187].

Yarrow is an excellent plant for growing in lawns, meadows, orchards etc., it is tolerant of repeated close cutting and of being walked on[20, 54]. It works to improve the soil fertility[20, 54]. A very good companion plant, it improves the health of plants growing nearby and enhances their essential oil content thus making them more resistant to insect predations[14, 18, 20, 53].

There are some named forms, selected for their ornamental value[183, 238]. 'Pink' (syn. 'Rosea') has very aromatic foliage and deep pink flowers[183].

Hybridizes freely with other members of this genus[200].

A good bee plant, it is an important nectar source for many insects[24].

Propagation

Seed - sow spring or early autumn in a cold frame[133]. The seed usually germinates in 1 - 3 months[133]. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring or autumn. Very easy, the divisions can be planted direct into their permanent positions. Divisions succeed at any time of the year.

Basal cuttings of new shoots in spring. Very easy, collect the shoots when they are about 10cm tall, potting them up individually in pots and keeping them in a warm but lightly shaded position. They should root within 3 weeks and will be ready to plant out in the summer.

Scent

Leaves: Crushed

> The leaves have a pungent aroma, especially when grown in a hot sunny position. The leaves of the cultivar 'Pink' are especially aromatic.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Achillea millefolium*

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Achillea millefolium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Achillea millefolium

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Acinos alpinus

Common name:	Alpine calamint	Family:	Labiatae
Author:	(L.) Moench.	Botanical references:	50, 200
Synonyms:	Satureja orontia, Calamintha alpina ((L.)Lam.)		
Known Hazards:	None known		
Range:	C. and S. Europe		
Habitat:	Dry sunny habitats in mountains and rocky places[50, 148].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. vulgaris[H] Calamintha acinos[H] Calamintha menthifolia[H] Calamintha officinalis[H] Satureja alpina[H] Thymus acinos[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basil Thyme [H],
Epithets:	From a Dictionary of Botanical Epithets
	alpinus = alpine;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.45m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Tea.

The leaves are used as a flavouring in cooked dishes[183] and also as a tea substitute[148].

Medicinal Uses

Disclaimer

Diaphoretic; Febrifuge.

Diaphoretic, febrifuge[148].

Other Uses

None known

Cultivation details

Succeeds in almost any well-drained soil, doing well in a hot dry soil[200].

Propagation

Seed - sow early spring in a cold frame. If you have sufficient seed then you could try sowing in situ in April or May. Germination should take place within a month. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring.

Basal cuttings in late spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calamintha alpina* (a possible synonym).

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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[148] **Niebuhr. A. D.** *Herbs of Greece*. Herb Society of America. 1970
A pleasant little book about Greek herbs.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants*. Kampong Publications 1990 ISBN 0-9628087-0-9
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

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Plants For A Future: Database Search Results

Acinos alpinus

Common name:	Alpine calamint	Family:	Labiatae
Author:	(L.) Moench.	Botanical references:	50, 200
Synonyms:	Satureja orontia, Calamintha alpina ((L.)Lam.)		
Known Hazards:	None known		
Range:	C. and S. Europe		
Habitat:	Dry sunny habitats in mountains and rocky places[50, 148].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. vulgaris[H] Calamintha acinos[H] Calamintha menthifolia[H] Calamintha officinalis[H] Satureja alpina[H] Thymus acinos[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basil Thyme [H],
Epithets:	From a Dictionary of Botanical Epithets
	alpinus = alpine;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.45m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Tea.

The leaves are used as a flavouring in cooked dishes[183] and also as a tea substitute[148].

Medicinal Uses

Disclaimer

Diaphoretic; Febrifuge.

Diaphoretic, febrifuge[148].

Other Uses

None known

Cultivation details

Succeeds in almost any well-drained soil, doing well in a hot dry soil[200].

Propagation

Seed - sow early spring in a cold frame. If you have sufficient seed then you could try sowing in situ in April or May. Germination should take place within a month. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring.

Basal cuttings in late spring.

Suppliers

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Epithets:	From a Dictionary of Botanical Epithets
	alpinus = alpine;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.45m. It is hardy to zone 5. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Tea.

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Disclaimer

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Basal cuttings in late spring.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acinos alpinus*

Subject:

Acinos alpinus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acinos alpinus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:53:05 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Acinos arvensis

Common name:	Basil thyme	Family:	Labiatae
Author:	(Lam.) Dandy.	Botanical references:	17, 200
Synonyms:	Satureja acinos ((L.)Scheele.), Calamintha acinos ((L.)Clairv.), Acinos thymoides (Moench.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry sunny banks and in fields on chalky, gravelly and sandy soils[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. alpinus[H,HORTIPLEX] A. vulgaris[H] Calamintha alpina[H] Calamintha menthifolia[H] Calamintha officinalis[H] Clinopodium acinos[B,P] Satureja alpina[H] Thymus acinos[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basil Thyme [H,P], Basil-thyme [B], Spring Savory [E],
Epithets:	From a Dictionary of Botanical Epithets
	arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Eurasia

Physical Characteristics

Annual/Perennial growing to 0.15m by 0.3m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

Edible Uses

Condiment; Leaves.

The flowering tops are used as a flavouring[4, 177, 183] and in salads[238]. Said to be similar to thyme in odour but milder and more pleasant[183]. The plant is only faintly aromatic and does not really make a very good substitute for thyme[238, K].

Medicinal Uses

Disclaimer

Diuretic; Odontalgic; Rubefacient; Stomachic.

Basil thyme was a great favourite of the ancient herbalists, though it is little used medicinally at present[4]. The herb is diuretic, odontalgic, rubefacient and stomachic[4, 61, 238]. The essential oil has been applied externally as a rubefacient, whilst one drop of it put into a decayed tooth is said to alleviate the pain[4]. The plant has also been added to bath water, especially for children, and is said to be a strengthener and nerve soother[4].

The flowering plant is harvested in the summer and is normally used fresh in infusions[238].

Other Uses

Ground cover.

The plant makes a good ground cover[244].

Cultivation details

Succeeds in any well-drained soil[244], though it prefers a light well-drained dry soil in full sun[1, 238]. Prefers sandy and alkaline growing conditions[238]. Dislikes shade.

A very hardy plant, tolerating temperatures down to at least -15°c[238].

A short-lived perennial, but the plants usually self-sow when they are growing in a suitable position[238].

Propagation

Seed - sow early spring in a cold frame. If you have sufficient seed then you could try sowing in situ in April or May. Germination should take place within a month. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring.

Basal cuttings in late spring. Very easy[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acinos alpinus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acinos thymoides* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Calamintha acinos* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Satureja acinos* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Acinos arvensis

Common name:	Basil thyme	Family:	Labiatae
Author:	(Lam.) Dandy.	Botanical references:	17, 200
Synonyms:	Satureja acinos ((L.)Scheele.), Calamintha acinos ((L.)Clairv.), Acinos thymoides (Moench.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry sunny banks and in fields on chalky, gravelly and sandy soils[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Eurasia

Physical Characteristics

Annual/Perennial growing to 0.15m by 0.3m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is

self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

Edible Uses

Condiment; Leaves.

The flowering tops are used as a flavouring[4, 177, 183] and in salads[238]. Said to be similar to thyme in odour but milder and more pleasant[183]. The plant is only faintly aromatic and does not really make a very good substitute for thyme[238, K].

Medicinal Uses

Disclaimer

Diuretic; Odontalgic; Rubefacient; Stomachic.

Basil thyme was a great favourite of the ancient herbalists, though it is little used medicinally at present[4]. The herb is diuretic, odontalgic, rubefacient and stomachic[4, 61, 238]. The essential oil has been applied externally as a rubefacient, whilst one drop of it put into a decayed tooth is said to alleviate the pain[4]. The plant has also been added to bath water, especially for children, and is said to be a strengthener and nerve soother[4].

The flowering plant is harvested in the summer and is normally used fresh in infusions[238].

Other Uses

Ground cover.

The plant makes a good ground cover[244].

Cultivation details

Succeeds in any well-drained soil[244], though it prefers a light well-drained dry soil in full sun[1, 238]. Prefers sandy and alkaline growing conditions[238]. Dislikes shade.

A very hardy plant, tolerating temperatures down to at least -15°c[238].

A short-lived perennial, but the plants usually self-sow when they are growing in a suitable position[238].

Propagation

Seed - sow early spring in a cold frame. If you have sufficient seed then you could try sowing in situ in April or May. Germination should take place within a month. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring.

Basal cuttings in late spring. Very easy[K].

Suppliers

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Web References

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Acinos+arvensis`
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Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry sunny banks and in fields on chalky, gravelly and sandy soils[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Eurasia

Physical Characteristics

Annual/Perennial growing to 0.15m by 0.3m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is

self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, Ground Cover.

Edible Uses

Condiment; Leaves.

The flowering tops are used as a flavouring[4, 177, 183] and in salads[238]. Said to be similar to thyme in odour but milder and more pleasant[183]. The plant is only faintly aromatic and does not really make a very good substitute for thyme[238, K].

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The flowering plant is harvested in the summer and is normally used fresh in infusions[238].

Other Uses

Ground cover.

The plant makes a good ground cover[244].

Cultivation details

Succeeds in any well-drained soil[244], though it prefers a light well-drained dry soil in full sun[1, 238]. Prefers sandy and alkaline growing conditions[238]. Dislikes shade.

A very hardy plant, tolerating temperatures down to at least -15°c[238].

A short-lived perennial, but the plants usually self-sow when they are growing in a suitable position[238].

Propagation

Seed - sow early spring in a cold frame. If you have sufficient seed then you could try sowing in situ in April or May. Germination should take place within a month. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Division in spring.

Basal cuttings in late spring. Very easy[K].

Suppliers

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Add a comment on: *Acinos arvensis*

Subject:

Acinos arvensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acinos arvensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:53:32 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Acinos rotundifolius

Common name:		Family:	Labiatae
Author:	Pers.	Botanical references:	50, 200
Synonyms:	Calamintha graveolens ((Bieb.)Benth.), Calamintha forminii, Calamintha exigua, Acinos graveolens ((Bieb.)Link.), Acinos forminii		
Known Hazards:	None known		
Range:	S. Europe to W. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Reehana Qubla [E], Reihan Barri [E],
Epithets:	From a Dictionary of Botanical Epithets
	rotundifolius = round leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Iran; Iraq; Kurdistan

Physical Characteristics

Annual/Perennial growing to 0.3m. It is hardy to zone 4 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used as a flavouring with beans etc, and are said to be a substitute for summer savoury, Satureia hortensis[200], though we prefer that species[K].

Medicinal Uses

Disclaimer

Aphrodisiac; Stimulant.

Aphrodisiac, stimulant[61].

Other Uses

None known

Cultivation details

Succeeds in almost any well-drained soil, doing well in a hot dry soil[200].

Propagation

Seed - sow early spring in a cold frame. If you have sufficient seed then you could try sowing in situ in April or May. Germination should take place within a month. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calamintha graveolens* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Acinos rotundifolius

Common name:		Family:	Labiatae
Author:	Pers.	Botanical references:	50, 200
Synonyms:	Calamintha graveolens ((Bieb.)Benth.), Calamintha forminii, Calamintha exigua, Acinos graveolens ((Bieb.)Link.), Acinos forminii		
Known Hazards:	None known		
Range:	S. Europe to W. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Reehana Qubla [E], Reihan Barri [E],
Epithets:	From a Dictionary of Botanical Epithets
	rotundifolius = round leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Iran; Iraq; Kurdistan

Physical Characteristics

Annual/Perennial growing to 0.3m. It is hardy to zone 4 and is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used as a flavouring with beans etc, and are said to be a substitute for summer savoury, Satureia hortensis[200], though we prefer that species[K].

Medicinal Uses

Disclaimer

Aphrodisiac; Stimulant.

Aphrodisiac, stimulant[61].

Other Uses

None known

Cultivation details

Succeeds in almost any well-drained soil, doing well in a hot dry soil[200].

Propagation

Seed - sow early spring in a cold frame. If you have sufficient seed then you could try sowing in situ in April or May. Germination should take place within a month. When large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calamintha graveolens* (a possible synonym).

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Range:	S. Europe to W. Asia.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

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	Reehana Qubla [E], Reihan Barri [E],
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	rotundifolius = round leaved;
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	Order: Lamiales . Renamed to Lamiaceae -- Mint family
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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The leaves are used as a flavouring with beans etc, and are said to be a substitute for summer savoury, Satureia hortensis[200], though we prefer that species[K].

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Disclaimer

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Aphrodisiac, stimulant[61].

Other Uses

None known

Cultivation details

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Propagation

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acinos rotundifolius*

Subject:

Acinos rotundifolius

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acinos rotundifolius

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Acorus calamus

Common name:	Sweet flag	Family:	Araceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The fresh root can be poisonous[7]. When using the plant medicinally, the isolated essential oil should not be used[165]. The essential oil in the roots of some populations of this plant contains the compound asarone. This has tranquillising and antibiotic activity, but is also potentially toxic and carcinogenic[218, 238]. It seems that these compounds are found in the triploid form of the species (found in Asia) whilst the diploid form (found in N. America and Siberia) is free of the compounds[218, 238]. However, the root (but not the isolated essential oil) has been used in India for thousands of years without reports of cancer which suggests that using the whole herb is completely safe, though more research is needed[254].		
Range:	Europe, Asia and N. America. Naturalized in Britain[17].		
Habitat:	Found in moist soils and shallow water in ditches, marshes, river edges and ponds[1, 100, 187, 244].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. americanus[B,C,CAL,P] A. calamus auct. non[P] A. calamus var. americanus[B,P] A. calmus[]
	From various places around the Web, may not be correct. See below.

Other Common Names:	Acore Vrai [E], Acoro Aromatico [E], Acorus [E], Agri Turki [E], Azakegeri [E], Bach [E], Calamo Aromatico [E], Calamus [P,H,B,E,S], Calmus [E], Calomo Aromatico [E], Ch'Ang P'U Chiu [E], Cinnamon Sedge [H], Djerango [E], Doringo [E], Ganoeak [E], Gladdon [H], Jariangau [E], Jerangau [E], Jeringau [E], Kaliraga [E], Kalmoes [E,D], Kalmos [E], Kalmus [E], Myrtle Grass [H], Myrtle Sedge [H], Sarango [E], Shui Ch'Ang Pu [E], Sweet Cane [H], Sweet Flag [S,E], Sweet Flagg [H], Sweet Myrtle [H], Sweet Root [H], Sweet Rush [H], Sweet Sedge [H], Sweet-flag [L], Sweetflag [B,P], Vacha [E], Vaj [E],
Epithets:	From a Dictionary of Botanical Epithets
	calamus = reed;
Systematics:	From a UDSA Plants Database
	Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database
	Arabic; Brazil; Britain; China; Denmark; Egypt; France; Germany(Bavaria); Hungary; India; India(Santal); Iran; Italy; Java; Malaysia; Nepal; Netherlands; New Guinea; Sanscrit; Spain; Sumatra; Sweden; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoo
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 3 and is not frost tender. It is in flower from May to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Leaves; Root; Stem.

The rhizome is candied and made into a sweetmeat[2, 4, 13, 55, 62, 115, 183]. It can be peeled and washed to remove the bitterness and then eaten raw like a fruit[106, 179]. It makes a palatable vegetable when roasted[192] and can also be used as a flavouring[61]. Rich in starch, the root contains about 1% of an essential oil that is used as a food flavouring[1, 13, 57]. The root also contains a bitter glycoside[179]. Some caution is advised, see the notes above on toxicity.

The dried and powdered rhizome has a spicy flavour and is used as a substitute for ginger, cinnamon and nutmeg[4, 55, 142, 177, 183].

The young and tender inflorescence is often eaten by children for its sweetness[4].

Young leaves - cooked[55]. The fresh leaves contain 0.078% oxalic acid[240]. The leaves can be used to flavour custards in the same way as vanilla pods[244].

The inner portion of young stems is eaten raw[62]. It makes a very palatable salad[183].

Medicinal Uses

Disclaimer

Abortifacient; Anodyne; Aphrodisiac; Aromatic; Carminative; Diaphoretic; Emmenagogue; Febrifuge; Hallucinogenic; Homeopathy; Odontalgic; Sedative; Stimulant; Stomachic; Tonic; Vermifuge.

Sweet flag has a very long history of medicinal use in many herbal traditions. It is widely employed in modern herbal medicine as an aromatic stimulant and mild tonic[4]. In Ayurveda it is highly valued as a rejuvenator for the brain and nervous system and as a remedy for digestive disorders[254]. However, some care should be taken in its use since some forms of the plant might be carcinogenic - see the notes above on toxicity for more information.

The root is anodyne, aphrodisiac, aromatic, carminative, diaphoretic, emmenagogue, expectorant, febrifuge, hallucinogenic, hypotensive, sedative, stimulant, stomachic, mildly tonic and vermifuge[4, 7, 9, 21, 147, 165, 213, 240]. It is used internally in the treatment of digestive complaints, bronchitis, sinusitis etc[238]. It is said to have wonderfully tonic powers of stimulating and normalizing the appetite. In small doses it reduces stomach acidity whilst larger doses increase stomach secretions[254] and it is, therefore, recommended in the treatment of anorexia nervosa[244]. However if the dose is too large it will cause nausea and vomiting[K]. Sweet flag is also used externally to treat skin eruptions, rheumatic pains and neuralgia[238]. An infusion of the root can bring about an abortion[213] whilst chewing the root alleviates toothache[213]. It is a folk remedy for arthritis, cancer, convulsions, diarrhoea, dyspepsia, epilepsy etc. Chewing the root is said to kill the taste for tobacco[218]. Roots 2 - 3 years old are used since older roots tend to

become tough and hollow[4]. They are harvested in late autumn or early spring and are dried for later use[4]. The dry root loses 70% of its weight, but has an improved smell and taste[244]. It does, however, deteriorate if stored for too long[244].

Caution is advised on the use of this root, especially in the form of the distilled essential oil, since large doses can cause mild hallucinations[192]. See also the notes above on toxicity.

A homeopathic remedy is made from the roots[9]. It is used in the treatment of flatulence, dyspepsia, anorexia and disorders of the gall bladder[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Basketry; Incense; Insecticide; Repellent; Strewing; Thatching; Weaving.

The leaves are used in basket making or woven into mats[169]. They have also been used as a thatch for roofs[4].

An essential oil from the rhizome is used in perfumery and as a food flavouring[1, 13, 57]. The oil is contained mainly in the outer skin of the root[245], it has a fragrance reminiscent of patchouli oil[192]. The fresh roots yield about 1.5 - 3.5% essential oil, dried roots about 0.8%[4, 240]. Some plants from Japan have yielded 5% essential oil[4]. The essential oil is also an insect repellent and insecticide[218]. It is effective against houseflies[240]. When added to rice being stored in granaries it has significantly reduced loss caused by insect damage because the oil in the root has sterilized the male rice weevils[244].

An essential oil obtained from the leaves is used in perfumery and for making aromatic vinegars[245].

The leaves and the root have a refreshing scent of cinnamon[245]. All parts of plant can be dried and used to repel insects or to scent linen cupboards[8, 14, 61]. They can also be burnt as an incense[14], whilst the whole plant was formerly used as a strewing herb[4, 14, 115, 238]. The growing plant is said to repel mosquitoes[20, 201].

Cultivation details

Prefers growing in shallow water or in a very moist loamy soil[200]. Requires a sunny position[200]. Prefers a pH in the range 5.5 to 7.5.

Plants are hardy to about -25°c[187].

The sweet flag has a long history of use as a medicinal and culinary plant. It has been cultivated for this purpose but was more commonly allowed to naturalize and was then harvested from the wild.

The plant seldom flowers or sets seed in Britain and never does so unless it is growing in water[4]. It can spread quite freely at the roots however and soon becomes established.

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stand the pot in about 3cm of water. Pot up young seedlings as soon as they are large enough to handle, keep them wet by standing the pots in shallow water and overwinter for the first year in a greenhouse or cold frame. Seed is rarely produced in Britain[4, 17].

Division in spring just before growth starts[1]. Very easy, it can be carried out successfully at any time in the growing season and can be planted direct into its permanent positions[K].

Scent

Leaves: Crushed

A refreshing scent of cinnamon.

Root: Crushed

The root has a refreshing scent of cinnamon.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- The Edible Pond and Bog Garden

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acorus americanus* (a possible synonym).

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *acorus calamus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Araceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some

details on plant uses.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
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A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Readers Comments

Acorus calamus

david Nicholls Mon Mar 5 10:14:17 2001

I tried using the root to quit smoking after also reading in "A modern Herbal" that it is used when Peruvian Bark fails, Peruvian bark containing quinine, the active ingredient in the best quit smoking aid (for me personally), Nicobrevin. Maybe many things for fever have potential as quit smoking aids.

I'm sure it did eliminate the desire for a smoke, didn't have one for 2 hours, one every 15 mins being my usual, had about 4mm-6mm sqaure of root , then also tried about the same of rhizome, taste the same(Potters say the rhiozme is often called the root so I tried both) same effect (obviously this is only vaugely scientific).

After finding I had to keep taking it every few hours I decided I was not prepared to take such large amounts for fear of hallucinations or other risks, maybe worth researhing, I hope & think no one could patent the idea with it's folk history, so pharmaceutical corporations probably wouldn't bother with it.

Note: I can't recommend it to anyone as safe.

Details of Growing Condition: One seems to be growing well at 200 meters facing sea, in temperate climate, exposed to wind , full sun, in boggy soil with competition from watercress but only there a few months.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Acorus+calamus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Acorus+calamus`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Acorus calamus

Common name:	Sweet flag	Family:	Araceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The fresh root can be poisonous[7]. When using the plant medicinally, the isolated essential oil should not be used[165]. The essential oil in the roots of some populations of this plant contains the compound asarone. This has tranquillising and antibiotic activity, but is also potentially toxic and carcinogenic[218, 238]. It seems that these compounds are found in the triploid form of the species (found in Asia) whilst the diploid form (found in N. America and Siberia) is free of the compounds[218, 238]. However, the root (but not the isolated essential oil) has been used in India for thousands of years without reports of cancer which suggests that using the whole herb is completely safe, though more research is needed[254].		
Range:	Europe, Asia and N. America. Naturalized in Britain[17].		
Habitat:	Found in moist soils and shallow water in ditches, marshes, river edges and ponds[1, 100, 187, 244].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. americanus[B,C,CAL,P] A. calamus auct. non[P] A. calamus var. americanus[B,P] A. calmus[]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Acore Vrai [E], Acoro Aromatico [E], Acorus [E], Agri Turki [E], Azakegeri [E], Bach [E], Calamo Aromatico [E], Calamus [P,H,B,E,S], Calmus [E], Calomo Aromatico [E], Ch'Ang P'U Chiu [E], Cinnamon Sedge [H], Djerango [E], Doringo [E], Ganoeak [E], Gladdon [H], Jariangau [E], Jerangau [E], Jeringau [E], Kaliraga [E], Kalmoes [E,D], Kalmos [E], Kalmus [E], Myrtle Grass [H], Myrtle Sedge [H], Sarango [E], Shui Ch'Ang Pu [E], Sweet Cane [H], Sweet Flag [S,E], Sweet Flagg [H], Sweet Myrtle [H], Sweet Root [H], Sweet Rush [H], Sweet Sedge [H], Sweet-flag [L], Sweetflag [B,P], Vacha [E], Vaj [E],
Epithets:	From a Dictionary of Botanical Epithets calamus = reed;
Systematics:	From a UDSA Plants Database Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database Arabic; Brazil; Britain; China; Denmark; Egypt; France; Germany(Bavaria); Hungary; India; India(Santal); Iran; Italy; Java; Malaysia; Nepal; Netherlands; New Guinea; Sanscrit; Spain; Sumatra; Sweden; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoo
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 3 and is not frost tender. It is in flower from May to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Leaves; Root; Stem.

The rhizome is candied and made into a sweetmeat[2, 4, 13, 55, 62, 115, 183]. It can be peeled and washed to remove the bitterness and then eaten raw like a fruit[106, 179]. It makes a palatable vegetable when roasted[192] and can also be used as a flavouring[61]. Rich in starch, the root contains about 1% of an essential oil that is used as a food flavouring[1, 13, 57]. The root also contains a bitter glycoside[179]. Some caution is advised, see the notes above on toxicity.

The dried and powdered rhizome has a spicy flavour and is used as a substitute for ginger, cinnamon and nutmeg[4, 55, 142, 177, 183].

The young and tender inflorescence is often eaten by children for its sweetness[4].

Young leaves - cooked[55]. The fresh leaves contain 0.078% oxalic acid[240]. The leaves can be used to flavour custards in the same way as vanilla pods[244].

The inner portion of young stems is eaten raw[62]. It makes a very palatable salad[183].

Medicinal Uses

Disclaimer

Abortifacient; Anodyne; Aphrodisiac; Aromatic; Carminative; Diaphoretic; Emmenagogue; Febrifuge; Hallucinogenic; Homeopathy; Odontalgic; Sedative; Stimulant; Stomachic; Tonic; Vermifuge.

Sweet flag has a very long history of medicinal use in many herbal traditions. It is widely employed in modern herbal medicine as an aromatic stimulant and mild tonic[4]. In Ayurveda it is highly valued as a rejuvenator for the brain and nervous system and as a remedy for digestive disorders[254]. However, some care should be taken in its use since some forms of the plant might be carcinogenic - see the notes above on toxicity for more information.

The root is anodyne, aphrodisiac, aromatic, carminative, diaphoretic, emmenagogue, expectorant, febrifuge, hallucinogenic, hypotensive, sedative, stimulant, stomachic, mildly tonic and vermifuge[4, 7, 9, 21, 147, 165, 213, 240]. It is used internally in the treatment of digestive complaints, bronchitis, sinusitis etc[238]. It is said to have wonderfully tonic powers of stimulating and normalizing the appetite. In small doses it reduces stomach acidity whilst larger doses increase stomach secretions[254] and it is, therefore, recommended in the treatment of anorexia nervosa[244]. However if the dose is too large it will cause nausea and vomiting[K]. Sweet flag is also used externally to treat skin eruptions, rheumatic pains and neuralgia[238]. An infusion of the root can bring about an abortion[213] whilst chewing the root alleviates toothache[213]. It is a folk remedy for arthritis, cancer, convulsions, diarrhoea, dyspepsia, epilepsy etc. Chewing the root is said to kill the taste for tobacco[218]. Roots 2 - 3 years old are used since older roots tend to

become tough and hollow[4]. They are harvested in late autumn or early spring and are dried for later use[4]. The dry root loses 70% of its weight, but has an improved smell and taste[244]. It does, however, deteriorate if stored for too long[244].

Caution is advised on the use of this root, especially in the form of the distilled essential oil, since large doses can cause mild hallucinations[192]. See also the notes above on toxicity.

A homeopathic remedy is made from the roots[9]. It is used in the treatment of flatulence, dyspepsia, anorexia and disorders of the gall bladder[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Basketry; Incense; Insecticide; Repellent; Strewing; Thatching; Weaving.

The leaves are used in basket making or woven into mats[169]. They have also been used as a thatch for roofs[4].

An essential oil from the rhizome is used in perfumery and as a food flavouring[1, 13, 57]. The oil is contained mainly in the outer skin of the root[245], it has a fragrance reminiscent of patchouli oil[192]. The fresh roots yield about 1.5 - 3.5% essential oil, dried roots about 0.8%[4, 240]. Some plants from Japan have yielded 5% essential oil[4]. The essential oil is also an insect repellent and insecticide[218]. It is effective against houseflies[240]. When added to rice being stored in granaries it has significantly reduced loss caused by insect damage because the oil in the root has sterilized the male rice weevils[244].

An essential oil obtained from the leaves is used in perfumery and for making aromatic vinegars[245].

The leaves and the root have a refreshing scent of cinnamon[245]. All parts of plant can be dried and used to repel insects or to scent linen cupboards[8, 14, 61]. They can also be burnt as an incense[14], whilst the whole plant was formerly used as a strewing herb[4, 14, 115, 238]. The growing plant is said to repel mosquitoes[20, 201].

Cultivation details

Prefers growing in shallow water or in a very moist loamy soil[200]. Requires a sunny position[200]. Prefers a pH in the range 5.5 to 7.5.

Plants are hardy to about -25°c[187].

The sweet flag has a long history of use as a medicinal and culinary plant. It has been cultivated for this purpose but was more commonly allowed to naturalize and was then harvested from the wild.

The plant seldom flowers or sets seed in Britain and never does so unless it is growing in water[4]. It can spread quite freely at the roots however and soon becomes established.

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stand the pot in about 3cm of water. Pot up young seedlings as soon as they are large enough to handle, keep them wet by standing the pots in shallow water and overwinter for the first year in a greenhouse or cold frame. Seed is rarely produced in Britain[4, 17].

Division in spring just before growth starts[1]. Very easy, it can be carried out successfully at any time in the growing season and can be planted direct into its permanent positions[K].

Scent

Leaves: Crushed

A refreshing scent of cinnamon.

Root: Crushed

The root has a refreshing scent of cinnamon.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries
- The Edible Pond and Bog Garden

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Acorus americanus* (a possible synonym).

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *acorus calamus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Araceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some

details on plant uses.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
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[169] **Buchanan. R.** *A Weavers Garden.*
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. americanus[B,C,CAL,P] A. calamus auct. non[P] A. calamus var. americanus[B,P] A. calmus[]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Acore Vrai [E], Acoro Aromatico [E], Acorus [E], Agri Turki [E], Azakegeri [E], Bach [E], Calamo Aromatico [E], Calamus [P,H,B,E,S], Calmus [E], Calomo Aromatico [E], Ch'Ang P'U Chiu [E], Cinnamon Sedge [H], Djerango [E], Doringo [E], Ganoeak [E], Gladdon [H], Jariangau [E], Jerangau [E], Jeringau [E], Kaliraga [E], Kalmoes [E,D], Kalmos [E], Kalmus [E], Myrtle Grass [H], Myrtle Sedge [H], Sarango [E], Shui Ch'Ang Pu [E], Sweet Cane [H], Sweet Flag [S,E], Sweet Flagg [H], Sweet Myrtle [H], Sweet Root [H], Sweet Rush [H], Sweet Sedge [H], Sweet-flag [L], Sweetflag [B,P], Vacha [E], Vaj [E],
Epithets:	From a Dictionary of Botanical Epithets
	calamus = reed;
Systematics:	From a UDSA Plants Database
	Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database
	Arabic; Brazil; Britain; China; Denmark; Egypt; France; Germany(Bavaria); Hungary; India; India(Santal); Iran; Italy; Java; Malaysia; Nepal; Netherlands; New Guinea; Sanscrit; Spain; Sumatra; Sweden; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoo
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 3 and is not frost tender. It is in flower from May to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Leaves; Root; Stem.

The rhizome is candied and made into a sweetmeat[2, 4, 13, 55, 62, 115, 183]. It can be peeled and washed to remove the bitterness and then eaten raw like a fruit[106, 179]. It makes a palatable vegetable when roasted[192] and can also be used as a flavouring[61]. Rich in starch, the root contains about 1% of an essential oil that is used as a food flavouring[1, 13, 57]. The root also contains a bitter glycoside[179]. Some caution is advised, see the notes above on toxicity.

The dried and powdered rhizome has a spicy flavour and is used as a substitute for ginger, cinnamon and nutmeg[4, 55, 142, 177, 183].

The young and tender inflorescence is often eaten by children for its sweetness[4].

Young leaves - cooked[55]. The fresh leaves contain 0.078% oxalic acid[240]. The leaves can be used to flavour custards in the same way as vanilla pods[244].

The inner portion of young stems is eaten raw[62]. It makes a very palatable salad[183].

Medicinal Uses

Disclaimer

Abortifacient; Anodyne; Aphrodisiac; Aromatic; Carminative; Diaphoretic; Emmenagogue; Febrifuge; Hallucinogenic; Homeopathy; Odontalgic; Sedative; Stimulant; Stomachic; Tonic; Vermifuge.

Sweet flag has a very long history of medicinal use in many herbal traditions. It is widely employed in modern herbal medicine as an aromatic stimulant and mild tonic[4]. In Ayurveda it is highly valued as a rejuvenator for the brain and nervous system and as a remedy for digestive disorders[254]. However, some care should be taken in its use since some forms of the plant might be carcinogenic - see the notes above on toxicity for more information.

The root is anodyne, aphrodisiac, aromatic, carminative, diaphoretic, emmenagogue, expectorant, febrifuge, hallucinogenic, hypotensive, sedative, stimulant, stomachic, mildly tonic and vermifuge[4, 7, 9, 21, 147, 165, 213, 240]. It is used internally in the treatment of digestive complaints, bronchitis, sinusitis etc[238]. It is said to have wonderfully tonic powers of stimulating and normalizing the appetite. In small doses it reduces stomach acidity whilst larger doses increase stomach secretions[254] and it is, therefore, recommended in the treatment of anorexia nervosa[244]. However if the dose is too large it will cause nausea and vomiting[K]. Sweet flag is also used externally to treat skin eruptions, rheumatic pains and neuralgia[238]. An infusion of the root can bring about an abortion[213] whilst chewing the root alleviates toothache[213]. It is a folk remedy for arthritis, cancer, convulsions, diarrhoea, dyspepsia, epilepsy etc. Chewing the root is said to kill the taste for tobacco[218]. Roots 2 - 3 years old are used since older roots tend to

become tough and hollow[4]. They are harvested in late autumn or early spring and are dried for later use[4]. The dry root loses 70% of its weight, but has an improved smell and taste[244]. It does, however, deteriorate if stored for too long[244].

Caution is advised on the use of this root, especially in the form of the distilled essential oil, since large doses can cause mild hallucinations[192]. See also the notes above on toxicity.

A homeopathic remedy is made from the roots[9]. It is used in the treatment of flatulence, dyspepsia, anorexia and disorders of the gall bladder[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Basketry; Incense; Insecticide; Repellent; Strewing; Thatching; Weaving.

The leaves are used in basket making or woven into mats[169]. They have also been used as a thatch for roofs[4].

An essential oil from the rhizome is used in perfumery and as a food flavouring[1, 13, 57]. The oil is contained mainly in the outer skin of the root[245], it has a fragrance reminiscent of patchouli oil[192]. The fresh roots yield about 1.5 - 3.5% essential oil, dried roots about 0.8%[4, 240]. Some plants from Japan have yielded 5% essential oil[4]. The essential oil is also an insect repellent and insecticide[218]. It is effective against houseflies[240]. When added to rice being stored in granaries it has significantly reduced loss caused by insect damage because the oil in the root has sterilized the male rice weevils[244].

An essential oil obtained from the leaves is used in perfumery and for making aromatic vinegars[245].

The leaves and the root have a refreshing scent of cinnamon[245]. All parts of plant can be dried and used to repel insects or to scent linen cupboards[8, 14, 61]. They can also be burnt as an incense[14], whilst the whole plant was formerly used as a strewing herb[4, 14, 115, 238]. The growing plant is said to repel mosquitoes[20, 201].

Cultivation details

Prefers growing in shallow water or in a very moist loamy soil[200]. Requires a sunny position[200]. Prefers a pH in the range 5.5 to 7.5.

Plants are hardy to about -25°c[187].

The sweet flag has a long history of use as a medicinal and culinary plant. It has been cultivated for this purpose but was more commonly allowed to naturalize and was then harvested from the wild.

The plant seldom flowers or sets seed in Britain and never does so unless it is growing in water[4]. It can spread quite freely at the roots however and soon becomes established.

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stand the pot in about 3cm of water. Pot up young seedlings as soon as they are large enough to handle, keep them wet by standing the pots in shallow water and overwinter for the first year in a greenhouse or cold frame. Seed is rarely produced in Britain[4, 17].

Division in spring just before growth starts[1]. Very easy, it can be carried out successfully at any time in the growing season and can be planted direct into its permanent positions[K].

Scent

Leaves: Crushed

A refreshing scent of cinnamon.

Root: Crushed

The root has a refreshing scent of cinnamon.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Acorus calamus*

Subject:

Acorus calamus

Group:
Plant Information

Comment:

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

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Acorus calamus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Acorus gramineus

Common name:		Family:	Araceae
Author:	Ait.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no records of toxicity have been seen, this species belongs to a family where most of the species are poisonous, at least in the fresh state. The following notes are from the related A. calamus - the fresh root can be poisonous[7]. When using the plant medicinally, the isolated essential oil should not be used[165].		
Range:	E. Asia - China, Japan, India.		
Habitat:	Wet places by streams and around ponds in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. calamus Lour[H]
Other Common Names:	From various places around the Web, may not be correct. See below. Shih Ch'Ang Pu [E],
Epithets:	From a Dictionary of Botanical Epithets gramineus = grass like;
Systematics:	From a UDSA Plants Database Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database

	China
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen perennial growing to 0.3m by 0.15m . It is hardy to zone 5 and is not frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden, Ground Cover.

Edible Uses

Condiment; Root.

Root - raw or cooked[105, 177]. It should be peeled, finely chopped and soaked in several changes of water first[183]. A stronger and more pleasing taste than A. calamus[2, 183]. The root is also used as a ginger substitute[177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Anodyne; Antibacterial; Antifungal; Antiperiodic; Antirheumatic; Antispasmodic; Aromatic; Cardiac; Carminative; Diaphoretic; Diuretic; Emmenagogue; Expectorant; Febrifuge; Sedative; Stimulant; Stomachic; Tonic; Vermifuge.

Antiperiodic, emmenagogue, vermifuge[4, 7, 9, 21, 61, 165, 178].

The root is antifungal, antibacterial, antirheumatic, antispasmodic, aromatic, cardiac, carminative, diaphoretic, febrifuge, sedative, stimulant, stomachic and tonic[4, 147, 176, 218, 238, 240]. It is also powdered and applied to bleeding gums[218, 238]. It is used internally in the treatment of digestive problems, depression and epilepsy[176, 238]. The root can be harvested at any time of the year, except when the plant is in flower[238].

The root contains asarone[176]. This substance increases the hypnotic effect of barbiturates and ethanol, lowers blood pressure and is antibacterial against Staphylococcus aureus, streptococci and mycobacterium[176].

The whole plant is anodyne, antiperiodic, antispasmodic, digestive, diaphoretic, diuretic, expectorant, sedative, stimulant, stomachic, sudorific, tonic, vermifuge[218].

Other Uses

Essential; Ground cover; Insecticide; Repellent.

The dried root repels insects[178]. It is probably also insecticidal[178, 240].

An essential oil is obtained from the plant[240].

A useful ground cover plant, forming a spreading clump[208].

Cultivation details

Grows well in shallow water margins of ponds etc[1, 2], though it can also succeeds in drier habitats[56]. Requires a sunny position[200].

A very ornamental plant, there are some named varieties[208, 238]. The cultivar 'Pusillus' can be grown as a submerged aquatic plant[238].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stand the pot in about 3cm of water. Pot up young seedlings as soon as they are large enough to handle, keep them wet by standing the pots in shallow water and overwinter for the first year in a greenhouse or cold frame.

Division in spring just before growth starts[1]. Very easy, the plants can be divided at any time in the growing season and can be planted direct into their permanent positions[K].

Scent

Root: Dried

> The dried root is aromatic and used as a ginger substitute.

Cultivars

'Pusillus'

This cultivar succeeds as a submerged aquatic plant[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Araceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good

photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[56] **Muhlberg. H.** *Complete Guide to Water Plants.* E. P. Publishing Ltd. 1982 ISBN 0-7158-0789-7
Deals with a wide range of plants for temperate areas (and indoor aquaria) with quite a lot of information on cultivation techniques.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Acorus+gramineus`
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Plants For A Future: Database Search Results

Acorus gramineus

Common name:		Family:	Araceae
Author:	Ait.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no records of toxicity have been seen, this species belongs to a family where most of the species are poisonous, at least in the fresh state. The following notes are from the related A. calamus - the fresh root can be poisonous[7]. When using the plant medicinally, the isolated essential oil should not be used[165].		
Range:	E. Asia - China, Japan, India.		
Habitat:	Wet places by streams and around ponds in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. calamus Lour[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Shih Ch'Ang Pu [E],
Epithets:	From a Dictionary of Botanical Epithets
	gramineus = grass like;
Systematics:	From a UDSA Plants Database
	Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database
	China
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen perennial growing to 0.3m by 0.15m . It is hardy to zone 5 and is not frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden, Ground Cover.

Edible Uses

Condiment; Root.

Root - raw or cooked[105, 177]. It should be peeled, finely chopped and soaked in several changes of water first[183]. A stronger and more pleasing taste than A. calamus[2, 183]. The root is also used as a ginger substitute[177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Anodyne; Antibacterial; Antifungal; Antiperiodic; Antirheumatic; Antispasmodic; Aromatic; Cardiac; Carminative; Diaphoretic; Diuretic; Emmenagogue; Expectorant; Febrifuge; Sedative; Stimulant; Stomachic; Tonic; Vermifuge.

Antiperiodic, emmenagogue, vermifuge[4, 7, 9, 21, 61, 165, 178].

The root is antifungal, antibacterial, antirheumatic, antispasmodic, aromatic, cardiac, carminative, diaphoretic, febrifuge, sedative, stimulant, stomachic and tonic[4, 147, 176, 218, 238, 240]. It is also powdered and applied to bleeding gums[218, 238]. It is used internally in the treatment of digestive problems, depression and epilepsy[176, 238]. The root can be harvested at any time of the year, except when the plant is in flower[238].

The root contains asarone[176]. This substance increases the hypnotic effect of barbiturates and ethanol, lowers blood pressure and is antibacterial against Staphylococcus aureus, streptococci and mycobacterium[176].

The whole plant is anodyne, antiperiodic, antispasmodic, digestive, diaphoretic, diuretic, expectorant, sedative, stimulant, stomachic, sudorific, tonic, vermifuge[218].

Other Uses

Essential; Ground cover; Insecticide; Repellent.

The dried root repels insects[178]. It is probably also insecticidal[178, 240].

An essential oil is obtained from the plant[240].

A useful ground cover plant, forming a spreading clump[208].

Cultivation details

Grows well in shallow water margins of ponds etc[1, 2], though it can also succeeds in drier habitats[56]. Requires a sunny position[200].

A very ornamental plant, there are some named varieties[208, 238]. The cultivar 'Pusillus' can be grown as a submerged aquatic plant[238].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stand the pot in about 3cm of water. Pot up young seedlings as soon as they are large enough to handle, keep them wet by standing the pots in shallow water and overwinter for the first year in a greenhouse or cold frame.

Division in spring just before growth starts[1]. Very easy, the plants can be divided at any time in the growing season and can be planted direct into their permanent positions[K].

Scent

Root: Dried

> The dried root is aromatic and used as a ginger substitute.

Cultivars

'Pusillus'

> This cultivar succeeds as a submerged aquatic plant[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Araceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[56] **Muhlberg. H.** *Complete Guide to Water Plants.* E. P. Publishing Ltd. 1982 ISBN 0-7158-0789-7
Deals with a wide range of plants for temperate areas (and indoor aquaria) with quite a lot of information on cultivation techniques.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985

ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Acorus gramineus

Common name:		Family:	Araceae
Author:	Ait.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	Although no records of toxicity have been seen, this species belongs to a family where most of the species are poisonous, at least in the fresh state. The following notes are from the related A. calamus - the fresh root can be poisonous[7]. When using the plant medicinally, the isolated essential oil should not be used[165].		
Range:	E. Asia - China, Japan, India.		
Habitat:	Wet places by streams and around ponds in C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. calamus Lour[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Shih Ch'Ang Pu [E],
Epithets:	From a Dictionary of Botanical Epithets
	gramineus = grass like;
Systematics:	From a UDSA Plants Database
	Order: Arales . Arum family
Other Range Info:	From the Ethnobotany Database
	China
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

An evergreen perennial growing to 0.3m by 0.15m . It is hardy to zone 5 and is not frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden, Ground Cover.

Edible Uses

Condiment; Root.

Root - raw or cooked[105, 177]. It should be peeled, finely chopped and soaked in several changes of water first[183]. A stronger and more pleasing taste than A. calamus[2, 183]. The root is also used as a ginger substitute[177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Anodyne; Antibacterial; Antifungal; Antiperiodic; Antirheumatic; Antispasmodic; Aromatic; Cardiac; Carminative; Diaphoretic; Diuretic; Emmenagogue; Expectorant; Febrifuge; Sedative; Stimulant; Stomachic; Tonic; Vermifuge.

Antiperiodic, emmenagogue, vermifuge[4, 7, 9, 21, 61, 165, 178].

The root is antifungal, antibacterial, antirheumatic, antispasmodic, aromatic, cardiac, carminative, diaphoretic, febrifuge, sedative, stimulant, stomachic and tonic[4, 147, 176, 218, 238, 240]. It is also powdered and applied to bleeding gums[218, 238]. It is used internally in the treatment of digestive problems, depression and epilepsy[176, 238]. The root can be harvested at any time of the year, except when the plant is in flower[238].

The root contains asarone[176]. This substance increases the hypnotic effect of barbiturates and ethanol, lowers blood pressure and is antibacterial against Staphylococcus aureus, streptococci and mycobacterium[176].

The whole plant is anodyne, antiperiodic, antispasmodic, digestive, diaphoretic, diuretic, expectorant, sedative, stimulant, stomachic, sudorific, tonic, vermifuge[218].

Other Uses

Essential; Ground cover; Insecticide; Repellent.

The dried root repels insects[178]. It is probably also insecticidal[178, 240].

An essential oil is obtained from the plant[240].

A useful ground cover plant, forming a spreading clump[208].

Cultivation details

Grows well in shallow water margins of ponds etc[1, 2], though it can also succeeds in drier habitats[56]. Requires a sunny position[200].

A very ornamental plant, there are some named varieties[208, 238]. The cultivar 'Pusillus' can be grown as a submerged aquatic plant[238].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. Stand the pot in about 3cm of water. Pot up young seedlings as soon as they are large enough to handle, keep them wet by standing the pots in shallow water and overwinter for the first year in a greenhouse or cold frame.

Division in spring just before growth starts[1]. Very easy, the plants can be divided at any time in the growing season and can be planted direct into their permanent positions[K].

Scent

Root: Dried

The dried root is aromatic and used as a ginger substitute.

Cultivars

'Pusillus'

This cultivar succeeds as a submerged aquatic plant[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Acorus gramineus

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Acorus gramineus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Agastache cana

Common name:	Hoary balm of gilead	Family:	Labiatae
Author:	(Hook.) Wooton. & Standl.	Botanical references:	200
Synonyms:	Cedronella cana		
Known Hazards:	None known		
Range:	South-western N. America - Texas to New Mexico.		
Habitat:	Dry slopes in the mountains[187].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Mosquito Plant [P], Mosquito-plant [B],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

An evergreen perennial growing to 0.8m by 0.3m . It is hardy to zone 9. It is in leaf all year, in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Leaves - used as a flavouring[2, 105]. A very fragrant flavour[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a sunny sheltered position and a well-drained sandy loam enriched with leaf-mould[111, 200]. Best if given a hot dry position in full sun[187].

Plants are only hardy in the milder areas of Britain[111, 233], tolerating temperatures down to about -5°c[200]. Another report says that they are hardy to about -20°c[187].

Plants are short-lived[233].

A good bee plant.

Propagation

Seed - sow spring in a greenhouse and only just cover the seed. The seed usually germinates in 1 - 3 months at 13°c[133]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first year. Plant out in late spring or early summer[K].

Division in spring. Fairly simple, if large divisions are used it is possible to plant them straight out into their permanent positions.

Basal cuttings of young shoots in spring[111]. Harvest the young shoots when they are about 10 - 15cm tall and pot them up in a lightly shaded position in a greenhouse. They should root within 3 weeks and can be planted out in the summer or following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

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Author:	(Hook.) Wooton. & Standl.	Botanical references:	200
Synonyms:	Cedronella cana		
Known Hazards:	None known		
Range:	South-western N. America - Texas to New Mexico.		
Habitat:	Dry slopes in the mountains[187].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Mosquito Plant [P], Mosquito-plant [B],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

An evergreen perennial growing to 0.8m by 0.3m . It is hardy to zone 9. It is in leaf all year, in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Leaves - used as a flavouring[2, 105]. A very fragrant flavour[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a sunny sheltered position and a well-drained sandy loam enriched with leaf-mould[111, 200]. Best if given a hot dry position in full sun[187].

Plants are only hardy in the milder areas of Britain[111, 233], tolerating temperatures down to about -5°c[200]. Another report says that they are hardy to about -20°c[187].

Plants are short-lived[233].

A good bee plant.

Propagation

Seed - sow spring in a greenhouse and only just cover the seed. The seed usually germinates in 1 - 3 months at 13°c[133]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first year. Plant out in late spring or early summer[K].

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Seed - sow spring in a greenhouse and only just cover the seed. The seed usually germinates in 1 - 3 months at 13°c[133]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for their first year. Plant out in late spring or early summer[K].

Division in spring. Fairly simple, if large divisions are used it is possible to plant them straight out into their permanent positions.

Basal cuttings of young shoots in spring[111]. Harvest the young shoots when they are about 10 - 15cm tall and pot them up in a lightly shaded position in a greenhouse. They should root within 3 weeks and can be planted out in the summer or following spring.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Agastache cana*

Subject:

Agastache cana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Agastache cana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:55:24 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Agastache rugosa

Common name:	Korean mint	Family:	Labiatae
Author:	(Fisch. & Mey.) O. Kuntze.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea, Siberia		
Habitat:	Grassy places in mountains, especially by streams, and in valleys all over Japan[58].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Lophanthus rugosus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Korean Mint [H],
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 8 and is not frost tender. It is in flower from July to September, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed; Tea.

Young leaves - raw or cooked[177]. A strong anise-like fragrance, they are normally used as a flavouring[183] or as an addition to the salad bowl[238]. We find them a bit coarse and too strong for use as a salad[K].

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Disclaimer

Antibacterial; Antifungal; Antipyretic; Aromatic; Cancer; Carminative; Diaphoretic; Febrifuge; Refrigerant; Stomachic.

Korean mint is commonly used in Chinese herbalism, where it is considered to be one of the 50 fundamental herbs[218]. Considered to be a "warming" herb, it is used in situations where there is "dampness" within the digestive system, resulting in poor digestion and reduced vitality[254].

The leaves and stems are antibacterial, antifungal, aromatic, carminative, diaphoretic, febrifuge and stomachic[147, 176, 218, 238]. They are used internally to improve the appetite and strengthen the digestive system[238], they relieve symptoms such as abdominal bloating, indigestion, nausea and vomiting[254]. It is also used to treat morning sickness[254]. The leaves are also used in the treatment of chest congestion, diarrhoea and headaches[218]. An infusion of the leaves is used in the treatment of angina pains[222].

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Other Uses

None known

Cultivation details

Prefers a sunny sheltered position and a well-drained soil[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

The flowers are very attractive to bees[244].

Propagation

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Agastache rugosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Aloysia triphylla

Common name:	Lemon verbena	Family:	Verbenaceae
Author:	(L'Hérit.) Britt.	Botanical references:	11, 200
Synonyms:	Verbena triphylla (L'Hér.), Lippia triphylla ((L'Hér.) Kuntze.), Lippia citrodora ((Ortega.)Kunth.), Aloysia citrodora (Ortega. ex Pers. nom illegit.)		
Known Hazards:	The essential oil from the plant might sensitise the skin to sunlight[238].		
Range:	S. America - Argentina, Chile, Peru, Uruguay. Locally naturalized in the Mediterranean[50].		
Habitat:	Fields and roadsides[238]. Open scrub[260].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. citriodora[B,H,P] Lippia citriodora[B,E,HPIC,H,P] Verbena citriodora[H] Zappania citrodora[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Diapalma [E], Herb Louisa [H], Lemon Beebrush [B,P], Lemon Verbena [H], Lipia [E], Luisa [E], Yerba Luisa [E],
Epithets:	From a Dictionary of Botanical Epithets
	triphylla = 3 leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Verbena family
Other Range Info:	From the Ethnobotany Database

	Dominican Republic; Haiti; Mexico; Sa; Spain; Turkey; Venezuela

Physical Characteristics

A decidious shrub growing to 3m by 3m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf from May to November, in flower in August, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Tea.

Leaves - occasionally cooked as a spinach[177] but more commonly used as a flavouring in salads, fruit salads etc[14, 21, 104, 183]. A delicious lemon-like flavour, it is adored by most people who try it[K].

A delicious and refreshing tea is made from the leaves[14, 21, 103, 183]. The dried leaves will retain their lemon aroma for many years[4].

Medicinal Uses

Disclaimer

Antispasmodic; Aromatherapy; Febrifuge; Sedative; Stomachic.

An undervalued medicinal herb, lemon verbena contains a strong lemon-scented essential oil that has calming and digestive qualities[254]. The plant has a gentle sedative action and a reputation for soothing abdominal discomfort. It has a mildly tonic effect upon the nervous system and helps to lift the spirits and counter depression[254].

The leaves and the flowering tops are antispasmodic, febrifuge, sedative and stomachic[4, 7, 238, 240]. A tea made from the leaves has a deliciously refreshing lemon flavour and is used mainly in treating digestive disorders[4] such as flatulence, indigestion and acidity[244]. Some caution is advisable though, since prolonged use or large internal doses can cause gastric irritation[268]. The herb is also useful as a stimulant for treating lethargy or depression[244] whilst it is also used to treat feverish colds[238].

The essential oil is used in aromatherapy in the treatment of nervous and digestive problems and also for acne, boils and cysts[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Insecticide; Pot-pourri; Repellent.

An essential oil obtained from the leaves is extensively used in perfumery[7, 61]. An average yield of 0.5% is obtained[7]. There is some evidence that the use of this oil can sensitise the skin to sunlight and so its use has been largely replaced by the tropical plant lemongrass, Cymbopogon spp.[238].

The dried leaves retain their fragrance well and so are used in pot-pourri[238].

The growing plant repels midges, flies and other insects[201]. The essential oil is an effective insecticide in 1 - 2% concentration[240].

Cultivation details

Succeeds in most moderately fertile soils if they are well-drained[200]. Prefers a light soil[219]. Requires a sunny sheltered position[166, 200]. Requires a warm damp climate[7].

A very ornamental plant[1], lemon verbena is only hardy in the milder areas of Britain[1, 11, 14], growing well in Cornwall[59]. It can withstand about 10°c of frost[184] and survives outdoors on a wall at Kew[K]. It generally survives most winters outdoors if growing in a suitable position, though it is often cut back to ground level and then resprouts from the base in late spring[120] or early summer[238]. Giving the roots a good, thick organic mulch will confer extra protection from winter cold[244]. The plant succeeds outdoors at Howick, a garden on the coast of Northumberland.

The leaves are very aromatic with a lemon scent[182], they are often used to make a drink or for their essential oils[4].

There has been considerable confusion over the naming of this species. We are following the treatment used in [11] and [200], which is also the current treatment in the 1999 edition of The Plant Finder. However, the book 'World Economic Plants' uses the name A. citrodora Palau (a different author to the one we cite) as the correct name.

Any pruning is best carried out in the spring[219].

This species is notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse in late spring. Only just cover the seed and keep in a light position, making sure the compost does not dry out. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out in early summer and give some protection from the cold for at least their first winter outdoors.

Cuttings of softwood, May/June in a frame. Grow on for at least their first winter in a greenhouse and plant out in late spring after the last expected frosts[K]. The cuttings root quickly and easily, though there can be losses in the first winter[K].

Cuttings of half-ripe wood, August in a frame. Grow on for at least their first winter in a greenhouse and plant out in late spring after the last expected frosts[K]. The cuttings root quickly and easily, though there can be losses in the first winter[K].

Scent

Leaves: Crushed Dried

> The leaves are very aromatic with a strong lemon scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aloysia citriodora* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Aloysia citrodora* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

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- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *lippia citriodora* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Verbenaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[103] **Haywood. V. H.** *Flowering Plants of the World.* Oxford University Press ISBN 0-19-217674-9
Very readable and well illustrated, it lists plants by families giving the basic diagnostic features and some details of plant uses.

[104] **RHS.** *The Garden. Volume 111.* Royal Horticultural Society 1986
Snippets of information from the magazine of the RHS, including an article in Crambe maritima and another on several species thought to be tender that are succeeding in a S. Devon garden.

[120] **?** *The Plantsman. Vol. 2. 1980 - 1981.* Royal Horticultural Society 1980
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Billardiera spp, Calochortus spp, Drimys spp.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aloysia+triphylla`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Aloysia+triphylla`

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Plants For A Future: Database Search Results

Aloysia triphylla

Common name:	Lemon verbena	Family:	Verbenaceae
Author:	(L'Hérit.) Britt.	Botanical references:	11, 200
Synonyms:	Verbena triphylla (L'Hér.), Lippia triphylla ((L'Hér.) Kuntze.), Lippia citrodora ((Ortega.)Kunth.), Aloysia citrodora (Ortega. ex Pers. nom illegit.)		
Known Hazards:	The essential oil from the plant might sensitise the skin to sunlight[238].		
Range:	S. America - Argentina, Chile, Peru, Uruguay. Locally naturalized in the Mediterranean[50].		
Habitat:	Fields and roadsides[238]. Open scrub[260].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Diapalma [E], Herb Louisa [H], Lemon Beebrush [B,P], Lemon Verbena [H], Lipia [E], Luisa [E], Yerba Luisa [E],
Epithets:	From a Dictionary of Botanical Epithets
	triphylla = 3 leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Verbena family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Haiti; Mexico; Sa; Spain; Turkey; Venezuela

Physical Characteristics

A decidious shrub growing to 3m by 3m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf from May to November, in flower in August, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Tea.

Leaves - occasionally cooked as a spinach[177] but more commonly used as a flavouring in salads, fruit salads etc[14, 21, 104, 183]. A delicious lemon-like flavour, it is adored by most people who try it[K].

A delicious and refreshing tea is made from the leaves[14, 21, 103, 183]. The dried leaves will retain their lemon aroma for many years[4].

Medicinal Uses

Disclaimer

Antispasmodic; Aromatherapy; Febrifuge; Sedative; Stomachic.

An undervalued medicinal herb, lemon verbena contains a strong lemon-scented essential oil that has calming and digestive qualities[254]. The plant has a gentle sedative action and a reputation for soothing abdominal discomfort. It has a mildly tonic effect upon the nervous system and helps to lift the spirits and counter depression[254].

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The essential oil is used in aromatherapy in the treatment of nervous and digestive problems and also for acne, boils and cysts[238].

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Other Uses

Essential; Insecticide; Pot-pourri; Repellent.

An essential oil obtained from the leaves is extensively used in perfumery[7, 61]. An average yield of 0.5% is obtained[7]. There is some evidence that the use of this oil can sensitise the skin to sunlight and so its use has been largely replaced by the tropical plant lemongrass, Cymbopogon spp.[238].

The dried leaves retain their fragrance well and so are used in pot-pourri[238].

The growing plant repels midges, flies and other insects[201]. The essential oil is an effective insecticide in 1 - 2% concentration[240].

Cultivation details

Succeeds in most moderately fertile soils if they are well-drained[200]. Prefers a light soil[219]. Requires a sunny sheltered position[166, 200]. Requires a warm damp climate[7].

A very ornamental plant[1], lemon verbena is only hardy in the milder areas of Britain[1, 11, 14], growing well in Cornwall[59]. It can withstand about 10°c of frost[184] and survives outdoors on a wall at Kew[K]. It generally survives most winters outdoors if growing in a suitable position, though it is often cut back to ground level and then resprouts from the base in late spring[120] or early summer[238]. Giving the roots a good, thick organic mulch will confer extra protection from winter cold[244]. The plant succeeds outdoors at Howick, a garden on the coast of Northumberland.

The leaves are very aromatic with a lemon scent[182], they are often used to make a drink or for their essential oils[4].

There has been considerable confusion over the naming of this species. We are following the treatment used in [11] and [200], which is also the current treatment in the 1999 edition of The Plant Finder. However, the book 'World Economic Plants' uses the name A. citrodora Palau (a different author to the one we cite) as the correct name.

Any pruning is best carried out in the spring[219].

This species is notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse in late spring. Only just cover the seed and keep in a light position, making sure the compost does not dry out. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out in early summer and give some protection from the cold for at least their first winter outdoors.

Cuttings of softwood, May/June in a frame. Grow on for at least their first winter in a greenhouse and plant out in late spring after the last expected frosts[K]. The cuttings root quickly and easily, though there can be losses in the first winter[K].

Cuttings of half-ripe wood, August in a frame. Grow on for at least their first winter in a greenhouse and plant out in late spring after the last expected frosts[K]. The cuttings root quickly and easily, though there can be losses in the first winter[K].

Scent

Leaves: Crushed Dried

> The leaves are very aromatic with a strong lemon scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *Aloysia citriodora* (a possible synonym).

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

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- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *lippia citriodora* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Verbenaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
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[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
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[50] **?** *Flora Europaea* Cambridge University Press 1964
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[59] **Thurston.** *Trees and Shrubs in Cornwall.*
Trees and shrubs that succeed in Cornwall based on the authors own observations. Good but rather dated.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[103] **Haywood. V. H.** *Flowering Plants of the World.* Oxford University Press ISBN 0-19-217674-9
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[104] **RHS.** *The Garden. Volume 111.* Royal Horticultural Society 1986
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[120] **?** *The Plantsman. Vol. 2. 1980 - 1981.* Royal Horticultural Society 1980
Excerpts from the periodical giving cultivation details and other notes on some of the useful plants including Billardiera spp, Calochortus spp, Drimys spp.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN

0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London.

1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Aloysia triphylla

Common name:	Lemon verbena	Family:	Verbenaceae
Author:	(L'Hérit.) Britt.	Botanical references:	11, 200
Synonyms:	Verbena triphylla (L'Hér.), Lippia triphylla ((L'Hér.) Kuntze.), Lippia citrodora ((Ortega.)Kunth.), Aloysia citrodora (Ortega. ex Pers. nom illegit.)		
Known Hazards:	The essential oil from the plant might sensitise the skin to sunlight[238].		
Range:	S. America - Argentina, Chile, Peru, Uruguay. Locally naturalized in the Mediterranean[50].		
Habitat:	Fields and roadsides[238]. Open scrub[260].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. citriodora[B,H,P] Lippia citriodora[B,E,HPIC,H,P] Verbena citriodora[H] Zappania citrodora[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Diapalma [E], Herb Louisa [H], Lemon Beebrush [B,P], Lemon Verbena [H], Lipia [E], Luisa [E], Yerba Luisa [E],
Epithets:	From a Dictionary of Botanical Epithets
	triphylla = 3 leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Verbena family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Haiti; Mexico; Sa; Spain; Turkey; Venezuela

Physical Characteristics

A decidious shrub growing to 3m by 3m at a medium rate. It is hardy to zone 8 and is frost tender. It is in leaf from May to November, in flower in August, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Tea.

Leaves - occasionally cooked as a spinach[177] but more commonly used as a flavouring in salads, fruit salads etc[14, 21, 104, 183]. A delicious lemon-like flavour, it is adored by most people who try it[K].

A delicious and refreshing tea is made from the leaves[14, 21, 103, 183]. The dried leaves will retain their lemon aroma for many years[4].

Medicinal Uses

Disclaimer

Antispasmodic; Aromatherapy; Febrifuge; Sedative; Stomachic.

An undervalued medicinal herb, lemon verbena contains a strong lemon-scented essential oil that has calming and digestive qualities[254]. The plant has a gentle sedative action and a reputation for soothing abdominal discomfort. It has a mildly tonic effect upon the nervous system and helps to lift the spirits and counter depression[254].

The leaves and the flowering tops are antispasmodic, febrifuge, sedative and stomachic[4, 7, 238, 240]. A tea made from the leaves has a deliciously refreshing lemon flavour and is used mainly in treating digestive disorders[4] such as flatulence, indigestion and acidity[244]. Some caution is advisable though, since prolonged use or large internal doses can cause gastric irritation[268]. The herb is also useful as a stimulant for treating lethargy or depression[244] whilst it is also used to treat feverish colds[238].

The essential oil is used in aromatherapy in the treatment of nervous and digestive problems and also for acne, boils and cysts[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Insecticide; Pot-pourri; Repellent.

An essential oil obtained from the leaves is extensively used in perfumery[7, 61]. An average yield of 0.5% is obtained[7]. There is some evidence that the use of this oil can sensitise the skin to sunlight and so its use has been largely replaced by the tropical plant lemongrass, Cymbopogon spp.[238].

The dried leaves retain their fragrance well and so are used in pot-pourri[238].

The growing plant repels midges, flies and other insects[201]. The essential oil is an effective insecticide in 1 - 2% concentration[240].

Cultivation details

Succeeds in most moderately fertile soils if they are well-drained[200]. Prefers a light soil[219]. Requires a sunny sheltered position[166, 200]. Requires a warm damp climate[7].

A very ornamental plant[1], lemon verbena is only hardy in the milder areas of Britain[1, 11, 14], growing well in Cornwall[59]. It can withstand about 10°c of frost[184] and survives outdoors on a wall at Kew[K]. It generally survives most winters outdoors if growing in a suitable position, though it is often cut back to ground level and then resprouts from the base in late spring[120] or early summer[238]. Giving the roots a good, thick organic mulch will confer extra protection from winter cold[244]. The plant succeeds outdoors at Howick, a garden on the coast of Northumberland.

The leaves are very aromatic with a lemon scent[182], they are often used to make a drink or for their essential oils[4].

There has been considerable confusion over the naming of this species. We are following the treatment used in [11] and [200], which is also the current treatment in the 1999 edition of The Plant Finder. However, the book 'World Economic Plants' uses the name A. citrodora Palau (a different author to the one we cite) as the correct name.

Any pruning is best carried out in the spring[219].

This species is notably resistant to honey fungus[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse in late spring. Only just cover the seed and keep in a light position, making sure the compost does not dry out. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out in early summer and give some protection from the cold for at least their first winter outdoors.

Cuttings of softwood, May/June in a frame. Grow on for at least their first winter in a greenhouse and plant out in late spring after the last expected frosts[K]. The cuttings root quickly and easily, though there can be losses in the first winter[K].

Cuttings of half-ripe wood, August in a frame. Grow on for at least their first winter in a greenhouse and plant out in late spring after the last expected frosts[K]. The cuttings root quickly and easily, though there can be losses in the first winter[K].

Scent

Leaves: Crushed Dried

> The leaves are very aromatic with a strong lemon scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aloysia triphylla*

Subject:

Aloysia triphylla

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aloysia triphylla

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Ammi majus

Common name:	Bishop's weed	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	The root contains 8-methoxypsoralen, this stimulates the production of pigmentation in skin exposed to ultra-violet light, but it can cause side-effects. Use with caution[160]. Skin contact with the sap is said to cause photo-sensitivity and/or dermatitis in some people[218].		
Range:	C. Europe to W. Asia and N. Africa. A casual in Britain[17].		
Habitat:	Waste places in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. glaucifolium[G] A. majus var. glaucifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akkerscherm [E], Ameo Bastardo [E], Ameus [E], Ammi Commun [E], Bishop's Flower [H], Bishopsweed [H], Bullwort [L], False Queen Anne's Lace [H], Ghurair [E], Groot Akkerscherm [D], Grosse Knorpelmohre [E], Khillah [E], Laceflower [H], Large Bullwort [P,B], Rindomolo [E], Toothpick Ammi [L],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; France; Iraq; Italy; Netherlands; Spain

Physical Characteristics

Annual growing to 0.75m by 0.4m . . It is in flower from June to October, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Seed - used as a condiment[177, 183].

Medicinal Uses

Disclaimer

The seed is contraceptive, diuretic and tonic[238]. An infusion is used to calm the digestive system, whilst it is also used in the treatment of asthma and angina[254]. A decoction of the ground-up seed, eaten after intercourse, appears able to prevent implantation of the fertilized ovum in the uterus[238]. This decoction is also used as a gargle in the treatment of toothache[238].

The seed contains furanocoumarins (including bergapten), which stimulate pigment production in skin that is exposed to bright sunlight[238, 254]. The plant is widely cultivated in India for these furanocoumarins which are used in the treatment of vitiligo (piebald skin) and psoriasis[238, 254].

Other Uses

Weather protection.

The root is chewed to give protection from strong sunlight. It contains 8-methoxypsoralen which stimulates production of pigment in skin exposed to U.V. light. Caution is advised, however, since it can cause side-effects[160]. Other reports suggest that it is the seeds that are used[238, 254].

Cultivation details

Prefers a well-drained soil in a sunny position[238], succeeding in ordinary garden soil.

This species is often cultivated for its attractive flowering stems which are often sold in markets[238]. It is cultivated in India as a medicinal herb[238].

Propagation

Seed - sow spring or autumn in situ[238].

Scent

Seed: Crushed Dried

The seed is strongly aromatic[254].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

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Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Ammi majus

Common name:	Bishop's weed	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	The root contains 8-methoxypsoralen, this stimulates the production of pigmentation in skin exposed to ultra-violet light, but it can cause side-effects. Use with caution[160]. Skin contact with the sap is said to cause photo-sensitivity and/or dermatitis in some people[218].		
Range:	C. Europe to W. Asia and N. Africa. A casual in Britain[17].		
Habitat:	Waste places in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. glaucifolium[G] A. majus var. glaucifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akkerscherm [E], Ameo Bastardo [E], Ameus [E], Ammi Commun [E], Bishop's Flower [H], Bishopsweed [H], Bullwort [L], False Queen Anne's Lace [H], Ghurair [E], Groot Akkerscherm [D], Grosse Knorpelmohre [E], Khillah [E], Laceflower [H], Large Bullwort [P,B], Rindomolo [E], Toothpick Ammi [L],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; France; Iraq; Italy; Netherlands; Spain

Physical Characteristics

Annual growing to 0.75m by 0.4m . . It is in flower from June to October, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Seed - used as a condiment[177, 183].

Medicinal Uses

Disclaimer

The seed is contraceptive, diuretic and tonic[238]. An infusion is used to calm the digestive system, whilst it is also used in the treatment of asthma and angina[254]. A decoction of the ground-up seed, eaten after intercourse, appears able to prevent implantation of the fertilized ovum in the uterus[238]. This decoction is also used as a gargle in the treatment of toothache[238].

The seed contains furanocoumarins (including bergapten), which stimulate pigment production in skin that is exposed to bright sunlight[238, 254]. The plant is widely cultivated in India for these furanocoumarins which are used in the treatment of vitiligo (piebald skin) and psoriasis[238, 254].

Other Uses

Weather protection.

The root is chewed to give protection from strong sunlight. It contains 8-methoxypsoralen which stimulates production of pigment in skin exposed to U.V. light. Caution is advised, however, since it can cause side-effects[160]. Other reports suggest that it is the seeds that are used[238, 254].

Cultivation details

Prefers a well-drained soil in a sunny position[238], succeeding in ordinary garden soil.

This species is often cultivated for its attractive flowering stems which are often sold in markets[238]. It is cultivated in India as a medicinal herb[238].

Propagation

Seed - sow spring or autumn in situ[238].

Scent

Seed: Crushed Dried

The seed is strongly aromatic[254].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Ammi majus

Common name:	Bishop's weed	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	The root contains 8-methoxypsoralen, this stimulates the production of pigmentation in skin exposed to ultra-violet light, but it can cause side-effects. Use with caution[160]. Skin contact with the sap is said to cause photo-sensitivity and/or dermatitis in some people[218].		
Range:	C. Europe to W. Asia and N. Africa. A casual in Britain[17].		
Habitat:	Waste places in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. glaucifolium[G] A. majus var. glaucifolium[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akkerscherm [E], Ameo Bastardo [E], Ameus [E], Ammi Commun [E], Bishop's Flower [H], Bishopsweed [H], Bullwort [L], False Queen Anne's Lace [H], Ghurair [E], Groot Akkerscherm [D], Grosse Knorpelmohre [E], Khillah [E], Laceflower [H], Large Bullwort [P,B], Rindomolo [E], Toothpick Ammi [L],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; France; Iraq; Italy; Netherlands; Spain

Physical Characteristics

Annual growing to 0.75m by 0.4m . . It is in flower from June to October, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Seed - used as a condiment[177, 183].

Medicinal Uses

Disclaimer

The seed is contraceptive, diuretic and tonic[238]. An infusion is used to calm the digestive system, whilst it is also used in the treatment of asthma and angina[254]. A decoction of the ground-up seed, eaten after intercourse, appears able to prevent implantation of the fertilized ovum in the uterus[238]. This decoction is also used as a gargle in the treatment of toothache[238].

The seed contains furanocoumarins (including bergapten), which stimulate pigment production in skin that is exposed to bright sunlight[238, 254]. The plant is widely cultivated in India for these furanocoumarins which are used in the treatment of vitiligo (piebald skin) and psoriasis[238, 254].

Other Uses

Weather protection.

The root is chewed to give protection from strong sunlight. It contains 8-methoxypsoralen which stimulates production of pigment in skin exposed to U.V. light. Caution is advised, however, since it can cause side-effects[160]. Other reports suggest that it is the seeds that are used[238, 254].

Cultivation details

Prefers a well-drained soil in a sunny position[238], succeeding in ordinary garden soil.

This species is often cultivated for its attractive flowering stems which are often sold in markets[238]. It is cultivated in India as a medicinal herb[238].

Propagation

Seed - sow spring or autumn in situ[238].

Scent

Seed: Crushed Dried

> The seed is strongly aromatic[254].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ammi majus*

Subject:

Ammi majus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ammi majus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Amorpha fruticosa

Common name:	False indigo	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America. Locally naturalized in S. and C. Europe[50].		
Habitat:	River banks, rich moist thickets etc[43, 184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. angustifolia[B,P] A. bushii[B,P] A. croceolanata[B,P] A. curtissii[B,P] A. dewinkeleri[B,P] A. fruticosa f. crispa[G] A. fruticosa var. angustifolia[B,G,P] A. fruticosa var. crispa[G] A. fruticosa var. croceolanata[B,P] A. fruticosa var. emarginata[B,P] A. fruticosa var. oblongifolia[B,P] A. fruticosa var. occidentalis[B,P] A. fruticosa var. tennesseensis[B,P] A. occidentalis[B,P] A. occidentalis var. arizonica[B,P] A. occidentalis var. emarginata[B,P] A. tennesseensis[B,P] A. virgata[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Desert Indigobush [P], False Indigo-bush [B],
Epithets:	From a Dictionary of Botanical Epithets
	amorpha = shapeless; fruticosa = shrubby;

Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Washington.

Physical Characteristics

A decidious shrub growing to 4.5m at a medium rate. It is hardy to zone 4. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The crushed fruit is used as a condiment[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Bedding; Dye; Insecticide; Oil; Repellent; Shelterbelt; Soil stabilization.

Plants have an extensive root system and are also fairly wind tolerant, they can be planted as a windbreak and also to prevent soil erosion[200].

Resinous pustules on the plant contain 'amorpha', a contact and stomachic insecticide that also acts as an insect repellent[57, 200].

The stems are used as bedding[61].

The plant contains some indigo pigment and can be used to make a blue dye[169]. Unfortunately, the pigment is only present in very small quantities, there is not enough to harvest commercially[169].

Cultivation details

Prefers a light well-drained sandy soil in sun or light shade[184, 200]. Plants are fairly wind-resistant[200].

A very hardy plant, tolerating temperatures down to about -25c[184, 200].

A polymorphic species, there are many named forms[43]. The flowers have a vanilla perfume[245].

Plants resent root disturbance, they should be planted out into their final positions whilst small[133].

Trees only ripen their seed in fine autumns[80].

Plants are said to be immune to insect pests[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak for 12 hours in warm water and then sow early spring in a greenhouse[78, 133]. The seed usually germinates in 1 - 2 months at 20°c[133]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, June/July in a frame. High percentage[78].

Cuttings of mature wood of the current seasons growth, autumn, in a sheltered position outdoors. Takes 12 months[78].

Suckers in spring just before new growth begins[200].

Layering in spring .

Scent

Flowers: Fresh

> The flowers have a vanilla perfume.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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References

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Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
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Range:	Southern N. America. Locally naturalized in S. and C. Europe[50].		
Habitat:	River banks, rich moist thickets etc[43, 184].		
Plants For A Future Rating (1-5):	3		

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The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The crushed fruit is used as a condiment[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Bedding; Dye; Insecticide; Oil; Repellent; Shelterbelt; Soil stabilization.

Plants have an extensive root system and are also fairly wind tolerant, they can be planted as a windbreak and also to prevent soil erosion[200].

Resinous pustules on the plant contain 'amorpha', a contact and stomachic insecticide that also acts as an insect repellent[57, 200].

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A polymorphic species, there are many named forms[43]. The flowers have a vanilla perfume[245].

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Trees only ripen their seed in fine autumns[80].

Plants are said to be immune to insect pests[200].

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Propagation

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Amorpha+fruticosa`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Amorpha+fruticosa`

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Plants For A Future: Database Search Results

Amorpha fruticosa

Common name:	False indigo	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America. Locally naturalized in S. and C. Europe[50].		
Habitat:	River banks, rich moist thickets etc[43, 184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. angustifolia[B,P] A. bushii[B,P] A. croceolanata[B,P] A. curtissii[B,P] A. dewinkeleri[B,P] A. fruticosa f. crispa[G] A. fruticosa var. angustifolia[B,G,P] A. fruticosa var. crispa[G] A. fruticosa var. croceolanata[B,P] A. fruticosa var. emarginata[B,P] A. fruticosa var. oblongifolia[B,P] A. fruticosa var. occidentalis[B,P] A. fruticosa var. tennesseensis[B,P] A. occidentalis[B,P] A. occidentalis var. arizonica[B,P] A. occidentalis var. emarginata[B,P] A. tennesseensis[B,P] A. virgata[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Desert Indigobush [P], False Indigo-bush [B],
Epithets:	From a Dictionary of Botanical Epithets
	amorpha = shapeless; fruticosa = shrubby;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Washington.

Physical Characteristics

A decidious shrub growing to 4.5m at a medium rate. It is hardy to zone 4. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The crushed fruit is used as a condiment[105, 177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Bedding; Dye; Insecticide; Oil; Repellent; Shelterbelt; Soil stabilization.

Plants have an extensive root system and are also fairly wind tolerant, they can be planted as a windbreak and also to prevent soil erosion[200].

Resinous pustules on the plant contain 'amorpha', a contact and stomachic insecticide that also acts as an insect repellent[57, 200].

The stems are used as bedding[61].

The plant contains some indigo pigment and can be used to make a blue dye[169]. Unfortunately, the pigment is only present in very small quantities, there is not enough to harvest commercially[169].

Cultivation details

Prefers a light well-drained sandy soil in sun or light shade[184, 200]. Plants are fairly wind-resistant[200].

A very hardy plant, tolerating temperatures down to about -25c[184, 200].

A polymorphic species, there are many named forms[43]. The flowers have a vanilla perfume[245].

Plants resent root disturbance, they should be planted out into their final positions whilst small[133].

Trees only ripen their seed in fine autumns[80].

Plants are said to be immune to insect pests[200].

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - pre-soak for 12 hours in warm water and then sow early spring in a greenhouse[78, 133]. The seed usually germinates in 1 - 2 months at 20°c[133]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, June/July in a frame. High percentage[78].

Cuttings of mature wood of the current seasons growth, autumn, in a sheltered position outdoors. Takes 12 months[78].

Suckers in spring just before new growth begins[200].

Layering in spring .

Scent

Flowers: Fresh

> The flowers have a vanilla perfume.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Amorpha fruticosa*

Subject:

Amorpha fruticosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Amorpha fruticosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 03:57:14 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Anethum graveolens

Common name:	Dill	Family:	Umbelliferae
Author:	L.	Botanical references:	100, 200
Synonyms:	Peucedanum graveolens ((L.)C.B.Clarke.), Anethum sowa (Roxb. ex Fleming.)		
Known Hazards:	Dill is said to contain the alleged 'psychotroph' myristicine[218]. There are also reports that dill can cause photosensitivity and or dermatitis in some people[218].		
Range:	W. Asia. Naturalized in Europe in the Mediterranean[100].		
Habitat:	Fields, waste places etc in the Mediterranean[100].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. graveloens[E] Lomatium graveolens var. graveolens[B,P] Lomatium kingii[B,P] Peucedanum kingii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Baston Do Diale [E], Catahva [E], Datli Boyana [E], Dereotu [E], Dill [H,P,L,S,B], Dille [D], East Indian Dill [E], Eneldo [E], Habbat Helwah [E], Hinojo [E], Indian Dill [H,E], Inojo [E], Inondo [E], King Desertparsley [P], Sadhab Al Barr [E], Surva [H],
Epithets:	From a Dictionary of Botanical Epithets
	graveolens = strong smelling;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database

	Asia; Bahamas; Belgium; Britain; China; Dominican Republic; India; Iraq; Nepal; Peru; Spain; Turkey; Us; Venezuela; Wi

Physical Characteristics

Annual growing to 0.75m by 0.15m . It is hardy to zone 8. It is in leaf from May to November, in flower from April to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed; Tea.

Leaves - raw or cooked[2, 4, 9, 14, 21]. Used as a flavouring in salads etc[132, 183]. The leaves lose their flavour if the are cooked for any length of time and so are best used raw or added to cooked dishes only a few minutes before the cooking is complete[244]. The leaves can be harvested at any time the plant is growing, but are best just before the plant flowers[244]. Per 100g, the plant contains 253 calories, 7.2g water, 20g protein, 4.4g fat, 55.8g carbohydrate, 11.9g fibre, 12.6g ash, 1784mg calcium, 543mg phosphorus, 48.8mg iron, 451mg magnesium, 208mg sodium, 3,308mg potassium, 3.3mg zinc, 0.42mg thiamine, 0.28mg riboflavin, 2.8mg niacin and 1.5mg vitamin B6[218].

Seed - raw or cooked. Very pungent and bitter in taste[4]. It is used as a flavouring in salads, preserves etc[2, 7, 9, 21, 46, 183], its chief uses being perhaps in making dill vinegar and as a flavouring in pickled gherkins[4]. It can also be sprouted and used in breads, soups and salad dressings[183]. Per 100g, the seed contains 305 calories, 7.7g water, 14.5g fat (0.73g saturated, 124mg phytosterol and no cholesterol), 55.2g carbohydrate, 21g fibre, 6.7g ash, 1,516mg calcium, 277mg phosphorus, 16.3mg iron, 256mg magnesium, 20mg sodium, 1,186mg potassium, 5.2mg zinc, 53IU vitamin A, 0.42mg thiamine and 0.28mg riboflavin[218].

An essential oil from the seed is used as a flavouring in the food industry[46, 105].

A tea is made from the leaves and/or the seeds[183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 7.7 Calories: 305 Fat: 14.5 Carbohydrate: 55.2 Fibre: 21.1 Ash: 6.7
In milligrammes per 100g weight of food:
Calcium: 1516 Phosphorus: 277 Iron: 16.3 Magnesium: 256 Sodium: 20 Potassium: 1186
Zinc: 5.2 VitaminA: 53 Thiamine: 0.42 Riboflavin: 0.28

Leaves (Fresh weight)

In grammes per 100g weight of food:
Water: 7.2 Calories: 253 Protein: 20 Fat: 4.4 Carbohydrate: 55.8 Fibre: 11.9 Ash: 12.6
In milligrammes per 100g weight of food:
Calcium: 1784 Phosphorus: 543 Iron: 48.8 Magnesium: 451 Sodium: 208 Potassium: 3308
Zinc: 3.3 Thiamine: 0.42 Riboflavin: 0.28 Niacin: 2.8 VitaminB6: 1.5

Medicinal Uses

Disclaimer

Antihalitosis; Aromatic; Carminative; Diuretic; Galactogogue; Stimulant; Stomachic.

Dill has a very long history of herbal use going back more than 2,000 years. The seeds are a common and very effective household remedy for a wide range of digestive problems. An infusion is especially efficacious in treating gripe in babies and flatulence in young children.

The seed is aromatic, carminative, mildly diuretic, galactogogue, stimulant and stomachic[4, 21, 46, 165]. It is also used in the form of an extracted essential oil[243]. Used either in an infusion, or by eating the seed whole, the essential oil in the seed relieves intestinal spasms and griping, helping to settle colic[254]. Chewing the seed improves bad breath[254]. Dill is also a useful addition to cough, cold and flu remedies, it can be used with antispasmodics such as Viburnum opulus to relieve period pains[254]. Dill will also help to increase the flow of milk in nursing mothers and will then be taken by the baby in the milk to help prevent colic[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Insecticide.

The seed contains up to 4% essential oils[244]. It is used in perfuming soaps[4], medicines and as a food flavouring[244].

Some compounds of dill (d-carvone is mentioned as one of them), when added to insecticides, have greatly increased the effectiveness of the insecticides[218].

Cultivation details

An easily grown plant[4], it prefers a moderately rich loose soil and full sun[14, 27, 88]. Requires a well-drained soil[27] and shelter from the wind[200]. Tolerates a pH in the range 5.3 to 7.8.

Dill is a commonly cultivated herb, especially in warm temperate and tropical zones. It is grown mainly for its edible leaves and seeds, though it is also used medicinally. There are many named varieties[142, 183]. 'Bouquet' is an American cultivar that has a prolific production of seeds[238]. The sub-species A. graveolens sowa from India has a slightly different flavour to the type species[238]. The plant quickly runs to seed in dry weather[200]. It often self-sows when growing in a suitable position[37, 88].

A good companion for corn and cabbages, also in moderation for cucumbers, lettuce and onions, but it inhibits the growth of carrots[14, 18, 20]. Dill reduces a carrot crop if it is grown to maturity near them[201]. However, the young plant will help to deter carrot root fly[201].

The flowers are very attractive to bees[14, 18, 20].

Propagation

Seed - sow April to early summer in situ and only just cover[200, 238]. The seed germinates in 2 weeks if the soil is warm. A regular supply of leaves can be obtained if successional sowings are made from May to the end of June[89, 200]. Autumn sowings can succeed if the winters are mild[4]. Dill is very intolerant of root disturbance and should not be transplanted because it will then quickly run to seed.

Scent

Seed: Crushed Dried

The seed contains up to 5% essentil oils[254].

Plant: Crushed

The bruised foliage has a spicy smell and taste[245].

Cultivars

'Bouquet'

An American cultivar that has a prolific production of seeds[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Anethum graveloens* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Anethum sowa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Lomatium graveolens var. graveolens* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Peucedanum graveolens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *anethum graveolens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987

Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two

separate entries for each plant.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Anethum graveolens

Common name:	Dill	Family:	Umbelliferae
Author:	L.	Botanical references:	100, 200
Synonyms:	Peucedanum graveolens ((L.)C.B.Clarke.), Anethum sowa (Roxb. ex Fleming.)		
Known Hazards:	Dill is said to contain the alleged 'psychotroph' myristicine[218]. There are also reports that dill can cause photosensitivity and or dermatitis in some people[218].		
Range:	W. Asia. Naturalized in Europe in the Mediterranean[100].		
Habitat:	Fields, waste places etc in the Mediterranean[100].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. graveloens[E] Lomatium graveolens var. graveolens[B,P] Lomatium kingii[B,P] Peucedanum kingii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Baston Do Diale [E], Catahva [E], Datli Boyana [E], Dereotu [E], Dill [H,P,L,S,B], Dille [D], East Indian Dill [E], Eneldo [E], Habbat Helwah [E], Hinojo [E], Indian Dill [H,E], Inojo [E], Inondo [E], King Desertparsley [P], Sadhab Al Barr [E], Surva [H],
Epithets:	From a Dictionary of Botanical Epithets
	graveolens = strong smelling;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Asia; Bahamas; Belgium; Britain; China; Dominican Republic; India; Iraq; Nepal; Peru; Spain; Turkey; Us; Venezuela; Wi

Physical Characteristics

Annual growing to 0.75m by 0.15m . It is hardy to zone 8. It is in leaf from May to November, in flower from April to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed; Tea.

Leaves - raw or cooked[2, 4, 9, 14, 21]. Used as a flavouring in salads etc[132, 183]. The leaves lose their flavour if the are cooked for any length of time and so are best used raw or added to cooked dishes only a few minutes before the cooking is complete[244]. The leaves can be harvested at any time the plant is growing, but are best just before the plant flowers[244]. Per 100g, the plant contains 253 calories, 7.2g water, 20g protein, 4.4g fat, 55.8g carbohydrate, 11.9g fibre, 12.6g ash, 1784mg calcium, 543mg phosphorus, 48.8mg iron, 451mg magnesium, 208mg sodium, 3,308mg potassium, 3.3mg zinc, 0.42mg thiamine, 0.28mg riboflavin, 2.8mg niacin and 1.5mg vitamin B6[218].

Seed - raw or cooked. Very pungent and bitter in taste[4]. It is used as a flavouring in salads, preserves etc[2, 7, 9, 21, 46, 183], its chief uses being perhaps in making dill vinegar and as a flavouring in pickled gherkins[4]. It can also be sprouted and used in breads, soups and salad dressings[183]. Per 100g, the seed contains 305 calories, 7.7g water, 14.5g fat (0.73g saturated, 124mg phytosterol and no cholesterol), 55.2g carbohydrate, 21g fibre, 6.7g ash, 1,516mg calcium, 277mg phosphorus, 16.3mg iron, 256mg magnesium, 20mg sodium, 1,186mg potassium, 5.2mg zinc, 53IU vitamin A, 0.42mg thiamine and 0.28mg riboflavin[218].

An essential oil from the seed is used as a flavouring in the food industry[46, 105].

A tea is made from the leaves and/or the seeds[183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 7.7 Calories: 305 Fat: 14.5 Carbohydrate: 55.2 Fibre: 21.1 Ash: 6.7

In milligrammes per 100g weight of food:
Calcium: 1516 Phosphorus: 277 Iron: 16.3 Magnesium: 256 Sodium: 20 Potassium: 1186 Zinc: 5.2 VitaminA: 53 Thiamine: 0.42 Riboflavin: 0.28

Leaves (Fresh weight)

In grammes per 100g weight of food:
Water: 7.2 Calories: 253 Protein: 20 Fat: 4.4 Carbohydrate: 55.8 Fibre: 11.9 Ash: 12.6
In milligrammes per 100g weight of food:
Calcium: 1784 Phosphorus: 543 Iron: 48.8 Magnesium: 451 Sodium: 208 Potassium: 3308 Zinc: 3.3 Thiamine: 0.42 Riboflavin: 0.28 Niacin: 2.8 VitaminB6: 1.5

Medicinal Uses

Disclaimer

Antihalitosis; Aromatic; Carminative; Diuretic; Galactogogue; Stimulant; Stomachic.

Dill has a very long history of herbal use going back more than 2,000 years. The seeds are a common and very effective household remedy for a wide range of digestive problems. An infusion is especially efficacious in treating gripe in babies and flatulence in young children.

The seed is aromatic, carminative, mildly diuretic, galactogogue, stimulant and stomachic[4, 21, 46, 165]. It is also used in the form of an extracted essential oil[243]. Used either in an infusion, or by eating the seed whole, the essential oil in the seed relieves intestinal spasms and griping, helping to settle colic[254]. Chewing the seed improves bad breath[254]. Dill is also a useful addition to cough, cold and flu remedies, it can be used with antispasmodics such as Viburnum opulus to relieve period pains[254]. Dill will also help to increase the flow of milk in nursing mothers and will then be taken by the baby in the milk to help prevent colic[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Insecticide.

The seed contains up to 4% essential oils[244]. It is used in perfuming soaps[4], medicines and as a food flavouring[244].

Some compounds of dill (d-carvone is mentioned as one of them), when added to insecticides, have greatly increased the effectiveness of the insecticides[218].

Cultivation details

An easily grown plant[4], it prefers a moderately rich loose soil and full sun[14, 27, 88]. Requires a well-drained soil[27] and shelter from the wind[200]. Tolerates a pH in the range 5.3 to 7.8.

Dill is a commonly cultivated herb, especially in warm temperate and tropical zones. It is grown mainly for its edible leaves and seeds, though it is also used medicinally. There are many named varieties[142, 183]. 'Bouquet' is an American cultivar that has a prolific production of seeds[238]. The sub-species A. graveolens sowa from India has a slightly different flavour to the type species[238]. The plant quickly runs to seed in dry weather[200]. It often self-sows when growing in a suitable position[37, 88].

A good companion for corn and cabbages, also in moderation for cucumbers, lettuce and onions, but it inhibits the growth of carrots[14, 18, 20]. Dill reduces a carrot crop if it is grown to maturity near them[201]. However, the young plant will help to deter carrot root fly[201].

The flowers are very attractive to bees[14, 18, 20].

Propagation

Seed - sow April to early summer in situ and only just cover[200, 238]. The seed germinates in 2 weeks if the soil is warm. A regular supply of leaves can be obtained if successional sowings are made from May to the end of June[89, 200]. Autumn sowings can succeed if the winters are mild[4]. Dill is very intolerant of root disturbance and should not be transplanted because it will then quickly run to seed.

Scent

Seed: Crushed Dried

The seed contains up to 5% essentil oils[254].

Plant: Crushed

The bruised foliage has a spicy smell and taste[245].

Cultivars

'Bouquet'

An American cultivar that has a prolific production of seeds[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Anethum graveloens* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Anethum sowa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Lomatium graveolens var. graveolens* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Peucedanum graveolens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *anethum graveolens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and

Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Anethum+graveolens`

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Plants For A Future: Database Search Results

Anethum graveolens

Common name:	Dill	Family:	Umbelliferae
Author:	L.	Botanical references:	100, 200
Synonyms:	Peucedanum graveolens ((L.)C.B.Clarke.), Anethum sowa (Roxb. ex Fleming.)		
Known Hazards:	Dill is said to contain the alleged 'psychotroph' myristicine[218]. There are also reports that dill can cause photosensitivity and or dermatitis in some people[218].		
Range:	W. Asia. Naturalized in Europe in the Mediterranean[100].		
Habitat:	Fields, waste places etc in the Mediterranean[100].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. graveloens[E] Lomatium graveolens var. graveolens[B,P] Lomatium kingii[B,P] Peucedanum kingii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Baston Do Diale [E], Catahva [E], Datli Boyana [E], Dereotu [E], Dill [H,P,L,S,B], Dille [D], East Indian Dill [E], Eneldo [E], Habbat Helwah [E], Hinojo [E], Indian Dill [H,E], Inojo [E], Inondo [E], King Desertparsley [P], Sadhab Al Barr [E], Surva [H],
Epithets:	From a Dictionary of Botanical Epithets
	graveolens = strong smelling;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Asia; Bahamas; Belgium; Britain; China; Dominican Republic; India; Iraq; Nepal; Peru; Spain; Turkey; Us; Venezuela; Wi

Physical Characteristics

Annual growing to 0.75m by 0.15m . It is hardy to zone 8. It is in leaf from May to November, in flower from April to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed; Tea.

Leaves - raw or cooked[2, 4, 9, 14, 21]. Used as a flavouring in salads etc[132, 183]. The leaves lose their flavour if the are cooked for any length of time and so are best used raw or added to cooked dishes only a few minutes before the cooking is complete[244]. The leaves can be harvested at any time the plant is growing, but are best just before the plant flowers[244]. Per 100g, the plant contains 253 calories, 7.2g water, 20g protein, 4.4g fat, 55.8g carbohydrate, 11.9g fibre, 12.6g ash, 1784mg calcium, 543mg phosphorus, 48.8mg iron, 451mg magnesium, 208mg sodium, 3,308mg potassium, 3.3mg zinc, 0.42mg thiamine, 0.28mg riboflavin, 2.8mg niacin and 1.5mg vitamin B6[218].

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An essential oil from the seed is used as a flavouring in the food industry[46, 105].

A tea is made from the leaves and/or the seeds[183].

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Seed (Fresh weight)

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Other Uses

Essential; Insecticide.

The seed contains up to 4% essential oils[244]. It is used in perfuming soaps[4], medicines and as a food flavouring[244].

Some compounds of dill (d-carvone is mentioned as one of them), when added to insecticides, have greatly increased the effectiveness of the insecticides[218].

Cultivation details

An easily grown plant[4], it prefers a moderately rich loose soil and full sun[14, 27, 88]. Requires a well-drained soil[27] and shelter from the wind[200]. Tolerates a pH in the range 5.3 to 7.8.

Dill is a commonly cultivated herb, especially in warm temperate and tropical zones. It is grown mainly for its edible leaves and seeds, though it is also used medicinally. There are many named varieties[142, 183]. 'Bouquet' is an American cultivar that has a prolific production of seeds[238]. The sub-species A. graveolens sowa from India has a slightly different flavour to the type species[238]. The plant quickly runs to seed in dry weather[200]. It often self-sows when growing in a suitable position[37, 88].

A good companion for corn and cabbages, also in moderation for cucumbers, lettuce and onions, but it inhibits the growth of carrots[14, 18, 20]. Dill reduces a carrot crop if it is grown to maturity near them[201]. However, the young plant will help to deter carrot root fly[201].

The flowers are very attractive to bees[14, 18, 20].

Propagation

Seed - sow April to early summer in situ and only just cover[200, 238]. The seed germinates in 2 weeks if the soil is warm. A regular supply of leaves can be obtained if successional sowings are made from May to the end of June[89, 200]. Autumn sowings can succeed if the winters are mild[4]. Dill is very intolerant of root disturbance and should not be transplanted because it will then quickly run to seed.

Scent

Seed: Crushed Dried

> The seed contains up to 5% essentil oils[254].

Plant: Crushed

> The bruised foliage has a spicy smell and taste[245].

Cultivars

'Bouquet'

> An American cultivar that has a prolific production of seeds[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Anethum+graveolens`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Anethum graveolens*

Subject:

Anethum graveolens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Anethum graveolens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Angelica archangelica

Common name:	Angelica	Family:	Umbelliferae
Author:	L.	Botanical references:	17, 200
Synonyms:	Archangelica officinalis ((Moench.)Hoffm.)		
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	Europe. Naturalized in Britain[17].		
Habitat:	Moist shady places in Britain[4, 14, 27, 37].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. officinalis[G,H]
Other Common Names:	From various places around the Web, may not be correct. See below. Angelica [E,H], Angelica, Great [S], Angerika [E], Ch'Ien Tu [E], Engelwurz [E], Garden Angelica [H,L], Great Angelica [S], Grote Engelwortel [D], Melekotu [E], Norwegian Angelica [P], Wild Parsnip [H],
Systematics:	From a UDSA Plants Database Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database China; Europe; Germany; Spain; Turkey

Physical Characteristics

Biennial growing to 1.5m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Root; Seed; Stem.

Leaves - raw or cooked[2, 4, 14, 27, 37, 52]. A liquorice-like flavour[183], they can be used as a flavouring in mixed salads[K]. They are also used to sweeten tart fruits[K].

Stalks and young shoots - cooked or raw[2, 37]. The stalks should be peeled[115], they can be used like celery[183]. They can also be used to sweeten tart fruits[52] and to make jam[244]. They are often crystallised in sugar and used as sweets and cake decorations[244]. The stems are best harvested in the spring[244].

An essential oil is obtained from the root and seeds, it is used as a food flavouring[46, 57, 100, 183].

Root - cooked[2].

Seed - used as a flavouring in liqueurs such as Chartreuse[244].

A tea can be made from the leaves, seed or roots[183].

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Diaphoretic; Diuretic; Expectorant; Stimulant; Stomachic; Tonic.

Angelica has a long folk-history of use as a medicinal herb, in particular for the treatment of digestive disorders and problems with blood circulation[4, 254]. The root is the most active medicinally, it should be harvested in the autumn of its first year of growth, sliced longitudinally if necessary and dried quickly[4]. If well stored, the root retains its medicinal virtues for many years[4]. The leaves and seeds can also be used[4]. The leaves are harvested and dried in late spring before the plant comes into flower[244].

The plant is antispasmodic, carminative, diaphoretic, diuretic, expectorant, stimulant, stomachic, tonic[4, 9, 14, 21, 46, 165]. An infusion is used to ease flatulence, indigestion, chronic bronchitis and typhus[244]. It stimulates blood flow to the peripheral parts of the body and so is of value in treating poor circulation - it is considered a specific treatment for Buerger's disease, a condition that narrows the arteries of the hands and feet[254]. Angelica is contra-indicated for people with a tendency towards diabetes since its use can increase sugar levels in the urine[4]. This plant should not be prescribed for pregnant women[238], nor should the juice be allowed to come into contact with the eyes[244].

An essential oil from the seeds is sometimes used as a rub to relieve rheumatic conditions[244].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

An essential oil from the root and seeds is used in perfumery, medicinally and as a food flavouring[4, 46, 57, 100]. The oil from the seeds has a musk-like aroma and is often used to flavour liqueurs[245]. The dried root contains 0.35% essential oil, the seed about 1.3%[240]. Yields of the essential oil vary according to location, plants growing at higher altitudes have higher yields with a better aroma[240].

Cultivation details

Requires a deep moist fertile soil in dappled shade or full sun[52, 200]. Tolerates a pH in the range 4.5 to 7.3.

A very hardy plant, tolerating severe frosts without damage[4].

Although by nature biennial, the plants are reliably perennial if they are prevented from setting seed[200].

Angelica is occasionally cultivated in the herb garden, mainly for its culinary uses[46]. The plants have a pervading aromatic odour[4].

The growing plant is almost untroubled by pests and diseases[4]. It attracts bees and hoverflies to the garden, helping to create a natural balance of insect pests and predators[24].

When well-sited, the plant will often self-sow - sometimes to the point of nuisance[245].

Propagation

Seed - best sown in a cold frame as soon as it is ripe since the seed only has a short viability[200]. Seed can also be sown in the spring, though germination rates will be lower. It requires light for germination[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter, planting them out into their permanent positions in the spring.

The seed can also be sow in situ as soon as it is ripe.

Scent

Plant: Crushed Dried

> The plants have a pervading aromatic odour. An essential oil from the seeds has a musk-like smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
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Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Angelica archangelica

Common name:	Angelica	Family:	Umbelliferae
Author:	L.	Botanical references:	17, 200
Synonyms:	Archangelica officinalis ((Moench.)Hoffm.)		
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	Europe. Naturalized in Britain[17].		
Habitat:	Moist shady places in Britain[4, 14, 27, 37].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. officinalis[G,H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Angelica [E,H], Angelica, Great [S], Angerika [E], Ch'Ien Tu [E], Engelwurz [E], Garden Angelica [H,L], Great Angelica [S], Grote Engelwortel [D], Melekotu [E], Norwegian Angelica [P], Wild Parsnip [H],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Europe; Germany; Spain; Turkey

Physical Characteristics

Biennial growing to 1.5m by 0.75m . It is hardy to zone 4 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Root; Seed; Stem.

Leaves - raw or cooked[2, 4, 14, 27, 37, 52]. A liquorice-like flavour[183], they can be used as a flavouring in mixed salads[K]. They are also used to sweeten tart fruits[K].

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Root - cooked[2].

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A tea can be made from the leaves, seed or roots[183].

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Diaphoretic; Diuretic; Expectorant; Stimulant; Stomachic; Tonic.

Angelica has a long folk-history of use as a medicinal herb, in particular for the treatment of digestive disorders and problems with blood circulation[4, 254]. The root is the most active medicinally, it should be harvested in the autumn of its first year of growth, sliced longitudinally if necessary and dried quickly[4]. If well stored, the root retains its medicinal virtues for many years[4]. The leaves and seeds can also be used[4]. The leaves are harvested and dried in late spring before the plant comes into flower[244].

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Essential.

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Cultivation details

Requires a deep moist fertile soil in dappled shade or full sun[52, 200]. Tolerates a pH in the range 4.5 to 7.3.

A very hardy plant, tolerating severe frosts without damage[4].

Although by nature biennial, the plants are reliably perennial if they are prevented from setting seed[200].

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Propagation

Seed - best sown in a cold frame as soon as it is ripe since the seed only has a short viability[200]. Seed can also be sown in the spring, though germination rates will be lower. It requires light for germination[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter, planting them out into their permanent positions in the spring.

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Scent

Plant: Crushed Dried

> The plants have a pervading aromatic odour. An essential oil from the seeds has a musk-like smell.

Suppliers

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Antispasmodic; Carminative; Diaphoretic; Diuretic; Expectorant; Stimulant; Stomachic; Tonic.

Angelica has a long folk-history of use as a medicinal herb, in particular for the treatment of digestive disorders and problems with blood circulation[4, 254]. The root is the most active medicinally, it should be harvested in the autumn of its first year of growth, sliced longitudinally if necessary and dried quickly[4]. If well stored, the root retains its medicinal virtues for many years[4]. The leaves and seeds can also be used[4]. The leaves are harvested and dried in late spring before the plant comes into flower[244].

The plant is antispasmodic, carminative, diaphoretic, diuretic, expectorant, stimulant, stomachic, tonic[4, 9, 14, 21, 46, 165]. An infusion is used to ease flatulence, indigestion, chronic bronchitis and typhus[244]. It stimulates blood flow to the peripheral parts of the body and so is of value in treating poor circulation - it is considered a specific treatment for Buerger's disease, a condition that narrows the arteries of the hands and feet[254]. Angelica is contra-indicated for people with a tendency towards diabetes since its use can increase sugar levels in the urine[4]. This plant should not be prescribed for pregnant women[238], nor should the juice be allowed to come into contact with the eyes[244].

An essential oil from the seeds is sometimes used as a rub to relieve rheumatic conditions[244].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

An essential oil from the root and seeds is used in perfumery, medicinally and as a food flavouring[4, 46, 57, 100]. The oil from the seeds has a musk-like aroma and is often used to flavour liqueurs[245]. The dried root contains 0.35% essential oil, the seed about 1.3%[240]. Yields of the essential oil vary according to location, plants growing at higher altitudes have higher yields with a better aroma[240].

Cultivation details

Requires a deep moist fertile soil in dappled shade or full sun[52, 200]. Tolerates a pH in the range 4.5 to 7.3.

A very hardy plant, tolerating severe frosts without damage[4].

Although by nature biennial, the plants are reliably perennial if they are prevented from setting seed[200].

Angelica is occasionally cultivated in the herb garden, mainly for its culinary uses[46]. The plants have a pervading aromatic odour[4].

The growing plant is almost untroubled by pests and diseases[4]. It attracts bees and hoverflies to the garden, helping to create a natural balance of insect pests and predators[24].

When well-sited, the plant will often self-sow - sometimes to the point of nuisance[245].

Propagation

Seed - best sown in a cold frame as soon as it is ripe since the seed only has a short viability[200]. Seed can also be sown in the spring, though germination rates will be lower. It requires light for germination[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter, planting them out into their permanent positions in the spring.

The seed can also be sow in situ as soon as it is ripe.

Scent

Plant: Crushed Dried

> The plants have a pervading aromatic odour. An essential oil from the seeds has a musk-like smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Angelica archangelica*

Subject:

Angelica archangelica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Angelica archangelica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 03:58:12 2004

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Angelica genuflexa

Common name:	Kneeling angelica	Family:	Umbelliferae
Author:	Nutt.	Botanical references:	60
Synonyms:			
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	E. Asia - Siberia. North-western N. America - northern California northwards to Alaska.		
Habitat:	Moist places[60].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Kneeling Angelica [S,H,B,P],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 1m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Stem.

Young leaves - cooked[257]. Used as a flavouring[172].

Young stems - peeled and eaten raw[172, 257].

Seed - used as a flavouring[172].

Medicinal Uses

Disclaimer

The raw root, or a decoction made from it, has been used as a purgative[257]. A compound decoction of the root has been used to treat headaches and weak eyes[257].

Other Uses

Containers; Deodorant; Musical; Straw.

The hollow stems have been used to make drinking straws, whistles and as breathing stems to allow people to remain underwater[257]. The have also been used as containers to collect pitch from Picea sitchensis[257].

The leaves were used as a deodorant by native North Americans. The leaves were chewed and the juice rubbed onto the body to mask the human smell[257].

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors in most parts of this country. The following notes are based on the general needs of the genus.

Requires a deep moist fertile soil in dappled shade or full sun[200].

Plants are reliably perennial if they are prevented from setting seed[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe since the seed only has a short viability[200]. Seed can also be sown in the spring, though germination rates will be lower. It requires light for germination[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter, planting them out into their permanent positions in the spring.

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Suppliers

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Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Angelica genuflexa

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Habitat:	Moist places[60].		
Plants For A Future Rating (1-5):	3		

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	Kneeling Angelica [S,H,B,P],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 1m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Stem.

Young leaves - cooked[257]. Used as a flavouring[172].

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Cultivation details

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Author:	Nutt.	Botanical references:	60
Synonyms:			
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	E. Asia - Siberia. North-western N. America - northern California northwards to Alaska.		
Habitat:	Moist places[60].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Kneeling Angelica [S,H,B,P],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 1m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Stem.

Young leaves - cooked[257]. Used as a flavouring[172].

Young stems - peeled and eaten raw[172, 257].

Seed - used as a flavouring[172].

Medicinal Uses

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Other Uses

Containers; Deodorant; Musical; Straw.

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The leaves were used as a deodorant by native North Americans. The leaves were chewed and the juice rubbed onto the body to mask the human smell[257].

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors in most parts of this country. The following notes are based on the general needs of the genus.

Requires a deep moist fertile soil in dappled shade or full sun[200].

Plants are reliably perennial if they are prevented from setting seed[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe since the seed only has a short viability[200]. Seed can also be sown in the spring, though germination rates will be lower. It requires light for germination[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter, planting them out into their permanent positions in the spring.

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Add a comment on: *Angelica genuflexa*

Subject:

Angelica genuflexa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Angelica genuflexa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Your Name:

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Date: Sun May 16 03:58:39 2004

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Add Comment Reset

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Angelica glauca

Common name:		Family:	Umbelliferae
Author:	Edgew.	Botanical references:	
Synonyms:			
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	E. Asia - Western Himalayas - Kashmir to Simla.		
Habitat:	Usually found amongst scrub on humus-rich soils, 2000 - 3200 metres[145].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	glauca = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	India; India(Santal)

Physical Characteristics

Perennial. It is not frost tender. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It

requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The root is aromatic and is used as a food flavouring[177].

Medicinal Uses

Disclaimer

Stomachic.

The plant is used as a cordial stimulant in the treatment of dyspepsia and constipation[240].

Other Uses

Essential.

The dried roots contain about 1.3% essential oil[240].

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors in most parts of this country. The following notes are based on the general needs of the genus.

Requires a deep moist fertile soil in dappled shade or full sun[200].

Plants are reliably perennial if they are prevented from setting seed[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe since the seed only has a short viability[200]. Seed can also be sown in the spring, though germination rates will be lower. It requires light for germination[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter, planting them out into their permanent positions in the spring.

The seed can also be sow in situ as soon as it is ripe.

Scent

Root: Crushed Dried

The roots contain an essential oil.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar*. Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[177] **Kunkel. G.** *Plants for Human Consumption*. Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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If you know of another site which has good information about this plant fill in the following the details here.

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Angelica glauca

Common name:		Family:	Umbelliferae
Author:	Edgew.	Botanical references:	
Synonyms:			
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	E. Asia - Western Himalayas - Kashmir to Simla.		
Habitat:	Usually found amongst scrub on humus-rich soils, 2000 - 3200 metres[145].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	glauca = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	India; India(Santal)

Physical Characteristics

Perennial. It is not frost tender. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The root is aromatic and is used as a food flavouring[177].

Medicinal Uses

Disclaimer

Stomachic.

The plant is used as a cordial stimulant in the treatment of dyspepsia and constipation[240].

Other Uses

Essential.

The dried roots contain about 1.3% essential oil[240].

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors in most parts of this country. The following notes are based on the general needs of the genus.

Requires a deep moist fertile soil in dappled shade or full sun[200].

Plants are reliably perennial if they are prevented from setting seed[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe since the seed only has a short viability[200]. Seed can also be sown in the spring, though germination rates will be lower. It requires light for germination[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter, planting them out into their permanent positions in the spring.

The seed can also be sow in situ as soon as it is ripe.

Scent

Root: Crushed Dried

The roots contain an essential oil.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
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Habitat:	Usually found amongst scrub on humus-rich soils, 2000 - 3200 metres[145].		
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Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The root is aromatic and is used as a food flavouring[177].

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The seed can also be sow in situ as soon as it is ripe.

Scent

Root: Crushed Dried

The roots contain an essential oil.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List]() or email [webmaster@pfaf.org]() (note we don't have the time to answer individual plant related queries).

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Angelica glauca

Group:
Plant Information

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Optional web-link:

Name of Site:	
URL for Site:	http://
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Angelica glauca

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Angelica japonica

Common name:		Family:	Umbelliferae
Author:	A. Gray.	Botanical references:	58
Synonyms:	Angelica kiusiana (Maxim.)		
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	E. Asia - Japan.		
Habitat:	Near seashores, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 1m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Eaten as a vegetable, it is fragrant and saline[178]. The part of the plant that is eaten is not specified, it is probably either the leaves or the root[K].

The seed is used as a condiment[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors at least in the milder parts of this country and could be resistant to maritime exposure. The following notes are based on the general needs of the genus.

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Synonyms:	Angelica kiusiana (Maxim.)		
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	E. Asia - Japan.		
Habitat:	Near seashores, C. and S. Japan[58].		
Plants For A Future Rating (1-5):	3		

Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 1m. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Eaten as a vegetable, it is fragrant and saline[178]. The part of the plant that is eaten is not specified, it is probably either the leaves or the root[K].

The seed is used as a condiment[177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors at least in the milder parts of this country and could be resistant to maritime exposure. The following notes are based on the general needs of the genus.

Requires a deep moist fertile soil in dappled shade or full sun[200].

Plants are reliably perennial if they are prevented from setting seed[200].

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Habitats and Possible Locations

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Disclaimer

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Angelica sylvestris

Common name:	Wild angelica	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:	Angelica montana (Brot.)		
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	Britain.		
Habitat:	Moist fields and hedgerows, open woods, marshes and fens, not usually found on acid soils[7, 13].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. silvestris[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ait-skeiters [H], Angelica Selvatica [E], Angelika [E], Angelique De Bois [E], Engelique Des Bois [E], Gewone Engelwortel [D], Oat-shooters [H], Trumpet Keck [H], Wald Brustwurz [E], Wild Angelica [H,E,L], Wilde Engelwortel [E], Wood Angelica [H], Woodland Angelica [P],
Epithets:	From a Dictionary of Botanical Epithets
	sylvestris = of woods; sylvestris = of woods;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database

	China; Europe; France; Germany; Iceland; Italy; Netherlands; Us

Physical Characteristics

Biennial growing to 1.5m. It is hardy to zone 5 and is not frost tender. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaves, young shoots and stems - used as an aromatic addition to salads[7], or cooked and used as a vegetable[2, 5, 8, 13, 183]. The taste is somewhat bitter[5]. The chopped leaves are a good addition to cooked acid fruits, especially rhubarb[183].

The stem and leafstalks are used in candies and sweetmeats[2, 46, 105, 183].

Seed - used as an aromatic flavouring in confections and pastries[2, 7].

Root - cooked[2].

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Diaphoretic; Diuretic; Expectorant; Stimulant; Stomachic; Tonic.

The root and the seeds are antispasmodic, aromatic, carminative, diaphoretic, diuretic, emmenagogue, expectorant, stimulant, stomachic, and tonic[7, 13, 21, 147, 218]. This plant is less rich in active principles than A. archangelica and so is much less used medicinally than that species[9, 244], but a decoction is sometimes used in the treatment of bronchial catarrh, coughs and dyspepsia[9]. Large doses have the effect of depressing the central nervous system[7].

Other Uses

Dye; Parasiticide.

The pulverized fruits are used to kill head parasites[46, 61].

A good yellow dye is obtained from the plant (the report does not specify which part of the plant)[4].

Cultivation details

Requires a deep moist fertile soil in dappled shade or full sun[200]. Succeeds in deep shade.

Plants are reliably perennial if they are prevented from setting seed[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe since the seed only has a short viability[200]. Seed can also be sown in the spring, though germination rates will be lower. It requires light for germination[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for their first winter, planting them out into their permanent positions in the spring.

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Plants For A Future: Database Search Results

Angelica sylvestris

Common name:	Wild angelica	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:	Angelica montana (Brot.)		
Known Hazards:	All members of this genus contain furocoumarins, which increase skin sensitivity to sunlight and may cause dermatitis[238].		
Range:	Britain.		
Habitat:	Moist fields and hedgerows, open woods, marshes and fens, not usually found on acid soils[7, 13].		
Plants For A Future Rating (1-5):	3		

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	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Europe; France; Germany; Iceland; Italy; Netherlands; Us

Physical Characteristics

Biennial growing to 1.5m. It is hardy to zone 5 and is not frost tender. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaves, young shoots and stems - used as an aromatic addition to salads[7], or cooked and used as a vegetable[2, 5, 8, 13, 183]. The taste is somewhat bitter[5]. The chopped leaves are a good addition to cooked acid fruits, especially rhubarb[183].

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Angelica sylvestris*

Subject:

Angelica sylvestris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

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Please use the exact Latin Names of the plants as specified in this database, one per line.

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Add Comment Reset

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Anthriscus cerefolium

Common name:	Chervil	Family:	Umbelliferae
Author:	(L.) Hoffm.	Botanical references:	200
Synonyms:	Scandix cerefolium (L.), Chaerophyllum sativum (Lam.), Anthriscus longirostris (Bertol.)		
Known Hazards:	None known		
Range:	South-eastern Europe. Naturalized in Britain[17].		
Habitat:	Hedgebanks, roadsides and waste places[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. cerecolium[E] A. cereifolium[HORTIPLEX] Cerefolium cerefolium[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cerefolium [E], Cerfeuil [E], Chervil [H,E], Cierfouye [E], Cow Parsley [H], Echte Kervel [D], French Parsley [H], Garden Chervil [P,L,B], Khalai I Khalil [E], Perifollo [E], Yabani Maydanoz [E],
Epithets:	From a Dictionary of Botanical Epithets
	cerefolium = wax leaved;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Arabic; Belgium; Britain; France; Iceland; Spain; Turkey

Physical Characteristics

Biennial growing to 0.45m by 0.25m . It is hardy to zone 7 and is not frost tender. It is in flower from May to June, and the seeds ripen from June to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Root.

Edible leaves - raw in salads or used as a flavouring in cooked foods such as soups and stews[2, 14, 21, 27, 46, 61, 100, 244]. A mild aromatic flavour[183] that is suggestive of aniseed[238]. The leaves are often used as a flavouring, they form the basis of the seasoning 'fines herbes'[200] and are an essential ingredient of 'bouquet garni'[244]. The leaves should always be used fresh because the delicate flavour does not withstand drying or prolonged cooking[238, 244]. The leaves are ready for harvesting in about 8 weeks from sowing, the plant responds well to cut and come again harvesting[200].

The flowers are used as a seasoning[183].

The root is said to be edible[177, 183].

Medicinal Uses

Disclaimer

Digestive; Diuretic; Expectorant; Ophthalmic; Poultice; Stimulant.

Chervil is not widely used as a medicinal herb, though it is sometimes employed as a 'spring tonic' for cleansing the liver and kidneys, is a good remedy for settling the digestion and is said to be of value in treating poor memory and mental depression[238, 244, 254].

The fresh plant, harvested just before flowering, is digestive, diuretic, expectorant, poultice and stimulant[9, 21, 201]. The juice is used in the treatment of dropsy, arthritis and chronic skin ailments[9]. The bruised leaves are used as a poultice for slow-healing wounds[9] and a warm poultice is applied to painful joints[268]. An infusion of the fresh leaves is also used as an eyewash to treat sore or inflamed eyes[244].

Other Uses

Repellent.

The growing plant is said to repel slugs[238].

Cultivation details

Prefers a well-drained moisture retentive soil[200]. Plants dislike hot dry summers[200], it is best to give summer crops a cool shady position but winter crops require a sunny position[14, 18, 37, 52]. Tolerates a pH in the range 5.8 to 7.6.

Plants are hardy to about -10°c[200].

Chervil is occasionally cultivated as a salad plant, especially in France[268]. There are some named varieties[183]. It can supply fresh leaves all year round from successional sowings, especially if given some protection in winter[238]. Although a biennial, it is usually cultivated as an annual[238]. It often self-sows when grown in a suitable position[18, 200].

Be careful if harvesting this plant from the wild because it is superficially similar to some poisonous species such as young plants of hemlock, Conium maculatum[244].

Chervil is an aromatic plant with pleasantly scented leaves[245]. It is said to be a good companion plant for growing with carrots and radishes[18, 201], the radishes becoming hotter and crisper[201]. It also grows well with dill and coriander[201]. When grown with lettuces it is said to protect them from aphids and ants, the plant is also said to repel slugs[238].

Propagation

Seed - sow in situ in succession from February to October. The seed usually germinates in 2 - 3 weeks[200]. The February, September and October sowings should be made in a very sheltered warm and sunny position outdoors or under some protection such as a frame. Other sowings can be made in a position that has at least some shade from the midday sun since the plant runs to seed quickly if it gets too hot or the soil is dry[238]. The seed only remains viable for about a year[238].

Scent

Leaves: Crushed

> The bruised leaves are pleasantly scented.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Anthriscus cerefolium

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Author:	(L.) Hoffm.	Botanical references:	200
Synonyms:	Scandix cerefolium (L.), Chaerophyllum sativum (Lam.), Anthriscus longirostris (Bertol.)		
Known Hazards:	None known		
Range:	South-eastern Europe. Naturalized in Britain[17].		
Habitat:	Hedgebanks, roadsides and waste places[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	cerefolium = wax leaved;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Arabic; Belgium; Britain; France; Iceland; Spain; Turkey

Physical Characteristics

Biennial growing to 0.45m by 0.25m . It is hardy to zone 7 and is not frost tender. It is in flower from May to June, and the seeds ripen from June to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Root.

Edible leaves - raw in salads or used as a flavouring in cooked foods such as soups and stews[2, 14, 21, 27, 46, 61, 100, 244]. A mild aromatic flavour[183] that is suggestive of aniseed[238]. The leaves are often used as a flavouring, they form the basis of the seasoning 'fines herbes'[200] and are an essential ingredient of 'bouquet garni'[244]. The leaves should always be used fresh because the delicate flavour does not withstand drying or prolonged cooking[238, 244]. The leaves are ready for harvesting in about 8 weeks from sowing, the plant responds well to cut and come again harvesting[200].

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The root is said to be edible[177, 183].

Medicinal Uses

Disclaimer

Digestive; Diuretic; Expectorant; Ophthalmic; Poultice; Stimulant.

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Other Uses

Repellent.

The growing plant is said to repel slugs[238].

Cultivation details

Prefers a well-drained moisture retentive soil[200]. Plants dislike hot dry summers[200], it is best to give summer crops a cool shady position but winter crops require a sunny position[14, 18, 37, 52]. Tolerates a pH in the range 5.8 to 7.6.

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Propagation

Seed - sow in situ in succession from February to October. The seed usually germinates in 2 - 3 weeks[200]. The February, September and October sowings should be made in a very sheltered warm and sunny position outdoors or under some protection such as a frame. Other sowings can be made in a position that has at least some shade from the midday sun since the plant runs to seed quickly if it gets too hot or the soil is dry[238]. The seed only remains viable for about a year[238].

Scent

Leaves: Crushed

The bruised leaves are pleasantly scented.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Habitat:	Hedgebanks, roadsides and waste places[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. cerecolium[E] A. cereifolium[HORTIPLEX] Cerefolium cerefolium[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cerefolium [E], Cerfeuil [E], Chervil [H,E], Cierfouye [E], Cow Parsley [H], Echte Kervel [D], French Parsley [H], Garden Chervil [P,L,B], Khalai I Khalil [E], Perifollo [E], Yabani Maydanoz [E],
Epithets:	From a Dictionary of Botanical Epithets
	cerefolium = wax leaved;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Arabic; Belgium; Britain; France; Iceland; Spain; Turkey

Physical Characteristics

Biennial growing to 0.45m by 0.25m . It is hardy to zone 7 and is not frost tender. It is in flower from May to June, and the seeds ripen from June to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Cultivated Beds, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Root.

Edible leaves - raw in salads or used as a flavouring in cooked foods such as soups and stews[2, 14, 21, 27, 46, 61, 100, 244]. A mild aromatic flavour[183] that is suggestive of aniseed[238]. The leaves are often used as a flavouring, they form the basis of the seasoning 'fines herbes'[200] and are an essential ingredient of 'bouquet garni'[244]. The leaves should always be used fresh because the delicate flavour does not withstand drying or prolonged cooking[238, 244]. The leaves are ready for harvesting in about 8 weeks from sowing, the plant responds well to cut and come again harvesting[200].

The flowers are used as a seasoning[183].

The root is said to be edible[177, 183].

Medicinal Uses

Disclaimer

Digestive; Diuretic; Expectorant; Ophthalmic; Poultice; Stimulant.

Chervil is not widely used as a medicinal herb, though it is sometimes employed as a 'spring tonic' for cleansing the liver and kidneys, is a good remedy for settling the digestion and is said to be of value in treating poor memory and mental depression[238, 244, 254].

The fresh plant, harvested just before flowering, is digestive, diuretic, expectorant, poultice and stimulant[9, 21, 201]. The juice is used in the treatment of dropsy, arthritis and chronic skin ailments[9]. The bruised leaves are used as a poultice for slow-healing wounds[9] and a warm poultice is applied to painful joints[268]. An infusion of the fresh leaves is also used as an eyewash to treat sore or inflamed eyes[244].

Other Uses

Repellent.

The growing plant is said to repel slugs[238].

Cultivation details

Prefers a well-drained moisture retentive soil[200]. Plants dislike hot dry summers[200], it is best to give summer crops a cool shady position but winter crops require a sunny position[14, 18, 37, 52]. Tolerates a pH in the range 5.8 to 7.6.

Plants are hardy to about -10°c[200].

Chervil is occasionally cultivated as a salad plant, especially in France[268]. There are some named varieties[183]. It can supply fresh leaves all year round from successional sowings, especially if given some protection in winter[238]. Although a biennial, it is usually cultivated as an annual[238]. It often self-sows when grown in a suitable position[18, 200].

Be careful if harvesting this plant from the wild because it is superficially similar to some poisonous species such as young plants of hemlock, Conium maculatum[244].

Chervil is an aromatic plant with pleasantly scented leaves[245]. It is said to be a good companion plant for growing with carrots and radishes[18, 201], the radishes becoming hotter and crisper[201]. It also grows well with dill and coriander[201]. When grown with lettuces it is said to protect them from aphids and ants, the plant is also said to repel slugs[238].

Propagation

Seed - sow in situ in succession from February to October. The seed usually germinates in 2 - 3 weeks[200]. The February, September and October sowings should be made in a very sheltered warm and sunny position outdoors or under some protection such as a frame. Other sowings can be made in a position that has at least some shade from the midday sun since the plant runs to seed quickly if it gets too hot or the soil is dry[238]. The seed only remains viable for about a year[238].

Scent

Leaves: Crushed

> The bruised leaves are pleasantly scented.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Anthriscus cerefolium*

Subject:

Anthriscus cerefolium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Anthriscus cerefolium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 04:00:31 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Apium graveolens

Common name:	Wild celery	Family:	Umbelliferae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	If the plant is infected with the fungus Sclerotinia sclerotiorum, skin contact with the sap can cause dermatitis in sensitive people[65]. This is more likely to happen to Caucasians[218].		
Range:	Britain.		
Habitat:	Ditches, by rivers and in other damp locations, especially near the sea in salt marshes[9, 17, 100].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Apio [E], Apit Bord [E], Celeri [E], Celeri Des Jardins [E], Celeri Marron [E], Celery [E,H], Ch'In [E], Ch'In Ts'Ai [E], Han Ch'In [E], Karawez [E], Kereviz [E], Krafus [E], Rabano [E], Selderij [D], Smallage [H], Wild Celery [H,B,P,L], Wood Marche [E],
Epithets:	From a Dictionary of Botanical Epithets
	graveolens = strong smelling;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Other Range Info:	From the Ethnobotany Database	
	Belgium; Britain; China; Cuba; Dominican Republic; Haiti; India; Iraq; Mexico; Philippines; Spain(Balearic I); Turkey; Us(Nm)	
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.	
	Plant Passport Required for commercial growers in the UK/Europe.	

Physical Characteristics

Biennial growing to 0.6m by 0.25m . It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaves - raw or cooked[52, 105]. Mainly used as a flavouring in soups etc[5, 7, 9, 46]. They can be eaten raw but have a very strong flavour[52]. They are toxic if consumed in large amounts[238].

Seed - a flavouring. Used in small quantities to flavour soups and stews[238]. An essential oil from the seed is also used as a flavouring[46, 105].

Root - cooked[74].

Medicinal Uses

Disclaimer

Aperient; Carminative; Diuretic; Emmenagogue; Galactogogue; Nervine; Stimulant; Tonic.

Wild celery has a long history of medicinal and food use. it is an aromatic bitter tonic herb that reduces blood pressure, relieves indigestion, stimulates the uterus and is anti-inflammatory[238].

The ripe seeds, herb and root are aperient, carminative, diuretic, emmenagogue, galactogogue, nervine, stimulant and tonic[4, 7, 21, 165]. Wild celery is said to be useful in cases of hysteria, promoting restfulness and sleep and diffusing through the system a mild sustaining influence[4]. The herb should not be prescribed for pregnant women[238]. Seeds purchased for cultivation purposes are often dressed with a fungicide, they should not be used for medicinal purposes[238].

The root is harvested in the autumn and can be used fresh or dried[238]. The whole plant is harvested when fruiting and is usually liquidized to extract the juice[238]. The seeds are harvested as they ripen and are dried for later use[238].

An essential oil obtained from the plant has a calming effect on the central nervous system. Some of its constituents have antispasmodic, sedative and anticonvulsant actions. It has been shown to be of value in treating high blood pressure[254].

A homeopathic remedy is made from the herb[9]. It is used in treating rheumatism and kidney complaints[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

The growing plant is an insect repellent, it repels the cabbage white butterfly so is a good companion for brassicas[20].

Cultivation details

Prefers a rich moist soil in sun or semi-shade[238], but with some shade in the summer[52]. It is tolerant of saline soils[238].

The plants are fairly hardy, though they can be damaged by hard frosts[238].

Wild celery is the parent of the cultivated celery (A. graveolens dulce) as well as celery leaf (A. graveolens secalinum) and celeriac (A. graveolens rapaceum). This entry only deals with the wild celery, the other plants are dealt with separately.

A very aromatic plant, the aroma being most noticeable when the foliage is bruised. The growing plant is a good companion for leeks, tomatoes, French beans and brassicas[18].

Propagation

Seed - sow spring or autumn in situ. If seed is in short supply it can be sown in a cold frame in spring. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Scent

Plant: Crushed

The seeds and the crushed leaves smell strongly of celery.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *apium graveolens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora.

Full of information on plant uses and habitats but heavy going for casual readers.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Readers Comments

Apium graveolens

WAYNE A. SIEGERT Mon Mar 31 14:22:00 2003

WHERE CAN I BUY WILD CELERY FOR PLANTING IN MY DUCK PONDS

ALSO INTERESTED IN "POND PEPPER" FOR WILD FOWL PLANTINGS

THANKS

WAYNE SIEGERT

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Apium+graveolens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Apium+graveolens`

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Plants For A Future: Database Search Results

Apium graveolens

Common name:	Wild celery	Family:	Umbelliferae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	If the plant is infected with the fungus Sclerotinia sclerotiorum, skin contact with the sap can cause dermatitis in sensitive people[65]. This is more likely to happen to Caucasians[218].		
Range:	Britain.		
Habitat:	Ditches, by rivers and in other damp locations, especially near the sea in salt marshes[9, 17, 100].		
Plants For A Future Rating (1-5):	3		

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Epithets:	From a Dictionary of Botanical Epithets
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Other Range Info:	From the Ethnobotany Database
	Belgium; Britain; China; Cuba; Dominican Republic; Haiti; India; Iraq; Mexico; Philippines; Spain(Balearic I); Turkey; Us(Nm)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

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Physical Characteristics

Biennial growing to 0.6m by 0.25m . It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaves - raw or cooked[52, 105]. Mainly used as a flavouring in soups etc[5, 7, 9, 46]. They can be eaten raw but have a very strong flavour[52]. They are toxic if consumed in large amounts[238].

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Cultivation details

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A very aromatic plant, the aroma being most noticeable when the foliage is bruised. The growing plant is a good companion for leeks, tomatoes, French beans and brassicas[18].

Propagation

Seed - sow spring or autumn in situ. If seed is in short supply it can be sown in a cold frame in spring. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Scent

Plant: Crushed

The seeds and the crushed leaves smell strongly of celery.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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References for *apium graveolens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

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[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora.

Full of information on plant uses and habitats but heavy going for casual readers.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Apium graveolens

WAYNE A. SIEGERT Mon Mar 31 14:22:00 2003

WHERE CAN I BUY WILD CELERY FOR PLANTING IN MY DUCK PONDS

ALSO INTERESTED IN "POND PEPPER" FOR WILD FOWL PLANTINGS

THANKS

WAYNE SIEGERT

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Apium+graveolens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Apium+graveolens`

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Plants For A Future: Database Search Results

Apium graveolens

Common name:	Wild celery	Family:	Umbelliferae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	If the plant is infected with the fungus Sclerotinia sclerotiorum, skin contact with the sap can cause dermatitis in sensitive people[65]. This is more likely to happen to Caucasians[218].		
Range:	Britain.		
Habitat:	Ditches, by rivers and in other damp locations, especially near the sea in salt marshes[9, 17, 100].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below. Apio [E], Apit Bord [E], Celeri [E], Celeri Des Jardins [E], Celeri Marron [E], Celery [E,H], Ch'In [E], Ch'In Ts'Ai [E], Han Ch'In [E], Karawez [E], Kereviz [E], Krafus [E], Rabano [E], Selderij [D], Smallage [H], Wild Celery [H,B,P,L], Wood Marche [E],
Epithets:	From a Dictionary of Botanical Epithets graveolens = strong smelling;
Systematics:	From a UDSA Plants Database Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database Belgium; Britain; China; Cuba; Dominican Republic; Haiti; India; Iraq; Mexico; Philippines; Spain(Balearic I); Turkey; Us(Nm)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Biennial growing to 0.6m by 0.25m . It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaves - raw or cooked[52, 105]. Mainly used as a flavouring in soups etc[5, 7, 9, 46]. They can be eaten raw but have a very strong flavour[52]. They are toxic if consumed in large amounts[238].

Seed - a flavouring. Used in small quantities to flavour soups and stews[238]. An essential oil from the seed is also used as a flavouring[46, 105].

Root - cooked[74].

Medicinal Uses

Disclaimer

Aperient; Carminative; Diuretic; Emmenagogue; Galactogogue; Nervine; Stimulant; Tonic.

Wild celery has a long history of medicinal and food use. it is an aromatic bitter tonic herb that reduces blood pressure, relieves indigestion, stimulates the uterus and is anti-inflammatory[238].

The ripe seeds, herb and root are aperient, carminative, diuretic, emmenagogue, galactogogue, nervine, stimulant and tonic[4, 7, 21, 165]. Wild celery is said to be useful in cases of hysteria, promoting restfulness and sleep and diffusing through the system a mild sustaining influence[4]. The herb should not be prescribed for pregnant women[238]. Seeds purchased for cultivation purposes are often dressed with a fungicide, they should not be used for medicinal purposes[238].

The root is harvested in the autumn and can be used fresh or dried[238]. The whole plant is harvested when fruiting and is usually liquidized to extract the juice[238]. The seeds are harvested as they ripen and are dried for later use[238].

An essential oil obtained from the plant has a calming effect on the central nervous system. Some of its constituents have antispasmodic, sedative and anticonvulsant actions. It has been shown to be of value in treating high blood pressure[254].

A homeopathic remedy is made from the herb[9]. It is used in treating rheumatism and kidney complaints[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

The growing plant is an insect repellent, it repels the cabbage white butterfly so is a good companion for brassicas[20].

Cultivation details

Prefers a rich moist soil in sun or semi-shade[238], but with some shade in the summer[52]. It is tolerant of saline soils[238].

The plants are fairly hardy, though they can be damaged by hard frosts[238].

Wild celery is the parent of the cultivated celery (A. graveolens dulce) as well as celery leaf (A. graveolens secalinum) and celeriac (A. graveolens rapaceum). This entry only deals with the wild celery, the other plants are dealt with separately.

A very aromatic plant, the aroma being most noticeable when the foliage is bruised. The growing plant is a good companion for leeks, tomatoes, French beans and brassicas[18].

Propagation

Seed - sow spring or autumn in situ. If seed is in short supply it can be sown in a cold frame in spring. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Scent

Plant: Crushed

The seeds and the crushed leaves smell strongly of celery.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Apium graveolens*

Subject:

Apium graveolens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Apium graveolens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 04:00:58 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Programs by Rich Morris webmaster@pfaf.org - Home Page

Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Apium graveolens dulce

Common name:	Celery	Family:	Umbelliferae
Author:	(Mill.) Pers.	Botanical references:	200
Synonyms:			
Known Hazards:	If the plant is infected with the fungus Sclerotinia sclerotiorum, skin contact with the sap can cause dermatitis in sensitive people[65].		
Range:	A cultivated form of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. dulce[G,P] A. graveolens var. dulce[B,G,H,P] Celeri graveolens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Selderij [D], Wild Celery [P],
Epithets:	From a Dictionary of Botanical Epithets
	dulce = sweet; graveolens = strong smelling;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Biennial growing to 0.6m. It is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaf stems - raw or cooked[1, 2, 16, 21]. A fairly common salad ingredient, celery stems are also used to make soups, stews etc. The winter varieties can be bitter if they are not blanched by excluding light from the stems for at least a few weeks prior to harvesting. Many people find the raw stalks are somewhat indigestible[113].

Leaves - raw or cooked. They are often used as a flavouring in soups etc[9, 21, 46]. They can also be eaten raw but have a very strong flavour and are probably best as a minor ingredient in a mixed salad.

Seed - used as a flavouring for sauces, soups, pickles etc[171, 183]. An essential oil from the seed is also used as a flavouring[183].

Root - cooked. There is not much of it but it can be cut up and added to soups[K].

Medicinal Uses

Disclaimer

Antiarthritic; Aperient; Carminative; Diuretic; Emmenagogue; Galactogogue; Nervine; Stimulant; Tonic.

Although not as medicinally active as wild celery, the cultivated forms of celery also have the same medicinal properties and, when used as an item of the diet, will have a similar effect upon the body. These medicinal uses are as follows:-

Wild celery is an aromatic bitter tonic herb that reduces blood pressure, relieves indigestion, stimulates the uterus and is anti-inflammatory[238].

The ripe seeds, herb and root are aperient, carminative, diuretic, emmenagogue, galactogogue, nervine, stimulant and tonic[4, 7, 21, 165]. Wild celery is said to be useful in cases of hysteria, promoting restfulness and sleep and diffusing through the system a mild sustaining influence[4]. The herb should not be prescribed for pregnant women[238]. Seeds purchased for cultivation purposes are often dressed with a fungicide, they should not be used for medicinal purposes[238].

The root is harvested in the autumn and can be used fresh or dried[238]. The whole plant is harvested when fruiting and is usually liquidized to extract the juice[238]. The seeds are harvested as they ripen and are dried for later use[238].

An essential oil obtained from the plant has a calming effect on the central nervous system. Some of its constituents have antispasmodic, sedative and anticonvulsant actions. It has been shown to be of value in treating high blood pressure[254].

A homeopathic remedy is made from the herb[9]. It is used in treating rheumatism and kidney complaints[9].

Other Uses

Repellent.

The growing plant is an insect repellent, it repels the cabbage white butterfly so is a good companion for brassicas[20].

Cultivation details

Prefers a rich light moist soil with some shade in summer[1, 16, 27, 37]. Prefers a sunny position and a pH between 6.6 and 6.8[200]. Tolerates a pH in the range 4.2 to 8.3.

Plants grow best in a climate with a mean temperature in the range 16 - 21°c, leaf growth is poor at higher temperatures, low temperatures can induce the plant to run to seed prematurely. Plants with 5 or more true leaves will flower following exposure to temperatures between 5 - 10°c for 10 days or more[200].

Celery is commonly cultivated in many regions of the world, mainly for its edible leaf stalks. There are many named varieties and these can supply fresh stalks from late summer to spring[46, 183]. There are two basic types of celery. Those grown for summer and autumn harvesting are called 'self-blanching' - the stems do not need to be blanched in order to be eaten, though they are usually grown quite closely together which tends to exclude quite a bit of light. Those cultivars harvested in the winter and spring tend to have bitter-tasting stems unless these are blanched by excluding light.

A good companion for leeks, tomatoes, French beans and brassicas[18, 201].

Propagation

Seed - germination can be erratic and the seed is best surface sow February in a greenhouse. The maincrop can be sown as late as mid-April. Outdoor sown seed rarely germinates satisfactorily[200]. Germinates in 2 - 3 weeks at 15°c. Plant out in May. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Apium graveolens var. dulce* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959

An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Apium+graveolens+dulce`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Apium+graveolens+dulce`

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Plants For A Future: Database Search Results

Apium graveolens dulce

Common name:	Celery	Family:	Umbelliferae
Author:	(Mill.) Pers.	Botanical references:	200
Synonyms:			
Known Hazards:	If the plant is infected with the fungus Sclerotinia sclerotiorum, skin contact with the sap can cause dermatitis in sensitive people[65].		
Range:	A cultivated form of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. dulce[G,P] A. graveolens var. dulce[B,G,H,P] Celeri graveolens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Selderij [D], Wild Celery [P],
Epithets:	From a Dictionary of Botanical Epithets
	dulce = sweet; graveolens = strong smelling;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Biennial growing to 0.6m. It is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaf stems - raw or cooked[1, 2, 16, 21]. A fairly common salad ingredient, celery stems are also used to make soups, stews etc. The winter varieties can be bitter if they are not blanched by excluding light from the stems for at least a few weeks prior to harvesting. Many people find the raw stalks are somewhat indigestible[113].

Leaves - raw or cooked. They are often used as a flavouring in soups etc[9, 21, 46]. They can also be eaten raw but have a very strong flavour and are probably best as a minor ingredient in a mixed salad.

Seed - used as a flavouring for sauces, soups, pickles etc[171, 183]. An essential oil from the seed is also used as a flavouring[183].

Root - cooked. There is not much of it but it can be cut up and added to soups[K].

Medicinal Uses

Disclaimer

Antiarthritic; Aperient; Carminative; Diuretic; Emmenagogue; Galactogogue; Nervine; Stimulant; Tonic.

Although not as medicinally active as wild celery, the cultivated forms of celery also have the same medicinal properties and, when used as an item of the diet, will have a similar effect upon the body. These medicinal uses are as follows:-

Wild celery is an aromatic bitter tonic herb that reduces blood pressure, relieves indigestion, stimulates the uterus and is anti-inflammatory[238].

The ripe seeds, herb and root are aperient, carminative, diuretic, emmenagogue, galactogogue, nervine, stimulant and tonic[4, 7, 21, 165]. Wild celery is said to be useful in cases of hysteria, promoting restfulness and sleep and diffusing through the system a mild sustaining influence[4]. The herb should not be prescribed for pregnant women[238]. Seeds purchased for cultivation purposes are often dressed with a fungicide, they should not be used for medicinal purposes[238].

The root is harvested in the autumn and can be used fresh or dried[238]. The whole plant is harvested when fruiting and is usually liquidized to extract the juice[238]. The seeds are harvested as they ripen and are dried for later use[238].

An essential oil obtained from the plant has a calming effect on the central nervous system. Some of its constituents have antispasmodic, sedative and anticonvulsant actions. It has been shown to be of value in treating high blood pressure[254].

A homeopathic remedy is made from the herb[9]. It is used in treating rheumatism and kidney complaints[9].

Other Uses

Repellent.

The growing plant is an insect repellent, it repels the cabbage white butterfly so is a good companion for brassicas[20].

Cultivation details

Prefers a rich light moist soil with some shade in summer[1, 16, 27, 37]. Prefers a sunny position and a pH between 6.6 and 6.8[200]. Tolerates a pH in the range 4.2 to 8.3.

Plants grow best in a climate with a mean temperature in the range 16 - 21°c, leaf growth is poor at higher temperatures, low temperatures can induce the plant to run to seed prematurely. Plants with 5 or more true leaves will flower following exposure to temperatures between 5 - 10°c for 10 days or more[200].

Celery is commonly cultivated in many regions of the world, mainly for its edible leaf stalks. There are many named varieties and these can supply fresh stalks from late summer to spring[46, 183]. There are two basic types of celery. Those grown for summer and autumn harvesting are called 'self-blanching' - the stems do not need to be blanched in order to be eaten, though they are usually grown quite closely together which tends to exclude quite a bit of light. Those cultivars harvested in the winter and spring tend to have bitter-tasting stems unless these are blanched by excluding light.

A good companion for leeks, tomatoes, French beans and brassicas[18, 201].

Propagation

Seed - germination can be erratic and the seed is best surface sow February in a greenhouse. The maincrop can be sown as late as mid-April. Outdoor sown seed rarely germinates satisfactorily[200]. Germinates in 2 - 3 weeks at 15°c. Plant out in May. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Apium graveolens var. dulce* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Apium graveolens dulce

Common name:	Celery	Family:	Umbelliferae
Author:	(Mill.) Pers.	Botanical references:	200
Synonyms:			
Known Hazards:	If the plant is infected with the fungus Sclerotinia sclerotiorum, skin contact with the sap can cause dermatitis in sensitive people[65].		
Range:	A cultivated form of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. dulce[G,P] A. graveolens var. dulce[B,G,H,P] Celeri graveolens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Selderij [D], Wild Celery [P],
Epithets:	From a Dictionary of Botanical Epithets
	dulce = sweet; graveolens = strong smelling;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Biennial growing to 0.6m. It is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaf stems - raw or cooked[1, 2, 16, 21]. A fairly common salad ingredient, celery stems are also used to make soups, stews etc. The winter varieties can be bitter if they are not blanched by excluding light from the stems for at least a few weeks prior to harvesting. Many people find the raw stalks are somewhat indigestible[113].

Leaves - raw or cooked. They are often used as a flavouring in soups etc[9, 21, 46]. They can also be eaten raw but have a very strong flavour and are probably best as a minor ingredient in a mixed salad.

Seed - used as a flavouring for sauces, soups, pickles etc[171, 183]. An essential oil from the seed is also used as a flavouring[183].

Root - cooked. There is not much of it but it can be cut up and added to soups[K].

Medicinal Uses

Disclaimer

Antiarthritic; Aperient; Carminative; Diuretic; Emmenagogue; Galactogogue; Nervine; Stimulant; Tonic.

Although not as medicinally active as wild celery, the cultivated forms of celery also have the same medicinal properties and, when used as an item of the diet, will have a similar effect upon the body. These medicinal uses are as follows:-

Wild celery is an aromatic bitter tonic herb that reduces blood pressure, relieves indigestion, stimulates the uterus and is anti-inflammatory[238].

The ripe seeds, herb and root are aperient, carminative, diuretic, emmenagogue, galactogogue, nervine, stimulant and tonic[4, 7, 21, 165]. Wild celery is said to be useful in cases of hysteria, promoting restfulness and sleep and diffusing through the system a mild sustaining influence[4]. The herb should not be prescribed for pregnant women[238]. Seeds purchased for cultivation purposes are often dressed with a fungicide, they should not be used for medicinal purposes[238].

The root is harvested in the autumn and can be used fresh or dried[238]. The whole plant is harvested when fruiting and is usually liquidized to extract the juice[238]. The seeds are harvested as they ripen and are dried for later use[238].

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A homeopathic remedy is made from the herb[9]. It is used in treating rheumatism and kidney complaints[9].

Other Uses

Repellent.

The growing plant is an insect repellent, it repels the cabbage white butterfly so is a good companion for brassicas[20].

Cultivation details

Prefers a rich light moist soil with some shade in summer[1, 16, 27, 37]. Prefers a sunny position and a pH between 6.6 and 6.8[200]. Tolerates a pH in the range 4.2 to 8.3.

Plants grow best in a climate with a mean temperature in the range 16 - 21°c, leaf growth is poor at higher temperatures, low temperatures can induce the plant to run to seed prematurely. Plants with 5 or more true leaves will flower following exposure to temperatures between 5 - 10°c for 10 days or more[200].

Celery is commonly cultivated in many regions of the world, mainly for its edible leaf stalks. There are many named varieties and these can supply fresh stalks from late summer to spring[46, 183]. There are two basic types of celery. Those grown for summer and autumn harvesting are called 'self-blanching' - the stems do not need to be blanched in order to be eaten, though they are usually grown quite closely together which tends to exclude quite a bit of light. Those cultivars harvested in the winter and spring tend to have bitter-tasting stems unless these are blanched by excluding light.

A good companion for leeks, tomatoes, French beans and brassicas[18, 201].

Propagation

Seed - germination can be erratic and the seed is best surface sow February in a greenhouse. The maincrop can be sown as late as mid-April. Outdoor sown seed rarely germinates satisfactorily[200]. Germinates in 2 - 3 weeks at 15°c. Plant out in May. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Apium graveolens dulce*

Subject:

Apium graveolens dulce

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Apium graveolens dulce

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Apium graveolens rapaceum

Common name:	Celeriac	Family:	Umbelliferae
Author:	(Mill.) Gaudich.	Botanical references:	200
Synonyms:	Apium rapaceum (Mill.)		
Known Hazards:	If the plant is infected with the fungus Sclerotinia sclerotiorum, skin contact with the sap can cause dermatitis in sensitive people[65].		
Range:	A cultivated form of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. graveolens var. rapaceum[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Celeriac [P,H],
Epithets:	From a Dictionary of Botanical Epithets
	graveolens = strong smelling; rapa = turnip (like); rapaceum = turnip like;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Biennial growing to 0.6m. It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaves - used as a flavouring in soups etc[200]. They can be eaten raw but have a very strong flavour[52].

Seed - a flavouring. An essential oil from the seed is also used as a flavouring.

Root - raw or cooked[27, 33, 52]. It can be grated and added to salads, baked or added to soups, stews etc[183].

Medicinal Uses

Disclaimer

Aperient; Carminative; Diuretic; Emmenagogue; Galactogogue; Nervine; Stimulant; Tonic.

Although not as medicinally active as wild celery, the cultivated forms of celery also have the same medicinal properties and, when used as an item of the diet, will have a similar effect upon the body. These medicinal uses are as follows:-

Wild celery is an aromatic bitter tonic herb that reduces blood pressure, relieves indigestion, stimulates the uterus and is anti-inflammatory[238].

The ripe seeds, herb and root are aperient, carminative, diuretic, emmenagogue, galactogogue, nervine, stimulant and tonic[4, 7, 21, 165]. Wild celery is said to be useful in cases of hysteria, promoting restfulness and sleep and diffusing through the system a mild sustaining influence[4]. The herb should not be prescribed for pregnant women[238]. Seeds purchased for cultivation purposes are often dressed with a fungicide, they should not be used for medicinal purposes[238].

The root is harvested in the autumn and can be used fresh or dried[238]. The whole plant is harvested when fruiting and is usually liquidized to extract the juice[238]. The seeds are harvested as they ripen and are dried for later use[238].

An essential oil obtained from the plant has a calming effect on the central nervous system. Some of its constituents have antispasmodic, sedative and anticonvulsant actions. It has been shown to be of value in treating high blood pressure[254].

A homeopathic remedy is made from the herb[9]. It is used in treating rheumatism and kidney complaints[9].

Other Uses

The growing plant is an insect repellent, it repels the cabbage white butterfly so is a good companion for brassicas[20].

Cultivation details

Prefers a rich moist soil and an open sunny situation[1, 27, 33, 52]. Requires abundant moisture in the growing season otherwise the root will be small and tough[1]. Tolerates a pH in the range 5.2 to 8.3.

The root is hardy to about -12°c and can be left in the ground over winter, to be harvested as required[200]. Roots can also be stored in boxes of sand or other such material in a cool dry shed[200].

Celeriac is a form of A. graveolens that has been selected for its enlarged edible root. It is occasionally cultivated commercially but more often in the garden or allotment[46, 200], there are some named varieties[183]. Any side-shoots should be removed in order to encourage a larger root[200].

A good companion plant for leeks, tomatoes, French beans and brassicas[18].

Propagation

Seed - surface sow February in a greenhouse. The maincrop can be sown as late as mid-April. Germinates in 2 - 3 weeks at 15°c. Plant out in May. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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Web References

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See the PFAF Links Pages for other sources

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References

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[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
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Plants For A Future: Database Search Results

Apium graveolens rapaceum

Common name:	Celeriac	Family:	Umbelliferae
Author:	(Mill.) Gaudich.	Botanical references:	200
Synonyms:	Apium rapaceum (Mill.)		
Known Hazards:	If the plant is infected with the fungus Sclerotinia sclerotiorum, skin contact with the sap can cause dermatitis in sensitive people[65].		
Range:	A cultivated form of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. graveolens var. rapaceum[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Celeriac [P,H],
Epithets:	From a Dictionary of Botanical Epithets
	graveolens = strong smelling; rapa = turnip (like); rapaceum = turnip like;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Biennial growing to 0.6m. It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaves - used as a flavouring in soups etc[200]. They can be eaten raw but have a very strong flavour[52].

Seed - a flavouring. An essential oil from the seed is also used as a flavouring.

Root - raw or cooked[27, 33, 52]. It can be grated and added to salads, baked or added to soups, stews etc[183].

Medicinal Uses

Disclaimer

Aperient; Carminative; Diuretic; Emmenagogue; Galactogogue; Nervine; Stimulant; Tonic.

Although not as medicinally active as wild celery, the cultivated forms of celery also have the same medicinal properties and, when used as an item of the diet, will have a similar effect upon the body. These medicinal uses are as follows:-

Wild celery is an aromatic bitter tonic herb that reduces blood pressure, relieves indigestion, stimulates the uterus and is anti-inflammatory[238].

The ripe seeds, herb and root are aperient, carminative, diuretic, emmenagogue, galactogogue, nervine, stimulant and tonic[4, 7, 21, 165]. Wild celery is said to be useful in cases of hysteria, promoting restfulness and sleep and diffusing through the system a mild sustaining influence[4]. The herb should not be prescribed for pregnant women[238]. Seeds purchased for cultivation purposes are often dressed with a fungicide, they should not be used for medicinal purposes[238].

The root is harvested in the autumn and can be used fresh or dried[238]. The whole plant is harvested when fruiting and is usually liquidized to extract the juice[238]. The seeds are harvested as they ripen and are dried for later use[238].

An essential oil obtained from the plant has a calming effect on the central nervous system. Some of its constituents have antispasmodic, sedative and anticonvulsant actions. It has been shown to be of value in treating high blood pressure[254].

A homeopathic remedy is made from the herb[9]. It is used in treating rheumatism and kidney complaints[9].

Other Uses

The growing plant is an insect repellent, it repels the cabbage white butterfly so is a good companion for brassicas[20].

Cultivation details

Prefers a rich moist soil and an open sunny situation[1, 27, 33, 52]. Requires abundant moisture in the growing season otherwise the root will be small and tough[1]. Tolerates a pH in the range 5.2 to 8.3.

The root is hardy to about -12°c and can be left in the ground over winter, to be harvested as required[200]. Roots can also be stored in boxes of sand or other such material in a cool dry shed[200].

Celeriac is a form of A. graveolens that has been selected for its enlarged edible root. It is occasionally cultivated commercially but more often in the garden or allotment[46, 200], there are some named varieties[183]. Any side-shoots should be removed in order to encourage a larger root[200].

A good companion plant for leeks, tomatoes, French beans and brassicas[18].

Propagation

Seed - surface sow February in a greenhouse. The maincrop can be sown as late as mid-April. Germinates in 2 - 3 weeks at 15°c. Plant out in May. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Apium graveolens var. rapaceum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Range:	A cultivated form of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

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Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Biennial growing to 0.6m. It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed.

Leaves - used as a flavouring in soups etc[200]. They can be eaten raw but have a very strong flavour[52].

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Medicinal Uses

Disclaimer

Aperient; Carminative; Diuretic; Emmenagogue; Galactogogue; Nervine; Stimulant; Tonic.

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A good companion plant for leeks, tomatoes, French beans and brassicas[18].

Propagation

Seed - surface sow February in a greenhouse. The maincrop can be sown as late as mid-April. Germinates in 2 - 3 weeks at 15°c. Plant out in May. The seed can harbour certain diseases of celery, it is usually treated by seed companies before being sold but if you save your own seed you should make sure that only seed from healthy plants is used[1].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Apium graveolens rapaceum*

Subject:

Apium graveolens rapaceum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Apium graveolens rapaceum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 04:01:55 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Aralia nudicaulis

Common name:	Wild sarsaparilla	Family:	Araliaceae
Author:	L.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	None known		
Range:	N. America - Newfoundland to Manitoba, south to N. Carolina and Missouri.		
Habitat:	Moist, shady, rocky woods[4, 21].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. medicaulis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	&quot;Sarsaparilla&quot;, American [S], American &quot;Sarsaparilla&quot; [S], American Sarsaparilla [H], Bamboo Brier [H], Shot Bush [H], Spikenard [E], Spikenard, Spreading [S], Wild &quot;Sarsaparilla&quot; [S], Wild Liquorice [H], Wild Sarsaparilla [L,FEIS,H,P,B], Yabani Saparna [E],
Epithets:	From a Dictionary of Botanical Epithets
	nudicaulis = bare stem;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Ginseng family
Other Range Info:	From the Ethnobotany Database

	Canada(Kwakiutl); Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

Perennial growing to 0.4m by 0.3m . It is hardy to zone 4 and is frost tender. It is in flower in June, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Fruit; Leaves; Root; Tea.

The rootstock is used as a flavouring[102], it is a substitute for sarsaparilla[43] and is also used for making 'root beer'[183]. It is also used as an emergency food[177] (usually mixed with oil[257]), having a sweet spicy taste and a pleasant aromatic smell[4]. A nutritious food[207], it was used by the Indians during wars or when they were hunting since it is very sustaining[213].

Young shoots - cooked as a potherb[207].

A refreshing herbal tea is made from the root[183]. Pleasantly flavoured[222, 238]. The roots are boiled in water until the water is reddish-brown[256].

A jelly is made from the fruit[207]. The fruit is also used to make wine[257]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Alterative; Diaphoretic; Diuretic; Homeopathy; Pectoral; Stimulant.

Wild sarsaparilla is a sweet pungent tonic herb that acts as an alterative. It had a wide range of traditional uses amongst the North American Indians and was at one time widely used as a substitute for the tropical medicinal herb sarsaparilla[222, 257].

The root is alterative, diaphoretic, diuretic, pectoral and stimulant[4, 21, 213, 222]. The herb encourages sweating, is stimulating and detoxifying and so is used internally in the treatment of pulmonary diseases, asthma, rheumatism, stomach aches etc[4, 213, 238, 254, 257]. Externally it is used as a poultice in treating rheumatism, sores, burns, itchy skin, ulcers and skin problems such as eczema[4, 222, 254]. The root is collected in late summer and the autumn and dried for later use[4, 213].

A drink made from the pulverised roots is used as a cough treatment[213].

A poultice made from the roots and/or the fruit is applied to sores, burns, itchy skin, ulcers, swellings etc[213, 222].

A homeopathic remedy made from the roots is important in the treatment of cystitis[238].

Other Uses

None known

Cultivation details

Prefers a good deep loam and a semi-shady position[1, 134]. Requires a sheltered position[1].

Plants are hardier when grown in poorer soils[200].

The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Propagation

Seed - best sown as soon as ripe in a cold frame. Stored seed requires 3 - 5 months of cold stratification. Germination usually takes place within 1 - 4 months at 20°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in a greenhouse for at least their first winter. Once the plants are 25cm or more tall, they can be planted out into their permanent positions, late spring or early summer being the best time to do this.

Root cuttings 8cm long, December in a cold frame[11, 78]. Store the roots upside down in sand and pot up in March/April. High percentage[78].

Division of suckers in late winter[11]. Very easy, the suckers can be planted out direct into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aralia medicaulis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Araliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal*. Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[256] **Turner. N. J.** *Food Plants of Coastal First Peoples* UBC Press. Vancouver. 1995 ISBN 0-7748-0533-1
Excellent little handbook about the native food plants of Western Canada. Good descriptions of the plants and their uses with colour photos of most plants.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Aralia nudicaulis

Common name:	Wild sarsaparilla	Family:	Araliaceae
Author:	L.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	None known		
Range:	N. America - Newfoundland to Manitoba, south to N. Carolina and Missouri.		
Habitat:	Moist, shady, rocky woods[4, 21].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. medicaulis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	&quot;Sarsaparilla&quot;, American [S], American &quot;Sarsaparilla&quot; [S], American Sarsaparilla [H], Bamboo Brier [H], Shot Bush [H], Spikenard [E], Spikenard, Spreading [S], Wild &quot;Sarsaparilla&quot; [S], Wild Liquorice [H], Wild Sarsaparilla [L,FEIS,H,P,B], Yabani Saparna [E],
Epithets:	From a Dictionary of Botanical Epithets
	nudicaulis = bare stem;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Ginseng family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

Perennial growing to 0.4m by 0.3m . It is hardy to zone 4 and is frost tender. It is in flower in June, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Fruit; Leaves; Root; Tea.

The rootstock is used as a flavouring[102], it is a substitute for sarsaparilla[43] and is also used for making 'root beer'[183]. It is also used as an emergency food[177] (usually mixed with oil[257]), having a sweet spicy taste and a pleasant aromatic smell[4]. A nutritious food[207], it was used by the Indians during wars or when they were hunting since it is very sustaining[213].

Young shoots - cooked as a potherb[207].

A refreshing herbal tea is made from the root[183]. Pleasantly flavoured[222, 238]. The roots are boiled in water until the water is reddish-brown[256].

A jelly is made from the fruit[207]. The fruit is also used to make wine[257]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Alterative; Diaphoretic; Diuretic; Homeopathy; Pectoral; Stimulant.

Wild sarsaparilla is a sweet pungent tonic herb that acts as an alterative. It had a wide range of traditional uses amongst the North American Indians and was at one time widely used as a substitute for the tropical medicinal herb sarsaparilla[222, 257].

The root is alterative, diaphoretic, diuretic, pectoral and stimulant[4, 21, 213, 222]. The herb encourages sweating, is stimulating and detoxifying and so is used internally in the treatment of pulmonary diseases, asthma, rheumatism, stomach aches etc[4, 213, 238, 254, 257]. Externally it is used as a poultice in treating rheumatism, sores, burns, itchy skin, ulcers and skin problems such as eczema[4, 222, 254]. The root is collected in late summer and the autumn and dried for later use[4, 213].

A drink made from the pulverised roots is used as a cough treatment[213].

A poultice made from the roots and/or the fruit is applied to sores, burns, itchy skin, ulcers, swellings etc[213, 222].

A homeopathic remedy made from the roots is important in the treatment of cystitis[238].

Other Uses

None known

Cultivation details

Prefers a good deep loam and a semi-shady position[1, 134]. Requires a sheltered position[1].

Plants are hardier when grown in poorer soils[200].

The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Propagation

Seed - best sown as soon as ripe in a cold frame. Stored seed requires 3 - 5 months of cold stratification. Germination usually takes place within 1 - 4 months at 20°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in a greenhouse for at least their first winter. Once the plants are 25cm or more tall, they can be planted out into their permanent positions, late spring or early summer being the best time to do this.

Root cuttings 8cm long, December in a cold frame[11, 78]. Store the roots upside down in sand and pot up in March/April. High percentage[78].

Division of suckers in late winter[11]. Very easy, the suckers can be planted out direct into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Aralia medicaulis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Araliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950

A bit dated but good and concise flora of the eastern part of N. America.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
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[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

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Plants For A Future: Database Search Results

Aralia nudicaulis

Common name:	Wild sarsaparilla	Family:	Araliaceae
Author:	L.	Botanical references:	60, 200
Synonyms:			
Known Hazards:	None known		
Range:	N. America - Newfoundland to Manitoba, south to N. Carolina and Missouri.		
Habitat:	Moist, shady, rocky woods[4, 21].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. medicaulis[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	&quot;Sarsaparilla&quot;, American [S], American &quot;Sarsaparilla&quot; [S], American Sarsaparilla [H], Bamboo Brier [H], Shot Bush [H], Spikenard [E], Spikenard, Spreading [S], Wild &quot;Sarsaparilla&quot; [S], Wild Liquorice [H], Wild Sarsaparilla [L,FEIS,H,P,B], Yabani Saparna [E],
Epithets:	From a Dictionary of Botanical Epithets
	nudicaulis = bare stem;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Ginseng family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

Perennial growing to 0.4m by 0.3m . It is hardy to zone 4 and is frost tender. It is in flower in June, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Fruit; Leaves; Root; Tea.

The rootstock is used as a flavouring[102], it is a substitute for sarsaparilla[43] and is also used for making 'root beer'[183]. It is also used as an emergency food[177] (usually mixed with oil[257]), having a sweet spicy taste and a pleasant aromatic smell[4]. A nutritious food[207], it was used by the Indians during wars or when they were hunting since it is very sustaining[213].

Young shoots - cooked as a potherb[207].

A refreshing herbal tea is made from the root[183]. Pleasantly flavoured[222, 238]. The roots are boiled in water until the water is reddish-brown[256].

A jelly is made from the fruit[207]. The fruit is also used to make wine[257]. The fruit is about 6mm in diameter[200].

Medicinal Uses

Disclaimer

Alterative; Diaphoretic; Diuretic; Homeopathy; Pectoral; Stimulant.

Wild sarsaparilla is a sweet pungent tonic herb that acts as an alterative. It had a wide range of traditional uses amongst the North American Indians and was at one time widely used as a substitute for the tropical medicinal herb sarsaparilla[222, 257].

The root is alterative, diaphoretic, diuretic, pectoral and stimulant[4, 21, 213, 222]. The herb encourages sweating, is stimulating and detoxifying and so is used internally in the treatment of pulmonary diseases, asthma, rheumatism, stomach aches etc[4, 213, 238, 254, 257]. Externally it is used as a poultice in treating rheumatism, sores, burns, itchy skin, ulcers and skin problems such as eczema[4, 222, 254]. The root is collected in late summer and the autumn and dried for later use[4, 213].

A drink made from the pulverised roots is used as a cough treatment[213].

A poultice made from the roots and/or the fruit is applied to sores, burns, itchy skin, ulcers, swellings etc[213, 222].

A homeopathic remedy made from the roots is important in the treatment of cystitis[238].

Other Uses

None known

Cultivation details

Prefers a good deep loam and a semi-shady position[1, 134]. Requires a sheltered position[1].

Plants are hardier when grown in poorer soils[200].

The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Propagation

Seed - best sown as soon as ripe in a cold frame. Stored seed requires 3 - 5 months of cold stratification. Germination usually takes place within 1 - 4 months at 20°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in a greenhouse for at least their first winter. Once the plants are 25cm or more tall, they can be planted out into their permanent positions, late spring or early summer being the best time to do this.

Root cuttings 8cm long, December in a cold frame[11, 78]. Store the roots upside down in sand and pot up in March/April. High percentage[78].

Division of suckers in late winter[11]. Very easy, the suckers can be planted out direct into their permanent positions if required.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Aralia nudicaulis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aralia nudicaulis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Aralia racemosa

Common name:	American spikenard	Family:	Araliaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Georgia, west to Kansas and Minnesota.		
Habitat:	Rich woodlands and thickets[21, 43].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Spikenard [B,S,H,P], Indian Nard [H], Indian Spikenard [H], Spikenard [S,L], Spikenard, American [S], Syrian Nard [H], Yabani Saparna [E],
Epithets:	From a Dictionary of Botanical Epithets
	racemosa = with racemes;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Ginseng family
Other Range Info:	From the Ethnobotany Database
	Mexico; Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

Perennial growing to 1.8m by 1.2m . It is hardy to zone 4 and is frost tender. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Fruit; Leaves; Root.

Young shoot tips - cooked[161]. Used as a potherb[207] or as a flavouring in soups[257].

Root - cooked. Large and spicy, it is used in soups[43, 105, 161, 177]. Pleasantly aromatic, imparting a liquorice-like flavour[183]. A substitute for sarsaparilla (Smilax spp.)[200], it is also used in making 'root beer'[183].

Fruit - raw or cooked[207]. Pleasant and wholesome to eat[207]. They can be made into a jelly[183, 207]. The fruit is about 4mm in diameter[200].

Medicinal Uses

Disclaimer

Alterative; Antirheumatic; Diaphoretic; Expectorant; Poultice; Skin; Stimulant.

American spikenard is a sweet pungent tonic herb that is often used in modern herbalism where it acts as an alterative[238]. It had a wide range of traditional uses amongst the North American Indians and was at one time widely used as a substitute for the tropical medicinal herb sarsaparilla[222, 257].

The root is alterative, diaphoretic, diuretic, pectoral and stimulant[4, 21, 46, 222]. The herb encourages sweating, is stimulating and detoxifying and so is used internally in the treatment of pulmonary diseases, asthma, rheumatism etc[4, 213, 238, 254]. Externally it is used as a poultice in treating rheumatism and skin problems such as eczema[4, 213, 238, 254]. The root is collected in late summer and the autumn and dried for later use[4, 213].

A drink made from the pulverised roots is used as a cough treatment[213].

A poultice made from the roots and/or the fruit is applied to sores, burns, itchy skin, ulcers, swellings etc[213, 222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in sun or part shade in any fertile soil[233]. Prefers a good deep loam and a semi-shady position[1, 111, 134]. Requires a sheltered position[1]. Plants are hardier when grown in poorer soils[200].

The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Grows well by water[111].

Propagation

Seed - best sown as soon as ripe in a cold frame. Stored seed requires 3 - 5 months of cold stratification. Germination usually takes place within 1 - 4 months at 20°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in a greenhouse for at least their first winter. Once the plants are 25cm or more tall, they can be planted out into their permanent positions, late spring or early summer being the best time to do this.

Root cuttings 8cm long, December in a cold frame[11, 78]. Store the roots upside down in sand and pot up in March/April. High percentage[78].

Division of suckers in late winter[11]. Very easy, the suckers can be planted out direct into their permanent positions if required.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [S]
- [S]
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Araliaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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Plants For A Future: Database Search Results

Aralia racemosa

Common name:	American spikenard	Family:	Araliaceae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Quebec to Georgia, west to Kansas and Minnesota.		
Habitat:	Rich woodlands and thickets[21, 43].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Spikenard [B,S,H,P], Indian Nard [H], Indian Spikenard [H], Spikenard [S,L], Spikenard, American [S], Syrian Nard [H], Yabani Saparna [E],
Epithets:	From a Dictionary of Botanical Epithets
	racemosa = with racemes;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Ginseng family
Other Range Info:	From the Ethnobotany Database
	Mexico; Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

Perennial growing to 1.8m by 1.2m . It is hardy to zone 4 and is frost tender. It is in flower in June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Fruit; Leaves; Root.

Young shoot tips - cooked[161]. Used as a potherb[207] or as a flavouring in soups[257].

Root - cooked. Large and spicy, it is used in soups[43, 105, 161, 177]. Pleasantly aromatic, imparting a liquorice-like flavour[183]. A substitute for sarsaparilla (Smilax spp.)[200], it is also used in making 'root beer'[183].

Fruit - raw or cooked[207]. Pleasant and wholesome to eat[207]. They can be made into a jelly[183, 207]. The fruit is about 4mm in diameter[200].

Medicinal Uses

Disclaimer

Alterative; Antirheumatic; Diaphoretic; Expectorant; Poultice; Skin; Stimulant.

American spikenard is a sweet pungent tonic herb that is often used in modern herbalism where it acts as an alterative[238]. It had a wide range of traditional uses amongst the North American Indians and was at one time widely used as a substitute for the tropical medicinal herb sarsaparilla[222, 257].

The root is alterative, diaphoretic, diuretic, pectoral and stimulant[4, 21, 46, 222]. The herb encourages sweating, is stimulating and detoxifying and so is used internally in the treatment of pulmonary diseases, asthma, rheumatism etc[4, 213, 238, 254]. Externally it is used as a poultice in treating rheumatism and skin problems such as eczema[4, 213, 238, 254]. The root is collected in late summer and the autumn and dried for later use[4, 213].

A drink made from the pulverised roots is used as a cough treatment[213].

A poultice made from the roots and/or the fruit is applied to sores, burns, itchy skin, ulcers, swellings etc[213, 222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

An easily grown plant, succeeding in sun or part shade in any fertile soil[233]. Prefers a good deep loam and a semi-shady position[1, 111, 134]. Requires a sheltered position[1]. Plants are hardier when grown in poorer soils[200].

The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Grows well by water[111].

Propagation

Seed - best sown as soon as ripe in a cold frame. Stored seed requires 3 - 5 months of cold stratification. Germination usually takes place within 1 - 4 months at 20°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in a greenhouse for at least their first winter. Once the plants are 25cm or more tall, they can be planted out into their permanent positions, late spring or early summer being the best time to do this.

Root cuttings 8cm long, December in a cold frame[11, 78]. Store the roots upside down in sand and pot up in March/April. High percentage[78].

Division of suckers in late winter[11]. Very easy, the suckers can be planted out direct into their permanent positions if required.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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Habitat:	Rich woodlands and thickets[21, 43].		
Plants For A Future Rating (1-5):	4		

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Systematics:	From a UDSA Plants Database
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Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aralia racemosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Armoracia rusticana

Common name:	Horseradish	Family:	Cruciferae
Author:	Gaertn. Mey. & Scherb.	Botanical references:	200
Synonyms:	Rorippa armoracia ((L.)Hitchc.), Nasturtium armoracia ((L.)Fr.), Cochlearia armoracia (L.), Armoracia lapathifolia (Gilib. ex Usteri.)		
Known Hazards:	Large quantities of this plant can be poisonous due to its content of volatile oils[76].		
Range:	Europe. Naturalized in Britain[17].		
Habitat:	Arable land, waste ground and by streams[9], favouring slightly damp positions[165].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. armoracia[B,P] Cochlearia macrocarpa[H] Radicula armoracia[B,G,P] Raphanus rusticanus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bayirturpu [E], Great Raifort [H], Horse-radish [L,B], Horseradish [H,P,E], Mierik [D], Mountain Radish [H], Rabano Rusticana [E], Red Cole [H], Wild Horseradish [H],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs; rusticana = in the country; rustica = of the country;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database

	Spain; Sweden; Turkey; Us

Physical Characteristics

Perennial growing to 0.7m by 0.75m . It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Bohemian'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Hybrid'**: Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves; Root; Seed.

Young root - raw or cooked. The grated root is used to make the condiment 'Horseradish sauce'[2, 9, 13, 14, 27, 33, 34, 52], this has a hot mustard-like flavour[100]. The sauce is best used uncooked or gently warmed, heating it will destroy the volatile oils that are responsible for its pungency[238]. It is said that in Germany the roots are sliced and cooked like parsnips[183] - rather them than me![K]. The root is a rich source of sulphur[201]. Fresh roots contain the glycoside sinigrin - this is decomposed in the presence of water by the enzyme myrosin, producing mustard oil which gives the root its hot flavour[268]. The fleshy roots can be up to 60cm long and 5cm thick[268]. The plant is fully hardy and can be left in the ground all winter to be harvested as required[4]. Alternatively, the roots can be harvested in early winter and stored for later use, they will retain their juicy state for some time if stored in dry sand[4].

Young leaves - raw or cooked[2, 9, 14, 177]. A very strong flavour, though nice when added in small quantities to the salad bowl[183, K]. A pleasant mild flavour according to another report[238].

Seeds - sprouted and eaten in salads[183].

Medicinal Uses

Disclaimer

Antibacterial; Antiseptic; Aperient; Digestive; Diuretic; Expectorant; Rubefacient; Stimulant.

Horseradish is a very pungent stimulant herb that controls bacterial infections and can be used both internally and externally[238]. The plant is a powerful stimulant, whether used internally as a spur for the digestive system or externally as a rubefacient[4]. It should not be used internally by people with stomach ulcers or thyroid problems[238].

The roots are antiseptic, aperient, digestive, diuretic, expectorant, rubefacient and stimulant[4, 13, 14, 165, 171, 222]. They should be used in their fresh state[4]. An infusion is used in the treatment of colds, fevers and flu and is of value in the treatment of respiratory and urinary tract infections[254]. A sandwich of the freshly grated root is a traditional remedy for hay fever[254].

A tea made from the root is weakly diuretic, antiseptic and expectorant[222].

The plant is antibiotic against gram-negative and gram-positive bacteria and also pathogenic fungi[222, 240]. It is experimentally antitumor[222].

Externally, a poultice made from the roots is used to treat pleurisy, arthritis and infected wounds[238]. It will also relieve the pain of chilblains[244]. Some caution should be employed, however, because it can cause blistering[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fungicide; Repellent.

Horseradish tea is effective against brown rot of apples and other fungicidal diseases[18, 201].

The growing plant deters potato eelworm[14].

Cultivation details

A very easily grown plant, horseradish prefers a good deep moist well-drained soil and a sunny position[16, 27, 33, 200]. Plants require a good soil if they are to produce good roots[4], though once established they are very tolerant of neglect and will continue to produce a crop for many years[264, K]. Plants do not thrive if they are in the shade of trees[264]. Excess nitrogen causes heavy top growth and forking of the roots[200]. Prefers a wet clay soil according to one report[14], whilst another says that it will not grow in wet clay[16]. Tolerates a pH in the range 5.8 to 8.3.

Horseradish has long been cultivated for its root which is used as a food flavouring and medicinally, there are some named varieties[4, 17, 61, 183]. If the roots are given some protection they will produce fresh young leaves for the salad bowl all through the winter. Digging up some roots and putting them into a greenhouse for the winter is the easiest method. If the young shoots are blanched they will produce white, tender, sweet leaves[183].

A very invasive plant[33], it is considered to be a pernicious weed in some areas[200]. Even quite small sections of root will regrow if they are left in the soil[4]. The plant has yet to prove invasive on our Cornwall trial grounds, though it has survived and even prospered in a very overgrown site[K].

The forms of this plant grown in gardens are almost sterile and seldom produce good seed[264].

This is a good companion plant for potatoes since it is said to deter potato eelworm[14, 18, 201] and the Colorado beetle[238]. One plant at each corner of the potato patch is quite sufficient[201]. When grown under apple trees it is said to prevent brown rot, powdery mildew and other fungal diseases[201].

Propagation

Seed - this is seldom produced on plants in cultivation[200]. If seed is obtained then it is best sown in situ during the spring[238].

Division is very easy and can be carried out at almost any time of the year, though it is probably best in spring[33]. It s best to use sections of root about 20cm long, which can be planted out into their permanent positions in February or March, though even very small bits of root will grow away[4, 264]. Division should be carried out at least once every three years or the crop will deteriorate[4].

Cultivars

'Maliner Kren'

A vigorous grower, producing large white roots[183]. It is earlier, larger and whiter than the standard type[183].

'Hybrid'

An outstanding hybrid form with superior disease resistance, smoother roots and larger yields[183].

'Bohemian' 'Bohemian Giant'

A hardy, easy to grow cultivar that produces large white roots of superior quality[183].

'Big Top'

A vigorous form that is suitable for most sites and is resistant to foliage diseases, rust and bacteria spot[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Armoracia rusticana* (Horseradish)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Armoracia lapathifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Cochlearia armoracia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
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References for *armoracia rusticana* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World*. Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal*. Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants*. Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants*. Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs*. Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[16] **Simons.** *New Vegetable Growers Handbook*. Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles*. Cambridge University Press 1962

A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Armoracia+rusticana`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Armoracia+rusticana`

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Plants For A Future: Database Search Results

Armoracia rusticana

Common name:	Horseradish	Family:	Cruciferae
Author:	Gaertn. Mey. & Scherb.	Botanical references:	200
Synonyms:	Rorippa armoracia ((L.)Hitchc.), Nasturtium armoracia ((L.)Fr.), Cochlearia armoracia (L.), Armoracia lapathifolia (Gilib. ex Usteri.)		
Known Hazards:	Large quantities of this plant can be poisonous due to its content of volatile oils[76].		
Range:	Europe. Naturalized in Britain[17].		
Habitat:	Arable land, waste ground and by streams[9], favouring slightly damp positions[165].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. armoracia[B,P] Cochlearia macrocarpa[H] Radicula armoracia[B,G,P] Raphanus rusticanus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bayirturpu [E], Great Raifort [H], Horse-radish [L,B], Horseradish [H,P,E], Mierik [D], Mountain Radish [H], Rabano Rusticana [E], Red Cole [H], Wild Horseradish [H],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs; rusticana = in the country; rustica = of the country;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Spain; Sweden; Turkey; Us

Physical Characteristics

Perennial growing to 0.7m by 0.75m . It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Bohemian'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Hybrid'**: Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves; Root; Seed.

Young root - raw or cooked. The grated root is used to make the condiment 'Horseradish sauce'[2, 9, 13, 14, 27, 33, 34, 52], this has a hot mustard-like flavour[100]. The sauce is best used uncooked or gently warmed, heating it will destroy the volatile oils that are responsible for its pungency[238]. It is said that in Germany the roots are sliced and cooked like parsnips[183] - rather them than me![K]. The root is a rich source of sulphur[201]. Fresh roots contain the glycoside sinigrin - this is decomposed in the presence of water by the enzyme myrosin, producing mustard oil which gives the root its hot flavour[268]. The fleshy roots can be up to 60cm long and 5cm thick[268]. The plant is fully hardy and can be left in the ground all winter to be harvested as required[4]. Alternatively, the roots can be harvested in early winter and stored for later use, they will retain their juicy state for some time if stored in dry sand[4].

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Seeds - sprouted and eaten in salads[183].

Medicinal Uses

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Horseradish is a very pungent stimulant herb that controls bacterial infections and can be used both internally and externally[238]. The plant is a powerful stimulant, whether used internally as a spur for the digestive system or externally as a rubefacient[4]. It should not be used internally by people with stomach ulcers or thyroid problems[238].

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Other Uses

Fungicide; Repellent.

Horseradish tea is effective against brown rot of apples and other fungicidal diseases[18, 201].

The growing plant deters potato eelworm[14].

Cultivation details

A very easily grown plant, horseradish prefers a good deep moist well-drained soil and a sunny position[16, 27, 33, 200]. Plants require a good soil if they are to produce good roots[4], though once established they are very tolerant of neglect and will continue to produce a crop for many years[264, K]. Plants do not thrive if they are in the shade of trees[264]. Excess nitrogen causes heavy top growth and forking of the roots[200]. Prefers a wet clay soil according to one report[14], whilst another says that it will not grow in wet clay[16]. Tolerates a pH in the range 5.8 to 8.3.

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Propagation

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Division is very easy and can be carried out at almost any time of the year, though it is probably best in spring[33]. It s best to use sections of root about 20cm long, which can be planted out into their permanent positions in February or March, though even very small bits of root will grow away[4, 264]. Division should be carried out at least once every three years or the crop will deteriorate[4].

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lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Armoracia rusticana* (Horseradish)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF Plant Catalogue (A)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[76] **Cooper. M. and Johnson. A.** *Poisonous Plants in Britain and their Effects on Animals and Man.* HMSO 1984 ISBN 0112425291
Concentrates mainly on the effects of poisonous plants to livestock.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Armoracia+rusticana`
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Plants For A Future: Database Search Results

Armoracia rusticana

Common name:	Horseradish	Family:	Cruciferae
Author:	Gaertn. Mey. & Scherb.	Botanical references:	200
Synonyms:	Rorippa armoracia ((L.)Hitchc.), Nasturtium armoracia ((L.)Fr.), Cochlearia armoracia (L.), Armoracia lapathifolia (Gilib. ex Usteri.)		
Known Hazards:	Large quantities of this plant can be poisonous due to its content of volatile oils[76].		
Range:	Europe. Naturalized in Britain[17].		
Habitat:	Arable land, waste ground and by streams[9], favouring slightly damp positions[165].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. armoracia[B,P] Cochlearia macrocarpa[H] Radicula armoracia[B,G,P] Raphanus rusticanus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bayirturpu [E], Great Raifort [H], Horse-radish [L,B], Horseradish [H,P,E], Mierik [D], Mountain Radish [H], Rabano Rusticana [E], Red Cole [H], Wild Horseradish [H],
Epithets:	From a Dictionary of Botanical Epithets
	cana = grayed due to hairs; rusticana = in the country; rustica = of the country;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Spain; Sweden; Turkey; Us

Physical Characteristics

Perennial growing to 0.7m by 0.75m . It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Cultivar **'Bohemian'**: Woodland, Sunny Edge, Dappled Shade.
Cultivar **'Hybrid'**: Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves; Root; Seed.

Young root - raw or cooked. The grated root is used to make the condiment 'Horseradish sauce'[2, 9, 13, 14, 27, 33, 34, 52], this has a hot mustard-like flavour[100]. The sauce is best used uncooked or gently warmed, heating it will destroy the volatile oils that are responsible for its pungency[238]. It is said that in Germany the roots are sliced and cooked like parsnips[183] - rather them than me![K]. The root is a rich source of sulphur[201]. Fresh roots contain the glycoside sinigrin - this is decomposed in the presence of water by the enzyme myrosin, producing mustard oil which gives the root its hot flavour[268]. The fleshy roots can be up to 60cm long and 5cm thick[268]. The plant is fully hardy and can be left in the ground all winter to be harvested as required[4]. Alternatively, the roots can be harvested in early winter and stored for later use, they will retain their juicy state for some time if stored in dry sand[4].

Young leaves - raw or cooked[2, 9, 14, 177]. A very strong flavour, though nice when added in small quantities to the salad bowl[183, K]. A pleasant mild flavour according to another report[238].

Seeds - sprouted and eaten in salads[183].

Medicinal Uses

Disclaimer

Antibacterial; Antiseptic; Aperient; Digestive; Diuretic; Expectorant; Rubefacient; Stimulant.

Horseradish is a very pungent stimulant herb that controls bacterial infections and can be used both internally and externally[238]. The plant is a powerful stimulant, whether used internally as a spur for the digestive system or externally as a rubefacient[4]. It should not be used internally by people with stomach ulcers or thyroid problems[238].

The roots are antiseptic, aperient, digestive, diuretic, expectorant, rubefacient and stimulant[4, 13, 14, 165, 171, 222]. They should be used in their fresh state[4]. An infusion is used in the treatment of colds, fevers and flu and is of value in the treatment of respiratory and urinary tract infections[254]. A sandwich of the freshly grated root is a traditional remedy for hay fever[254].

A tea made from the root is weakly diuretic, antiseptic and expectorant[222].

The plant is antibiotic against gram-negative and gram-positive bacteria and also pathogenic fungi[222, 240]. It is experimentally antitumor[222].

Externally, a poultice made from the roots is used to treat pleurisy, arthritis and infected wounds[238]. It will also relieve the pain of chilblains[244]. Some caution should be employed, however, because it can cause blistering[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Fungicide; Repellent.

Horseradish tea is effective against brown rot of apples and other fungicidal diseases[18, 201].

The growing plant deters potato eelworm[14].

Cultivation details

A very easily grown plant, horseradish prefers a good deep moist well-drained soil and a sunny position[16, 27, 33, 200]. Plants require a good soil if they are to produce good roots[4], though once established they are very tolerant of neglect and will continue to produce a crop for many years[264, K]. Plants do not thrive if they are in the shade of trees[264]. Excess nitrogen causes heavy top growth and forking of the roots[200]. Prefers a wet clay soil according to one report[14], whilst another says that it will not grow in wet clay[16]. Tolerates a pH in the range 5.8 to 8.3.

Horseradish has long been cultivated for its root which is used as a food flavouring and medicinally, there are some named varieties[4, 17, 61, 183]. If the roots are given some protection they will produce fresh young leaves for the salad bowl all through the winter. Digging up some roots and putting them into a greenhouse for the winter is the easiest method. If the young shoots are blanched they will produce white, tender, sweet leaves[183].

A very invasive plant[33], it is considered to be a pernicious weed in some areas[200]. Even quite small sections of root will regrow if they are left in the soil[4]. The plant has yet to prove invasive on our Cornwall trial grounds, though it has survived and even prospered in a very overgrown site[K].

The forms of this plant grown in gardens are almost sterile and seldom produce good seed[264].

This is a good companion plant for potatoes since it is said to deter potato eelworm[14, 18, 201] and the Colorado beetle[238]. One plant at each corner of the potato patch is quite sufficient[201]. When grown under apple trees it is said to prevent brown rot, powdery mildew and other fungal diseases[201].

Propagation

Seed - this is seldom produced on plants in cultivation[200]. If seed is obtained then it is best sown in situ during the spring[238].

Division is very easy and can be carried out at almost any time of the year, though it is probably best in spring[33]. It s best to use sections of root about 20cm long, which can be planted out into their permanent positions in February or March, though even very small bits of root will grow away[4, 264]. Division should be carried out at least once every three years or the crop will deteriorate[4].

Cultivars

'Maliner Kren'

A vigorous grower, producing large white roots[183]. It is earlier, larger and whiter than the standard type[183].

'Hybrid'

An outstanding hybrid form with superior disease resistance, smoother roots and larger yields[183].

'Bohemian' 'Bohemian Giant'

A hardy, easy to grow cultivar that produces large white roots of superior quality[183].

'Big Top'

A vigorous form that is suitable for most sites and is resistant to foliage diseases, rust and bacteria spot[183].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Armoracia rusticana* (Horseradish)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Armoracia rusticana*

Subject:

Armoracia rusticana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Armoracia rusticana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 04:03:18 2004

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Asarum canadense

Common name:	Snake root	Family:	Aristolochiaceae
Author:	L.	Botanical references:	43, 200, 270
Synonyms:			
Known Hazards:	The leaves are poisonous[19]. Handling the leaves is said to cause dermatitis in some people[269].		
Range:	Eastern N. America - Manitoba to New Brunswick, south to N. Carolina and Kansas.		
Habitat:	Moist rich soils in woodlands, usually on calcareous soils[43, 159]. Understorey of deciduous (rarely coniferous) forests from sea level to 1300 metres[270].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. acuminatum[B,P] A. canadense var. acuminatum[B,P] A. canadense var. ambiguum[B,P] A. canadense var. reflexum[B,P] A. reflexum[B,P] A. rubrocinctum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canada Snakeroot [H,S], Canadian Wild Ginger [B], Canadian Wildginger [P], Coltsfoot [H], Ginger Root [H], Ginger, Wild [S], Indian Ginger [H], Kanada Azarumu [E], Snakeroot, Canada Or Black [S], Wild Ginger [H,E,S],
Epithets:	From a Dictionary of Botanical Epithets
	canadense = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database

	Order: Aristolochiales . Birthwort family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Cherokee)

Physical Characteristics

A decidious perennial growing to 0.1m by 0.5m at a slow rate. It is hardy to zone 2. It is in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment.

The underground stem and the flowers are used as a ginger substitute[2, 55, 106, 177, 183]. The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. The root is best harvested in autumn but is available all year round[159]. It can be dried for later use[159].

Medicinal Uses

Disclaimer

Anthelmintic; Antiasthmatic; Antibiotic; Antitumor; Carminative; Contraceptive; Diaphoretic; Diuretic; Expectorant; Irritant; Poultice; Salve; Stimulant; Stomachic; Tonic.

Snake root was widely employed as a medicinal herb by a number of native North American tribes who used it to treat a wide range of ailments[257]. It is still occasionally used in modern herbalism.

The root is anthelmintic, carminative, diaphoretic, diuretic, expectorant, irritant, powerfully stimulant, stomachic and tonic[4, 21, 46, 200, 238, 257]. It is harvested in the autumn and dried for later use[4]. It is used in the treatment of chronic chest complaints, asthma, coughs, colds, dropsy, painful spasms of the bowels and stomach, scant or painful menstruation, infantile convulsions[4, 257]. The fresh leaves are applied as a poultice to wounds and inflammations, whilst a decoction or salve is applied to sores[257].

The root contains antibiotic substances effective against broad-spectrum bacteria and fungi[207]. It also contains aristolochic acid, which has antitumor activity[222].

The root and rhizome were slowly boiled in a small quantity of water for a long time and the resulting liquid drunk as a contraceptive by the women of one N. American Indian tribe[213].

Other Uses

Ground cover; Incense.

The slightly roasted root can be ground into a powder and then sprinkled onto clothing for perfume[257].

A useful ground cover for a shady position so long as it is not dry[197], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200]. Plants are found on alkaline soils in the wild[43].

Plants are hardy to at least -25°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: A
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Aristolochiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

[270] *Flora of N. America* 0

An on-line version of the flora with an excellent description of the plant including a brief mention of plant uses.

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Name of Site:	
URL for Site:	http://
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Asarum+canadense`

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Plants For A Future: Database Search Results

Asarum canadense

Common name:	Snake root	Family:	Aristolochiaceae
Author:	L.	Botanical references:	43, 200, 270
Synonyms:			
Known Hazards:	The leaves are poisonous[19]. Handling the leaves is said to cause dermatitis in some people[269].		
Range:	Eastern N. America - Manitoba to New Brunswick, south to N. Carolina and Kansas.		
Habitat:	Moist rich soils in woodlands, usually on calcareous soils[43, 159]. Understorey of deciduous (rarely coniferous) forests from sea level to 1300 metres[270].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. acuminatum[B,P] A. canadense var. acuminatum[B,P] A. canadense var. ambiguum[B,P] A. canadense var. reflexum[B,P] A. reflexum[B,P] A. rubrocinctum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canada Snakeroot [H,S], Canadian Wild Ginger [B], Canadian Wildginger [P], Coltsfoot [H], Ginger Root [H], Ginger, Wild [S], Indian Ginger [H], Kanada Azarumu [E], Snakeroot, Canada Or Black [S], Wild Ginger [H,E,S],
Epithets:	From a Dictionary of Botanical Epithets
	canadense = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Cherokee)

Physical Characteristics

A decidious perennial growing to 0.1m by 0.5m at a slow rate. It is hardy to zone 2. It is in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment.

The underground stem and the flowers are used as a ginger substitute[2, 55, 106, 177, 183]. The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. The root is best harvested in autumn but is available all year round[159]. It can be dried for later use[159].

Medicinal Uses

Disclaimer

Anthelmintic; Antiasthmatic; Antibiotic; Antitumor; Carminative; Contraceptive; Diaphoretic; Diuretic; Expectorant; Irritant; Poultice; Salve; Stimulant; Stomachic; Tonic.

Snake root was widely employed as a medicinal herb by a number of native North American tribes who used it to treat a wide range of ailments[257]. It is still occasionally used in modern herbalism.

The root is anthelmintic, carminative, diaphoretic, diuretic, expectorant, irritant, powerfully stimulant, stomachic and tonic[4, 21, 46, 200, 238, 257]. It is harvested in the autumn and dried for later use[4]. It is used in the treatment of chronic chest complaints, asthma, coughs, colds, dropsy, painful spasms of the bowels and stomach, scant or painful menstruation, infantile convulsions[4, 257]. The fresh leaves are applied as a poultice to wounds and inflammations, whilst a decoction or salve is applied to sores[257].

The root contains antibiotic substances effective against broad-spectrum bacteria and fungi[207]. It also contains aristolochic acid, which has antitumor activity[222].

The root and rhizome were slowly boiled in a small quantity of water for a long time and the resulting liquid drunk as a contraceptive by the women of one N. American Indian tribe[213].

Other Uses

Ground cover; Incense.

The slightly roasted root can be ground into a powder and then sprinkled onto clothing for perfume[257].

A useful ground cover for a shady position so long as it is not dry[197], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200]. Plants are found on alkaline soils in the wild[43].

Plants are hardy to at least -25°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: A
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Image from the Southwest School of Botanical Medicine
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Aristolochiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

[270] *Flora of N. America* 0
An on-line version of the flora with an excellent description of the plant including a brief mention of plant uses.

Readers Comments

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Plants For A Future: Database Search Results

Asarum canadense

Common name:	Snake root	Family:	Aristolochiaceae
Author:	L.	Botanical references:	43, 200, 270
Synonyms:			
Known Hazards:	The leaves are poisonous[19]. Handling the leaves is said to cause dermatitis in some people[269].		
Range:	Eastern N. America - Manitoba to New Brunswick, south to N. Carolina and Kansas.		
Habitat:	Moist rich soils in woodlands, usually on calcareous soils[43, 159]. Understorey of deciduous (rarely coniferous) forests from sea level to 1300 metres[270].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. acuminatum[B,P] A. canadense var. acuminatum[B,P] A. canadense var. ambiguum[B,P] A. canadense var. reflexum[B,P] A. reflexum[B,P] A. rubrocinctum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canada Snakeroot [H,S], Canadian Wild Ginger [B], Canadian Wildginger [P], Coltsfoot [H], Ginger Root [H], Ginger, Wild [S], Indian Ginger [H], Kanada Azarumu [E], Snakeroot, Canada Or Black [S], Wild Ginger [H,E,S],
Epithets:	From a Dictionary of Botanical Epithets
	canadense = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Cherokee)

Physical Characteristics

A decidious perennial growing to 0.1m by 0.5m at a slow rate. It is hardy to zone 2. It is in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment.

The underground stem and the flowers are used as a ginger substitute[2, 55, 106, 177, 183]. The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. The root is best harvested in autumn but is available all year round[159]. It can be dried for later use[159].

Medicinal Uses

Disclaimer

Anthelmintic; Antiasthmatic; Antibiotic; Antitumor; Carminative; Contraceptive; Diaphoretic; Diuretic; Expectorant; Irritant; Poultice; Salve; Stimulant; Stomachic; Tonic.

Snake root was widely employed as a medicinal herb by a number of native North American tribes who used it to treat a wide range of ailments[257]. It is still occasionally used in modern herbalism.

The root is anthelmintic, carminative, diaphoretic, diuretic, expectorant, irritant, powerfully stimulant, stomachic and tonic[4, 21, 46, 200, 238, 257]. It is harvested in the autumn and dried for later use[4]. It is used in the treatment of chronic chest complaints, asthma, coughs, colds, dropsy, painful spasms of the bowels and stomach, scant or painful menstruation, infantile convulsions[4, 257]. The fresh leaves are applied as a poultice to wounds and inflammations, whilst a decoction or salve is applied to sores[257].

The root contains antibiotic substances effective against broad-spectrum bacteria and fungi[207]. It also contains aristolochic acid, which has antitumor activity[222].

The root and rhizome were slowly boiled in a small quantity of water for a long time and the resulting liquid drunk as a contraceptive by the women of one N. American Indian tribe[213].

Other Uses

Ground cover; Incense.

The slightly roasted root can be ground into a powder and then sprinkled onto clothing for perfume[257].

A useful ground cover for a shady position so long as it is not dry[197], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200]. Plants are found on alkaline soils in the wild[43].

Plants are hardy to at least -25°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asarum canadense*

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Asarum canadense

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asarum canadense

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asarum caudatum

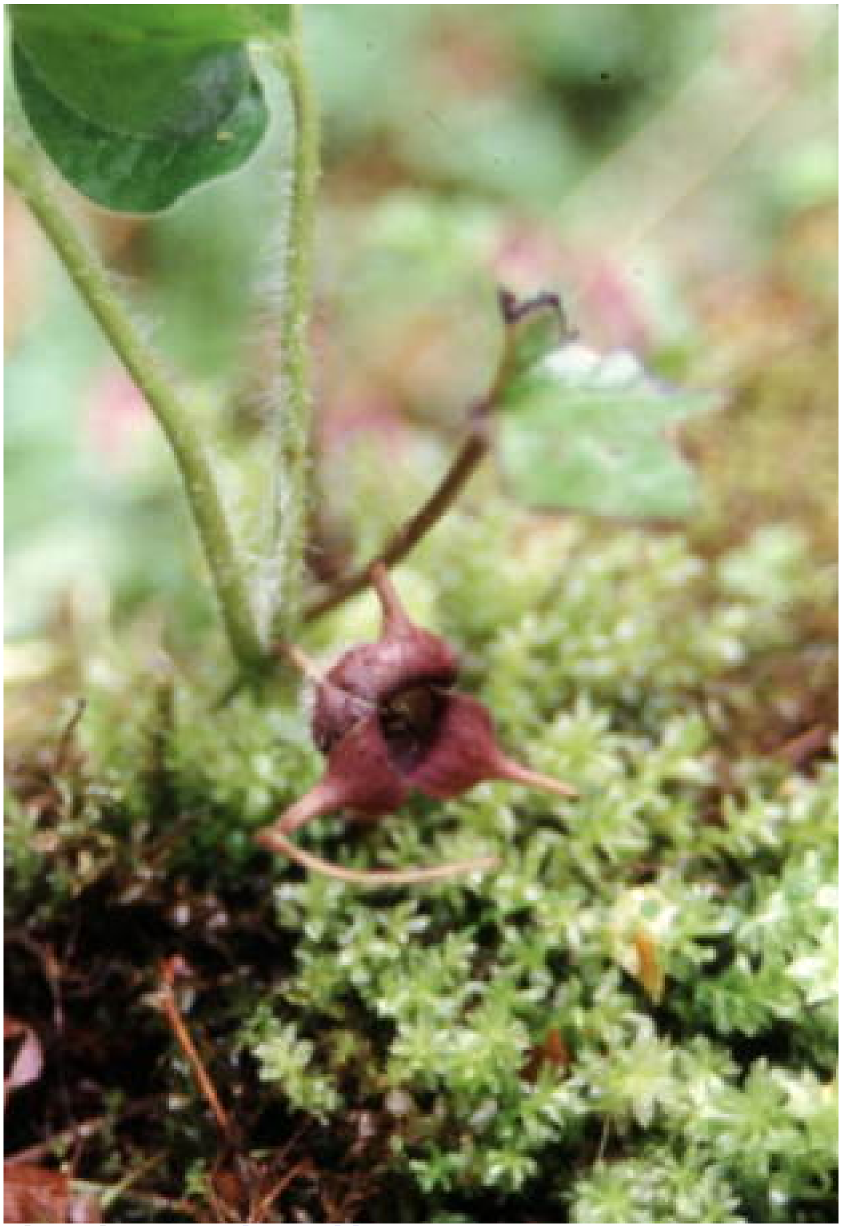

Photo by Derrick Ditchburn

Common name:	Wild ginger	Family:	Aristolochiaceae

Author:	Lindl.	Botanical references:	60, 200, 270
Synonyms:			
Known Hazards:	Although no reports of toxicity have been found for this plant, at least 3 other members of this genus have reports that the leaves are toxic[7, 19]. Some caution is therefore advised in the use of this plant.		
Range:	Western N. America - British Columbia to California.		
Habitat:	Deep shade in moist pine woods and redwood forests[60, 187]. Understory of conifer forests, usually in mesic or wet places from sea level to 1200 metres and occasionally to 2200 metres[270].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	British Columbia Wildginger [P], Ginger, Western Wild [S], Long-tail Wild Ginger [B], Pacific Wild Ginger [S], Western Wild Ginger [S], Wild Ginger [FEIS], Wild Ginger, Western [S],
Epithets:	From a Dictionary of Botanical Epithets
	caudatum = with tail; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family
Other Range Info:	From the Ethnobotany Database
	Us(Upper Skagit)

Physical Characteristics

An evergreen perennial growing to 0.1m by 0.25m . It is hardy to zone 7. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Tea.

The root can be used as a ginger substitute[183]. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic. It can be harvested all year round, but is best in the autumn[K]. It can also be dried for later use[K].

Leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Antirheumatic; Appetizer; Laxative; Poultice; Stomachic; Tonic.

The root is laxative, stomachic and tonic[61, 257]. A tea made from the root is used in the treatment of colds, colic, indigestion and stomach pains[213, 257]. The root is harvested in the autumn and dried for later use[238].

The whole plant is analgesic, antirheumatic, appetizer and tonic[257]. A decoction is used externally to treat headaches, intestinal pain and knee pains[257].

A poultice made from the heated leaves is applied to boils, skin infections and toothaches, whilst a decoction of the leaves is used as a wash on sores[257].

Other Uses

Ground cover.

A useful ground-cover plant for deep shade[187], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: A
- Checklist of plants suitable for ground cover

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] SW USA Dist. Maps from the Southwest School of Botanical Medicine
- [S] Illustration from the Southwest School of Botanical Medicine

- [S] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Aristolochiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[19] **Stary. F.** *Poisonous Plants.* Hamlyn 1983 ISBN 0-600-35666-3
Not very comprehensive, but easy reading.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

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[270] *Flora of N. America* 0
An on-line version of the flora with an excellent description of the plant including a brief mention of plant uses.

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URL for Site:	http://
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Plants For A Future: Database Search Results

Asarum caudatum

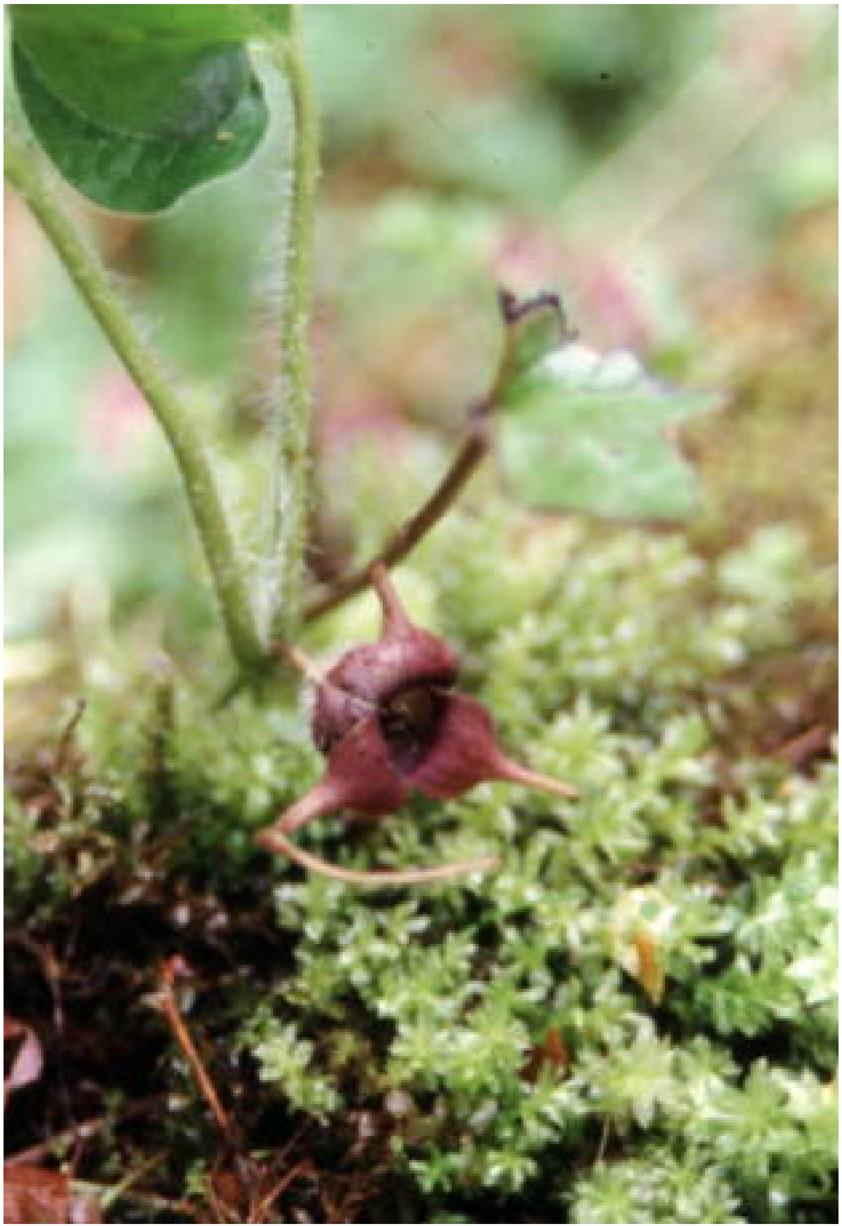

Photo by Derrick Ditchburn

Common name:	Wild ginger	Family:	Aristolochiaceae
Author:	Lindl.	Botanical references:	60, 200, 270
Synonyms:			

Known Hazards:	Although no reports of toxicity have been found for this plant, at least 3 other members of this genus have reports that the leaves are toxic[7, 19]. Some caution is therefore advised in the use of this plant.
Range:	Western N. America - British Columbia to California.
Habitat:	Deep shade in moist pine woods and redwood forests[60, 187]. Understory of conifer forests, usually in mesic or wet places from sea level to 1200 metres and occasionally to 2200 metres[270].
Plants For A Future Rating (1-5):	3

Other Common Names:	From various places around the Web, may not be correct. See below.
	British Columbia Wildginger [P], Ginger, Western Wild [S], Long-tail Wild Ginger [B], Pacific Wild Ginger [S], Western Wild Ginger [S], Wild Ginger [FEIS], Wild Ginger, Western [S],
Epithets:	From a Dictionary of Botanical Epithets
	caudatum = with tail; uda = moist;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family
Other Range Info:	From the Ethnobotany Database
	Us(Upper Skagit)

Physical Characteristics

An evergreen perennial growing to 0.1m by 0.25m . It is hardy to zone 7. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Tea.

The root can be used as a ginger substitute[183]. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic. It can be harvested all year round, but is best in the autumn[K]. It can also be dried for later use[K].

Leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Antirheumatic; Appetizer; Laxative; Poultice; Stomachic; Tonic.

The root is laxative, stomachic and tonic[61, 257]. A tea made from the root is used in the treatment of colds, colic, indigestion and stomach pains[213, 257]. The root is harvested in the autumn and dried for later use[238].

The whole plant is analgesic, antirheumatic, appetizer and tonic[257]. A decoction is used externally to treat headaches, intestinal pain and knee pains[257].

A poultice made from the heated leaves is applied to boils, skin infections and toothaches, whilst a decoction of the leaves is used as a wash on sores[257].

Other Uses

Ground cover.

A useful ground-cover plant for deep shade[187], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: A
- Checklist of plants suitable for ground cover

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] SW USA Dist. Maps from the Southwest School of Botanical Medicine
- [S] Illustration from the Southwest School of Botanical Medicine
- [S] Taxon data. from the CalFlora database.

- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Aristolochiaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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Asarum caudatum

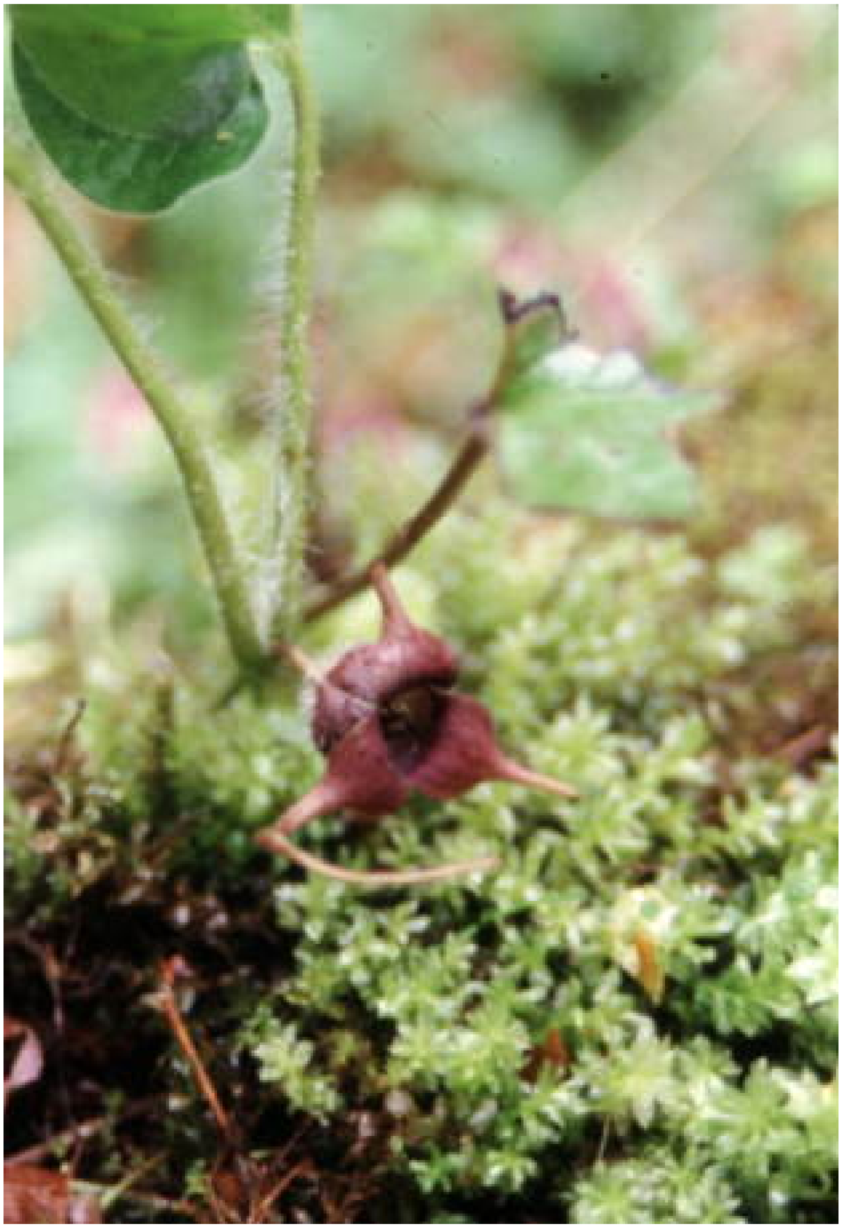

Photo by Derrick Ditchburn

Common name:	Wild ginger	Family:	Aristolochiaceae
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Synonyms:			

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Habitat:	Deep shade in moist pine woods and redwood forests[60, 187]. Understory of conifer forests, usually in mesic or wet places from sea level to 1200 metres and occasionally to 2200 metres[270].
Plants For A Future Rating (1-5):	3

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Tea.

The root can be used as a ginger substitute[183]. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic. It can be harvested all year round, but is best in the autumn[K]. It can also be dried for later use[K].

Leaves are a tea substitute[177, 183].

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Analgesic; Antirheumatic; Appetizer; Laxative; Poultice; Stomachic; Tonic.

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Other Uses

Ground cover.

A useful ground-cover plant for deep shade[187], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

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Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

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Asarum caudatum

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Asarum dilatatum

Common name:		Family:	Aristolochiaceae
Author:	Maekawa.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been found for this plant, at least 3 other members of this genus have reports that the leaves are toxic[7, 19]. Some caution is therefore advised in the use of this plant.		
Range:	E. Asia - Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dilatatum = expanded;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment.

Used as a spice[177]. The report gives no more details, but it is most likely that the root is used and that it is a ginger substitute[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

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Suppliers

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Web References

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References

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

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Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dilatatum = expanded;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment.

Used as a spice[177]. The report gives no more details, but it is most likely that the root is used and that it is a ginger substitute[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Aristolochiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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Notes from observations, tasting etc at Plants For A Future and on field trips.

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Plants For A Future: Database Search Results

Asarum dilatatum

Common name:		Family:	Aristolochiaceae
Author:	Maekawa.	Botanical references:	
Synonyms:			
Known Hazards:	Although no reports of toxicity have been found for this plant, at least 3 other members of this genus have reports that the leaves are toxic[7, 19]. Some caution is therefore advised in the use of this plant.		
Range:	E. Asia - Japan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	dilatatum = expanded;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment.

Used as a spice[177]. The report gives no more details, but it is most likely that the root is used and that it is a ginger substitute[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

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Propagation

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Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asarum dilatatum*

Subject:

Asarum dilatatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asarum dilatatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 04:04:52 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Asarum reflexum

Common name:		Family:	Aristolochiaceae
Author:	Bickn.	Botanical references:	43, 235
Synonyms:	Asarum canadense reflexum ((Bickn.)Robins.)		
Known Hazards:	Although no reports of toxicity have been found for this plant, at least 3 other members of this genus have reports that the leaves are toxic[7, 19]. Some caution is therefore advised in the use of this plant.		
Range:	Eastern N. America - Connecticut and New York to Iowa, Michigan, North Carolina and Kansas.		
Habitat:	Rich moist soils in woodlands, along the sides of streams and in river valleys, often forming large patches[43, 159, 235].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. A. acuminatum[B,P] A. canadense[B,E,G,H,HORTIPLEX,Sa,Sngs,Swal,P] A. canadense var. acuminatum[B,P] A. canadense var. ambiguum[B,P] A. canadense var. reflexum[B,P] A. rubrocinctum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Canada Snakeroot [H,S], Canadian Wild Ginger [B], Canadian Wildginger [P], Coltsfoot [H], Ginger Root [H], Ginger, Wild [S], Indian Ginger [H], Kanada Azarumu [E], Snakeroot, Canada Or Black [S], Wild Ginger [H,S,E],
Epithets:	From a Dictionary of Botanical Epithets reflexum = reflexed;
Systematics:	From a UDSA Plants Database

	Order: Aristolochiales . Birthwort family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Cherokee)

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 6. It is in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment.

The underground stem is a ginger substitute. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. It is usually harvested in the autumn[159, 177] and can be dried for later use[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200]. Plants are found on alkaline soils in the wild[43].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Asarum canadense* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Aristolochiaceae.

See the PFAF Links Pages for other sources

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References

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

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Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Range:	Eastern N. America - Connecticut and New York to Iowa, Michigan, North Carolina and Kansas.		
Habitat:	Rich moist soils in woodlands, along the sides of streams and in river valleys, often forming large patches[43, 159, 235].		
Plants For A Future Rating (1-5):	2		

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	reflexum = reflexed;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Cherokee)

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 6. It is in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

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The underground stem is a ginger substitute. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. It is usually harvested in the autumn[159, 177] and can be dried for later use[K].

Medicinal Uses

Disclaimer

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Other Uses

None known

Cultivation details

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Range:	Eastern N. America - Connecticut and New York to Iowa, Michigan, North Carolina and Kansas.		
Habitat:	Rich moist soils in woodlands, along the sides of streams and in river valleys, often forming large patches[43, 159, 235].		
Plants For A Future Rating (1-5):	2		

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	A. acuminatum[B,P] A. canadense[B,E,G,H,HORTIPLEX,Sa,Sngs,Swal,P] A. canadense var. acuminatum[B,P] A. canadense var. ambiguum[B,P] A. canadense var. reflexum[B,P] A. rubrocinctum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canada Snakeroot [H,S], Canadian Wild Ginger [B], Canadian Wildginger [P], Coltsfoot [H], Ginger Root [H], Ginger, Wild [S], Indian Ginger [H], Kanada Azarumu [E], Snakeroot, Canada Or Black [S], Wild Ginger [H,S,E],
Epithets:	From a Dictionary of Botanical Epithets
	reflexum = reflexed;
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Cherokee)

Physical Characteristics

Perennial growing to 0.15m. It is hardy to zone 6. It is in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment.

The underground stem is a ginger substitute. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. It is usually harvested in the autumn[159, 177] and can be dried for later use[K].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200]. Plants are found on alkaline soils in the wild[43].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Asarum reflexum*

Subject:

Asarum reflexum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asarum reflexum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Asarum shuttleworthii

Common name:		Family:	Aristolochiaceae
Author:	Britt. & Bak.	Botanical references:	200, 235, 270
Synonyms:	Hexastylis shuttleworthii ((Britton.&Baker.)Small.)		
Known Hazards:	Although no reports of toxicity have been found for this plant, at least 3 other members of this genus have reports that the leaves are toxic[7, 19]. Some caution is therefore advised in the use of this plant.		
Range:	South-eastern N. America - West Virginia to Alabama.		
Habitat:	Rich mountain woods[235]. Acidic soils, often along creeks beneath Rhododendron maximum , deciduous or mixed deciduous-conifer forests at elevations of 400 - 1300 metres[270].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hexastylis shuttleworthii var. shuttleworthii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Large-flower Heartleaf [B], Largeflower Heartleaf [P], Shuttleworth's Heartleaf [P],
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family

Physical Characteristics

An evergreen perennial growing to 0.1m by 0.25m . It is hardy to zone 6. It is in leaf all year, in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment.

The following note is for the related A. caudatum, it quite possibly also applies to this species[K].

The root can be used as a ginger substitute[183]. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. It can be harvested all year round, but is best in the autumn[K]. It can also be dried for later use[K].

Leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

A useful ground-cover plant for shady positions so long as the soil is not dry[197], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: A
- Checklist of plants suitable for ground cover

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Hexastylis shuttleworthii* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Aristolochiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

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Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[270] *Flora of N. America* 0
An on-line version of the flora with an excellent description of the plant including a brief mention of plant uses.

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Plants For A Future: Database Search Results

Asarum shuttleworthii

Common name:		Family:	Aristolochiaceae
Author:	Britt. & Bak.	Botanical references:	200, 235, 270
Synonyms:	Hexastylis shuttleworthii ((Britton.&Baker.)Small.)		
Known Hazards:	Although no reports of toxicity have been found for this plant, at least 3 other members of this genus have reports that the leaves are toxic[7, 19]. Some caution is therefore advised in the use of this plant.		
Range:	South-eastern N. America - West Virginia to Alabama.		
Habitat:	Rich mountain woods[235]. Acidic soils, often along creeks beneath Rhododendron maximum , deciduous or mixed deciduous-conifer forests at elevations of 400 - 1300 metres[270].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hexastylis shuttleworthii var. shuttleworthii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Large-flower Heartleaf [B], Largeflower Heartleaf [P], Shuttleworth's Heartleaf [P],
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family

Physical Characteristics

An evergreen perennial growing to 0.1m by 0.25m . It is hardy to zone 6. It is in leaf all year, in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment.

The following note is for the related A. caudatum, it quite possibly also applies to this species[K].

The root can be used as a ginger substitute[183]. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. It can be harvested all year round, but is best in the autumn[K]. It can also be dried for later use[K].

Leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

A useful ground-cover plant for shady positions so long as the soil is not dry[197], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

Division in spring or autumn. Plants are slow to increase[200]. It is best to pot the divisions up and keep them in light shade in the greenhouse until they are growing away strongly.

Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

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- Checklist of plants suitable for ground cover: A
- Checklist of plants suitable for ground cover

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Plants For A Future: Database Search Results

Asarum shuttleworthii

Common name:		Family:	Aristolochiaceae
Author:	Britt. & Bak.	Botanical references:	200, 235, 270
Synonyms:	Hexastylis shuttleworthii ((Britton.&Baker.)Small.)		
Known Hazards:	Although no reports of toxicity have been found for this plant, at least 3 other members of this genus have reports that the leaves are toxic[7, 19]. Some caution is therefore advised in the use of this plant.		
Range:	South-eastern N. America - West Virginia to Alabama.		
Habitat:	Rich mountain woods[235]. Acidic soils, often along creeks beneath Rhododendron maximum , deciduous or mixed deciduous-conifer forests at elevations of 400 - 1300 metres[270].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Hexastylis shuttleworthii var. shuttleworthii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Large-flower Heartleaf [B], Largeflower Heartleaf [P], Shuttleworth's Heartleaf [P],
Systematics:	From a UDSA Plants Database
	Order: Aristolochiales . Birthwort family

Physical Characteristics

An evergreen perennial growing to 0.1m by 0.25m . It is hardy to zone 6. It is in leaf all year, in flower in May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment.

The following note is for the related A. caudatum, it quite possibly also applies to this species[K].

The root can be used as a ginger substitute[183]. The root has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic[245]. It can be harvested all year round, but is best in the autumn[K]. It can also be dried for later use[K].

Leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

A useful ground-cover plant for shady positions so long as the soil is not dry[197], spreading by its roots[208].

Cultivation details

Prefers a rich moist neutral to acid soil in woodland or a shady position in the rock garden[1, 200].

Plants are hardy to at least -15°c[200].

The flowers are malodorous and are pollinated by flies[200].

Plants often self-sow when growing in a suitable position[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe in the summer[134]. Stored seed will require 3 weeks cold stratification and should be sown in late winter[134]. The seed usually germinates in the spring in 1 - 4 or more weeks at 18°c[134]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in the greenhouse for at least their first winter. Plant them out when large enough in late spring.

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Scent

Root: Crushed Dried

> The root, especially when quite dry, has a pungent, aromatic smell like mild pepper and ginger mixed, but more strongly aromatic.

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Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Asarum shuttleworthii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:05:51 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Aspalathus linearis

Common name:	Rooibos	Family:	Leguminosae
Author:	(Burm. f.) R. Dahlgr.	Botanical references:	200
Synonyms:	Borbonia pinifolia (Marloth.), Aspalathus contaminatus (auct.)		
Known Hazards:	None known		
Range:	S. Africa - south and south-west Cape.		
Habitat:	Sandy hills and on the sides of mountains[245]. Well-drained, sandy but moisture-retaining, non-acidic soils[268].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Lebeckia contaminata[G] Psoralea linearis[G] Spartium contaminatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rooibos [P],
Epithets:	From a Dictionary of Botanical Epithets
	linearis = linear;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Shrub growing to 2m. It is hardy to zone 9. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Tea.

A tea made from the dried fermented leaves tastes similar to oriental tea made from Camellia sinensis[238]. It is less astringent, however, due to the lower tannin content[238]. It is caffeine-free, but has a higher content of fluoride which might help to protect against tooth decay[238]. Recent research has shown that this tea contains a substance similar to superoxide dismutase, an antioxidant compound that is thought to retard the ageing process[238]. The leaves and stems are harvested in the summer, fermented and sun dried for later use[238].

The leaves are sometimes used as a flavouring in foods and in baking[268].

Medicinal Uses

Disclaimer

Antispasmodic; Tonic.

Rooibos was traditionally used by the Bushmen and Hottentots of South Africa and is becoming increasingly popular in the West as a pleasant tasting tea that also has health benefits[268].

A tea made from the leaves and stems of rooibos is generally beneficial to the digestive system and relaxes spasms[238], it has been used in the treatment of vomiting, diarrhoea and other mild gastric complaints[268]. It has also been shown to be of benefit when used internally and externally in the treatment of a wide range of allergies especially milk allergy[268], eczema, hay fever and asthma in infants[238].

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Other Uses

None known

Cultivation details

Requires a very well-drained acid sandy soil and a warm sunny position[200]. When grown in pots it needs to be kept dry but not arid in the winter[200].

This species tolerates several degrees of frost in its native habitat[200], though this cannot be applied directly to plants grown in Britain because of our cooler summers and colder, wetter winters. Plants are said to be frost-tolerant in one report[238], but in general plants are usually pot-grown in greenhouses in this country and can be brought into the garden for the summer[200].

Cultivated commercially for its leaves, which are used to make a tea. Rooibos is one of the few wild species to have been developed as a commercial crop in the last 100 years[238]. It is grown for use as a tea, though it is also used medicinally[238]. Commercial plantations last for about 7 years before they need to be replaced.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - sow late spring in a greenhouse covering the seed with about 10mm of soil[238, 268]. It will probably be beneficial to pre-soak the seed for 12 hours in warm water prior to sowing. Prick out the seedlings into individual pots of well-drained sandy soil as soon as they are large enough to handle. Grow them on in the greenhouse for at least their first winter and plant them out in late spring or early summer after the last expected frosts. It will probably be wise to give the plants protection from the cold and from excessive rain for at least their first winter outdoors.

Cuttings of half-ripe wood in a closed frame in early summer[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Lebeckia contaminata* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

Aspalathus linearis

arno bredenkamp Thu Sep 5 17:29:21 2002

Link: Premium Rooibos imported to Canada List of research references on Rooibos

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Aspalathus+linearis`
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Plants For A Future: Database Search Results

Aspalathus linearis

Common name:	Rooibos	Family:	Leguminosae
Author:	(Burm. f.) R. Dahlgr.	Botanical references:	200
Synonyms:	Borbonia pinifolia (Marloth.), Aspalathus contaminatus (auct.)		
Known Hazards:	None known		
Range:	S. Africa - south and south-west Cape.		
Habitat:	Sandy hills and on the sides of mountains[245]. Well-drained, sandy but moisture-retaining, non-acidic soils[268].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Lebeckia contaminata[G] Psoralea linearis[G] Spartium contaminatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rooibos [P],
Epithets:	From a Dictionary of Botanical Epithets
	linearis = linear;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Shrub growing to 2m. It is hardy to zone 9. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Tea.

A tea made from the dried fermented leaves tastes similar to oriental tea made from Camellia sinensis[238]. It is less astringent, however, due to the lower tannin content[238]. It is caffeine-free, but has a higher content of fluoride which might help to protect against tooth decay[238]. Recent research has shown that this tea contains a substance similar to superoxide dismutase, an antioxidant compound that is thought to retard the ageing process[238]. The leaves and stems are harvested in the summer, fermented and sun dried for later use[238].

The leaves are sometimes used as a flavouring in foods and in baking[268].

Medicinal Uses

Disclaimer

Antispasmodic; Tonic.

Rooibos was traditionally used by the Bushmen and Hottentots of South Africa and is becoming increasingly popular in the West as a pleasant tasting tea that also has health benefits[268].

A tea made from the leaves and stems of rooibos is generally beneficial to the digestive system and relaxes spasms[238], it has been used in the treatment of vomiting, diarrhoea and other mild gastric complaints[268]. It has also been shown to be of benefit when used internally and externally in the treatment of a wide range of allergies especially milk allergy[268], eczema, hay fever and asthma in infants[238].

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Other Uses

None known

Cultivation details

Requires a very well-drained acid sandy soil and a warm sunny position[200]. When grown in pots it needs to be kept dry but not arid in the winter[200].

This species tolerates several degrees of frost in its native habitat[200], though this cannot be applied directly to plants grown in Britain because of our cooler summers and colder, wetter winters. Plants are said to be frost-tolerant in one report[238], but in general plants are usually pot-grown in greenhouses in this country and can be brought into the garden for the summer[200].

Cultivated commercially for its leaves, which are used to make a tea. Rooibos is one of the few wild species to have been developed as a commercial crop in the last 100 years[238]. It is grown for use as a tea, though it is also used medicinally[238]. Commercial plantations last for about 7 years before they need to be replaced.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - sow late spring in a greenhouse covering the seed with about 10mm of soil[238, 268]. It will probably be beneficial to pre-soak the seed for 12 hours in warm water prior to sowing. Prick out the seedlings into individual pots of well-drained sandy soil as soon as they are large enough to handle. Grow them on in the greenhouse for at least their first winter and plant them out in late spring or early summer after the last expected frosts. It will probably be wise to give the plants protection from the cold and from excessive rain for at least their first winter outdoors.

Cuttings of half-ripe wood in a closed frame in early summer[200].

Suppliers

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Web References

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Excellent herbal with good concise information on over 400 herbs.

Readers Comments

Aspalathus linearis

arno bredenkamp Thu Sep 5 17:29:21 2002

Link: Premium Rooibos imported to Canada List of research references on Rooibos

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Plants For A Future: Database Search Results

Aspalathus linearis

Common name:	Rooibos	Family:	Leguminosae
Author:	(Burm. f.) R. Dahlgr.	Botanical references:	200
Synonyms:	Borbonia pinifolia (Marloth.), Aspalathus contaminatus (auct.)		
Known Hazards:	None known		
Range:	S. Africa - south and south-west Cape.		
Habitat:	Sandy hills and on the sides of mountains[245]. Well-drained, sandy but moisture-retaining, non-acidic soils[268].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Lebeckia contaminata[G] Psoralea linearis[G] Spartium contaminatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Rooibos [P],
Epithets:	From a Dictionary of Botanical Epithets
	linearis = linear;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family

Physical Characteristics

Shrub growing to 2m. It is hardy to zone 9. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Tea.

A tea made from the dried fermented leaves tastes similar to oriental tea made from Camellia sinensis[238]. It is less astringent, however, due to the lower tannin content[238]. It is caffeine-free, but has a higher content of fluoride which might help to protect against tooth decay[238]. Recent research has shown that this tea contains a substance similar to superoxide dismutase, an antioxidant compound that is thought to retard the ageing process[238]. The leaves and stems are harvested in the summer, fermented and sun dried for later use[238].

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Other Uses

None known

Cultivation details

Requires a very well-drained acid sandy soil and a warm sunny position[200]. When grown in pots it needs to be kept dry but not arid in the winter[200].

This species tolerates several degrees of frost in its native habitat[200], though this cannot be applied directly to plants grown in Britain because of our cooler summers and colder, wetter winters. Plants are said to be frost-tolerant in one report[238], but in general plants are usually pot-grown in greenhouses in this country and can be brought into the garden for the summer[200].

Cultivated commercially for its leaves, which are used to make a tea. Rooibos is one of the few wild species to have been developed as a commercial crop in the last 100 years[238]. It is grown for use as a tea, though it is also used medicinally[238]. Commercial plantations last for about 7 years before they need to be replaced.

This species has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - sow late spring in a greenhouse covering the seed with about 10mm of soil[238, 268]. It will probably be beneficial to pre-soak the seed for 12 hours in warm water prior to sowing. Prick out the seedlings into individual pots of well-drained sandy soil as soon as they are large enough to handle. Grow them on in the greenhouse for at least their first winter and plant them out in late spring or early summer after the last expected frosts. It will probably be wise to give the plants protection from the cold and from excessive rain for at least their first winter outdoors.

Cuttings of half-ripe wood in a closed frame in early summer[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Aspalathus linearis*

Subject:

Aspalathus linearis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Aspalathus linearis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:06:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Athamantha cretensis

Common name:	Candy carrot	Family:	Umbelliferae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean		
Habitat:	Rocky places, mainly in mountains, S.E. Spain and E. France to Yugoslavia[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Athamanta cretensis[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Daucus Creticus [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 6. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The seed is used as a flavouring[177, 183]. An agreeable liquor is made from it[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils[1]. Prefers a well-drained soil in full sun[200].

The long tap root is susceptible to rot in wet winters[200].

Propagation

Seed - sow spring in a cold frame[1]. Germination usually takes place within 3 - 6 weeks at 13°c[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

The seed can also be sown in situ as soon as the soil is workable in the spring[134].

Division in spring, with care[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Athamanta cretensis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Athamantha cretensis

Common name:	Candy carrot	Family:	Umbelliferae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean		
Habitat:	Rocky places, mainly in mountains, S.E. Spain and E. France to Yugoslavia[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Athamanta cretensis[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Daucus Creticus [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 6. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The seed is used as a flavouring[177, 183]. An agreeable liquor is made from it[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils[1]. Prefers a well-drained soil in full sun[200].

The long tap root is susceptible to rot in wet winters[200].

Propagation

Seed - sow spring in a cold frame[1]. Germination usually takes place within 3 - 6 weeks at 13°c[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

The seed can also be sown in situ as soon as the soil is workable in the spring[134].

Division in spring, with care[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Athamanta cretensis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

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Plants For A Future: Database Search Results

Athamantha cretensis

Common name:	Candy carrot	Family:	Umbelliferae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean		
Habitat:	Rocky places, mainly in mountains, S.E. Spain and E. France to Yugoslavia[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Athamanta cretensis[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 6. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The seed is used as a flavouring[177, 183]. An agreeable liquor is made from it[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in most soils[1]. Prefers a well-drained soil in full sun[200].

The long tap root is susceptible to rot in wet winters[200].

Propagation

Seed - sow spring in a cold frame[1]. Germination usually takes place within 3 - 6 weeks at 13°c[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Add a comment on: *Athamantha cretensis*

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Athamantha cretensis

Group:
Plant Information

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Name of Site:	
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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Athamantha cretensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Atriplex argentea expansa

Common name:	Silverscale saltbush	Family:	Chenopodiaceae
Author:	(S. Wats.) Hall. & Clem.	Botanical references:	71
Synonyms:	Atriplex expansa (S. Watson.)		
Known Hazards:	No member of this genus contains any toxins, all have more or less edible leaves. However, if grown with artificial fertilizers, they may concentrate harmful amounts of nitrates in their leaves.		
Range:	South-western N. America.		
Habitat:	Alkaline places[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. argentea[C] A. argentea ssp. expansa[B,C,CAL,P] A. argentea var. mohavensis[B] A. expansa var. mohavensis[B,P] Obione argentea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Silverscale Saltbush [P],
Epithets:	From a Dictionary of Botanical Epithets
	argentea = silvery; pansa = spread out;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 0.6m. . The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves - cooked, or boiled with other foods as a flavouring[161]. The water that the leaves have been cooked in can also be used as a flavouring[161].

Seed - cooked. It can be ground into a meal and used as a thickener in soups etc, or be mixed with flour when making bread etc[161, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though it should be possible to grow it as a spring-sown annual. The following notes are based on the general needs of the genus.

Succeeds in full sun in any well-drained but not too fertile soil[200]. Most species in this genus tolerate saline and very alkaline soils[200].

Propagation

Seed - sow April/May in situ. Germination is usually rapid.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Atriplex argentea ssp. expansa* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Atriplex expansa* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Chenopodiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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Plants For A Future: Database Search Results

Atriplex argentea expansa

Common name:	Silverscale saltbush	Family:	Chenopodiaceae
Author:	(S. Wats.) Hall. & Clem.	Botanical references:	71
Synonyms:	Atriplex expansa (S. Watson.)		
Known Hazards:	No member of this genus contains any toxins, all have more or less edible leaves. However, if grown with artificial fertilizers, they may concentrate harmful amounts of nitrates in their leaves.		
Range:	South-western N. America.		
Habitat:	Alkaline places[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	A. argentea[C] A. argentea ssp. expansa[B,C,CAL,P] A. argentea var. mohavensis[B] A. expansa var. mohavensis[B,P] Obione argentea[G]
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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 0.6m. . The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves - cooked, or boiled with other foods as a flavouring[161]. The water that the leaves have been cooked in can also be used as a flavouring[161].

Seed - cooked. It can be ground into a meal and used as a thickener in soups etc, or be mixed with flour when making bread etc[161, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though it should be possible to grow it as a spring-sown annual. The following notes are based on the general needs of the genus.

Succeeds in full sun in any well-drained but not too fertile soil[200]. Most species in this genus tolerate saline and very alkaline soils[200].

Propagation

Seed - sow April/May in situ. Germination is usually rapid.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Range:	South-western N. America.		
Habitat:	Alkaline places[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Edible Uses

Condiment; Leaves; Seed.

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Medicinal Uses

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Other Uses

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Add a comment on: *Atriplex argentea expansa*

Subject:

Atriplex argentea expansa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Atriplex argentea expansa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Atriplex serenana

Common name:	Bractscale	Family:	Chenopodiaceae
Author:	A. Nels.	Botanical references:	71
Synonyms:	Atriplex bracteosa (S.Watson.)		
Known Hazards:	No member of this genus contains any toxins, all have more or less edible leaves. However, if grown with artificial fertilizers, they may concentrate harmful amounts of nitrates in their leaves.		
Range:	South-western N. America - California.		
Habitat:	Alkaline valleys at low elevations, grassland and coastal sage scrub[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Obione bracteosa[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bracted Saltbush [B], Bractscale [P],
Epithets:	From a Dictionary of Botanical Epithets
	nana = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 3m. It is hardy to zone 8. It is in flower from July to August. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves and young plants - cooked. They are usually boiled with other foods as a salty flavouring[161, 177, 257].

Seed - cooked. Used in piñole or ground into a meal and used as a thickener in making bread or mixed with flour in making bread.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though it should be possible to grow it as a spring-sown annual. The following notes are based on the general needs of the genus.

Succeeds in full sun in any well-drained but not too fertile soil[200]. Most species in this genus tolerate saline and very alkaline soils[200].

Propagation

Seed - sow April/May in situ[134]. Germination is usually rapid.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Chenopodiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Atriplex serenana

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Author:	A. Nels.	Botanical references:	71
Synonyms:	Atriplex bracteosa (S.Watson.)		
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Range:	South-western N. America - California.		
Habitat:	Alkaline valleys at low elevations, grassland and coastal sage scrub[71].		
Plants For A Future Rating (1-5):	2		

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Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 3m. It is hardy to zone 8. It is in flower from July to August. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

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Seed - cooked. Used in piñole or ground into a meal and used as a thickener in making bread or mixed with flour in making bread.

Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

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Propagation

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Plants For A Future: Database Search Results

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Known Hazards:	No member of this genus contains any toxins, all have more or less edible leaves. However, if grown with artificial fertilizers, they may concentrate harmful amounts of nitrates in their leaves.		
Range:	South-western N. America - California.		
Habitat:	Alkaline valleys at low elevations, grassland and coastal sage scrub[71].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Obione bracteosa[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	nana = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 3m. It is hardy to zone 8. It is in flower from July to August. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves and young plants - cooked. They are usually boiled with other foods as a salty flavouring[161, 177, 257].

Seed - cooked. Used in piñole or ground into a meal and used as a thickener in making bread or mixed with flour in making bread.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though it should be possible to grow it as a spring-sown annual. The following notes are based on the general needs of the genus.

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Propagation

Seed - sow April/May in situ[134]. Germination is usually rapid.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Atriplex serenana*

Subject:

Atriplex serenana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Atriplex serenana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Berberis vulgaris

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Barberry	Family:	Berberidaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Barberry Coast. Naturalized, or possibly native, in Britain[17].		
Habitat:	Light deciduous woodland, hedges, roadsides, clearings etc, preferring a sunny position and a chalky soil[9, 268].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. dumentorum[H] B. jacquinii[G] B. sanguinea[G] B. vulgaris f. atropurpurea[G] B. vulgaris var. purpurea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Agracejo [E], Amberparis [E], Barberry, Common [S], Berbery [H], Common Barberry [H,P], Epine Vinette [E], European Barberry [B,L], Pipperidge Bush [H], Zuurbes [D],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family
Other Range Info:	From the Ethnobotany Database
	France; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in leaf from March to November, in flower from May to June, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 5, 7, 9, 11, 95, 183]. Rich in vitamin C[268], the fruit has a very acid flavour and is mainly used in preserves[100], though children and some adults seem to like it raw when it is fully ripe[K]. A refreshing lemon-like drink can be made from the fruit[183]. The fruits are about 10mm long[200].

Young leaves - used as a flavouring or as an acid nibble[177, 183]. They can be used in much the same way as sorrel (Rumex acetosa)[9].

The dried young leaves and shoot tips make a refreshing tea[9, 183].

Medicinal Uses

Disclaimer

Antibacterial; Antipruritic; Antirheumatic; Antiseptic; Appetizer; Astringent; Cancer; Cholagogue; Diaphoretic; Diuretic; Expectorant; Hepatic; Homeopathy; Laxative; Ophthalmic; Purgative; Refrigerant; Stomachic; Tonic.

Barberries have long been used as a herbal remedy for the treatment of a variety of complaints. All parts of the plant can be used though the yellow root bark is the most concentrated source of active ingredients. The plant is mainly used nowadays as a tonic to the gallbladder to improve the flow of bile and ameliorate conditions such as gallbladder pain, gallstones and jaundice[254].

The bark and root bark are antiseptic, astringent, cholagogue, hepatic, purgative, refrigerant, stomachic and tonic[4, 7, 9, 21, 46, 165, 222]. The bark is harvested in the summer and can be dried for storing[4]. It is especially useful in cases of jaundice, general debility and biliousness[4], but should be used with caution[165].

The flowers and the stem bark are antirheumatic[218].

The roots are astringent and antiseptic[222]. They have been pulverized in a little water and used to treat mouth ulcers[213]. A tea of the roots and stems has been used to treat stomach ulcers[213]. The root bark has also been used as a purgative and treatment for diarrhoea[213] and is diaphoretic[222]. A tincture of the root bark has been used in the treatment of rheumatism, sciatica etc[222]. The root bark is a rich source of the alkaloid berberine (about 6%)[240].

Berberine, universally present in rhizomes of Berberis species, has marked antibacterial effects. Since it is not appreciably absorbed by the body, it is used orally in the treatment of various enteric infections, especially bacterial dysentery[218]. It should not be used with Glycyrrhiza species (Liquorice) because this nullifies the effects of the berberine[218]. Berberine has also shown antitumour activity[218] and is also effective in the treatment of hypersensitive eyes, inflamed lids and conjunctivitis[244].

A tea made from the fruits is antipruritic, antiseptic, appetizer, astringent, diuretic, expectorant and laxative[7, 222]. It is also used as a febrifuge[213]. The fruit, or freshly pressed juice, is used in the treatment of liver and gall bladder problems, kidney stones, menstrual pains etc[9].

The leaves are astringent and antiscorbutic[7]. A tea made from the leaves is used in the treatment of coughs[222].

The plant (probably the inner bark) is used by homeopaths as a valuable remedy for kidney and liver insufficiency[244].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Beads; Dye; Fuel; Hedge; Wood.

Plants can be grown as a medium-size hedge in exposed positions but they cannot tolerate extreme maritime exposure[75]. They are very tolerant of trimming but can also be left untrimmed if required[K].

A good quality yellow dye is obtained from the roots, bark and stem[4, 13, 46, 100, 244]. As well as being used on cloth, it is also used to stain wood[244].

The unripe fruit is dried and used as beads[106].

Wood - soft, very hard, fine grained, yellow. Used for carving, toothpicks, mosaics etc[13, 46, 61]. It is also used as a fuel[146].

Cultivation details

Prefers a warm moist loamy soil but it is by no means fastidious, succeeding in thin, dry and shallow soils[11, 200]. Prefers a light rich rather dry soil according to another report[37]. Grows well in heavy clay soils. Succeeds in full sun or light shade[11. 200] but requires a moist soil when grown in the shade of trees[14].

Hardy to about -35°c[184].

A very ornamental plant[11], the barberry was at one time cultivated for its edible fruit, there are several named varieties[11, 200]. 'Dulcis' the fruit of which is sweet or slightly sour[200]. 'Asperma' is a seedless form that was often used in France to make a jam[182, 183].

An alternate host of 'black-stem rust' of wheat so it has been extensively grubbed up from its habitats[3, 11, 13, 74].

Hybridizes freely with other members of this genus[1], though it usually breeds fairly true to type[80]. Can be pruned back quite severely, it resprouts well from the base[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame, when it should germinate in late winter or early spring[78]. Seed from over-ripe fruit will take longer to germinate[78], whilst stored seed may require cold stratification and should be sown in a cold frame as early in the year as possible[80]. The seedlings are subject to damping off, so should be kept well ventilated[113]. When the seedlings are large enough to handle, prick them out into individual pots and grow them on in a cold frame. If growth is sufficient, it can be possible to plant them out into their permanent positions in the autumn, but generally it is best to leave them in the cold frame for the winter and plant them out in late spring or early summer of the following year. Germination averages out at about 90%[98, 113].

Cuttings of half-ripe wood, July/August in a frame.

Cuttings of mature wood of the current season's growth, preferably with a heel, October/November in a frame[78].

Suckers, removed in late autumn/early winter and planted out in situ or potted up and planted out in late spring[3, 200].

Cultivars

'Dulcis'

The fruit of this form is sweet or slightly sour[200].

'Asperma'

A seedless form that was often used in France to make a jam[182, 183]. It is quite possibly lost to cultivation[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Edible Shrubs
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: B
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References

[K] **Ken Fern**
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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Plants For A Future: Database Search Results

Berberis vulgaris

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Barberry	Family:	Berberidaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Barberry Coast. Naturalized, or possibly native, in Britain[17].		
Habitat:	Light deciduous woodland, hedges, roadsides, clearings etc, preferring a sunny position and a chalky soil[9, 268].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. dumentorum[H] B. jacquinii[G] B. sanguinea[G] B. vulgaris f. atropurpurea[G] B. vulgaris var. purpurea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Agracejo [E], Amberparis [E], Barberry, Common [S], Berbery [H], Common Barberry [H,P], Epine Vinette [E], European Barberry [B,L], Pipperidge Bush [H], Zuurbes [D],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family
Other Range Info:	From the Ethnobotany Database
	France; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in leaf from March to November, in flower from May to June, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 5, 7, 9, 11, 95, 183]. Rich in vitamin C[268], the fruit has a very acid flavour and is mainly used in preserves[100], though children and some adults seem to like it raw when it is fully ripe[K]. A refreshing lemon-like drink can be made from the fruit[183]. The fruits are about 10mm long[200].

Young leaves - used as a flavouring or as an acid nibble[177, 183]. They can be used in much the same way as sorrel (Rumex acetosa)[9].

The dried young leaves and shoot tips make a refreshing tea[9, 183].

Medicinal Uses

Disclaimer

Antibacterial; Antipruritic; Antirheumatic; Antiseptic; Appetizer; Astringent; Cancer; Cholagogue; Diaphoretic; Diuretic; Expectorant; Hepatic; Homeopathy; Laxative; Ophthalmic; Purgative; Refrigerant; Stomachic; Tonic.

Barberries have long been used as a herbal remedy for the treatment of a variety of complaints. All parts of the plant can be used though the yellow root bark is the most concentrated source of active ingredients. The plant is mainly used nowadays as a tonic to the gallbladder to improve the flow of bile and ameliorate conditions such as gallbladder pain, gallstones and jaundice[254].

The bark and root bark are antiseptic, astringent, cholagogue, hepatic, purgative, refrigerant, stomachic and tonic[4, 7, 9, 21, 46, 165, 222]. The bark is harvested in the summer and can be dried for storing[4]. It is especially useful in cases of jaundice, general debility and biliousness[4], but should be used with caution[165].

The flowers and the stem bark are antirheumatic[218].

The roots are astringent and antiseptic[222]. They have been pulverized in a little water and used to treat mouth ulcers[213]. A tea of the roots and stems has been used to treat stomach ulcers[213]. The root bark has also been used as a purgative and treatment for diarrhoea[213] and is diaphoretic[222]. A tincture of the root bark has been used in the treatment of rheumatism, sciatica etc[222]. The root bark is a rich source of the alkaloid berberine (about 6%)[240].

Berberine, universally present in rhizomes of Berberis species, has marked antibacterial effects. Since it is not appreciably absorbed by the body, it is used orally in the treatment of various enteric infections, especially bacterial dysentery[218]. It should not be used with Glycyrrhiza species (Liquorice) because this nullifies the effects of the berberine[218]. Berberine has also shown antitumour activity[218] and is also effective in the treatment of hypersensitive eyes, inflamed lids and conjunctivitis[244].

A tea made from the fruits is antipruritic, antiseptic, appetizer, astringent, diuretic, expectorant and laxative[7, 222]. It is also used as a febrifuge[213]. The fruit, or freshly pressed juice, is used in the treatment of liver and gall bladder problems, kidney stones, menstrual pains etc[9].

The leaves are astringent and antiscorbutic[7]. A tea made from the leaves is used in the treatment of coughs[222].

The plant (probably the inner bark) is used by homeopaths as a valuable remedy for kidney and liver insufficiency[244].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Beads; Dye; Fuel; Hedge; Wood.

Plants can be grown as a medium-size hedge in exposed positions but they cannot tolerate extreme maritime exposure[75]. They are very tolerant of trimming but can also be left untrimmed if required[K].

A good quality yellow dye is obtained from the roots, bark and stem[4, 13, 46, 100, 244]. As well as being used on cloth, it is also used to stain wood[244].

The unripe fruit is dried and used as beads[106].

Wood - soft, very hard, fine grained, yellow. Used for carving, toothpicks, mosaics etc[13, 46, 61]. It is also used as a fuel[146].

Cultivation details

Prefers a warm moist loamy soil but it is by no means fastidious, succeeding in thin, dry and shallow soils[11, 200]. Prefers a light rich rather dry soil according to another report[37]. Grows well in heavy clay soils. Succeeds in full sun or light shade[11. 200] but requires a moist soil when grown in the shade of trees[14].

Hardy to about -35°c[184].

A very ornamental plant[11], the barberry was at one time cultivated for its edible fruit, there are several named varieties[11, 200]. 'Dulcis' the fruit of which is sweet or slightly sour[200]. 'Asperma' is a seedless form that was often used in France to make a jam[182, 183].

An alternate host of 'black-stem rust' of wheat so it has been extensively grubbed up from its habitats[3, 11, 13, 74].

Hybridizes freely with other members of this genus[1], though it usually breeds fairly true to type[80]. Can be pruned back quite severely, it resprouts well from the base[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame, when it should germinate in late winter or early spring[78]. Seed from over-ripe fruit will take longer to germinate[78], whilst stored seed may require cold stratification and should be sown in a cold frame as early in the year as possible[80]. The seedlings are subject to damping off, so should be kept well ventilated[113]. When the seedlings are large enough to handle, prick them out into individual pots and grow them on in a cold frame. If growth is sufficient, it can be possible to plant them out into their permanent positions in the autumn, but generally it is best to leave them in the cold frame for the winter and plant them out in late spring or early summer of the following year. Germination averages out at about 90%[98, 113].

Cuttings of half-ripe wood, July/August in a frame.

Cuttings of mature wood of the current season's growth, preferably with a heel, October/November in a frame[78].

Suckers, removed in late autumn/early winter and planted out in situ or potted up and planted out in late spring[3, 200].

Cultivars

'Dulcis'

> The fruit of this form is sweet or slightly sour[200].

'Asperma'

A seedless form that was often used in France to make a jam[182, 183]. It is quite possibly lost to cultivation[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative fruits
- Edible Shrubs
- Hedges and their uses
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- Checklist of plants suitable for hedging and windbreaks.
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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Berberis+vulgaris`
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Plants For A Future: Database Search Results

Berberis vulgaris

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Barberry	Family:	Berberidaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Barberry Coast. Naturalized, or possibly native, in Britain[17].		
Habitat:	Light deciduous woodland, hedges, roadsides, clearings etc, preferring a sunny position and a chalky soil[9, 268].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. dumentorum[H] B. jacquinii[G] B. sanguinea[G] B. vulgaris f. atropurpurea[G] B. vulgaris var. purpurea[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Agracejo [E], Amberparis [E], Barberry, Common [S], Berbery [H], Common Barberry [H,P], Epine Vinette [E], European Barberry [B,L], Pipperidge Bush [H], Zuurbes [D],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Barberry family
Other Range Info:	From the Ethnobotany Database
	France; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 3m by 2m at a medium rate. It is hardy to zone 3 and is not frost tender. It is in leaf from March to November, in flower from May to June, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 5, 7, 9, 11, 95, 183]. Rich in vitamin C[268], the fruit has a very acid flavour and is mainly used in preserves[100], though children and some adults seem to like it raw when it is fully ripe[K]. A refreshing lemon-like drink can be made from the fruit[183]. The fruits are about 10mm long[200].

Young leaves - used as a flavouring or as an acid nibble[177, 183]. They can be used in much the same way as sorrel (Rumex acetosa)[9].

The dried young leaves and shoot tips make a refreshing tea[9, 183].

Medicinal Uses

Disclaimer

Antibacterial; Antipruritic; Antirheumatic; Antiseptic; Appetizer; Astringent; Cancer; Cholagogue; Diaphoretic; Diuretic; Expectorant; Hepatic; Homeopathy; Laxative; Ophthalmic; Purgative; Refrigerant; Stomachic; Tonic.

Barberries have long been used as a herbal remedy for the treatment of a variety of complaints. All parts of the plant can be used though the yellow root bark is the most concentrated source of active ingredients. The plant is mainly used nowadays as a tonic to the gallbladder to improve the flow of bile and ameliorate conditions such as gallbladder pain, gallstones and jaundice[254].

The bark and root bark are antiseptic, astringent, cholagogue, hepatic, purgative, refrigerant, stomachic and tonic[4, 7, 9, 21, 46, 165, 222]. The bark is harvested in the summer and can be dried for storing[4]. It is especially useful in cases of jaundice, general debility and biliousness[4], but should be used with caution[165].

The flowers and the stem bark are antirheumatic[218].

The roots are astringent and antiseptic[222]. They have been pulverized in a little water and used to treat mouth ulcers[213]. A tea of the roots and stems has been used to treat stomach ulcers[213]. The root bark has also been used as a purgative and treatment for diarrhoea[213] and is diaphoretic[222]. A tincture of the root bark has been used in the treatment of rheumatism, sciatica etc[222]. The root bark is a rich source of the alkaloid berberine (about 6%)[240].

Berberine, universally present in rhizomes of Berberis species, has marked antibacterial effects. Since it is not appreciably absorbed by the body, it is used orally in the treatment of various enteric infections, especially bacterial dysentery[218]. It should not be used with Glycyrrhiza species (Liquorice) because this nullifies the effects of the berberine[218]. Berberine has also shown antitumour activity[218] and is also effective in the treatment of hypersensitive eyes, inflamed lids and conjunctivitis[244].

A tea made from the fruits is antipruritic, antiseptic, appetizer, astringent, diuretic, expectorant and laxative[7, 222]. It is also used as a febrifuge[213]. The fruit, or freshly pressed juice, is used in the treatment of liver and gall bladder problems, kidney stones, menstrual pains etc[9].

The leaves are astringent and antiscorbutic[7]. A tea made from the leaves is used in the treatment of coughs[222].

The plant (probably the inner bark) is used by homeopaths as a valuable remedy for kidney and liver insufficiency[244].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Beads; Dye; Fuel; Hedge; Wood.

Plants can be grown as a medium-size hedge in exposed positions but they cannot tolerate extreme maritime exposure[75]. They are very tolerant of trimming but can also be left untrimmed if required[K].

A good quality yellow dye is obtained from the roots, bark and stem[4, 13, 46, 100, 244]. As well as being used on cloth, it is also used to stain wood[244].

The unripe fruit is dried and used as beads[106].

Wood - soft, very hard, fine grained, yellow. Used for carving, toothpicks, mosaics etc[13, 46, 61]. It is also used as a fuel[146].

Cultivation details

Prefers a warm moist loamy soil but it is by no means fastidious, succeeding in thin, dry and shallow soils[11, 200]. Prefers a light rich rather dry soil according to another report[37]. Grows well in heavy clay soils. Succeeds in full sun or light shade[11. 200] but requires a moist soil when grown in the shade of trees[14].

Hardy to about -35°c[184].

A very ornamental plant[11], the barberry was at one time cultivated for its edible fruit, there are several named varieties[11, 200]. 'Dulcis' the fruit of which is sweet or slightly sour[200]. 'Asperma' is a seedless form that was often used in France to make a jam[182, 183].

An alternate host of 'black-stem rust' of wheat so it has been extensively grubbed up from its habitats[3, 11, 13, 74].

Hybridizes freely with other members of this genus[1], though it usually breeds fairly true to type[80]. Can be pruned back quite severely, it resprouts well from the base[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame, when it should germinate in late winter or early spring[78]. Seed from over-ripe fruit will take longer to germinate[78], whilst stored seed may require cold stratification and should be sown in a cold frame as early in the year as possible[80]. The seedlings are subject to damping off, so should be kept well ventilated[113]. When the seedlings are large enough to handle, prick them out into individual pots and grow them on in a cold frame. If growth is sufficient, it can be possible to plant them out into their permanent positions in the autumn, but generally it is best to leave them in the cold frame for the winter and plant them out in late spring or early summer of the following year. Germination averages out at about 90%[98, 113].

Cuttings of half-ripe wood, July/August in a frame.

Cuttings of mature wood of the current season's growth, preferably with a heel, October/November in a frame[78].

Suckers, removed in late autumn/early winter and planted out in situ or potted up and planted out in late spring[3, 200].

Cultivars

'Dulcis'

> The fruit of this form is sweet or slightly sour[200].

'Asperma'

> A seedless form that was often used in France to make a jam[182, 183]. It is quite possibly lost to cultivation[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Berberis vulgaris*

Subject:

Berberis vulgaris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Berberis vulgaris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Betula alleghaniensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yellow birch	Family:	Betulaceae
Author:	Britt.	Botanical references:	11, 43, 200
Synonyms:	Betula lutea (Michx.)		
Known Hazards:	None known		
Range:	North-eastern N. America - Newfoundland to Virginia and Tennessee.		
Habitat:	Usually found in moist well-drained soils in rich woodlands on lower slopes, it is also found in cool marshlands in the south of its range[62, 229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. alleghaniensis var. alleghaniensis[B,P] B. alleghaniensis var. fallax[B,P] B. lutea var. fallax[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Yellow Birch [B,P,DEN1,FEIS],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian)

Physical Characteristics

A decidious tree growing to 12m by 3m at a fast rate. It is hardy to zone 4. It is in flower in April, and the seeds ripen in October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Inner bark; Sap; Sweetener; Tea.

Inner bark - cooked or dried and ground into a powder and used with cereals in making bread[62]. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

Sap - raw or cooked. A sweet flavour[62, 102, 161, 177]. The sap is harvested in early spring, before the leaves unfurl, by tapping the trunk. It flows abundantly, but the sugar content is much lower than maple sap[226]. A pleasant drink, it can also be concentrated into a syrup or fermented into a beer[183, 226]. An old English recipe for the beer is as follows:-

"To every Gallon of Birch-water put a quart of Honey, well stirr'd together; then boil it almost an hour with a few Cloves, and a little Limon-peel, keeping it well scumm'd. When it is sufficiently boil'd, and become cold, add to it three or four Spoonfuls of good Ale to make it work...and when the Test begins to settle, bottle it up . . . it is gentle, and very harmless in operation within the body, and exceedingly sharpens the Appetite, being drunk ante pastum."[269].

A tea is made from the twigs and leaves[62, 177]. The dried leaves are used according to another report[183]. An excellent flavour[226].

The twigs and leaves have the flavour of wintergreen and can be used as condiments[183].

Medicinal Uses

Disclaimer

Cathartic; Emetic.

Yellow birch is little used medicinally, though a decoction of the bark has been used by the native North American Indians as a blood purifier, acting to cleanse the body by its emetic and cathartic properties[257].

The bark is a source of 'Oil of Wintergreen'[226]. This does have medicinal properties, though it is mainly used as a flavouring in medicines[226].

Other Uses

Containers; Fuel; Waterproofing; Wood.

The bark is waterproof and has been used by native peoples as the outer skin of canoes, as roofing material on dwellings and to make containers such as buckets, baskets and dishes[257].

Wood - close-grained, very strong, hard, heavy. The wood is too dense to float[226]. An important source of hardwood lumber, it is used for furniture, boxes, tubs of wheels, floors etc[46, 61, 82, 171, 229]. It is also often used as a fuel[46, 61].

Cultivation details

Succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Dislikes wet soils[200]. Shade tolerant[200].

A slow-growing tree, it is relatively long-lived for a birch, with specimens 200 years old recorded[229]. Plants often grow taller than the 12 metres mentioned above[229]. The trees are highly susceptible to forest fires, even when wet the bark is highly inflammable[226].

The bruised foliage has a strong smell of wintergreen[200].

Hybridizes freely with other members of this genus[50].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Scent

Leaves: Crushed

The bruised foliage has a strong smell of wintergreen.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Betula alleghaniensis var. alleghaniensis* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Betula lutea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965

ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief

cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian)

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Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Inner bark; Sap; Sweetener; Tea.

Inner bark - cooked or dried and ground into a powder and used with cereals in making bread[62]. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

Sap - raw or cooked. A sweet flavour[62, 102, 161, 177]. The sap is harvested in early spring, before the leaves unfurl, by tapping the trunk. It flows abundantly, but the sugar content is much lower than maple sap[226]. A pleasant drink, it can also be concentrated into a syrup or fermented into a beer[183, 226]. An old English recipe for the beer is as follows:-

"To every Gallon of Birch-water put a quart of Honey, well stirr'd together; then boil it almost an hour with a few Cloves, and a little Limon-peel, keeping it well scumm'd. When it is sufficiently boil'd, and become cold, add to it three or four Spoonfuls of good Ale to make it work...and when the Test begins to settle, bottle it up . . . it is gentle, and very harmless in operation within the body, and exceedingly sharpens the Appetite, being drunk ante pastum."[269].

A tea is made from the twigs and leaves[62, 177]. The dried leaves are used according to another report[183]. An excellent flavour[226].

The twigs and leaves have the flavour of wintergreen and can be used as condiments[183].

Medicinal Uses

Disclaimer

Cathartic; Emetic.

Yellow birch is little used medicinally, though a decoction of the bark has been used by the native North American Indians as a blood purifier, acting to cleanse the body by its emetic and cathartic properties[257].

The bark is a source of 'Oil of Wintergreen'[226]. This does have medicinal properties, though it is mainly used as a flavouring in medicines[226].

Other Uses

Containers; Fuel; Waterproofing; Wood.

The bark is waterproof and has been used by native peoples as the outer skin of canoes, as roofing material on dwellings and to make containers such as buckets, baskets and dishes[257].

Wood - close-grained, very strong, hard, heavy. The wood is too dense to float[226]. An important source of hardwood lumber, it is used for furniture, boxes, tubs of wheels, floors etc[46, 61, 82, 171, 229]. It is also often used as a fuel[46, 61].

Cultivation details

Succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Dislikes wet soils[200]. Shade tolerant[200].

A slow-growing tree, it is relatively long-lived for a birch, with specimens 200 years old recorded[229]. Plants often grow taller than the 12 metres mentioned above[229]. The trees are highly susceptible to forest fires, even when wet the bark is highly inflammable[226].

The bruised foliage has a strong smell of wintergreen[200].

Hybridizes freely with other members of this genus[50].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Scent

Leaves: Crushed
The bruised foliage has a strong smell of wintergreen.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Betula alleghaniensis var. alleghaniensis* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Betula lutea* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

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Plants For A Future: Database Search Results

Betula alleghaniensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Yellow birch	Family:	Betulaceae
Author:	Britt.	Botanical references:	11, 43, 200
Synonyms:	Betula lutea (Michx.)		
Known Hazards:	None known		
Range:	North-eastern N. America - Newfoundland to Virginia and Tennessee.		
Habitat:	Usually found in moist well-drained soils in rich woodlands on lower slopes, it is also found in cool marshlands in the south of its range[62, 229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. B. alleghaniensis var. alleghaniensis[B,P] B. alleghaniensis var. fallax[B,P] B. lutea var. fallax[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Yellow Birch [B,P,DEN1,FEIS],
Systematics:	From a UDSA Plants Database Order: Fagales . Birch family
Other Range Info:	From the Ethnobotany Database Us(Amerindian)

Physical Characteristics

A decidious tree growing to 12m by 3m at a fast rate. It is hardy to zone 4. It is in flower in April, and the seeds ripen in October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Inner bark; Sap; Sweetener; Tea.

Inner bark - cooked or dried and ground into a powder and used with cereals in making bread[62]. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

Sap - raw or cooked. A sweet flavour[62, 102, 161, 177]. The sap is harvested in early spring, before the leaves unfurl, by tapping the trunk. It flows abundantly, but the sugar content is much lower than maple sap[226]. A pleasant drink, it can also be concentrated into a syrup or fermented into a beer[183, 226]. An old English recipe for the beer is as follows:-

"To every Gallon of Birch-water put a quart of Honey, well stirr'd together; then boil it almost an hour with a few Cloves, and a little Limon-peel, keeping it well scumm'd. When it is sufficiently boil'd, and become cold, add to it three or four Spoonfuls of good Ale to make it work...and when the Test begins to settle, bottle it up . . . it is gentle, and very harmless in operation within the body, and exceedingly sharpens the Appetite, being drunk ante pastum."[269].

A tea is made from the twigs and leaves[62, 177]. The dried leaves are used according to another report[183]. An excellent flavour[226].

The twigs and leaves have the flavour of wintergreen and can be used as condiments[183].

Medicinal Uses

Disclaimer

Cathartic; Emetic.

Yellow birch is little used medicinally, though a decoction of the bark has been used by the native North American Indians as a blood purifier, acting to cleanse the body by its emetic and cathartic properties[257].

The bark is a source of 'Oil of Wintergreen'[226]. This does have medicinal properties, though it is mainly used as a flavouring in medicines[226].

Other Uses

Containers; Fuel; Waterproofing; Wood.

The bark is waterproof and has been used by native peoples as the outer skin of canoes, as roofing material on dwellings and to make containers such as buckets, baskets and dishes[257].

Wood - close-grained, very strong, hard, heavy. The wood is too dense to float[226]. An important source of hardwood lumber, it is used for furniture, boxes, tubs of wheels, floors etc[46, 61, 82, 171, 229]. It is also often used as a fuel[46, 61].

Cultivation details

Succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Dislikes wet soils[200]. Shade tolerant[200].

A slow-growing tree, it is relatively long-lived for a birch, with specimens 200 years old recorded[229]. Plants often grow taller than the 12 metres mentioned above[229]. The trees are highly susceptible to forest fires, even when wet the bark is highly inflammable[226].

The bruised foliage has a strong smell of wintergreen[200].

Hybridizes freely with other members of this genus[50].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Scent

Leaves: Crushed

The bruised foliage has a strong smell of wintergreen.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Betula alleghaniensis*

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Betula alleghaniensis

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Betula alleghaniensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Betula glandulosa

Common name:	Scrub birch	Family:	Betulaceae
Author:	Michx.	Botanical references:	11, 60, 200
Synonyms:	Betula glandulifera ((Regel.)Butler.), Betula crenata		
Known Hazards:	None known		
Range:	North-western N. America - Newfoundland to Alaska, southwards on mountain ranges.		
Habitat:	Streambanks, marsh margins, lakes and bogs, also found on alpine slopes[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. exilis[B,P] B. glandulosa var. glandulifera[B,P] B. glandulosa var. hallii[B,P] B. glandulosa var. sibirica[B,P] B. michauxii[B,P] B. nana[B,C,CAL,G,H,HPIC,L,P] B. nana ssp. exilis[B,P] B. nana var. glandulifera[B,P] B. nana var. sibirica[B,P] B. pumila var. glandulifera[B,G,P] B. terrae-novae[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bog Birch [P,FEIS], Dwarf Birch [L], Glandulose Birch [P], Smooth Dwarf Birch [H], Swamp Birch [B],
Epithets:	From a Dictionary of Botanical Epithets
	glandulosa = glandular;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 1 and is frost tender. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Ground Cover.

Edible Uses

Condiment; Flowers; Leaves.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

Medicinal Uses

Disclaimer

Antirheumatic; Astringent; Lithontripic; Salve; Sedative.

The bark is antirheumatic, astringent, lithontripic, salve and sedative[172].

Other Uses

Ground cover; Hair.

The plant is valuable for ground cover[245].

An infusion of the plant is used as a hair conditioner and dandruff treatment[172].

Cultivation details

Succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Shade tolerant[200].

B. glandulifera, mentioned above as a synonym of this species, might be a separate species in its own right[11, 200].

This species is native to areas with very cold winters and often does not do well in milder zones. It can be excited into premature growth in mild winters and this new growth is susceptible to frost damage[200].

The branches are covered in aromatic glands, and the leaves are pleasantly fragrant when crushed[245].

Hybridizes freely with other members of this genus[50].

This species is closely related to B. nana[11].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Scent

Leaves: Fresh

> The branches are covered in aromatic glands, and the leaves are pleasantly fragrant when crushed.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Betula nana* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Betula pumila var. glandulifera* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *betula nana* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Betula glandulosa

Common name:	Scrub birch	Family:	Betulaceae
Author:	Michx.	Botanical references:	11, 60, 200
Synonyms:	Betula glandulifera ((Regel.)Butler.), Betula crenata		
Known Hazards:	None known		
Range:	North-western N. America - Newfoundland to Alaska, southwards on mountain ranges.		
Habitat:	Streambanks, marsh margins, lakes and bogs, also found on alpine slopes[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. exilis[B,P] B. glandulosa var. glandulifera[B,P] B. glandulosa var. hallii[B,P] B. glandulosa var. sibirica[B,P] B. michauxii[B,P] B. nana[B,C,CAL,G,H,HPIC,L,P] B. nana ssp. exilis[B,P] B. nana var. glandulifera[B,P] B. nana var. sibirica[B,P] B. pumila var. glandulifera[B,G,P] B. terrae-novae[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bog Birch [P,FEIS], Dwarf Birch [L], Glandulose Birch [P], Smooth Dwarf Birch [H], Swamp Birch [B],
Epithets:	From a Dictionary of Botanical Epithets
	glandulosa = glandular;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 1 and is frost tender. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Ground Cover.

Edible Uses

Condiment; Flowers; Leaves.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

Medicinal Uses

Disclaimer

Antirheumatic; Astringent; Lithontripic; Salve; Sedative.

The bark is antirheumatic, astringent, lithontripic, salve and sedative[172].

Other Uses

Ground cover; Hair.

The plant is valuable for ground cover[245].

An infusion of the plant is used as a hair conditioner and dandruff treatment[172].

Cultivation details

Succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Shade tolerant[200].

B. glandulifera, mentioned above as a synonym of this species, might be a separate species in its own right[11, 200].

This species is native to areas with very cold winters and often does not do well in milder zones. It can be excited into premature growth in mild winters and this new growth is susceptible to frost damage[200].

The branches are covered in aromatic glands, and the leaves are pleasantly fragrant when crushed[245].

Hybridizes freely with other members of this genus[50].

This species is closely related to B. nana[11].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Scent

Leaves: Fresh

> The branches are covered in aromatic glands, and the leaves are pleasantly fragrant when crushed.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Betula nana* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Betula pumila var. glandulifera* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *betula nana* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948

A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Range:	North-western N. America - Newfoundland to Alaska, southwards on mountain ranges.		
Habitat:	Streambanks, marsh margins, lakes and bogs, also found on alpine slopes[60].		
Plants For A Future Rating (1-5):	2		

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Epithets:	From a Dictionary of Botanical Epithets
	glandulosa = glandular;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious shrub growing to 2m. It is hardy to zone 1 and is frost tender. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Ground Cover.

Edible Uses

Condiment; Flowers; Leaves.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

Medicinal Uses

Disclaimer

Antirheumatic; Astringent; Lithontripic; Salve; Sedative.

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The plant is valuable for ground cover[245].

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Cultivation details

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B. glandulifera, mentioned above as a synonym of this species, might be a separate species in its own right[11, 200].

This species is native to areas with very cold winters and often does not do well in milder zones. It can be excited into premature growth in mild winters and this new growth is susceptible to frost damage[200].

The branches are covered in aromatic glands, and the leaves are pleasantly fragrant when crushed[245].

Hybridizes freely with other members of this genus[50].

This species is closely related to B. nana[11].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Scent

Leaves: Fresh

> The branches are covered in aromatic glands, and the leaves are pleasantly fragrant when crushed.

Suppliers

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Add a comment on: *Betula glandulosa*

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Betula glandulosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Betula glandulosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Betula kenaica

Common name:	Kenai birch	Family:	Betulaceae
Author:	W. H. Evans.	Botanical references:	11, 82, 200
Synonyms:	Betula papyrifera kenaica ((W.H.Evans.)Henry.)		
Known Hazards:	None known		
Range:	North-western N. America - Alaska.		
Habitat:	Grows along the coast[11]. Rocky slopes in the subalpine zone from sea level to 300 metres[270].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. neoalaskana var. kenaica[B,P] B. papyrifera var. kenaica[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Kenai Birch [P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious tree growing to 12m at a fast rate. It is hardy to zone 2. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Condiment; Flowers; Inner bark; Leaves; Sap.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

Inner bark - raw or cooked. Best in spring[172]. Inner bark can be dried and ground into a powder and then used as a thickener in soups etc or added to flour when making bread, biscuits etc. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

Sap - raw or cooked[172]. It can be used as a refreshing drink, or can be concentrated by boiling to make a syrup[K]. It is tapped in late winter, the flow is best on sunny days following a heavy frost. The sap can be fermented into a beer. An old English recipe for the beer is as follows:-

"To every Gallon of Birch-water put a quart of Honey, well stirr'd together; then boil it almost an hour with a few Cloves, and a little Limon-peel, keeping it well scumm'd. When it is sufficiently boil'd, and become cold, add to it three or four Spoonfuls of good Ale to make it work...and when the Test begins to settle, bottle it up . . . it is gentle, and very harmless in operation within the body, and exceedingly sharpens the Appetite, being drunk ante pastum."[269].

Medicinal Uses

Disclaimer

Antirheumatic; Astringent; Lithontripic; Salve; Sedative.

The bark is antirheumatic, astringent, lithontripic, salve and sedative[172].

Other Uses

Fuel; Hair; Kindling.

An infusion of the plant is used as a hair conditioner and dandruff treatment[172].

Wood - close-grained, light, strong, hard, tough[82]. It makes a good fuel[172], whilst the bark makes a good kindling[172].

Cultivation details

Succeeds in a well-drained loamy soil in a sunny position[11, 200]. Tolerates most soils including poor soils and heavy clays[200]. Fairly wind tolerant[200].

A fast-growing but short-lived species[200]. Hybridizes freely with other members of this genus[50].

A good plant to grow near the compost heap, aiding the fermentation process[20].

This plant is closely related to B. papyrifera, and possibly no more than a sub-species of that species[11, 200].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Betula papyrifera var. kenaica* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

[270] *Flora of N. America* 0
An on-line version of the flora with an excellent description of the plant including a brief mention of plant uses.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

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Habitat:	Grows along the coast[11]. Rocky slopes in the subalpine zone from sea level to 300 metres[270].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

A decidious tree growing to 12m at a fast rate. It is hardy to zone 2. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Condiment; Flowers; Inner bark; Leaves; Sap.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

Inner bark - raw or cooked. Best in spring[172]. Inner bark can be dried and ground into a powder and then used as a thickener in soups etc or added to flour when making bread, biscuits etc. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

Sap - raw or cooked[172]. It can be used as a refreshing drink, or can be concentrated by boiling to make a syrup[K]. It is tapped in late winter, the flow is best on sunny days following a heavy frost. The sap can be fermented into a beer. An old English recipe for the beer is as follows:-

"To every Gallon of Birch-water put a quart of Honey, well stirr'd together; then boil it almost an hour with a few Cloves, and a little Limon-peel, keeping it well scumm'd. When it is sufficiently boil'd, and become cold, add to it three or four Spoonfuls of good Ale to make it work...and when the Test begins to settle, bottle it up . . . it is gentle, and very harmless in operation within the body, and exceedingly sharpens the Appetite, being drunk ante pastum."[269].

Medicinal Uses

Disclaimer

Antirheumatic; Astringent; Lithontripic; Salve; Sedative.

The bark is antirheumatic, astringent, lithontripic, salve and sedative[172].

Other Uses

Fuel; Hair; Kindling.

An infusion of the plant is used as a hair conditioner and dandruff treatment[172].

Wood - close-grained, light, strong, hard, tough[82]. It makes a good fuel[172], whilst the bark makes a good kindling[172].

Cultivation details

Succeeds in a well-drained loamy soil in a sunny position[11, 200]. Tolerates most soils including poor soils and heavy clays[200]. Fairly wind tolerant[200].

A fast-growing but short-lived species[200]. Hybridizes freely with other members of this genus[50].

A good plant to grow near the compost heap, aiding the fermentation process[20].

This plant is closely related to B. papyrifera, and possibly no more than a sub-species of that species[11, 200].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Betula papyrifera var. kenaica* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*

A nice guide to some useful plants in that area.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

[270] *Flora of N. America* 0
An on-line version of the flora with an excellent description of the plant including a brief mention of plant uses.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Betula+kenaica`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Betula+kenaica`

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Plants For A Future: Database Search Results

Betula kenaica

Common name:	Kenai birch	Family:	Betulaceae
Author:	W. H. Evans.	Botanical references:	11, 82, 200
Synonyms:	Betula papyrifera kenaica ((W.H.Evans.)Henry.)		
Known Hazards:	None known		
Range:	North-western N. America - Alaska.		
Habitat:	Grows along the coast[11]. Rocky slopes in the subalpine zone from sea level to 300 metres[270].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. neoalaskana var. kenaica[B,P] B. papyrifera var. kenaica[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Kenai Birch [P],
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious tree growing to 12m at a fast rate. It is hardy to zone 2. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Condiment; Flowers; Inner bark; Leaves; Sap.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

Inner bark - raw or cooked. Best in spring[172]. Inner bark can be dried and ground into a powder and then used as a thickener in soups etc or added to flour when making bread, biscuits etc. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

Sap - raw or cooked[172]. It can be used as a refreshing drink, or can be concentrated by boiling to make a syrup[K]. It is tapped in late winter, the flow is best on sunny days following a heavy frost. The sap can be fermented into a beer. An old English recipe for the beer is as follows:-

"To every Gallon of Birch-water put a quart of Honey, well stirr'd together; then boil it almost an hour with a few Cloves, and a little Limon-peel, keeping it well scumm'd. When it is sufficiently boil'd, and become cold, add to it three or four Spoonfuls of good Ale to make it work...and when the Test begins to settle, bottle it up . . . it is gentle, and very harmless in operation within the body, and exceedingly sharpens the Appetite, being drunk ante pastum."[269].

Medicinal Uses

Disclaimer

Antirheumatic; Astringent; Lithontripic; Salve; Sedative.

The bark is antirheumatic, astringent, lithontripic, salve and sedative[172].

Other Uses

Fuel; Hair; Kindling.

An infusion of the plant is used as a hair conditioner and dandruff treatment[172].

Wood - close-grained, light, strong, hard, tough[82]. It makes a good fuel[172], whilst the bark makes a good kindling[172].

Cultivation details

Succeeds in a well-drained loamy soil in a sunny position[11, 200]. Tolerates most soils including poor soils and heavy clays[200]. Fairly wind tolerant[200].

A fast-growing but short-lived species[200]. Hybridizes freely with other members of this genus[50].

A good plant to grow near the compost heap, aiding the fermentation process[20].

This plant is closely related to B. papyrifera, and possibly no more than a sub-species of that species[11, 200].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Betula+kenaica`

This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Betula+kenaica`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Betula kenaica*

Subject:

Betula kenaica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Betula kenaica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:09:52 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Betula lenta

Common name:	Cherry birch	Family:	Betulaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Betula carpinifolia (Willd.)		
Known Hazards:	The essential oil obtained from the bark contains 97 - 99% methyl salicylate. This is very toxic when taken orally, and it can also be absorbed through the skin, resulting in human fatalities. As little as 4, 700 mg can be fatal in children[269].		
Range:	Eastern N. America - Quebec to Georgia, west to Alberta and Ohio.		
Habitat:	Rich woodlands, preferring north-facing slopes and moist soils[43, 62]. It is also found on rocky soils[229].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Birch [H], Cherry Birch [H], Mahogany Birch [H], Mountain Mahogany [H], Sweet Birch [H,B,DEN1,P], Tatli Husagaci [E],
Epithets:	From a Dictionary of Botanical Epithets
	lenta = pliable;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious tree growing to 24m at a fast rate. It is hardy to zone 3. It is in flower in April, and the seeds ripen in October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Inner bark; Sap; Sweetener; Tea.

Inner bark - cooked or dried and ground into a powder[4, 62, 102]. Sweet and spicy[177]. The dried inner bark can be used as a thickener in soups etc or can be added to flour when making bread etc. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

Sap - raw or cooked[2, 46, 102]. A sweet flavour[61, 177]. It is harvested in early spring, before the leaves unfurl, by tapping the trunk. The flow is best on sunny days following a heavy frost. A delicious drink, it can also be concentrated into a syrup or sugar[183]. The sap can be fermented to make birch beer or vinegar[183]. An old English recipe for the beer is as follows:-

"To every Gallon of Birch-water put a quart of Honey, well stirr'd together; then boil it almost an hour with a few Cloves, and a little Limon-peel, keeping it well scumm'd. When it is sufficiently boil'd, and become cold, add to it three or four Spoonfuls of good Ale to make it work...and when the Test begins to settle, bottle it up . . . it is gentle, and very harmless in operation within the body, and exceedingly sharpens the Appetite, being drunk ante pastum."[269].

The dried leaves and bark from the larger roots are a delightful tea substitute[177, 183].

A wholesome, agreeable tea is made from the essential oil contained in the inner bark and twigs[21, 55, 62]. This essential oil is also used as a wintergreen flavouring in foods[183].

Medicinal Uses

Disclaimer

Analgesic; Anthelmintic; Antiinflammatory; Astringent; Diaphoretic; Diuretic; Rubefacient; Stimulant.

The bark is anthelmintic, astringent, diaphoretic, diuretic and stimulant[4, 21]. A tea made from the bark is used in the treatment of fevers, stomach aches and lung ailments[222, 257], it is said to be an excellent tonic in cases of dysentery and to be useful in the treatment of gravel and female obstructions[4].

An essential oil distilled from the bark is anti-inflammatory, analgesic and rubefacient[222]. It is used in the treatment of rheumatism, bladder infections, neuralgia etc[222]. The oil, called 'oil of wintergreen', used to be produced commercially, but it is now manufactured synthetically[222].

A tea made from the twigs is used in the treatment of fevers[222].

The leaves can be chewed or used in an infusion in the treatment of dysentery[257].

Other Uses

Essential; Fuel; Tannin; Wood.

An essential oil is obtained from the bark and twigs, it is distilled in quantity and is an item of commerce[235]. It can be used medicinally, as a food flavouring, as an ingredient in cosmetic shampoos and also to make a wholesome tea[11, 21, 46, 171, 269]. The oil, when decolourized, is similar to 'Oil of Wintergreen' (obtained from Gaultheria procumbens) and is considered to be of superior quality[245]. The tree is coppiced every 5 years and all parts are distilled for the oil[245]. The tree grows up to 3 metres tall in this 5 year period[245]. The greatest yield of oil is obtained if the tree is harvested in the summer[245].

The oil distilled from the wood is insect repellent[269].l

The bark contains up to 16% tannin[223].

The thin outer bark is waterproof and has been used as the outer cladding on dwellings, canoes etc[257]. It has also been used to make baskets, dishes, buckets etc[257].

Wood - very strong, close grained, hard, heavy. The wood is richly marked[4], it weighs 40lb per cubic foot and is exploited commercially for making floors, furniture, tools etc[11, 46, 61, 82, 171, 229]. It makes an excellent fuel[11, 46, 61, 229].

Cultivation details

An easily grown plant, it succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Dislikes wet soils[200]. Shade tolerant[200]. Cherry birch is said to tolerate an annual precipitation of ca 60 to 150cm, an average annual temperature range of 5 to 12°C, and a pH of 4.5 to 7.5[269].

Hybridizes freely with other members of this genus[50].

The bruised foliage has a strong smell of wintergreen[200].

A good plant to grow near the compost heap, aiding the fermentation process[20].

Trees can be coppiced on a cycle of 5 years or more[245].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Scent

Leaves: Crushed

> The bruised foliage has a strong smell of wintergreen.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
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[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4

Another guide to the wild foods of America.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[223] **Rottsieper. E.H.W.** *Vegetable Tannins* The Forestal Land, Timber and Railways Co. Ltd. 1946
A fairly detailed treatise on the major sources of vegetable tannins.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Plants For A Future: Database Search Results

Betula lenta

Common name:	Cherry birch	Family:	Betulaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Betula carpinifolia (Willd.)		
Known Hazards:	The essential oil obtained from the bark contains 97 - 99% methyl salicylate. This is very toxic when taken orally, and it can also be absorbed through the skin, resulting in human fatalities. As little as 4, 700 mg can be fatal in children[269].		
Range:	Eastern N. America - Quebec to Georgia, west to Alberta and Ohio.		
Habitat:	Rich woodlands, preferring north-facing slopes and moist soils[43, 62]. It is also found on rocky soils[229].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Birch [H], Cherry Birch [H], Mahogany Birch [H], Mountain Mahogany [H], Sweet Birch [H,B,DEN1,P], Tatli Husagaci [E],
Epithets:	From a Dictionary of Botanical Epithets
	lenta = pliable;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious tree growing to 24m at a fast rate. It is hardy to zone 3. It is in flower in April, and the seeds ripen in October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil

and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Inner bark; Sap; Sweetener; Tea.

Inner bark - cooked or dried and ground into a powder[4, 62, 102]. Sweet and spicy[177]. The dried inner bark can be used as a thickener in soups etc or can be added to flour when making bread etc. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

Sap - raw or cooked[2, 46, 102]. A sweet flavour[61, 177]. It is harvested in early spring, before the leaves unfurl, by tapping the trunk. The flow is best on sunny days following a heavy frost. A delicious drink, it can also be concentrated into a syrup or sugar[183]. The sap can be fermented to make birch beer or vinegar[183]. An old English recipe for the beer is as follows:-

"To every Gallon of Birch-water put a quart of Honey, well stirr'd together; then boil it almost an hour with a few Cloves, and a little Limon-peel, keeping it well scumm'd. When it is sufficiently boil'd, and become cold, add to it three or four Spoonfuls of good Ale to make it work...and when the Test begins to settle, bottle it up . . . it is gentle, and very harmless in operation within the body, and exceedingly sharpens the Appetite, being drunk ante pastum."[269].

The dried leaves and bark from the larger roots are a delightful tea substitute[177, 183].

A wholesome, agreeable tea is made from the essential oil contained in the inner bark and twigs[21, 55, 62]. This essential oil is also used as a wintergreen flavouring in foods[183].

Medicinal Uses

Disclaimer

Analgesic; Anthelmintic; Antiinflammatory; Astringent; Diaphoretic; Diuretic; Rubefacient; Stimulant.

The bark is anthelmintic, astringent, diaphoretic, diuretic and stimulant[4, 21]. A tea made from the bark is used in the treatment of fevers, stomach aches and lung ailments[222, 257], it is said to be an excellent tonic in cases of dysentery and to be useful in the treatment of gravel and female obstructions[4].

An essential oil distilled from the bark is anti-inflammatory, analgesic and rubefacient[222]. It is used in the treatment of rheumatism, bladder infections, neuralgia etc[222]. The oil, called 'oil of wintergreen', used to be produced commercially, but it is now manufactured synthetically[222].

A tea made from the twigs is used in the treatment of fevers[222].

The leaves can be chewed or used in an infusion in the treatment of dysentery[257].

Other Uses

Essential; Fuel; Tannin; Wood.

An essential oil is obtained from the bark and twigs, it is distilled in quantity and is an item of commerce[235]. It can be used medicinally, as a food flavouring, as an ingredient in cosmetic shampoos and also to make a wholesome tea[11, 21, 46, 171, 269]. The oil, when decolourized, is similar to 'Oil of Wintergreen' (obtained from Gaultheria procumbens) and is considered to be of superior quality[245]. The tree is coppiced every 5 years and all parts are distilled for the oil[245]. The tree grows up to 3 metres tall in this 5 year period[245]. The greatest yield of oil is obtained if the tree is harvested in the summer[245].

The oil distilled from the wood is insect repellent[269].l

The bark contains up to 16% tannin[223].

The thin outer bark is waterproof and has been used as the outer cladding on dwellings, canoes etc[257]. It has also been used to make baskets, dishes, buckets etc[257].

Wood - very strong, close grained, hard, heavy. The wood is richly marked[4], it weighs 40lb per cubic foot and is exploited commercially for making floors, furniture, tools etc[11, 46, 61, 82, 171, 229]. It makes an excellent fuel[11, 46, 61, 229].

Cultivation details

An easily grown plant, it succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Dislikes wet soils[200]. Shade tolerant[200]. Cherry birch is said to tolerate an annual precipitation of ca 60 to 150cm, an average annual temperature range of 5 to 12°C, and a pH of 4.5 to 7.5[269].

Hybridizes freely with other members of this genus[50].

The bruised foliage has a strong smell of wintergreen[200].

A good plant to grow near the compost heap, aiding the fermentation process[20].

Trees can be coppiced on a cycle of 5 years or more[245].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Scent

Leaves: Crushed

> The bruised foliage has a strong smell of wintergreen.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: A-B
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics

Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959

An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[134] **Rice. G. (Editor)** *Growing from Seed. Volume 2.* Thompson and Morgan. 1988
Very readable magazine with lots of information on propagation. An interesting article on Ensete ventricosum.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of

edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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Plants For A Future: Database Search Results

Betula lenta

Common name:	Cherry birch	Family:	Betulaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Betula carpinifolia (Willd.)		
Known Hazards:	The essential oil obtained from the bark contains 97 - 99% methyl salicylate. This is very toxic when taken orally, and it can also be absorbed through the skin, resulting in human fatalities. As little as 4, 700 mg can be fatal in children[269].		
Range:	Eastern N. America - Quebec to Georgia, west to Alberta and Ohio.		
Habitat:	Rich woodlands, preferring north-facing slopes and moist soils[43, 62]. It is also found on rocky soils[229].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Black Birch [H], Cherry Birch [H], Mahogany Birch [H], Mountain Mahogany [H], Sweet Birch [H,B,DEN1,P], Tatli Husagaci [E],
Epithets:	From a Dictionary of Botanical Epithets
	lenta = pliable;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious tree growing to 24m at a fast rate. It is hardy to zone 3. It is in flower in April, and the seeds ripen in October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil

and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment; Inner bark; Sap; Sweetener; Tea.

Inner bark - cooked or dried and ground into a powder[4, 62, 102]. Sweet and spicy[177]. The dried inner bark can be used as a thickener in soups etc or can be added to flour when making bread etc. Inner bark is generally only seen as a famine food, used when other forms of starch are not available or are in short supply[K].

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Medicinal Uses

Disclaimer

Analgesic; Anthelmintic; Antiinflammatory; Astringent; Diaphoretic; Diuretic; Rubefacient; Stimulant.

The bark is anthelmintic, astringent, diaphoretic, diuretic and stimulant[4, 21]. A tea made from the bark is used in the treatment of fevers, stomach aches and lung ailments[222, 257], it is said to be an excellent tonic in cases of dysentery and to be useful in the treatment of gravel and female obstructions[4].

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A tea made from the twigs is used in the treatment of fevers[222].

The leaves can be chewed or used in an infusion in the treatment of dysentery[257].

Other Uses

Essential; Fuel; Tannin; Wood.

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The oil distilled from the wood is insect repellent[269].l

The bark contains up to 16% tannin[223].

The thin outer bark is waterproof and has been used as the outer cladding on dwellings, canoes etc[257]. It has also been used to make baskets, dishes, buckets etc[257].

Wood - very strong, close grained, hard, heavy. The wood is richly marked[4], it weighs 40lb per cubic foot and is exploited commercially for making floors, furniture, tools etc[11, 46, 61, 82, 171, 229]. It makes an excellent fuel[11, 46, 61, 229].

Cultivation details

An easily grown plant, it succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Dislikes wet soils[200]. Shade tolerant[200]. Cherry birch is said to tolerate an annual precipitation of ca 60 to 150cm, an average annual temperature range of 5 to 12°C, and a pH of 4.5 to 7.5[269].

Hybridizes freely with other members of this genus[50].

The bruised foliage has a strong smell of wintergreen[200].

A good plant to grow near the compost heap, aiding the fermentation process[20].

Trees can be coppiced on a cycle of 5 years or more[245].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Scent

Leaves: Crushed

> The bruised foliage has a strong smell of wintergreen.

Suppliers

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Betula lenta

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Name of Site:

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Betula lenta

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Plants For A Future: Database Search Results

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Betula nana

Common name:	Dwarf birch	Family:	Betulaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Mountain moors, 240 - 840 metres[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. exilis[B,P] B. glandulosa[B,C,P] B. glandulosa var. hallii[B,P] B. glandulosa var. sibirica[B,P] B. michauxii[B,P] B. nana ssp. exilis[B,P] B. nana var. sibirica[B,P] B. terrae-novae[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bog Birch [P], Dwarf Birch [L], Smooth Dwarf Birch [H], Swamp Birch [B],
Epithets:	From a Dictionary of Botanical Epithets
	nana = dwarf;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious shrub growing to 0.3m by 0.45m . It is hardy to zone 2 and is frost tender. It is in flower in May, and the seeds ripen in July. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Ground Cover.

Edible Uses

Condiment; Flowers; Leaves.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

Medicinal Uses

Disclaimer

Antirheumatic; Astringent; Lithontripic; Miscellany; Salve; Sedative; Stomachic.

The bark is antirheumatic, astringent, lithontripic, salve and sedative[172].

Moxa is prepared from the plant and is regarded as an effective remedy in all painful diseases[4]. No more details are given, but it is likely that the moxa is prepared from yellow fungous excretions of the wood, since the same report gives this description when talking about other members of the genus[K].

A compound decoction of the leaves has been used in the treatment of stomach ache and intestinal discomfort[257].

Other Uses

Dye; Ground cover; Hair; Tinder.

Plants can be used for ground cover, forming a spreading hummock up to 1.2 metres across[208].

An infusion of the plant is used as a hair conditioner and dandruff treatment[172].

A yellow dye is obtained from the leaves[4].

The plant has been used as a tinder, even when wet, and for cooking fires when there is a lack of larger wood[257]. It is likely that the bark was used for tinder[K].

Cultivation details

Succeeds in a well-drained loamy soil in a sheltered position[11, 200]. Grows well in heavy clay soils. Grows well in moist places or the heath garden[182]. Shade tolerant[200].

This species is native to areas with very cold winters and often does not do well in milder zones. It can be excited into premature growth in mild winters and this new growth is susceptible to frost damage[200].

Hybridizes freely with other members of this genus[50].

Trees are notably susceptible to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[78, 80, 113, 134]. Only just cover the seed and place the pot in a sunny position[78, 80, 134]. Spring sown seed should be surface sown in a sunny position in a cold frame[113, 134]. If the germination is poor, raising the temperature by covering the seed with glass can help[134]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

If you have sufficient seed, it can be sown in an outdoor seedbed, either as soon as it is ripe or in the early spring - do not cover the spring sown seed. Grow the plants on in the seedbed for 2 years before planting them out into their permanent positions in the winter[78, 80, 113, 134].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [L] Scientific and Common Names (some photos) from Lepidoptera and some other life forms
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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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References for *betula nana* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Betulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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URL for Site: http://

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Plants For A Future: Database Search Results

Betula nana

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Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Mountain moors, 240 - 840 metres[17].		
Plants For A Future Rating (1-5):	2		

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Physical Characteristics

A decidious shrub growing to 0.3m by 0.45m . It is hardy to zone 2 and is frost tender. It is in flower in May, and the seeds ripen in July. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

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Ground Cover.

Edible Uses

Condiment; Flowers; Leaves.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Betula nana*

Subject:

Betula nana

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Betula nana

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:10:57 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Betula occidentalis

Common name:	Water birch	Family:	Betulaceae
Author:	Hook.	Botanical references:	11, 60, 82
Synonyms:			
Known Hazards:	None known		
Range:	Western and Central N. America.		
Habitat:	Usually found on the banks of streams or moister spots in forests, it is also occasionally found in drier sites[60, 229].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. beeniana[B,P] B. fontinalis[B,G,P] B. occidentalis var. inopina[B,P] B. papyrifera ssp. occidentalis[B,P] B. papyrifera var. occidentalis[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Water Birch [P,FEIS,B,DEN2],
Epithets:	From a Dictionary of Botanical Epithets
	occidentalis = of the west;
Systematics:	From a UDSA Plants Database
	Order: Fagales . Birch family

Physical Characteristics

A decidious tree growing to 9m at a fast rate. . The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Secondary.

Edible Uses

Condiment; Flowers; Inner bark; Leaves; Sap.

Young leaves and catkins - raw[172].

The buds and twigs are used as a flavouring in stews[172].

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The bark is antirheumatic, astringent, lithontripic, salve and sedative[172].

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Plants For A Future: Database Search Results

Betula occidentalis

Common name:	Water birch	Family:	Betulaceae
Author:	Hook.	Botanical references:	11, 60, 82
Synonyms:			
Known Hazards:	None known		
Range:	Western and Central N. America.		
Habitat:	Usually found on the banks of streams or moister spots in forests, it is also occasionally found in drier sites[60, 229].		
Plants For A Future Rating (1-5):	3		

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Betula occidentalis

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Bidens bipinnata

Common name:	Spanish needles	Family:	Compositae
Author:	L.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia. Eastern N. America.		
Habitat:	Rocky woods, roadsides and waste places, often in sandy soils, Florida to Mexico, north to Massachusetts and New York[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. bipinnata var. biternatoides[B,P] B. bipinnatus[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Spanish Needles [H,L], Spanish-needles [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	bipinnata = bipinnate; pinnata = pinnate;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China; Venezuela

Physical Characteristics

Annual growing to 1m. . It is in flower from September to October, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

Leaves and young shoots - cooked or used as a flavouring[177, 207]. Used as a vegetable[218].

A tea is made from the flowering tops[207].

Medicinal Uses

Disclaimer

Antibacterial; Emmenagogue; Styptic; Vermifuge.

The root and seeds are popularly used as an emmenagogue and in the treatment of laryngeal and bronchial diseases[207].

A tea made from the leaves is vermifuge[222]. The leaves have been chewed as a treatment for sore throat[222]. The plant juice is styptic and has been used as ear drops[222].

An extract of the plant has bactericidal properties[218].

Other Uses

None known

Cultivation details

Succeeds in any moderately fertile moisture-retentive soil in full sun[200].

A good bee plant[200].

Propagation

Seed - sow mid to late spring in situ and only just cover the seed.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Bidens bipinnatus* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of

edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
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[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

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Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

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An extract of the plant has bactericidal properties[218].

Other Uses

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A good bee plant[200].

Propagation

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Suppliers

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Web References

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Plants For A Future: Database Search Results

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Plants For A Future Rating (1-5):	2		

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

Leaves and young shoots - cooked or used as a flavouring[177, 207]. Used as a vegetable[218].

A tea is made from the flowering tops[207].

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Disclaimer

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An extract of the plant has bactericidal properties[218].

Other Uses

None known

Cultivation details

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A good bee plant[200].

Propagation

Seed - sow mid to late spring in situ and only just cover the seed.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Bidens bipinnata*

Subject:

Bidens bipinnata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Bidens bipinnata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:11:59 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Brassica carinata

Common name:	Abyssinian cabbage	Family:	Cruciferae
Author:	A. Braun.	Botanical references:	200
Synonyms:			
Known Hazards:	The oil contained in the seed of this species is rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	N. Africa - Ethiopia. Occasional in Britain.		
Habitat:	An occasional bird-sown alien on waste ground in Britain.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Abyssinian Mustard [P],
Epithets:	From a Dictionary of Botanical Epithets
	carinata = keeled;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 1m at a fast rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Leaves and young stems - raw or cooked[2, 52, 61, 141]. Used when up to 30cm tall[183]. A mild and pleasant cabbage flavour[K], the young growth can be cut finely and used in mixed salads, whilst older leaves are cooked like cabbage leaves[183].

Immature flowering stems - cooked. Used like broccoli[183], they make a nice vegetable[K].

An edible oil is obtained from the seed[183]. Oil from the wild species is high in erucic acid, which is toxic[141], though there are some cultivars that contain very little erucic acid and can be used as food[K].

The seed can also be crushed and used as a condiment[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52].

This species is very tolerant of a wide range of climatic conditions but it prefers a range of 15 - 20°c in the day with a diurnal range of 5 - 6°c and moderate rainfall[200].

Cultivated for its edible leaves in some areas, plants that are given some protection from the cold can supply edible leaves all through the winter[52]. There are some named varieties. 'Texsel' is especially good for temperate climates, it is fast growing even at relatively low temperatures[141, 200].

Propagation

Seed - sow in situ in succession from March to early September. The seed can also be sown under cloches in February when it will yield a crop in May.

Cultivars

'Texsel'

> This form is especially good for temperate climates, it is fast growing even at relatively low temperatures[141, 200]. Immature plants are excellent as a green leafy vegetable, the flavour is somewhat milder than cabbage greens, without the pungency of mustard greens[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Brassica carinata

Paul Tout Sat, 14 Feb 1998

Hi Rich,

Checking out PFAF's very interesting database I came across *Brassica carinata*.... you call the Abyssinian Cabbage. You might like to add that (for some reason) it is also known as Texsel Greens and is now popularly planted as a game cover plant in UK as an alternative to mustard after failed crops of kale or maize. In Ethiopia it is eaten as an alternative to meat during the fast of Ramadan..... prone to Brassica sickness and not viable north of Yorkshire and the Penines.

First trialled by the Game Conservancy in 1985 the seed is now widely available from game cover seed dealers.... like lots of other wacky stuff.

Funny these huntin' / vegan alliances...

I'll be in touch as I come across other crops I know a little about and when I return home in the summer I may have some seed to prop up your flagging seedless Perennial Buckwheat plants,

Regards,

Paul

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Habitat:	An occasional bird-sown alien on waste ground in Britain.		
Plants For A Future Rating (1-5):	3		

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Disclaimer

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Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52].

This species is very tolerant of a wide range of climatic conditions but it prefers a range of 15 - 20°c in the day with a diurnal range of 5 - 6°c and moderate rainfall[200].

Cultivated for its edible leaves in some areas, plants that are given some protection from the cold can supply edible leaves all through the winter[52]. There are some named varieties. 'Texsel' is especially good for temperate climates, it is fast growing even at relatively low temperatures[141,

200].

Propagation

Seed - sow in situ in succession from March to early September. The seed can also be sown under cloches in February when it will yield a crop in May.

Cultivars

'Texsel'

> This form is especially good for temperate climates, it is fast growing even at relatively low temperatures[141, 200]. Immature plants are excellent as a green leafy vegetable, the flavour is somewhat milder than cabbage greens, without the pungency of mustard greens[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202

Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

Brassica carinata

Paul Tout Sat, 14 Feb 1998

Hi Rich,

Checking out PFAF's very interesting database I came across *Brassica carinata*.... you call the Abyssinian Cabbage. You might like to add that (for some reason) it is also known as Texsel Greens and is now popularly planted as a game cover plant in UK as an alternative to mustard after failed crops of kale or maize. In Ethiopia it is eaten as an alternative to meat during the fast of Ramadan..... prone to Brassica sickness and not viable north of Yorkshire and the Penines.

First trialled by the Game Conservancy in 1985 the seed is now widely available from game cover seed dealers.... like lots of other wacky stuff.

Funny these huntin' / vegan alliances...

I'll be in touch as I come across other crops I know a little about and when I return home in the summer I may have some seed to prop up your flagging seedless Perennial Buckwheat plants,

Regards,

Paul

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Brassica+carinata`
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Plants For A Future: Database Search Results

Brassica carinata

Common name:	Abyssinian cabbage	Family:	Cruciferae
Author:	A. Braun.	Botanical references:	200
Synonyms:			
Known Hazards:	The oil contained in the seed of this species is rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	N. Africa - Ethiopia. Occasional in Britain.		
Habitat:	An occasional bird-sown alien on waste ground in Britain.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Abyssinian Mustard [P],
Epithets:	From a Dictionary of Botanical Epithets
	carinata = keeled;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 1m at a fast rate. It is not frost tender. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Leaves and young stems - raw or cooked[2, 52, 61, 141]. Used when up to 30cm tall[183]. A mild and pleasant cabbage flavour[K], the young growth can be cut finely and used in mixed salads, whilst older leaves are cooked like cabbage leaves[183].

Immature flowering stems - cooked. Used like broccoli[183], they make a nice vegetable[K].

An edible oil is obtained from the seed[183]. Oil from the wild species is high in erucic acid, which is toxic[141], though there are some cultivars that contain very little erucic acid and can be used as food[K].

The seed can also be crushed and used as a condiment[200].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52].

This species is very tolerant of a wide range of climatic conditions but it prefers a range of 15 - 20°c in the day with a diurnal range of 5 - 6°c and moderate rainfall[200].

Cultivated for its edible leaves in some areas, plants that are given some protection from the cold can supply edible leaves all through the winter[52]. There are some named varieties. 'Texsel' is especially good for temperate climates, it is fast growing even at relatively low temperatures[141,

200].

Propagation

Seed - sow in situ in succession from March to early September. The seed can also be sown under cloches in February when it will yield a crop in May.

Cultivars

'Texsel'

> This form is especially good for temperate climates, it is fast growing even at relatively low temperatures[141, 200]. Immature plants are excellent as a green leafy vegetable, the flavour is somewhat milder than cabbage greens, without the pungency of mustard greens[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica carinata*

Subject:

Brassica carinata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica carinata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:12:30 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Brassica juncea

Common name:	Brown mustard	Family:	Cruciferae
Author:	(L.) Czern. & Cosson.	Botanical references:	200
Synonyms:	Sinapis juncea (L.), Brassica juncea japonica ((Thunb.)L.H.Bailey.), Brassica japonica (Thunb.), Brassica integrifolia ((West.)O.E.Schulz.)		
Known Hazards:	None known		
Range:	N. Europe to C. Asia. Rarely naturalized in Britain[17].		
Habitat:	Cornfields in Britain[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. B. besseriana[G] B. integrifolia[B,P] B. juncea var. agrestis[G] B. juncea var. crispifolia[B,P] B. juncea var. japonica[B,G,P] B. juncea var. juncea[G,P] B. nipposinica[G] B. oleracea x nigra[H] B. rapa japonica[H] B. rapa nipposinica[H] B. rapa subsp. nipposinica[G] B. rapa var. japonica[H] B. rapa var. nipposinica[H] B. willdenowii[B,P] Sinapis japonica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.

	Brown Mustard [H], Chinese Green [H], Chinese Mustard [L,B,H], Gai Cai [H], Gai Choy [H], India Mustard [P], Indian Greens [H], Indian Mustard [H], Jie Cai [H], Kaai Tsoi [H], Karashina [H], Karasi-Na [E], Kyomizuna [H], Kyona [H], Leaf Mustard [H], Mizuna [H], Mizuna Greens [H], Mizuna Mustard [H], Mustard Cabbage [H], Mustard Greens [H], Pot Herb Mustard [H], Sawi-sawi [E], Sesawi [E], Shui Cai [H], Takana [H],
Epithets:	From a Dictionary of Botanical Epithets
	juncea = rush like;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	China; Guatemala; Java; Malaya
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.75m by 0.25m . It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil; Root; Seed.

Leaves - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves can also be eaten raw, when finely shredded they make a very acceptable addition to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

The root of some forms of this species is edible[183].

Sprouted seeds can be added to salads.

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Fat: 30

Medicinal Uses

Disclaimer

Anodyne; Antibiotic; Aperient; Diuretic; Emetic; Galactogogue; Rubefacient; Stimulant.

Although not usually used medicinally, the seed is a warming stimulant herb with antibiotic effects[238].

Reported to be anodyne, aperitif, diuretic, emetic, rubefacient, and stimulant, Brown Mustard is a folk remedy for arthritis, foot ache, lumbago, and rheumatism[269].

The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

In Java the plant is used as an antisyphilitic emmenagogue[269].

Leaves applied to the forehead are said to relieve headache[269].

The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206]. Tolerates a pH in the range 4.3 to 8.3.

Brown mustards is widely cultivated for its edible seed which is used to make the condiment 'brown mustard' and is also sprouted as the mustard of mustard and cress[50, 200]. It has only 70% of the pungency of black mustard (B. nigra) but can be harvested mechanically so is more viable commercially[238].

This species has also been cultivated in the Orient for many hundreds of years and a wide diversity of forms has been developed with edible leaves, stems, roots and seeds. These forms have been classified by the botanists as follows and separate entries have been made for each of them.

B. juncea crispifolia. The curled or cutleaf mustards, this group has attractively curled edible leaves.

B. juncea foliosa. The leaf mustards have quite large smooth-edged edible leaves.

B. juncea japonica. Rather similar to B. juncea crispifolia and combined with that group by some botanists.

B. juncea multiceps. The multishoot mustard group.

B. juncea napiformis. A form with a swollen edible root.

B. juncea rugosa. Large somewhat cabbage-like edible leaves.

B. juncea strumata. A form with large edible leaf stalks.

B. juncea tumida. A form with swollen edible stems.

Plants take from 2 - 5 months from sowing to maturity, depending on the season and the cultivar[206]. They prefer a fairly high stable temperature and are well adapted to short day length[200]. Many are best grown in warmer climates than Britain but there are several cultivars that grow well in this country[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from early spring to early autumn in order to obtain a succession of edible leaves. Most varieties of Oriental vegetables belonging to this species are best sown from late June to early September otherwise they may bolt[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

References for *Brassica japonica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Brassica juncea var. japonica* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Brassica juncea var. juncea* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Brassica rapa subsp. nipposinica* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Brassica rapa var. nipposinica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962

A very comprehensive flora, the standard reference book but it has no pictures.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Details:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Brassica juncea

Common name:	Brown mustard	Family:	Cruciferae
Author:	(L.) Czern. & Cosson.	Botanical references:	200
Synonyms:	Sinapis juncea (L.), Brassica juncea japonica ((Thunb.)L.H.Bailey.), Brassica japonica (Thunb.), Brassica integrifolia ((West.)O.E.Schulz.)		
Known Hazards:	None known		
Range:	N. Europe to C. Asia. Rarely naturalized in Britain[17].		
Habitat:	Cornfields in Britain[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. besseriana[G] B. integrifolia[B,P] B. juncea var. agrestis[G] B. juncea var. crispifolia[B,P] B. juncea var. japonica[B,G,P] B. juncea var. juncea[G,P] B. nipposinica[G] B. oleracea x nigra[H] B. rapa japonica[H] B. rapa nipposinica[H] B. rapa subsp. nipposinica[G] B. rapa var. japonica[H] B. rapa var. nipposinica[H] B. willdenowii[B,P] Sinapis japonica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Brown Mustard [H], Chinese Green [H], Chinese Mustard [L,B,H], Gai Cai [H], Gai Choy [H], India Mustard [P], Indian Greens [H], Indian Mustard [H], Jie Cai [H], Kaai Tsoi [H], Karashina [H], Karasi-Na [E], Kyomizuna [H], Kyona [H], Leaf Mustard [H], Mizuna [H], Mizuna Greens [H], Mizuna Mustard [H], Mustard Cabbage [H], Mustard Greens [H], Pot Herb Mustard [H], Sawi-sawi [E], Sesawi [E], Shui Cai [H], Takana [H],

Epithets:	From a Dictionary of Botanical Epithets juncea = rush like;
Systematics:	From a UDSA Plants Database Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database China; Guatemala; Java; Malaya
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.75m by 0.25m . It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil; Root; Seed.

Leaves - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves can also be eaten raw, when finely shredded they make a very acceptable addition to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

The root of some forms of this species is edible[183].

Sprouted seeds can be added to salads.

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Fat: 30

Medicinal Uses

Disclaimer

Anodyne; Antibiotic; Aperient; Diuretic; Emetic; Galactogogue; Rubefacient; Stimulant.

Although not usually used medicinally, the seed is a warming stimulant herb with antibiotic effects[238].

Reported to be anodyne, aperitif, diuretic, emetic, rubefacient, and stimulant, Brown Mustard is a folk remedy for arthritis, foot ache, lumbago, and rheumatism[269].

The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

In Java the plant is used as an antisyphilitic emmenagogue[269].

Leaves applied to the forehead are said to relieve headache[269].

The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206]. Tolerates a pH in the range 4.3 to 8.3.

Brown mustards is widely cultivated for its edible seed which is used to make the condiment 'brown mustard' and is also sprouted as the mustard of mustard and cress[50, 200]. It has only 70% of the pungency of black mustard (B. nigra) but can be harvested mechanically so is more viable commercially[238].

This species has also been cultivated in the Orient for many hundreds of years and a wide diversity of forms has been developed with edible leaves, stems, roots and seeds. These forms have been classified by the botanists as follows and separate entries have been made for each of them.

B. juncea crispifolia. The curled or cutleaf mustards, this group has attractively curled edible leaves.

B. juncea foliosa. The leaf mustards have quite large smooth-edged edible leaves.

B. juncea japonica. Rather similar to B. juncea crispifolia and combined with that group by some botanists.

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B. juncea rugosa. Large somewhat cabbage-like edible leaves.

B. juncea strumata. A form with large edible leaf stalks.

B. juncea tumida. A form with swollen edible stems.

Plants take from 2 - 5 months from sowing to maturity, depending on the season and the cultivar[206]. They prefer a fairly high stable temperature and are well adapted to short day length[200]. Many are best grown in warmer climates than Britain but there are several cultivars that grow well in this country[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from early spring to early autumn in order to obtain a succession of edible leaves. Most varieties of Oriental vegetables belonging to this species are best sown from late June to early September otherwise they may bolt[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke

References for *Brassica japonica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Brassica juncea var. japonica* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Brassica juncea var. juncea* (a possible synonym).

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Brassica rapa subsp. nipposinica* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Brassica rapa var. nipposinica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses

without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[133] **Rice. G. (Editor)** *Growing from Seed. Volume 1.* Thompson and Morgan. 1987
Very readable magazine with lots of information on propagation.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Brassica+juncea`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Brassica+juncea`

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Plants For A Future: Database Search Results

Brassica juncea

Common name:	Brown mustard	Family:	Cruciferae
Author:	(L.) Czern. & Cosson.	Botanical references:	200
Synonyms:	Sinapis juncea (L.), Brassica juncea japonica ((Thunb.)L.H.Bailey.), Brassica japonica (Thunb.), Brassica integrifolia ((West.)O.E.Schulz.)		
Known Hazards:	None known		
Range:	N. Europe to C. Asia. Rarely naturalized in Britain[17].		
Habitat:	Cornfields in Britain[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. besseriana[G] B. integrifolia[B,P] B. juncea var. agrestis[G] B. juncea var. crispifolia[B,P] B. juncea var. japonica[B,G,P] B. juncea var. juncea[G,P] B. nipposinica[G] B. oleracea x nigra[H] B. rapa japonica[H] B. rapa nipposinica[H] B. rapa subsp. nipposinica[G] B. rapa var. japonica[H] B. rapa var. nipposinica[H] B. willdenowii[B,P] Sinapis japonica[G]
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Epithets:	From a Dictionary of Botanical Epithets juncea = rush like;
Systematics:	From a UDSA Plants Database Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database China; Guatemala; Java; Malaya
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.75m by 0.25m . It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil; Root; Seed.

Leaves - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves can also be eaten raw, when finely shredded they make a very acceptable addition to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

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The root of some forms of this species is edible[183].

Sprouted seeds can be added to salads.

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Fat: 30

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Anodyne; Antibiotic; Aperient; Diuretic; Emetic; Galactogogue; Rubefacient; Stimulant.

Although not usually used medicinally, the seed is a warming stimulant herb with antibiotic effects[238].

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Green manure; Repellent.

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Plants take from 2 - 5 months from sowing to maturity, depending on the season and the cultivar[206]. They prefer a fairly high stable temperature and are well adapted to short day length[200]. Many are best grown in warmer climates than Britain but there are several cultivars that grow well in this country[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from early spring to early autumn in order to obtain a succession of edible leaves. Most varieties of Oriental vegetables belonging to this species are best sown from late June to early September otherwise they may bolt[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

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> There are many named varieties of this annual vegetable, with new forms being developed each year. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica juncea*

Subject:

Brassica juncea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica juncea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:13:05 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Plants For A Future: Database Search Results

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Brassica juncea crispifolia

Common name:	Curled mustard	Family:	Cruciferae
Author:	Bailey.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. besseriana[G] B. integrifolia[B,P] B. japonica[B,P] B. juncea[B,C,ENERGY,E,G,H,L,P] B. juncea var. crispifolia[B,G,H,P] B. juncea var. japonica[B,P] B. oleracea x nigra[H] B. willdenowii[B,P] Sinapis juncea[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	juncea = rush like;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database

	China; Guatemala; Java; Malaya
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.3m by 0.3m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Leaves - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves can also be finely shredded and added to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

Sprouted seeds can be added to salads.

Medicinal Uses

Disclaimer

Anodyne; Aperient; Diuretic; Emetic; Galactogogue; Rubefacient; Stimulant.

Reported to be anodyne, aperitif, diuretic, emetic, rubefacient, and stimulant, the plant is a folk remedy for arthritis, foot ache, lumbago, and rheumatism[269].

The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

In Java the plant is used as an antisyphilitic emmenagogue[269].

Leaves applied to the forehead are said to relieve headache[269].

The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206].

A form of B. juncea with curled leaves that has been selected in the Orient for its edibility. There are some named varieties[206]. Plants in this group are fairly cold-tolerant and often stand the winter, they are then slow to bolt and can supply a good crop of leaves in the spring[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from August to October. Spring and early summer-sown crops tend to run quickly to seed, though they can be eaten whilst still small[206]. It is best not to sow the seed in very hot weather[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

"

> There are some named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

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Web References

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Plants For A Future: Database Search Results

Brassica juncea crispifolia

Common name:	Curled mustard	Family:	Cruciferae
Author:	Bailey.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. besseriana[G] B. integrifolia[B,P] B. japonica[B,P] B. juncea[B,C,ENERGY,E,G,H,L,P] B. juncea var. crispifolia[B,G,H,P] B. juncea var. japonica[B,P] B. oleracea x nigra[H] B. willdenowii[B,P] Sinapis juncea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	juncea = rush like;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	China; Guatemala; Java; Malaya
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.3m by 0.3m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Leaves - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves can also be finely shredded and added to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

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Sprouted seeds can be added to salads.

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Green manure; Repellent.

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Plants For A Future: Database Search Results

Brassica juncea crispifolia

Common name:	Curled mustard	Family:	Cruciferae
Author:	Bailey.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. besseriana[G] B. integrifolia[B,P] B. japonica[B,P] B. juncea[B,C,ENERGY,E,G,H,L,P] B. juncea var. crispifolia[B,G,H,P] B. juncea var. japonica[B,P] B. oleracea x nigra[H] B. willdenowii[B,P] Sinapis juncea[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
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Annual growing to 0.3m by 0.3m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

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Habitats and Possible Locations

Cultivated Beds.

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Green manure; Repellent.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica juncea crispifolia*

Subject:

Brassica juncea crispifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica juncea crispifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 04:13:39 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Brassica juncea foliosa

Common name:	Leaf mustard	Family:	Cruciferae
Author:	L.H.Bailey.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. B. juncea var. foliosa[G,H]
Epithets:	From a Dictionary of Botanical Epithets foliosa = leafy; juncea = rush like;
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Physical Characteristics

Annual growing to 0.3m by 0.3m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Leaves - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves can also be finely shredded and added to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

Sprouted seeds can be added to salads.

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The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

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Leaves applied to the forehead are said to relieve headache[269].

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Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206].

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Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from August to October. Spring and early summer-sown crops tend to run quickly to seed, though they can be eaten whilst still small[206]. It is best not to sow the seed in very hot weather[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica juncea foliosa*

Subject:

Brassica juncea foliosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica juncea foliosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Brassica juncea multiceps

Common name:	Green in the snow	Family:	Cruciferae
Author:	N.Tsen.&S.N.Lee.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. juncea var. multiceps[G]
Epithets:	From a Dictionary of Botanical Epithets
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Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

Annual growing to 0.4m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Leaves - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The young raw leaves are pleasantly spicy but older leaves, particularly when the plant runs to seed, can become overpoweringly hot though they are still nice cooked at this stage[206]. The leaves can be finely shredded and added to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

The root of some forms of this species is edible[183].

Sprouted seeds can be added to salads.

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Reported to be anodyne, aperitif, diuretic, emetic, rubefacient, and stimulant, the plant is a folk remedy for arthritis, foot ache, lumbago, and rheumatism[269].

The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

In Java the plant is used as an antisyphilitic emmenagogue[269].

Leaves applied to the forehead are said to relieve headache[269].

The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206].

A form of B. juncea that has been selected for its edible leaves, there are many named varieties[206]. They prefer a fairly high stable temperature and are well adapted to short day length[200]. Many are best grown in warmer climates than Britain but there are several cultivars that grow well in this country[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from June to October. Spring-sown crops tend to run quickly to seed, though they can be eaten whilst still small[206]. It is best not to sow the seed in very hot weather[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

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Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

In Java the plant is used as an antisyphilitic emmenagogue[269].

Leaves applied to the forehead are said to relieve headache[269].

The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206].

A form of B. juncea that has been selected for its edible leaves, there are many named varieties[206]. They prefer a fairly high stable temperature and are well adapted to short day length[200]. Many are best grown in warmer climates than Britain but there are several cultivars that grow well in this country[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from June to October. Spring-sown crops tend to run quickly to seed, though they can be eaten whilst still small[206]. It is best not to sow the seed in very hot weather[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

"

> There are some named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica juncea multiceps*

Subject:

Brassica juncea multiceps

Group:

Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica juncea multiceps

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Brassica juncea napiformis

Common name:	Root mustard	Family:	Cruciferae
Author:	(Pailleux.&Boiss.)Kitam.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. juncea var. megarrhiza[G] B. juncea var. napiformis[G] B. napiformis[G] Sinapis juncea var. napiformis[G]
Epithets:	From a Dictionary of Botanical Epithets
	juncea = rush like;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.75m. It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil; Root.

Leaves - raw or cooked[206]. A peppery flavour that can range from mild to hot, they make a good cooked vegetable[206]. The leaves can also be finely shredded and added to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

Sprouted seeds can be added to salads.

Root - raw or cooked[183]. Usually sliced and made into pickles[206].

Medicinal Uses

Disclaimer

Anodyne; Aperient; Diuretic; Emetic; Galactogogue; Rubefacient; Stimulant.

Reported to be anodyne, aperitif, diuretic, emetic, rubefacient, and stimulant, the plant is a folk remedy for arthritis, foot ache, lumbago, and rheumatism[269].

The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

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Leaves applied to the forehead are said to relieve headache[269].

The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206].

A form of B. juncea that has been selected in the Orient for its edible root[206]. It is fairly hardy, surviving temperatures down to at least -4°c[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from June to October. Spring-sown crops tend to run quickly to seed, though they can be eaten whilst still small[206]. It is best not to sow the seed in very hot weather[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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Plants For A Future: Database Search Results

Brassica juncea napiformis

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Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

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woodland) or no shade. It requires moist soil.

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Cultivated Beds.

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Condiment; Flowers; Leaves; Oil; Root.

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The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206].

A form of B. juncea that has been selected in the Orient for its edible root[206]. It is fairly hardy, surviving temperatures down to at least -4°c[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from June to October. Spring-sown crops tend to run quickly to seed, though they can be eaten whilst still small[206]. It is best not to sow the seed in very hot weather[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica juncea napiformis*

Subject:

Brassica juncea napiformis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica juncea napiformis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Brassica juncea rugosa

Common name:	Head mustard	Family:	Cruciferae
Author:	(Roxb.)N.Tsen.&S.N.Lee.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. B. juncea subsp. rugosa[G] B. juncea var. capitata[G] B. juncea var. rugosa[G] B. rugosa[G] Sinapis rugosa[G]
Epithets:	From a Dictionary of Botanical Epithets juncea = rush like;
Systematics:	From a UDSA Plants Database Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.6m by 0.4m . It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Leaves and stems - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves are more peppery than the stems[206]. The leaves can also be finely shredded and added to mixed salads[206]. The leaves can be harvested at any stage from seedling to maturity, becoming hotter with age[206].The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

Sprouted seeds can be added to salads.

Medicinal Uses

Disclaimer

Anodyne; Aperient; Diuretic; Emetic; Galactogogue; Rubefacient; Stimulant.

Reported to be anodyne, aperitif, diuretic, emetic, rubefacient, and stimulant, the plant is a folk remedy for arthritis, foot ache, lumbago, and rheumatism[269].

The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

In Java the plant is used as an antisyphilitic emmenagogue[269].

Leaves applied to the forehead are said to relieve headache[269].

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A form of B. juncea that has been selected in the Orient for its large edible leaves, there are many named varieties[206]. Plants are very hardy and stand the winter well in temperate areas, they can be harvested lightly in the winter but the main cropping time is in spring[206]. Plants take 3 - 4 months to reach maturity[206]. They prefer a fairly high stable temperature and are well adapted to short day length[200].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

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Cultivated Beds.

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The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

Sprouted seeds can be added to salads.

Medicinal Uses

Disclaimer

Anodyne; Aperient; Diuretic; Emetic; Galactogogue; Rubefacient; Stimulant.

Reported to be anodyne, aperitif, diuretic, emetic, rubefacient, and stimulant, the plant is a folk remedy for arthritis, foot ache, lumbago, and rheumatism[269].

The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

In Java the plant is used as an antisyphilitic emmenagogue[269].

Leaves applied to the forehead are said to relieve headache[269].

The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206].

A form of B. juncea that has been selected in the Orient for its large edible leaves, there are many named varieties[206]. Plants are very hardy and stand the winter well in temperate areas, they can be harvested lightly in the winter but the main cropping time is in spring[206]. Plants take 3 - 4 months to reach maturity[206]. They prefer a fairly high stable temperature and are well adapted to short day length[200].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from August to October[206]. Seed can also be sown in the spring but plants are very likely to run to seed[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica juncea rugosa*

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica juncea rugosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Brassica juncea tumida

Common name:	Swollen-stem mustard	Family:	Cruciferae
Author:	N.Tsen.&S.N.Lee.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. juncea var. tsatsai[G] B. juncea var. tumida[G]
Epithets:	From a Dictionary of Botanical Epithets
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	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
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Physical Characteristics

Annual growing to 0.75m. It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil; Stem.

Leaves and leaf stems - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves can also be finely shredded and added to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

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The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

Sprouted seeds can be added to salads.

Plants produce swellings on the stem, these can be cooked or pickled[206].

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Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from August to October. Spring and early summer-sown crops tend to run quickly to seed, though they can be eaten whilst still small[206]. It is best not to sow the seed in very hot weather[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

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> There are some named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

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Plants For A Future: Database Search Results

Brassica juncea tumida

Common name:	Swollen-stem mustard	Family:	Cruciferae
Author:	N.Tsen.&S.N.Lee.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	A cultivar of garden origin.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	4		

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

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Cultivated Beds.

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Epithets:	From a Dictionary of Botanical Epithets
	juncea = rush like; tumida = swollen;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual growing to 0.75m. It is hardy to zone 7 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Oil; Stem.

Leaves and leaf stems - raw or cooked[22, 33, 46, 52, 61]. A peppery flavour that can range from mild to hot, this is one of the most highly prized cooked vegetables in the Orient[206]. The leaves can also be finely shredded and added to mixed salads[206]. The protein extracted from the leaves mixes well with banana pulp and is well adapted as a pie filling[183].

Flowers and young flowering stems - raw or cooked[52]. Sweet and succulent[133].

An edible semi-drying oil is obtained from the seed[1, 2, 17, 57, 183]. The seed contains 25 - 30% oil[74].

The seed is used as a mustard flavouring[171]. It is the source of 'brown mustard'[183], a prepared mustard that is milder than that produced from other species[238]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238]. Black mustard comes from B. nigra and white mustard from Sinapis alba.

The seed is also used whole in curries and pickles[238]. They are often heated in oil to destroy their pungency and give them a nutty flavour[238].

Sprouted seeds can be added to salads.

Plants produce swellings on the stem, these can be cooked or pickled[206].

Medicinal Uses

Disclaimer

Anodyne; Aperient; Diuretic; Emetic; Galactogogue; Rubefacient; Stimulant.

Reported to be anodyne, aperitif, diuretic, emetic, rubefacient, and stimulant, the plant is a folk remedy for arthritis, foot ache, lumbago, and rheumatism[269].

The seed is used in the treatment of tumours in China[269]. In Korea, the seeds are used in the treatment of abscesses, colds, lumbago, rheumatism, and stomach disorders[269].

The root is used as a galactagogue in Africa[269].

Ingestion may impart a body odour repellent to mosquitoes[269].

Mustard oil is used in the treatment of skin eruptions and ulcers[269]. Believed to be aperient and tonic, the volatile oil is used as a counterirritant and stimulant[269].

In Java the plant is used as an antisyphilitic emmenagogue[269].

Leaves applied to the forehead are said to relieve headache[269].

The Chinese eat the leaves in soups for bladder, inflammation or haemorrhage[269].

Other Uses

Green manure; Repellent.

There is some evidence that if this plant is grown as a green manure it is effective in reducing soil-borne root rots in pea crops[206]. This is attributed to chemicals that are given off as the plants decay[206].

Cultivation details

Succeeds in full sun in most well-drained moisture-retentive fertile soils[16, 200, 206]. Prefers a heavy soil and some shade[16]. Dislikes very hot weather[33]. Plants tolerate high rainfall and, although fairly deep rooted, are not very drought resistant[206].

A form of B. juncea that has been selected in the Orient for its edible swollen stem, there are many named varieties[206]. Plants are reasonably cold-tolerant[206]. They prefer a fairly high stable temperature and are well adapted to short day length[200]. Many are best grown in warmer climates than Britain but there are several cultivars that grow well in this country[206].

Plants have a rooting depth of between 90 - 120 cm[269].

A good bee plant[74].

Propagation

Seed - sow in situ from August to October. Spring and early summer-sown crops tend to run quickly to seed, though they can be eaten whilst still small[206]. It is best not to sow the seed in very hot weather[206].

There are about 5,660 - 6,000 per 0.01 kg (1/3 oz)[269].

Cultivars

"

> There are some named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Brassica+juncea+tumida`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Brassica+juncea+tumida`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica juncea tumida*

Subject:

Brassica juncea tumida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica juncea tumida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Brassica napus

Common name:	Colza	Family:	Cruciferae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The oil contained in the seed of some varieties of this species can be rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	Europe - Mediterranean. Naturalized in Britain[17].		
Habitat:	Banks of streams, ditches and arable fields in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. napobrassica[B,P] B. napus var. napobrassica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canola [H], Kale [H], Koolzaad [D], Nabo [E], Naveteirnary [E], Rape [P,H,L], Turnip [B,E],
Epithets:	From a Dictionary of Botanical Epithets
	apus = stalk-less (foot-less);
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database

	Dominican Republic; Europe; Haiti
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual/Biennial growing to 1.2m. It is hardy to zone 7 and is not frost tender. It is in flower from May to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Oil; Seed; Stem.

Leaves - raw or cooked[4, 34, 37]. Added to salads or used as a potherb[183].

Immature flowering stems - cooked in much the same way as broccoli[183].

An edible oil is obtained from the seed, it is used mainly for cooking purposes, but can also be used raw in salad dressings[4, 13, 34, 46, 183]. Some caution is advised, however, see the notes above on toxicity.

The sprouted seed is often used as the mustard part of mustard and cress. Eaten in salads[4, 34, 37, 183].

The seed is used as a mustard flavouring[183].

Medicinal Uses

Disclaimer

Diuretic; Emollient.

The root is emollient and diuretic[240]. The juice of the roots is used in the treatment of chronic coughs and bronchial catarrh[240, 269].

The seed, powdered, with salt is said to be a folk remedy for cancer[269].

Rape oil is used in massage and oil baths, it is believed to strengthen the skin and keep it cool and healthy. With camphor it is applied as a remedy for rheumatism and stiff joints[269].

Other Uses

Green manure; Oil.

The seed contains up to 45% of an edible semi-drying oil, it is used as a luminant, lubricant, in soap making etc[13, 21, 57, 142]. Rapeseed oil has potential market in detergent lubrication oils, emulsifying agents, polyamide fibres, and resins, and as a vegetable wax substitute. According to the Chemical Marketing Reporter (April 26, 1982) "the most common use for the oil is still in the production or erucic acid, a fatty acid used in turn in the manufacture of other chemicals[269].

A good green manure, the deep taproot improves drainage and loosens heavy soils[18, 20, 87].

Cultivation details

Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52]. Prefers a heavy soil and cool moist conditions[16, 20]. Sunny days and cool nights are favourable for plant growth whilst dry weather at harvest time is essential[269]. Colza is reported to tolerate an annual precipitation of 30 to 280cm, an annual average temperature range of 5 to 27°C and a pH in the range of 4.2 to 8.2[269].

Very young plants are susceptible to cold damage, -4°C either killing or injuring seedlings, whereas -2°C has no affect when the plants are more than one month old[269].

Brassica napus is an aggregate species, probably derived through cultivation. It is thought that crosses of Brassica oleracea subsp. oleracea with B. rapa gave rise to the subsp. B. napus pabularia, from which subsp. napus and subsp. rapifera and other cvs were derived[269]. The aggregate species includes forms with swollen edible roots (B. napus napobrassica, the garden swede), forms grown for their oil-rich seeds (B. napus napus, the oilseed rape), forms grown for their edible leaves (B. napus pabularia, the rape kales) whilst the form grown as a green manure is B. napus arvensis. All these forms are treated separately here.

The oil obtained from the seed is high in erucic acid and glucosinolates, both of which have anti-nutritional properties. Cultivars have been developed that have a low content of these items and are therefore suitable for food.

Colza is 70% self-pollinating and 30% cross-pollinated. Even if wind and insects are absent, seed are still produced. Yield increases with honeybees[269].

The growth of this plant is inhibited by field mustard and hedge mustard growing nearby[18, 20].

This species is closely related to B. rapa[200].

Propagation

Seed - sow in situ in early spring to mid-August for a green manure crop.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Lighting: Plant Oils and Waxes

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *brassica napus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
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Fairly good.

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[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[87] **Woodward. L. Burge. P.** *Green Manures.* Elm Farm Research Centre. 1982
Green manure crops for temperate areas. Quite a lot of information on a number of species.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Brassica+napus`

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Plants For A Future: Database Search Results

Brassica napus

Common name:	Colza	Family:	Cruciferae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The oil contained in the seed of some varieties of this species can be rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	Europe - Mediterranean. Naturalized in Britain[17].		
Habitat:	Banks of streams, ditches and arable fields in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. napobrassica[B,P] B. napus var. napobrassica[B,P]
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Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Europe; Haiti
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual/Biennial growing to 1.2m. It is hardy to zone 7 and is not frost tender. It is in flower from May to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Oil; Seed; Stem.

Leaves - raw or cooked[4, 34, 37]. Added to salads or used as a potherb[183].

Immature flowering stems - cooked in much the same way as broccoli[183].

An edible oil is obtained from the seed, it is used mainly for cooking purposes, but can also be used raw in salad dressings[4, 13, 34, 46, 183]. Some caution is advised, however, see the notes above on toxicity.

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Medicinal Uses

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Diuretic; Emollient.

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The seed, powdered, with salt is said to be a folk remedy for cancer[269].

Rape oil is used in massage and oil baths, it is believed to strengthen the skin and keep it cool and healthy. With camphor it is applied as a remedy for rheumatism and stiff joints[269].

Other Uses

Green manure; Oil.

The seed contains up to 45% of an edible semi-drying oil, it is used as a luminant, lubricant, in soap making etc[13, 21, 57, 142]. Rapeseed oil has potential market in detergent lubrication oils, emulsifying agents, polyamide fibres, and resins, and as a vegetable wax substitute. According to the Chemical Marketing Reporter (April 26, 1982) "the most common use for the oil is still in the production or erucic acid, a fatty acid used in turn in the manufacture of other chemicals[269].

A good green manure, the deep taproot improves drainage and loosens heavy soils[18, 20, 87].

Cultivation details

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Very young plants are susceptible to cold damage, -4°C either killing or injuring seedlings, whereas -2°C has no affect when the plants are more than one month old[269].

Brassica napus is an aggregate species, probably derived through cultivation. It is thought that crosses of Brassica oleracea subsp. oleracea with B. rapa gave rise to the subsp. B. napus pabularia, from which subsp. napus and subsp. rapifera and other cvs were derived[269]. The aggregate species includes forms with swollen edible roots (B. napus napobrassica, the garden swede), forms grown for their oil-rich seeds (B. napus napus, the oilseed rape), forms grown for their edible leaves (B. napus pabularia, the rape kales) whilst the form grown as a green manure is B. napus arvensis. All these forms are treated separately here.

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The growth of this plant is inhibited by field mustard and hedge mustard growing nearby[18, 20].

This species is closely related to B. rapa[200].

Propagation

Seed - sow in situ in early spring to mid-August for a green manure crop.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Alternative Lighting: Plant Oils and Waxes

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
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References for *brassica napus* (a possible synonym).

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Plants For A Future: Database Search Results

Brassica napus

Common name:	Colza	Family:	Cruciferae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The oil contained in the seed of some varieties of this species can be rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	Europe - Mediterranean. Naturalized in Britain[17].		
Habitat:	Banks of streams, ditches and arable fields in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. napobrassica[B,P] B. napus var. napobrassica[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canola [H], Kale [H], Koolzaad [D], Nabo [E], Naveterinary [E], Rape [P,H,L], Turnip [B,E],
Epithets:	From a Dictionary of Botanical Epithets
	apus = stalk-less (foot-less);
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Europe; Haiti
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual/Biennial growing to 1.2m. It is hardy to zone 7 and is not frost tender. It is in flower from May to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Oil; Seed; Stem.

Leaves - raw or cooked[4, 34, 37]. Added to salads or used as a potherb[183].

Immature flowering stems - cooked in much the same way as broccoli[183].

An edible oil is obtained from the seed, it is used mainly for cooking purposes, but can also be used raw in salad dressings[4, 13, 34, 46, 183]. Some caution is advised, however, see the notes above on toxicity.

The sprouted seed is often used as the mustard part of mustard and cress. Eaten in salads[4, 34, 37, 183].

The seed is used as a mustard flavouring[183].

Medicinal Uses

Disclaimer

Diuretic; Emollient.

The root is emollient and diuretic[240]. The juice of the roots is used in the treatment of chronic coughs and bronchial catarrh[240, 269].

The seed, powdered, with salt is said to be a folk remedy for cancer[269].

Rape oil is used in massage and oil baths, it is believed to strengthen the skin and keep it cool and healthy. With camphor it is applied as a remedy for rheumatism and stiff joints[269].

Other Uses

Green manure; Oil.

The seed contains up to 45% of an edible semi-drying oil, it is used as a luminant, lubricant, in soap making etc[13, 21, 57, 142]. Rapeseed oil has potential market in detergent lubrication oils, emulsifying agents, polyamide fibres, and resins, and as a vegetable wax substitute. According to the Chemical Marketing Reporter (April 26, 1982) "the most common use for the oil is still in the production or erucic acid, a fatty acid used in turn in the manufacture of other chemicals[269].

A good green manure, the deep taproot improves drainage and loosens heavy soils[18, 20, 87].

Cultivation details

Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52]. Prefers a heavy soil and cool moist conditions[16, 20]. Sunny days and cool nights are favourable for plant growth whilst dry weather at harvest time is essential[269]. Colza is reported to tolerate an annual precipitation of 30 to 280cm, an annual average temperature range of 5 to 27°C and a pH in the range of 4.2 to 8.2[269].

Very young plants are susceptible to cold damage, -4°C either killing or injuring seedlings, whereas -2°C has no affect when the plants are more than one month old[269].

Brassica napus is an aggregate species, probably derived through cultivation. It is thought that crosses of Brassica oleracea subsp. oleracea with B. rapa gave rise to the subsp. B. napus pabularia, from which subsp. napus and subsp. rapifera and other cvs were derived[269]. The aggregate species includes forms with swollen edible roots (B. napus napobrassica, the garden swede), forms grown for their oil-rich seeds (B. napus napus, the oilseed rape), forms grown for their edible leaves (B. napus pabularia, the rape kales) whilst the form grown as a green manure is B. napus arvensis. All these forms are treated separately here.

The oil obtained from the seed is high in erucic acid and glucosinolates, both of which have anti-nutritional properties. Cultivars have been developed that have a low content of these items and are therefore suitable for food.

Colza is 70% self-pollinating and 30% cross-pollinated. Even if wind and insects are absent, seed are still produced. Yield increases with honeybees[269].

The growth of this plant is inhibited by field mustard and hedge mustard growing nearby[18, 20].

This species is closely related to B. rapa[200].

Propagation

Seed - sow in situ in early spring to mid-August for a green manure crop.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Brassica napus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica napus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Brassica napus arvensis

Common name:	Coleseed	Family:	Cruciferae
Author:	(Lam.)Thell.	Botanical references:	200
Synonyms:			
Known Hazards:	The oil contained in the seed of some varieties of this species can be rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	Europe - Mediterranean. Naturalized in Britain[17].		
Habitat:	Banks of streams, ditches and arable fields in Britain[17].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	apus = stalk-less (foot-less); arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual/Biennial growing to 1.2m. It is hardy to zone 7 and is not frost tender. It is in flower from May to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment; Leaves; Oil; Seed.

Leaves - raw or cooked[4, 34, 37]. Added to salads or used as a potherb[183].

Immature flowering stems - cooked in much the same way as broccoli[183].

An edible oil is obtained from the seed, it is used mainly for cooking purposes, but also for salads[4, 13, 34, 46, 183]. Some caution is advised, see the notes above on toxicity.

The sprouted seed is often used as the mustard part of mustard and cress. Eaten in salads[4, 34, 37, 183].

The seed is used as a mustard flavouring[183].

Medicinal Uses

Disclaimer

Diuretic; Emollient.

The root is emollient and diuretic[240]. The juice of the roots is used in the treatment of chronic coughs and bronchial catarrh[240, 269].

The seed, powdered, with salt is said to be a folk remedy for cancer[269].

Rape oil is used in massage and oil baths, it is believed to strengthen the skin and keep it cool and healthy. With camphor it is applied as a remedy for rheumatism and stiff joints[269].

Other Uses

Green manure.

The seed contains up to 45% of an edible semi-drying oil, it is used as a luminant, lubricant, in soap making etc[13, 21, 57, 142].

A good green manure, the deep taproot improves drainage and loosens heavy soils[18, 20, 87].

Cultivation details

Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52]. Prefers a heavy soil and cool moist conditions[16, 20]. Sunny days and cool nights are favourable for plant growth whilst dry weather at harvest time is essential[269]. Coleseed is reported to tolerate an annual precipitation of 30 to 280cm, an annual average temperature range of 5 to 27°C and a pH in the range of 4.2 to 8.2[269].

Very young plants are susceptible to cold damage, -4°C either killing or injuring seedlings, whereas -2°C has no affect when the plants are more than one month old[269].

Coleseed is the form of this species most often found either escaped or naturalized in Britain. It has a non-tuberous root and has been cultivated as a fodder crop, oil-seed crop and green manure[17].

Coleseed is 70% self-pollinating and 30% cross-pollinated. Even if wind and insects are absent, seed are still produced. Yield increases with honeybees[269].

The growth of this plant is inhibited by field mustard and hedge mustard growing nearby[18, 20].

This species is closely related to B. rapa[200].

Propagation

Seed - sow in situ in early spring to mid-August for a green manure crop.

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Brassica napus arvensis

Common name:	Coleseed	Family:	Cruciferae
Author:	(Lam.)Thell.	Botanical references:	200
Synonyms:			
Known Hazards:	The oil contained in the seed of some varieties of this species can be rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	Europe - Mediterranean. Naturalized in Britain[17].		
Habitat:	Banks of streams, ditches and arable fields in Britain[17].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	apus = stalk-less (foot-less); arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual/Biennial growing to 1.2m. It is hardy to zone 7 and is not frost tender. It is in flower from May to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment; Leaves; Oil; Seed.

Leaves - raw or cooked[4, 34, 37]. Added to salads or used as a potherb[183].

Immature flowering stems - cooked in much the same way as broccoli[183].

An edible oil is obtained from the seed, it is used mainly for cooking purposes, but also for salads[4, 13, 34, 46, 183]. Some caution is advised, see the notes above on toxicity.

The sprouted seed is often used as the mustard part of mustard and cress. Eaten in salads[4, 34, 37, 183].

The seed is used as a mustard flavouring[183].

Medicinal Uses

Disclaimer

Diuretic; Emollient.

The root is emollient and diuretic[240]. The juice of the roots is used in the treatment of chronic coughs and bronchial catarrh[240, 269].

The seed, powdered, with salt is said to be a folk remedy for cancer[269].

Rape oil is used in massage and oil baths, it is believed to strengthen the skin and keep it cool and healthy. With camphor it is applied as a remedy for rheumatism and stiff joints[269].

Other Uses

Green manure.

The seed contains up to 45% of an edible semi-drying oil, it is used as a luminant, lubricant, in soap making etc[13, 21, 57, 142].

A good green manure, the deep taproot improves drainage and loosens heavy soils[18, 20, 87].

Cultivation details

Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52]. Prefers a heavy soil and cool moist conditions[16, 20]. Sunny days and cool nights are favourable for plant growth whilst dry weather at harvest time is essential[269].

Coleseed is reported to tolerate an annual precipitation of 30 to 280cm, an annual average temperature range of 5 to 27°C and a pH in the range of 4.2 to 8.2[269].

Very young plants are susceptible to cold damage, -4°C either killing or injuring seedlings, whereas -2°C has no affect when the plants are more than one month old[269].

Coleseed is the form of this species most often found either escaped or naturalized in Britain. It has a non-tuberous root and has been cultivated as a fodder crop, oil-seed crop and green manure[17].

Coleseed is 70% self-pollinating and 30% cross-pollinated. Even if wind and insects are absent, seed are still produced. Yield increases with honeybees[269].

The growth of this plant is inhibited by field mustard and hedge mustard growing nearby[18, 20].

This species is closely related to B. rapa[200].

Propagation

Seed - sow in situ in early spring to mid-August for a green manure crop.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Brassica napus arvensis*

Subject:

Brassica napus arvensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica napus arvensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 04:17:41 2004

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Brassica napus napus

Common name:	Rape	Family:	Cruciferae
Author:	L.	Botanical references:	200
Synonyms:	Brassica campestris napus ((L.)Hook.f.&T.Anderson.)		
Known Hazards:	The oil contained in the seed of some varieties of this species can be rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	Europe - Mediterranean. Naturalized in Britain[17].		
Habitat:	Banks of streams, ditches and arable fields in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Kale [H], Rape [P], Toria [P], Turnip [H],
Epithets:	From a Dictionary of Botanical Epithets
	apus = stalk-less (foot-less);

Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual/Biennial growing to 1.2m. It is hardy to zone 7 and is not frost tender. It is in flower from May to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment; Leaves; Oil.

Leaves - raw or cooked[4, 34, 37]. Added to salads or used as a potherb[183].

Immature flowering stems - cooked in much the same way as broccoli[183].

An edible oil is obtained from the seed, it is used mainly for cooking purposes, but also for salads[4, 13, 34, 46, 183]. Some caution is advised, see the notes above on toxicity.

The sprouted seed is often used as the mustard part of mustard and cress. Eaten in salads[4, 34, 37, 183].

The seed is used as a mustard flavouring[183].

Medicinal Uses

Disclaimer

Diuretic; Emollient.

The root is emollient and diuretic[240]. The juice of the roots is used in the treatment of chronic coughs and bronchial catarrh[240, 269].

The seed, powdered, with salt is said to be a folk remedy for cancer[269].

Rape oil is used in massage and oil baths, it is believed to strengthen the skin and keep it cool and healthy. With camphor it is applied as a remedy for rheumatism and stiff joints[269].

Other Uses

Oil.

The seed contains up to 45% of an edible semi-drying oil, it is used as a luminant, lubricant, in soap making etc[13, 21, 57, 142].

Cultivation details

Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52]. Prefers a heavy soil and cool moist conditions[16, 20]. Sunny days and cool nights are favourable for plant growth whilst dry weather at harvest time is essential[269]. Rape is reported to tolerate an annual precipitation of 30 to 280cm, an annual average temperature range of 5 to 27°C and a pH in the range of 4.2 to 8.2[269].

Very young plants are susceptible to cold damage, -4°C either killing or injuring seedlings, whereas -2°C has no affect when the plants are more than one month old[269].

Rape is widely cultivated for its oil-rich seeds, there are many named varieties. The oil is high in erucic acid and glucosinolates, both of which have anti-nutritional properties. Cultivars have been developed that have a low content of these items and are therefore suitable for food.

Rape is 70% self-pollinating and 30% cross-pollinated. Even if wind and insects are absent, seed are still produced. Yield increases with honeybees[269].

The growth of this plant is inhibited by field mustard and hedge mustard growing nearby[18, 20].

This species is closely related to B. rapa[200].

Propagation

Seed - sow spring in situ.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]

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Range:	Europe - Mediterranean. Naturalized in Britain[17].		
Habitat:	Banks of streams, ditches and arable fields in Britain[17].		
Plants For A Future Rating (1-5):	3		

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Edible Uses

Condiment; Leaves; Oil.

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Immature flowering stems - cooked in much the same way as broccoli[183].

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Propagation

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Plants For A Future: Database Search Results

Brassica napus napus

Common name:	Rape	Family:	Cruciferae
Author:	L.	Botanical references:	200
Synonyms:	Brassica campestris napus ((L.)Hook.f.&T.Anderson.)		
Known Hazards:	The oil contained in the seed of some varieties of this species can be rich in erucic acid which is toxic. However, modern cultivars have been selected which are almost free of erucic acid.		
Range:	Europe - Mediterranean. Naturalized in Britain[17].		
Habitat:	Banks of streams, ditches and arable fields in Britain[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. B. campestris f. annua[G] B. campestris f. biennis[G] B. campestris ssp. napus[P] B. campestris subsp. napus[G] B. napus f. annua[G] B. napus f. biennis[G] B. napus napobrassica[H] B. napus subsp. napus[H] B. napus subsp. oleifera[G] B. napus var. annua[G] B. napus var. biennis[G] B. napus var. napobrassica[H] B. napus var. napus[G,P] B. napus var. oleifera[G] B. rapa var. dichotoma[P]
Other Common Names:	From various places around the Web, may not be correct. See below. Kale [H], Rape [P], Toria [P], Turnip [H],
Epithets:	From a Dictionary of Botanical Epithets apus = stalk-less (foot-less);
Systematics:	From a UDSA Plants Database Order: Capparales . Renamed to Brassicaceae -- Mustard family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Annual/Biennial growing to 1.2m. It is hardy to zone 7 and is not frost tender. It is in flower from May to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment; Leaves; Oil.

Leaves - raw or cooked[4, 34, 37]. Added to salads or used as a potherb[183].

Immature flowering stems - cooked in much the same way as broccoli[183].

An edible oil is obtained from the seed, it is used mainly for cooking purposes, but also for salads[4, 13, 34, 46, 183]. Some caution is advised, see the notes above on toxicity.

The sprouted seed is often used as the mustard part of mustard and cress. Eaten in salads[4, 34, 37, 183].

The seed is used as a mustard flavouring[183].

Medicinal Uses

Disclaimer

Diuretic; Emollient.

The root is emollient and diuretic[240]. The juice of the roots is used in the treatment of chronic coughs and bronchial catarrh[240, 269].

The seed, powdered, with salt is said to be a folk remedy for cancer[269].

Rape oil is used in massage and oil baths, it is believed to strengthen the skin and keep it cool and healthy. With camphor it is applied as a remedy for rheumatism and stiff joints[269].

Other Uses

Oil.

The seed contains up to 45% of an edible semi-drying oil, it is used as a luminant, lubricant, in soap making etc[13, 21, 57, 142].

Cultivation details

Succeeds in full sun in a well-drained fertile preferably alkaline soil[200]. Succeeds in any reasonable soil[52]. Prefers a heavy soil and cool moist conditions[16, 20]. Sunny days and cool nights are favourable for plant growth whilst dry weather at harvest time is essential[269]. Rape is reported to tolerate an annual precipitation of 30 to 280cm, an annual average temperature range of 5 to 27°C and a pH in the range of 4.2 to 8.2[269].

Very young plants are susceptible to cold damage, -4°C either killing or injuring seedlings, whereas -2°C has no affect when the plants are more than one month old[269].

Rape is widely cultivated for its oil-rich seeds, there are many named varieties. The oil is high in erucic acid and glucosinolates, both of which have anti-nutritional properties. Cultivars have been developed that have a low content of these items and are therefore suitable for food.

Rape is 70% self-pollinating and 30% cross-pollinated. Even if wind and insects are absent, seed are still produced. Yield increases with honeybees[269].

The growth of this plant is inhibited by field mustard and hedge mustard growing nearby[18, 20].

This species is closely related to B. rapa[200].

Propagation

Seed - sow spring in situ.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Brassica napus napus*

Subject:

Brassica napus napus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Brassica napus napus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Bunium bulbocastanum

Common name:	Pig nut	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:	Ligusticum bulbocastanum, Apium bulbocastanum		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Rough grassland and banks on chalk[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. bulbocastaneum[H] B. bulbocstanum[E] Carum bulbocastanum[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aardkastanje [D], Earth Chestnut [H], Great Pignut [P],
Epithets:	From a Dictionary of Botanical Epithets
	casta = spotless;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 0.6m by 0.25m . It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Condiment; Leaves; Root.

Root - raw or cooked[46, 61, 115]. A delicious taste very much like sweet chestnuts when cooked[2, K], but the tubers are very small and fiddly to harvest[183].

Seed and flowers. Used as a flavouring[61, 183], they are a cumin substitute[46].

Leaves - raw or cooked. They are used as a garnish and a flavouring in much the same way as parsley[46, 61, 183].

Medicinal Uses

Disclaimer

Astringent.

Astringent[61].

Other Uses

None known

Cultivation details

See the plants native habitat for ideas on its cultivation needs.

The pig nut has at times been cultivated for its edible root[61]. Although quite small in the wild, there is a potential to improve the size of this root through selective breeding and cultivation.

Propagation

Seed - sow spring in a cold frame. The seedlings only have one cotyledon[17]. Germination is usually free and quick, prick out the seedlings into individual pots as soon as they are large enough to handle and grow on for their first season in pots. Plant them out into their final positions when dormant in the autumn.

The seed can also be sown in situ, but this is best done only if you have lots of seed since far fewer plants will result.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Bunium bulbocstanum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Bunium bulbocastanum

Common name:	Pig nut	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:	Ligusticum bulbocastanum, Apium bulbocastanum		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Rough grassland and banks on chalk[17].		
Plants For A Future Rating (1-5):	4		

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	casta = spotless;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 0.6m by 0.25m . It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

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Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Condiment; Leaves; Root.

Root - raw or cooked[46, 61, 115]. A delicious taste very much like sweet chestnuts when cooked[2, K], but the tubers are very small and fiddly to harvest[183].

Seed and flowers. Used as a flavouring[61, 183], they are a cumin substitute[46].

Leaves - raw or cooked. They are used as a garnish and a flavouring in much the same way as parsley[46, 61, 183].

Medicinal Uses

Disclaimer

Astringent.

Astringent[61].

Other Uses

None known

Cultivation details

See the plants native habitat for ideas on its cultivation needs.

The pig nut has at times been cultivated for its edible root[61]. Although quite small in the wild, there is a potential to improve the size of this root through selective breeding and cultivation.

Propagation

Seed - sow spring in a cold frame. The seedlings only have one cotyledon[17]. Germination is usually free and quick, prick out the seedlings into individual pots as soon as they are large enough to handle and grow on for their first season in pots. Plant them out into their final positions when dormant in the autumn.

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Range:	Britain.		
Habitat:	Rough grassland and banks on chalk[17].		
Plants For A Future Rating (1-5):	4		

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Meadow, Cultivated Beds.

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Other Uses

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Cultivation details

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The pig nut has at times been cultivated for its edible root[61]. Although quite small in the wild, there is a potential to improve the size of this root through selective breeding and cultivation.

Propagation

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Division in spring or autumn.

Suppliers

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Add a comment on: *Bunium bulbocastanum*

Subject:

Bunium bulbocastanum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Bunium bulbocastanum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:18:46 2004

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Plants For A Future: Database Search Results

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Bunium persicum

Common name:	Black caraway	Family:	Umbelliferae
Author:	(Boiss.) Fedtsch.	Botanical references:	74
Synonyms:	Carum bulbocastanum (Clarke.)		
Known Hazards:	None known		
Range:	South-eastern Europe, the Caucasus, Siberia and Western Asia.		
Habitat:	Gentle exposed mountain slopes in C. Asia[74]. Dry scrubby slopes in the Himalayas[145].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. bulbocastanum[DUTCH,G,HORTIPLEX,P] Carum persicum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aardkastanje [D], Great Pignut [P], Tuberous Caraway [H],
Epithets:	From a Dictionary of Botanical Epithets
	persicum = of Persia;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	India

Physical Characteristics

Perennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Root.

Root - raw or cooked[74]. Tastes like sweet chestnuts.

Seed - used as a flavouring[145], a cumin substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. It is likely to prefer a well-drained light to medium soil in sun or light shade.

Propagation

Seed - sow spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Bunium bulbocastanum* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Carum bulbocastanum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

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URL for Site: http://

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Add a longer comment

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Bunium+persicum`

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Plants For A Future: Database Search Results

Bunium persicum

Common name:	Black caraway	Family:	Umbelliferae
Author:	(Boiss.) Fedtsch.	Botanical references:	74
Synonyms:	Carum bulbocastanum (Clarke.)		
Known Hazards:	None known		
Range:	South-eastern Europe, the Caucasus, Siberia and Western Asia.		
Habitat:	Gentle exposed mountain slopes in C. Asia[74]. Dry scrubby slopes in the Himalayas[145].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. bulbocastanum[DUTCH,G,HORTIPLEX,P] Carum persicum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aardkastanje [D], Great Pignut [P], Tuberous Caraway [H],
Epithets:	From a Dictionary of Botanical Epithets
	persicum = of Persia;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	India

Physical Characteristics

Perennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Root.

Root - raw or cooked[74]. Tastes like sweet chestnuts.

Seed - used as a flavouring[145], a cumin substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. It is likely to prefer a well-drained light to medium soil in sun or light shade.

Propagation

Seed - sow spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring or autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Bunium bulbocastanum* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Carum bulbocastanum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

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[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
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[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

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Bunium persicum

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Author:	(Boiss.) Fedtsch.	Botanical references:	74
Synonyms:	Carum bulbocastanum (Clarke.)		
Known Hazards:	None known		
Range:	South-eastern Europe, the Caucasus, Siberia and Western Asia.		
Habitat:	Gentle exposed mountain slopes in C. Asia[74]. Dry scrubby slopes in the Himalayas[145].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. bulbocastanum[DUTCH,G,HORTIPLEX,P] Carum persicum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aardkastanje [D], Great Pignut [P], Tuberous Caraway [H],
Epithets:	From a Dictionary of Botanical Epithets
	persicum = of Persia;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	India

Physical Characteristics

Perennial growing to 0.6m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Root.

Root - raw or cooked[74]. Tastes like sweet chestnuts.

Seed - used as a flavouring[145], a cumin substitute.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. It is likely to prefer a well-drained light to medium soil in sun or light shade.

Propagation

Seed - sow spring in a cold frame. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring or autumn.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Bunium persicum*

Subject:

Bunium persicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Bunium persicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Date: Sun May 16 04:19:21 2004

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Buxus sempervirens

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Box	Family:	Buxaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	All parts of the plant are poisonous, especially the leaves and bark[200].		
Range:	Britain.		
Habitat:	Beechwood and scrub, usually on chalk and limestone[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. colchica[G] Boxux sempervirens[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Boxwood [H], Boj [E], Box [H], Boxwood [DEN1,H,E], Buis [E], Bwes Beni [E], Common Box [B,P], Dudgeon [H], Huang Yang Mu [E], Le Buis [E], Palmboompje [D], Simsir [E],
Epithets:	From a Dictionary of Botanical Epithets
	sempervirens = evergreen; virens = green;
Systematics:	From a UDSA Plants Database
	Order: Euphorbiales . Boxwood family
Other Range Info:	From the Ethnobotany Database
	Belgium; China; Dominican Republic; Haiti; Mexico; Spain; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 5m by 5m at a slow rate. It is hardy to zone 5. It is in leaf all year, in flower from April to May, and the seeds ripen in September. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees and flies. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The leaves have been used in France as a substitute for hops (Humulus lupulus) in making beer[7]. They cannot be very wholesome, and would probably prove to be injurious[2].

Medicinal Uses

Disclaimer

Alterative; Antiperiodic; Antirheumatic; Cathartic; Cholagogue; Diaphoretic; Febrifuge; Homeopathy; Narcotic; Odontalgic; Oxytoxic; Sedative; Tonic; Vermifuge.

Although it has been used medicinally in the past as a sedative and to treat syphilis, box is very rarely used in modern herbalism[268].

The leaves and the bark are alterative, antirheumatic, cathartic, cholagogue, diaphoretic, febrifuge, oxytocic and vermifuge[4, 7, 9, 21, 178]. The leaves have been used as a quinine substitute in the treatment of malaria[7]. The leaves are harvested in the spring, before the plant comes into flower, and they are dried for later use[238]. The bark can be harvested at any time of the year and is dried for use in decoctions[238]. Use this remedy with caution and preferably only under the supervision of a qualified practitioner. The plant has not been fully tested for its toxic side effects[7, 21].

The wood is diaphoretic, in full dose it is narcotic and sedative, in overdose it is convulsant and emetico-cathartic[4]. A tincture of the wood has been used as a bitter tonic and antiperiodic, it has also had a reputation for curing leprosy[4]. A volatile oil distilled from the wood has been prescribed in cases of epilepsy[4].

An essential oil obtained from the plant is used in dentistry[7].

A homeopathic remedy is made from the plant[7]. It is extensively used in the treatment of rheumatism[7].

Other Uses

Dye; Hedge; Wood.

Box makes an excellent hedge from 45cm to 4.5 metres tall according to the variety grown[11, 29]. It is quite slow growing but very tolerant of cutting and is often used in topiary, where the hedge is trimmed into different forms for ornamental effect[182].

The leaves and sawdust, boiled in lye, have been used to dye hair an auburn colour[4].

Wood - hard, close grained, heavy. Although the wood is rather small, it is highly valued on account of its hardness - it is twice as hard as oak (Quercus species)[4, 268]. It is used for engraving, printing blocks, bowls, combs etc[4, 7, 11, 46, 100, 115, 178]. The root especially is much liked by turners and cabinet makers[7].

Cultivation details

Succeeds in almost any soil that is well-drained[11, 200], preferring light shade and chalky soils[9, 11, 28, 31]. Succeeds in dry shade[188]. Tolerates a pH range from 5.5 to 7.4[200].

A very hardy plant, tolerating temperatures down to at least -23°c, though it prefers milder winters[238].

A very polymorphic species, it is a very ornamental but slow growing plant[11] and there are many named varieties developed for their ornamental value[182].

This species is notably resistant to honey fungus[88, 200].

A good bee plant[108].

Plants are very tolerant of being trimmed, they can be cut right back to the base if required and will usually resprout freely[11, 29].

The foliage is pungently scented, especially when wet[245].

Propagation

Seed - stratification is not necessary but can lead to more regular germination[113]. The seed is best sown in a cold frame as soon as it is ripe[138]. Sow stored seed as early in the year as possible in a cold frame. It usually germinates in 1 - 3 months at 15°c but stored seed can take longer[138]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of short side shoots with a heel, September in a frame[200]. High percentage[78]. Rather slow to root[K].

Nodal cuttings in spring in a frame. Fairly easy[200].

Scent

Leaves: Crushed

The foliage is pungently scented, especially when wet.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: B
- Checklist of plants suitable for hedging and windbreaks.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Boxux sempervirens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Buxaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[28] **Knight. F. P.** *Plants for Shade.* Royal Horticultural Society. 1980 ISBN 0-900629-78-9
A small but informative booklet listing plants that can be grown in shady positions with a few cultivation details.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Name of Site:

URL for Site: http://

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Plants For A Future: Database Search Results

Buxus sempervirens

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Box	Family:	Buxaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	All parts of the plant are poisonous, especially the leaves and bark[200].		
Range:	Britain.		
Habitat:	Beechwood and scrub, usually on chalk and limestone[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. colchica[G] Boxux sempervirens[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Boxwood [H], Boj [E], Box [H], Boxwood [DEN1,H,E], Buis [E], Bwes Beni [E], Common Box [B,P], Dudgeon [H], Huang Yang Mu [E], Le Buis [E], Palmboompje [D], Simsir [E],
Epithets:	From a Dictionary of Botanical Epithets
	sempervirens = evergreen; virens = green;
Systematics:	From a UDSA Plants Database
	Order: Euphorbiales . Boxwood family
Other Range Info:	From the Ethnobotany Database
	Belgium; China; Dominican Republic; Haiti; Mexico; Spain; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 5m by 5m at a slow rate. It is hardy to zone 5. It is in leaf all year, in flower from April to May, and the seeds ripen in September. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees and flies. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The leaves have been used in France as a substitute for hops (Humulus lupulus) in making beer[7]. They cannot be very wholesome, and would probably prove to be injurious[2].

Medicinal Uses

Disclaimer

Alterative; Antiperiodic; Antirheumatic; Cathartic; Cholagogue; Diaphoretic; Febrifuge; Homeopathy; Narcotic; Odontalgic; Oxytoxic; Sedative; Tonic; Vermifuge.

Although it has been used medicinally in the past as a sedative and to treat syphilis, box is very rarely used in modern herbalism[268].

The leaves and the bark are alterative, antirheumatic, cathartic, cholagogue, diaphoretic, febrifuge, oxytocic and vermifuge[4, 7, 9, 21, 178]. The leaves have been used as a quinine substitute in the treatment of malaria[7]. The leaves are harvested in the spring, before the plant comes into flower, and they are dried for later use[238]. The bark can be harvested at any time of the year and is dried for use in decoctions[238]. Use this remedy with caution and preferably only under the supervision of a qualified practitioner. The plant has not been fully tested for its toxic side effects[7, 21].

The wood is diaphoretic, in full dose it is narcotic and sedative, in overdose it is convulsant and emetico-cathartic[4]. A tincture of the wood has been used as a bitter tonic and antiperiodic, it has also had a reputation for curing leprosy[4]. A volatile oil distilled from the wood has been prescribed in cases of epilepsy[4].

An essential oil obtained from the plant is used in dentistry[7].

A homeopathic remedy is made from the plant[7]. It is extensively used in the treatment of rheumatism[7].

Other Uses

Dye; Hedge; Wood.

Box makes an excellent hedge from 45cm to 4.5 metres tall according to the variety grown[11, 29]. It is quite slow growing but very tolerant of cutting and is often used in topiary, where the hedge is trimmed into different forms for ornamental effect[182].

The leaves and sawdust, boiled in lye, have been used to dye hair an auburn colour[4].

Wood - hard, close grained, heavy. Although the wood is rather small, it is highly valued on account of its hardness - it is twice as hard as oak (Quercus species)[4, 268]. It is used for engraving, printing blocks, bowls, combs etc[4, 7, 11, 46, 100, 115, 178]. The root especially is much liked by turners and cabinet makers[7].

Cultivation details

Succeeds in almost any soil that is well-drained[11, 200], preferring light shade and chalky soils[9, 11, 28, 31]. Succeeds in dry shade[188]. Tolerates a pH range from 5.5 to 7.4[200].

A very hardy plant, tolerating temperatures down to at least -23°c, though it prefers milder winters[238].

A very polymorphic species, it is a very ornamental but slow growing plant[11] and there are many named varieties developed for their ornamental value[182].

This species is notably resistant to honey fungus[88, 200].

A good bee plant[108].

Plants are very tolerant of being trimmed, they can be cut right back to the base if required and will usually resprout freely[11, 29].

The foliage is pungently scented, especially when wet[245].

Propagation

Seed - stratification is not necessary but can lead to more regular germination[113]. The seed is best sown in a cold frame as soon as it is ripe[138]. Sow stored seed as early in the year as possible in a cold frame. It usually germinates in 1 - 3 months at 15°c but stored seed can take longer[138]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of short side shoots with a heel, September in a frame[200]. High percentage[78]. Rather slow to root[K].

Nodal cuttings in spring in a frame. Fairly easy[200].

Scent

Leaves: Crushed

> The foliage is pungently scented, especially when wet.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: B
- Checklist of plants suitable for hedging and windbreaks.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Boxux sempervirens* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Buxaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[28] **Knight. F. P.** *Plants for Shade.* Royal Horticultural Society. 1980 ISBN 0-900629-78-9
A small but informative booklet listing plants that can be grown in shady positions with a few cultivation details.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Buxus sempervirens

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Box	Family:	Buxaceae
Author:	L.	Botanical references:	11, 17, 200
Synonyms:			
Known Hazards:	All parts of the plant are poisonous, especially the leaves and bark[200].		
Range:	Britain.		
Habitat:	Beechwood and scrub, usually on chalk and limestone[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	B. colchica[G] Boxux sempervirens[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Boxwood [H], Boj [E], Box [H], Boxwood [DEN1,H,E], Buis [E], Bwes Beni [E], Common Box [B,P], Dudgeon [H], Huang Yang Mu [E], Le Buis [E], Palmboompje [D], Simsir [E],
Epithets:	From a Dictionary of Botanical Epithets
	sempervirens = evergreen; virens = green;
Systematics:	From a UDSA Plants Database
	Order: Euphorbiales . Boxwood family
Other Range Info:	From the Ethnobotany Database
	Belgium; China; Dominican Republic; Haiti; Mexico; Spain; Turkey; Us

Physical Characteristics

An evergreen shrub growing to 5m by 5m at a slow rate. It is hardy to zone 5. It is in leaf all year, in flower from April to May, and the seeds ripen in September. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees and flies. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The leaves have been used in France as a substitute for hops (Humulus lupulus) in making beer[7]. They cannot be very wholesome, and would probably prove to be injurious[2].

Medicinal Uses

Disclaimer

Alterative; Antiperiodic; Antirheumatic; Cathartic; Cholagogue; Diaphoretic; Febrifuge; Homeopathy; Narcotic; Odontalgic; Oxytoxic; Sedative; Tonic; Vermifuge.

Although it has been used medicinally in the past as a sedative and to treat syphilis, box is very rarely used in modern herbalism[268].

The leaves and the bark are alterative, antirheumatic, cathartic, cholagogue, diaphoretic, febrifuge, oxytocic and vermifuge[4, 7, 9, 21, 178]. The leaves have been used as a quinine substitute in the treatment of malaria[7]. The leaves are harvested in the spring, before the plant comes into flower, and they are dried for later use[238]. The bark can be harvested at any time of the year and is dried for use in decoctions[238]. Use this remedy with caution and preferably only under the supervision of a qualified practitioner. The plant has not been fully tested for its toxic side effects[7, 21].

The wood is diaphoretic, in full dose it is narcotic and sedative, in overdose it is convulsant and emetico-cathartic[4]. A tincture of the wood has been used as a bitter tonic and antiperiodic, it has also had a reputation for curing leprosy[4]. A volatile oil distilled from the wood has been prescribed in cases of epilepsy[4].

An essential oil obtained from the plant is used in dentistry[7].

A homeopathic remedy is made from the plant[7]. It is extensively used in the treatment of rheumatism[7].

Other Uses

Dye; Hedge; Wood.

Box makes an excellent hedge from 45cm to 4.5 metres tall according to the variety grown[11, 29]. It is quite slow growing but very tolerant of cutting and is often used in topiary, where the hedge is trimmed into different forms for ornamental effect[182].

The leaves and sawdust, boiled in lye, have been used to dye hair an auburn colour[4].

Wood - hard, close grained, heavy. Although the wood is rather small, it is highly valued on account of its hardness - it is twice as hard as oak (Quercus species)[4, 268]. It is used for engraving, printing blocks, bowls, combs etc[4, 7, 11, 46, 100, 115, 178]. The root especially is much liked by turners and cabinet makers[7].

Cultivation details

Succeeds in almost any soil that is well-drained[11, 200], preferring light shade and chalky soils[9, 11, 28, 31]. Succeeds in dry shade[188]. Tolerates a pH range from 5.5 to 7.4[200].

A very hardy plant, tolerating temperatures down to at least -23°c, though it prefers milder winters[238].

A very polymorphic species, it is a very ornamental but slow growing plant[11] and there are many named varieties developed for their ornamental value[182].

This species is notably resistant to honey fungus[88, 200].

A good bee plant[108].

Plants are very tolerant of being trimmed, they can be cut right back to the base if required and will usually resprout freely[11, 29].

The foliage is pungently scented, especially when wet[245].

Propagation

Seed - stratification is not necessary but can lead to more regular germination[113]. The seed is best sown in a cold frame as soon as it is ripe[138]. Sow stored seed as early in the year as possible in a cold frame. It usually germinates in 1 - 3 months at 15°c but stored seed can take longer[138]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of short side shoots with a heel, September in a frame[200]. High percentage[78]. Rather slow to root[K].

Nodal cuttings in spring in a frame. Fairly easy[200].

Scent

Leaves: Crushed

> The foliage is pungently scented, especially when wet.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Buxus sempervirens*

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Buxus sempervirens

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Buxus sempervirens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Cacalia atriplicifolia

Common name:		Family:	Compositae
Author:	L.	Botanical references:	43, 235
Synonyms:	Arnoglossum atriplicifolium ((L.)H.E.Robins.)		
Known Hazards:	None known		
Range:	Eastern N. America - New York to Minnesota, south to Florida and Oklahoma.		
Habitat:	Dry open woods, thickets and openings[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. atriplicifolium[HORTIPLEX] C. rotundifolia[B,P] Mesadenia atriplicifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Armoglossum [P], Pale Indian Plantain [H,L], Pale Indian-plantain [B], Tassel Flower [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Cherokee)

Physical Characteristics

Perennial growing to 1.8m. . It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves.

Young leaves - cooked[177]. Used as a potherb[183]. The powdered leaves are used as a seasoning[257].

Medicinal Uses

Disclaimer

Poultice.

The leaves have been used as a poultice for cuts, bruises and cancers, and also to draw out blood or poisonous materials[222, 257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a moist peaty or leafy lime-free soil in shade or semi-shade[200].

Plants tend to be somewhat invasive, they are best suited to naturalizing in the wild or woodland garden[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in spring in a cold frame. Surface sow or only just cover the seed and do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade until they are large enough to plant out.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Arnoglossum atriplicifolium* (a possible synonym).

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Cacalia atriplicifolium* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169

An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Cacalia atriplicifolia

Common name:		Family:	Compositae
Author:	L.	Botanical references:	43, 235
Synonyms:	Arnoglossum atriplicifolium ((L.)H.E.Robins.)		
Known Hazards:	None known		
Range:	Eastern N. America - New York to Minnesota, south to Florida and Oklahoma.		
Habitat:	Dry open woods, thickets and openings[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. atriplicifolium[HORTIPLEX] C. rotundifolia[B,P] Mesadenia atriplicifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Armoglossum [P], Pale Indian Plantain [H,L], Pale Indian-plantain [B], Tassel Flower [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Cherokee)

Physical Characteristics

Perennial growing to 1.8m. . It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves.

Young leaves - cooked[177]. Used as a potherb[183]. The powdered leaves are used as a seasoning[257].

Medicinal Uses

Disclaimer

Poultice.

The leaves have been used as a poultice for cuts, bruises and cancers, and also to draw out blood or poisonous materials[222, 257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a moist peaty or leafy lime-free soil in shade or semi-shade[200].

Plants tend to be somewhat invasive, they are best suited to naturalizing in the wild or woodland garden[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in spring in a cold frame. Surface sow or only just cover the seed and do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade until they are large enough to plant out.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Arnoglossum atriplicifolium* (a possible synonym).

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Cacalia atriplicifolium* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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Plants For A Future: Database Search Results

Cacalia atriplicifolia

Common name:		Family:	Compositae
Author:	L.	Botanical references:	43, 235
Synonyms:	Arnoglossum atriplicifolium ((L.)H.E.Robins.)		
Known Hazards:	None known		
Range:	Eastern N. America - New York to Minnesota, south to Florida and Oklahoma.		
Habitat:	Dry open woods, thickets and openings[43].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. atriplicifolium[HORTIPLEX] C. rotundifolia[B,P] Mesadenia atriplicifolia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Armoglossum [P], Pale Indian Plantain [H,L], Pale Indian-plantain [B], Tassel Flower [E],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Cherokee)

Physical Characteristics

Perennial growing to 1.8m. . It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid and neutral soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves.

Young leaves - cooked[177]. Used as a potherb[183]. The powdered leaves are used as a seasoning[257].

Medicinal Uses

Disclaimer

Poultice.

The leaves have been used as a poultice for cuts, bruises and cancers, and also to draw out blood or poisonous materials[222, 257].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a moist peaty or leafy lime-free soil in shade or semi-shade[200].

Plants tend to be somewhat invasive, they are best suited to naturalizing in the wild or woodland garden[200].

Propagation

Seed - we have no information on this species but suggest sowing the seed in spring in a cold frame. Surface sow or only just cover the seed and do not allow the compost to dry out. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade until they are large enough to plant out.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cacalia atriplicifolia*

Subject:

Cacalia atriplicifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cacalia atriplicifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Cakile maritima

Common name:	Sea rocket	Family:	Cruciferae
Author:	Scop.	Botanical references:	17, 200
Synonyms:	Cakile edentula (non Hook.), Bunias cakile (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Sandy and shingly places all around the coast[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cakile[B,P] Eruca marina[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Searocket [P,B], European Searocket [B,P], Oruga Maritima [E], Sea Rocket [H], Zeeraket [D],
Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Spain; Us; Wi

Physical Characteristics

Annual growing to 0.3m by 0.3m . It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Root; Seedpod; Stem.

Leaves, stems, flower buds and immature seedpods - raw or cooked. They are rich in vitamin C but have a very bitter taste[4, 66]. Used mainly as a flavouring[132]. Very young leaves can be added to salads whilst older leaves can be mixed with milder tasting leaves and used as a potherb[183, K].

Root - dried and ground into a powder, then mixed with cereal flours and used to make bread[2]. A famine food, it is only used in times of scarcity[183].

The seed contains a fatty oil[74]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

Oil.

None known

Cultivation details

Prefers a light well-drained soil and a sunny position[1, 200]. Plants are easily grown in a garden situation and can self-sow if the ground is disturbed by hoeing etc[K].

This species is closely related to C. edentula, which is native to N. America[17].

The seed is often dispersed by floating in sea water[17].

Propagation

Seed - sow late spring or early autumn in situ. Germination is usually rapid.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cakile edentula* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Eruca marina* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Cakile maritima

Common name:	Sea rocket	Family:	Cruciferae
Author:	Scop.	Botanical references:	17, 200
Synonyms:	Cakile edentula (non Hook.), Bunias cakile (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Sandy and shingly places all around the coast[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cakile[B,P] Eruca marina[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Searocket [P,B], European Searocket [B,P], Oruga Maritima [E], Sea Rocket [H], Zeeraket [D],
Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Spain; Us; Wi

Physical Characteristics

Annual growing to 0.3m by 0.3m . It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Root; Seedpod; Stem.

Leaves, stems, flower buds and immature seedpods - raw or cooked. They are rich in vitamin C but have a very bitter taste[4, 66]. Used mainly as a flavouring[132]. Very young leaves can be added to salads whilst older leaves can be mixed with milder tasting leaves and used as a potherb[183, K].

Root - dried and ground into a powder, then mixed with cereal flours and used to make bread[2]. A famine food, it is only used in times of scarcity[183].

The seed contains a fatty oil[74]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

Oil.

None known

Cultivation details

Prefers a light well-drained soil and a sunny position[1, 200]. Plants are easily grown in a garden situation and can self-sow if the ground is disturbed by hoeing etc[K].

This species is closely related to C. edentula, which is native to N. America[17].

The seed is often dispersed by floating in sea water[17].

Propagation

Seed - sow late spring or early autumn in situ. Germination is usually rapid.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cakile edentula* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *Eruca marina* (a possible synonym).

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[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Cakile maritima

Common name:	Sea rocket	Family:	Cruciferae
Author:	Scop.	Botanical references:	17, 200
Synonyms:	Cakile edentula (non Hook.), Bunias cakile (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Sandy and shingly places all around the coast[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cakile[B,P] Eruca marina[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Searocket [P,B], European Searocket [B,P], Oruga Maritima [E], Sea Rocket [H], Zeeraket [D],
Epithets:	From a Dictionary of Botanical Epithets
	maritima = on the sea-coast;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Spain; Us; Wi

Physical Characteristics

Annual growing to 0.3m by 0.3m . It is hardy to zone 6 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Root; Seedpod; Stem.

Leaves, stems, flower buds and immature seedpods - raw or cooked. They are rich in vitamin C but have a very bitter taste[4, 66]. Used mainly as a flavouring[132]. Very young leaves can be added to salads whilst older leaves can be mixed with milder tasting leaves and used as a potherb[183, K].

Root - dried and ground into a powder, then mixed with cereal flours and used to make bread[2]. A famine food, it is only used in times of scarcity[183].

The seed contains a fatty oil[74]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

Oil.

None known

Cultivation details

Prefers a light well-drained soil and a sunny position[1, 200]. Plants are easily grown in a garden situation and can self-sow if the ground is disturbed by hoeing etc[K].

This species is closely related to C. edentula, which is native to N. America[17].

The seed is often dispersed by floating in sea water[17].

Propagation

Seed - sow late spring or early autumn in situ. Germination is usually rapid.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cakile maritima*

Subject:

Cakile maritima

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cakile maritima

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Calamintha grandiflora

Common name:	Large-flowered calamint	Family:	Labiatae
Author:	(L.) Moench.	Botanical references:	
Synonyms:	Satureja grandiflora ((L.)Scheele.)		
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Damp woods and scrub, often on limestone[187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Melissa grandiflora[G] Satureja calamintha[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Showy Calamint [H], Showy Savory [H],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; grandiflora = large flowered;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.6m by 0.5m . It is hardy to zone 5. It is in flower from July to September, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Tea.

A sweet and aromatic herb tea is made from the leaves[183]. Very refreshing. The leaves are harvested as the plant comes into flower and are dried for later use[244].

Leaves - used as a flavouring. A pleasant mint-like fragrance and flavour[183].

Medicinal Uses

Disclaimer

Aromatic; Diaphoretic; Expectorant.

The leaves are aromatic, diaphoretic and expectorant[244]. An infusion is used in the treatment of jaundice, nervous complaints, convulsions and cramps[244]. A warm poultice of the leaves may help soothe bruises and rheumatic pains[244].

Other Uses

Ground cover.

Plants can be used for ground cover, planted about 45cm apart each way they form spreading clumps[208].

Cultivation details

Prefers a well-drained soil and a sunny position[208]. Succeeds in any good soil in sun or partial shade[187]. Established plants are drought tolerant[190], preferring a soil on the dry side[208].

The plant is pleasantly fragrant when bruised[187]. The flowers have a delicious minty scent[245].

Plants often self-sow in gardens if they are well-sited[208].

Propagation

Seed - sow spring in a greenhouse. Only just cover the seed. Germination usually takes place within 2 weeks at 21°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse. Plant them out into their permanent positions in the summer if they are large enough, otherwise plant them out the following spring.

The seed can also be sown outdoors in a dry soil in April[244].

Division in spring or autumn[244]. Very easy, larger clumps can be planted direct into their permanent positions. It is best to pot up smaller clumps and grow them on in a cold frame until they are well rooted before planting them out in the summer.

Basal cuttings in May or June[244]. They should be rooted in a sandy compost[245]. Harvest the shoots when they are about 10 - 15cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Scent

Leaves: Crushed
    The plant is pleasantly fragrant when bruised.
Flowers: Fresh
    The flowers have a delicious minty scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Satureja grandiflora* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

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If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Author:	(L.) Moench.	Botanical references:	
Synonyms:	Satureja grandiflora ((L.)Scheele.)		
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Damp woods and scrub, often on limestone[187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Melissa grandiflora[G] Satureja calamintha[H]
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	flora = flowered; grandiflora = large flowered;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.6m by 0.5m . It is hardy to zone 5. It is in flower from July to September, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Tea.

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Medicinal Uses

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Other Uses

Ground cover.

Plants can be used for ground cover, planted about 45cm apart each way they form spreading clumps[208].

Cultivation details

Prefers a well-drained soil and a sunny position[208]. Succeeds in any good soil in sun or partial shade[187]. Established plants are drought tolerant[190], preferring a soil on the dry side[208].

The plant is pleasantly fragrant when bruised[187]. The flowers have a delicious minty scent[245].

Plants often self-sow in gardens if they are well-sited[208].

Propagation

Seed - sow spring in a greenhouse. Only just cover the seed. Germination usually takes place within 2 weeks at 21°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse. Plant them out into their permanent positions in the summer if they are large enough, otherwise plant them out the following spring.

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Scent

Leaves: Crushed

The plant is pleasantly fragrant when bruised.

Flowers: Fresh

The flowers have a delicious minty scent.

Suppliers

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Web References

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Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.6m by 0.5m . It is hardy to zone 5. It is in flower from July to September, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

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Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

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Scent

Leaves: Crushed

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Flowers: Fresh

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Suppliers

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calamintha grandiflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:21:37 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Calamintha nepeta

Common name:	Lesser calamint	Family:	Labiatae
Author:	(L.) Savi.	Botanical references:	17, 200
Synonyms:	Satureja nepeta ((L.)Scheele.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry banks, usually on calcareous soils[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. nepeta ssp. nepeta[B,P] C. nepetoides[B,P] Clinopodium nepeta[B,G,P] Melissa nepeta[G] Satureja calamintha[G] Satureja calamintha var. nepeta[B,P] Satureja calamintha var. nepetoides[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basil Thyme [L], Calamint [H], Lesser Calamint [H,B,P], Nepita [E], Nepitella [H],
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Italy

Physical Characteristics

Perennial growing to 0.6m by 0.75m . It is hardy to zone 6 and is not frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Tea.

The leaves have a strong pennyroyal-like fragrance and are more pungent than calamint (C. sylvatica)[183]. They can be used as a flavouring[183].

A sweet and aromatic herb tea is made from the leaves[200].

Medicinal Uses

Disclaimer

Aromatic; Diaphoretic; Expectorant; Febrifuge; Stomachic.

Lesser calamint was commonly used as a medicinal herb in medieval times, though is little used by modern herbalists[238]. It is sometimes cultivated as a medicinal herb for household use. The whole plant is aromatic, diaphoretic, expectorant, febrifuge and stomachic[4, 148]. The leaves are harvested in July as the plant comes into flower and are dried for later use[4]. An infusion is beneficial in cases of flatulent colic and weaknesses of the stomach[4], it is also used to treat depression, insomnia and painful menstruation[238]. It should not be prescribed for pregnant women since in excess it can cause a miscarriage[238].

Other Uses

None known

Cultivation details

Prefers a well-drained dry to moist neutral to alkaline soil and a warm sunny position[200, 238].

Plants are hardy to about -15°c[187].

This species is very closely related to C. sylvatica, and is considered to be no more than a sub-species by some botanists[4].

A very good bee plant[187].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed. It usually germinates in 2 weeks at 21°c[138]. Prick out the seedlings when they are large enough to handle and, if they grow sufficiently, plant them out into their permanent positions in the summer otherwise wait until the following spring.

Division in spring. Very easy, larger clumps can be planted direct into their permanent positions. It is best to pot up smaller clumps and grow them on in a cold frame until they are well rooted before planting them out in the summer.

Basal cuttings in May or June. They should be rooted in a sandy compost[245]. Harvest the shoots when they are about 10 - 15cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calamintha nepeta ssp. nepeta* (a possible synonym).

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- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Calamintha+nepeta`

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Other Uses

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Cultivation details

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Range:	Britain.		
Habitat:	Dry banks, usually on calcareous soils[17].		
Plants For A Future Rating (1-5):	3		

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Physical Characteristics

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Other Uses

None known

Cultivation details

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Plants are hardy to about -15°c[187].

This species is very closely related to C. sylvatica, and is considered to be no more than a sub-species by some botanists[4].

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Calamintha nepeta*

Subject:

Calamintha nepeta

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calamintha nepeta

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:22:13 2004

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Add Comment Reset

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Calamintha sylvatica

Common name:	Calamint	Family:	Labiatae
Author:	Bromf.	Botanical references:	17, 200
Synonyms:	Satureja ascendens ((Jord.)Maly.), Calamintha sylvatica ascendens ((Jord.) P.W. Ball.), Calamintha officinalis (Auct.), Calamintha baetica (Auct.), Calamintha ascendens (Jord.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry grassy banks, usually on calcareous soils, from southern Britain north to Durham and Yorkshire[5, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Acinos alpinus[H,HORTIPLEX] Acinos vulgaris[H] C. acinos[H] C. alpina[H] C. menthifolia[H] C. officinalis auct. non[P] C. sylvatica ssp. ascendens[B,P] Clinopodium menthifolium[DUTCH] Satureja alpina[H] Satureja calamintha[H] Satureja calamintha ssp. ascendens[B,P] Satureja sylvatica ssp. ascendens[B,P] Thymus acinos[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basil Thyme [H], Bergsteentijm [D], Calamint [H], Calamintha [H], Mill Mountain [H], Mountain Balm [H], Mountain Mint [H], Woodland Calamint [P,B], Yabani Oguoltu [E],
Epithets:	From a Dictionary of Botanical Epithets
	sylvatica = growing in the woods, wild;
Systematics:	From a UDSA Plants Database

	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Perennial growing to 0.6m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Condiment; Tea.

A sweet and aromatic herb tea is made from the leaves[200]. Very refreshing[4, 200].

Leaves - used as a flavouring in cooked dishes[177]. Pleasantly pungent and strongly aromatic, the flavour is said to resemble a cross between mint and marjoram[183].

Medicinal Uses

Disclaimer

Aromatic; Diaphoretic; Expectorant; Stomachic.

Calamint was commonly used as a medicinal herb in medieval times, though is little used by modern herbalists[238]. It has very similar properties to lesser calamint (C. nepeta) though is milder in its actions[238]. It is sometimes cultivated as a medicinal herb for household use.

The whole plant is aromatic, diaphoretic and expectorant[4]. The leaves are harvested in July as the plant comes into flower and are dried for storage[4]. An infusion is beneficial in cases of fevers, flatulent colic and weaknesses of the stomach[4], it is also used to treat depression, insomnia and painful menstruation[238]. Its expectorant action makes it a good cough and cold remedy and it is of value for treating mild respiratory infections[254]. It is best mixed with other herbs, especially yarrow (Achillea millefolium) and Thyme (Thymus vulgaris)[254].

Calamint should not be prescribed for pregnant women since in excess it can cause a miscarriage[238].

Other Uses

None known

Cultivation details

Succeeds in a well-drained dry to moist neutral to alkaline soil and a sunny position[1]. Likes semi-shade[200].

Succeeds in a woodland garden[200].

Bees love the flowers of this plant[K].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed. It usually germinates in 2 weeks at 21°c[138]. Prick out the seedlings when they are large enough to handle and, if they grow sufficiently, plant them out into their permanent positions in the summer otherwise wait until the following spring.

Division in spring. Very easy, larger clumps can be planted direct into their permanent positions. It is best to pot up smaller clumps and grow them on in a cold frame until they are well rooted before planting them out in the summer.

Basal cuttings in May or June. They should be rooted in a sandy compost[245]. Harvest the shoots when they are about 10 - 15cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Suppliers

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Web References

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Plants For A Future: Database Search Results

Calamintha sylvatica

Common name:	Calamint	Family:	Labiatae
Author:	Bromf.	Botanical references:	17, 200
Synonyms:	Satureja ascendens ((Jord.)Maly.), Calamintha sylvatica ascendens ((Jord.) P.W. Ball.), Calamintha officinalis (Auct.), Calamintha baetica (Auct.), Calamintha ascendens (Jord.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry grassy banks, usually on calcareous soils, from southern Britain north to Durham and Yorkshire[5, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Acinos alpinus[H,HORTIPLEX] Acinos vulgaris[H] C. acinos[H] C. alpina[H] C. menthifolia[H] C. officinalis auct. non[P] C. sylvatica ssp. ascendens[B,P] Clinopodium menthifolium[DUTCH] Satureja alpina[H] Satureja calamintha[H] Satureja calamintha ssp. ascendens[B,P] Satureja sylvatica ssp. ascendens[B,P] Thymus acinos[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Basil Thyme [H], Bergsteentijm [D], Calamint [H], Calamintha [H], Mill Mountain [H], Mountain Balm [H], Mountain Mint [H], Woodland Calamint [P,B], Yabani Oguoltu [E],
Epithets:	From a Dictionary of Botanical Epithets
	sylvatica = growing in the woods, wild;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Turkey

Physical Characteristics

Perennial growing to 0.6m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Dappled Shade.

Edible Uses

Condiment; Tea.

A sweet and aromatic herb tea is made from the leaves[200]. Very refreshing[4, 200].

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Medicinal Uses

Disclaimer

Aromatic; Diaphoretic; Expectorant; Stomachic.

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Calamint should not be prescribed for pregnant women since in excess it can cause a miscarriage[238].

Other Uses

None known

Cultivation details

Succeeds in a well-drained dry to moist neutral to alkaline soil and a sunny position[1]. Likes semi-shade[200].

Succeeds in a woodland garden[200].

Bees love the flowers of this plant[K].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed. It usually germinates in 2 weeks at 21°c[138]. Prick out the seedlings when they are large enough to handle and, if they grow sufficiently, plant them out into their permanent positions in the summer otherwise wait until the following spring.

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Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry grassy banks, usually on calcareous soils, from southern Britain north to Durham and Yorkshire[5, 17].		
Plants For A Future Rating (1-5):	3		

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Physical Characteristics

Perennial growing to 0.6m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in flower from July to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

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Other Uses

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Calamintha sylvatica*

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Calamintha sylvatica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calamintha sylvatica

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Calluna vulgaris

Common name:	Heather	Family:	Ericaceae
Author:	(L.) Hull.	Botanical references:	11, 17, 200
Synonyms:	Erica vulgaris (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Acid soils in open woodlands, moors and marshy ground[7].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Brecina [E], Funda [E], Heather [H,B,P,FEIS,L,E], Heather, Ling [MS], Ling [H,L], Struikhei [D],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 0.6m by 0.5m . It is hardy to zone 4. It is in leaf all year, in flower from July to October, and the seeds ripen from October to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, Lepidoptera (Moths & Butterflies) and wind. It is noted for attracting wildlife. We rate it 3 out of 5 for

usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Tea.

A tea is made from the flowering stems[177, 183].

A kind of mead was once brewed from the flowers and the young shoots have been used instead of hops to flavour beer[7, 183].

Medicinal Uses

Disclaimer

Antiseptic; Bach; Cholagogue; Depurative; Diaphoretic; Diuretic; Expectorant; Sedative; Vasoconstrictor.

Heather has a long history of medicinal use in folk medicine. In particular it is a good urinary antiseptic and diuretic, disinfecting the urinary tract and mildly increasing urine production[254].

The flowering shoots are antiseptic, astringent, cholagogue, depurative, diaphoretic, diuretic, expectorant, mildly sedative and vasoconstrictor[7, 8, 9, 21, 165, 238]. The plant is often macerated and made into a liniment for treating rheumatism and arthritis, whilst a hot poultice is a traditional remedy for chilblains[7, 254]. An infusion of the flowering shoots is used in the treatment of coughs, colds, bladder and kidney disorders, cystitis etc[9, 238, 254]. A cleansing and detoxifying plant, it has been used in the treatment of rheumatism, arthritis and gout[254]. The flowering stems are harvested in the autumn and dried for later use[7].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Self-centredness' and 'Self-concern'[209].

A homeopathic remedy is made from the fresh branches[9]. It is used in the treatment of rheumatism, arthritis and insomnia[9].

Other Uses

Basketry; Besom; Dye; Fuel; Ground cover; Hedge; Insulation; Musical; Tannin; Thatching.

The branches have many uses, including in thatching, as a bedding or a stuffing for mattresses, for insulation, basketry, rope making and for making brooms[6, 7, 11, 46, 61, 66, 100, 254].

The dried branches are a good fuel[6, 66].

The rootstock can be made into musical pipes[254].

A yellow dye is obtained from the plant[7, 46, 61].

The bark is a source of tannin[46].

Heather can be grown as a low hedge and is quite useful as an edging to beds. It is fairly amenable to trimming[29].

A useful ground cover plant for covering dry banks[188, 197]. The cultivar 'White Lawn' has been recommended[188]. All except the very dwarf cultivars will need trimming each spring in order to keep them compact[208].

Cultivation details

Requires a light acid soil and a sunny position[138, 182]. Prefers a sunny position but tolerates light shade[186]. Only succeeds if the pH is below 6.5[186]. Prefers a poor peaty soil[11]. Plants are tolerant of fairly dry soils but they dislike prolonged drought[186]. They tolerate wet conditions in the winter[238].

Plants regenerate well from the base after a fire if the heat was not too great, if the fire was slow and intense then new seedlings will quickly become established[186].

Commonly grown in the ornamental garden, there are many named varieties[200, 238].

The flowers are rich in nectar and are very attractive to bees, butterflies and moths[7, 11, 30]. This plant is also an important food source for the caterpillars of many lepidoptera[30].

Propagation

Seed - sow as soon as it is ripe or in February in a shaded part of the greenhouse[78, 113]. Surface sow or only just cover the seed[113, 138]. Cold stratification for 4 - 20 weeks aids germination[138]. The seed usually germinates in 1 - 2 months at 20°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood 4 - 5cm with a heel, July/August in a frame. Good percentage[78].

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Cultivars

'White Lawn'

> This cultivar has been recommended as a useful ground cover plant for covering dry banks[188, 197].

Suppliers

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PFAF Web Pages

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References

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Plants For A Future: Database Search Results

Calluna vulgaris

Common name:	Heather	Family:	Ericaceae
Author:	(L.) Hull.	Botanical references:	11, 17, 200
Synonyms:	Erica vulgaris (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Acid soils in open woodlands, moors and marshy ground[7].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Brecina [E], Funda [E], Heather [H,B,P,FEIS,L,E], Heather, Ling [MS], Ling [H,L], Struikhei [D],
Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 0.6m by 0.5m . It is hardy to zone 4. It is in leaf all year, in flower from July to October, and the seeds ripen from October to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, Lepidoptera (Moths & Butterflies) and wind. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Tea.

A tea is made from the flowering stems[177, 183].

A kind of mead was once brewed from the flowers and the young shoots have been used instead of hops to flavour beer[7, 183].

Medicinal Uses

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Antiseptic; Bach; Cholagogue; Depurative; Diaphoretic; Diuretic; Expectorant; Sedative; Vasoconstrictor.

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'White Lawn'

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Suppliers

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References

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Plants For A Future: Database Search Results

Calluna vulgaris

Common name:	Heather	Family:	Ericaceae
Author:	(L.) Hull.	Botanical references:	11, 17, 200
Synonyms:	Erica vulgaris (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Acid soils in open woodlands, moors and marshy ground[7].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	vulgaris = common;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 0.6m by 0.5m . It is hardy to zone 4. It is in leaf all year, in flower from July to October, and the seeds ripen from October to November. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, Lepidoptera (Moths & Butterflies) and wind. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Tea.

A tea is made from the flowering stems[177, 183].

A kind of mead was once brewed from the flowers and the young shoots have been used instead of hops to flavour beer[7, 183].

Medicinal Uses

Disclaimer

Antiseptic; Bach; Cholagogue; Depurative; Diaphoretic; Diuretic; Expectorant; Sedative; Vasoconstrictor.

Heather has a long history of medicinal use in folk medicine. In particular it is a good urinary antiseptic and diuretic, disinfecting the urinary tract and mildly increasing urine production[254].

The flowering shoots are antiseptic, astringent, cholagogue, depurative, diaphoretic, diuretic, expectorant, mildly sedative and vasoconstrictor[7, 8, 9, 21, 165, 238]. The plant is often macerated and made into a liniment for treating rheumatism and arthritis, whilst a hot poultice is a traditional remedy for chilblains[7, 254]. An infusion of the flowering shoots is used in the treatment of coughs, colds, bladder and kidney disorders, cystitis etc[9, 238, 254]. A cleansing and detoxifying plant, it has been used in the treatment of rheumatism, arthritis and gout[254]. The flowering stems are harvested in the autumn and dried for later use[7].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Self-centredness' and 'Self-concern'[209].

A homeopathic remedy is made from the fresh branches[9]. It is used in the treatment of rheumatism, arthritis and insomnia[9].

Other Uses

Basketry; Besom; Dye; Fuel; Ground cover; Hedge; Insulation; Musical; Tannin; Thatching.

The branches have many uses, including in thatching, as a bedding or a stuffing for mattresses, for insulation, basketry, rope making and for making brooms[6, 7, 11, 46, 61, 66, 100, 254].

The dried branches are a good fuel[6, 66].

The rootstock can be made into musical pipes[254].

A yellow dye is obtained from the plant[7, 46, 61].

The bark is a source of tannin[46].

Heather can be grown as a low hedge and is quite useful as an edging to beds. It is fairly amenable to trimming[29].

A useful ground cover plant for covering dry banks[188, 197]. The cultivar 'White Lawn' has been recommended[188]. All except the very dwarf cultivars will need trimming each spring in order to keep them compact[208].

Cultivation details

Requires a light acid soil and a sunny position[138, 182]. Prefers a sunny position but tolerates light shade[186]. Only succeeds if the pH is below 6.5[186]. Prefers a poor peaty soil[11]. Plants are tolerant of fairly dry soils but they dislike prolonged drought[186]. They tolerate wet conditions in the winter[238].

Plants regenerate well from the base after a fire if the heat was not too great, if the fire was slow and intense then new seedlings will quickly become established[186].

Commonly grown in the ornamental garden, there are many named varieties[200, 238].

The flowers are rich in nectar and are very attractive to bees, butterflies and moths[7, 11, 30]. This plant is also an important food source for the caterpillars of many lepidoptera[30].

Propagation

Seed - sow as soon as it is ripe or in February in a shaded part of the greenhouse[78, 113]. Surface sow or only just cover the seed[113, 138]. Cold stratification for 4 - 20 weeks aids germination[138]. The seed usually germinates in 1 - 2 months at 20°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter, planting them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood 4 - 5cm with a heel, July/August in a frame. Good percentage[78].

Cuttings of mature wood of the current season's growth, 5 - 7cm with a heel, October/November in a frame. Good percentage[78].

Layering in autumn[78].

Division in spring. Dig up the plant 12 months prior to division and replant it 15 - 30cm deeper in the soil in order to encourage rooting along the stems. When ready to take the divisions, it is just a matter of digging up the plant and cutting off sections of stem with roots on them. These are best potted up and kept in a cold frame or greenhouse until they are well rooted before planting them out in the summer or following spring.

Cultivars

'White Lawn'

> This cultivar has been recommended as a useful ground cover plant for covering dry banks[188, 197].

Suppliers

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Calocedrus decurrens

Common name:	Incense cedar	Family:	Cupressaceae
Author:	(Torr.) Florin.	Botanical references:	11, 60, 200
Synonyms:	Thuja gigantea (Carrière.), Libocedrus decurrens (Torr.), Heyderia decurrens ((Torr.)K.Koch.)		
Known Hazards:	None known		
Range:	South-western N. America - Oregon to California.		
Habitat:	Found on a variety of soils, usually on western slopes at an altitude of 700 - 2500 metres[229]. The best specimens are found on deep well-drained slightly acidic sandy loam soils[229].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Libocedrus decurrens f. aureovariegata[G] Libocedrus decurrens f. compacta[G] Libocedrus decurrens var. aureovariegata[G] Libocedrus decurrens var. compacta[G] Librocedrus decurrens[H]
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Epithets:	From a Dictionary of Botanical Epithets
	cedrus = of the cedars; decurrens = running down, towards;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family

Physical Characteristics

An evergreen tree growing to 15m by 2m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower in May, and the seeds ripen from September to October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Condiment.

The dense leaflets have been used as a flavouring and protection when leaching acorns[257].

Medicinal Uses

Disclaimer

Miscellany; Stomachic.

A decoction of the leaves has been used to treat stomach troubles[257].

Steam from an infusion of the leaves has been inhaled in the treatment of colds[257].

Other Uses

Basketry; Broom; Containers; Wood.

The boughs and twigs have been used to make brooms[257].

The roots have been used as overlay twine warps and overlay twine weft bases in making baskets[257].

The bark has been made into baskets[257].

Wood - soft, light, close grained, very durable in the soil though it is often damaged by dry rot[82]. It has a powerful, incense-like fragrance[245] and is used for making shingles, lathes, fencing, pencils, construction etc[46, 61, 81, 171]. Mature trees are often infected by dry rot, so they are not considered to be a major timber species[229].

Cultivation details

Succeeds in full sun in a moist well-drained soil that is neutral to acid, though it will also survive on dry alkaline soils[200]. Plants are shade tolerant when young[200]. It grows best in a position that is sheltered from strong winds[245].

Trees are slow growing but long-lived in the wild, with specimens up to 1000 years old recorded[229]. They grow slowly in Britain, but they are perfectly hardy[11]. Young trees can grow 60cm in a year but they seldom average more than 30cm[185]. Growth virtually stops once the tree reaches 25 metres tall[185].

All parts of the plant are strongly aromatic[188, 245].

This species is strongly resistant to honey fungus[81, 188].

The tree exhibits very different crown habits dependant upon the area in which it is being grown[185, 200]. At one time these different habits were considered to be different sub-species, but it is recognised now that it is only climatic forces that cause the differences.

Propagation

Seed - sow early spring in a greenhouse[245]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in a greenhouse or cold frame for their first winter. Plant them out in late spring or early summer, after the last expected frosts and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of the current season's growth, taken in mid autumn, in a light sandy soil in a cold frame[245].

Scent

Plant: Crushed

> All parts of the plant are strongly aromatic.

Suppliers

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Author:	(Torr.) Florin.	Botanical references:	11, 60, 200
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Plants For A Future Rating (1-5):	1		

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Habitats and Possible Locations

Woodland, Canopy, Secondary.

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Condiment.

The dense leaflets have been used as a flavouring and protection when leaching acorns[257].

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Miscellany; Stomachic.

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Cultivation details

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Synonyms:	Thuja gigantea (Carrière.), Libocedrus decurrens (Torr.), Heyderia decurrens ((Torr.)K.Koch.)		
Known Hazards:	None known		
Range:	South-western N. America - Oregon to California.		
Habitat:	Found on a variety of soils, usually on western slopes at an altitude of 700 - 2500 metres[229]. The best specimens are found on deep well-drained slightly acidic sandy loam soils[229].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Libocedrus decurrens f. aureovariegata[G] Libocedrus decurrens f. compacta[G] Libocedrus decurrens var. aureovariegata[G] Libocedrus decurrens var. compacta[G] Librocedrus decurrens[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Californian White Cedar [H], Incense Cedar [P], Incense-cedar [FEIS,B,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	cedrus = of the cedars; decurrens = running down, towards;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family

Physical Characteristics

An evergreen tree growing to 15m by 2m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower in May, and the seeds ripen from September to October. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Canopy, Secondary.

Edible Uses

Condiment.

The dense leaflets have been used as a flavouring and protection when leaching acorns[257].

Medicinal Uses

Disclaimer

Miscellany; Stomachic.

A decoction of the leaves has been used to treat stomach troubles[257].

Steam from an infusion of the leaves has been inhaled in the treatment of colds[257].

Other Uses

Basketry; Broom; Containers; Wood.

The boughs and twigs have been used to make brooms[257].

The roots have been used as overlay twine warps and overlay twine weft bases in making baskets[257].

The bark has been made into baskets[257].

Wood - soft, light, close grained, very durable in the soil though it is often damaged by dry rot[82]. It has a powerful, incense-like fragrance[245] and is used for making shingles, lathes, fencing, pencils, construction etc[46, 61, 81, 171]. Mature trees are often infected by dry rot, so they are not considered to be a major timber species[229].

Cultivation details

Succeeds in full sun in a moist well-drained soil that is neutral to acid, though it will also survive on dry alkaline soils[200]. Plants are shade tolerant when young[200]. It grows best in a position that is sheltered from strong winds[245].

Trees are slow growing but long-lived in the wild, with specimens up to 1000 years old recorded[229]. They grow slowly in Britain, but they are perfectly hardy[11]. Young trees can grow 60cm in a year but they seldom average more than 30cm[185]. Growth virtually stops once the tree reaches 25 metres tall[185].

All parts of the plant are strongly aromatic[188, 245].

This species is strongly resistant to honey fungus[81, 188].

The tree exhibits very different crown habits dependant upon the area in which it is being grown[185, 200]. At one time these different habits were considered to be different sub-species, but it is recognised now that it is only climatic forces that cause the differences.

Propagation

Seed - sow early spring in a greenhouse[245]. When large enough to handle, prick the seedlings out into individual pots and grow them on in light shade in a greenhouse or cold frame for their first winter. Plant them out in late spring or early summer, after the last expected frosts and consider giving them some protection from the cold for their first winter outdoors.

Cuttings of the current season's growth, taken in mid autumn, in a light sandy soil in a cold frame[245].

Scent

Plant: Crushed

All parts of the plant are strongly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Calocedrus+decurrens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Calocedrus+decurrens`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Calocedrus decurrens*

Subject:

Calocedrus decurrens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calocedrus decurrens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Calycanthus floridus

Common name:	Carolina allspice	Family:	Calycanthaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Calycanthus sterilis (Walter.)		
Known Hazards:	Ruminants are reported to have a toxic reaction from grazing this plant[4, 222].		
Range:	South-eastern N. America - Virginia to Florida, west to Alberta and West Virginia.		
Habitat:	Rich low shady woodlands[4, 43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. florida[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carolina Allspice [H], Common Sweetshrub [DEN1], Eastern Sweetshrub [P,B], Sweet Bush [H],
Epithets:	From a Dictionary of Botanical Epithets
	floridus = flowering;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 2.7m by 2m at a medium rate. It is hardy to zone 5. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The aromatic bark is dried and used as a substitute for cinnamon[2, 11, 46, 61, 105, 161, 183].

Medicinal Uses

Disclaimer

Antiperiodic; Antispasmodic; Cardiac; Disinfectant; Diuretic; Emetic; Ophthalmic; Skin.

Antispasmodic, disinfectant[106, 169].

The plant contains an alkaloid that has a powerfully depressant action on the heart[4]. A fluid extract has been used as an antiperiodic[4].

A tea made from the root or bark has been used as a strong emetic and diuretic for kidney and bladder ailments[222, 257]. A cold tea has been used as eye drops in the treatment of failing eyesight[222, 257].

An ooze from the bark has been used to treat children's sores, whilst an infusion has been used to treat hives[257].

Other Uses

Repellent.

Leaves contain small quantities of camphor. They can be used as an insect repellent, perfume and disinfectant[169, 257].

Cultivation details

Prefers a light loamy soil that is deep and moist but succeeds in most fertile soils[11, 182]. Requires a well-drained soil[188]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

All parts of the plant are richly fragrant[182]. The flowers have a refreshing scent of ripe apples[245]. The wood, leaves and roots smell strongly of camphor, whilst the bark smells like cinnamon[245].

This species is closely related to C. mohrii[182].

A very ornamental plant, there is at least one named variety developed for its ornamental value. 'Mrs Henry Type' is a large-flowered form[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. If the seed is harvested 'green' (as soon as it has fully developed but before it has dried on the plant) and sown immediately it can germinate in 3 weeks[113]. Dried seed germinates in 1 - 6 months at 15°c[138]. Stored seed requires between 3 weeks and 3 months cold stratification before sowing in the spring. When large enough to handle, prick out the seedlings into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. They can be difficult[113].

Layering in spring. Sever the new plants in a wet spell of weather about 15 months later and then lift them in the autumn[78]. High percentage[78].

Division of suckers in early spring[11]. Very easy, they can be planted straight out into their permanent positions if required.

Scent

Plant: Crushed Dried

> The wood, leaves and roots smell strongly of camphor, whilst the bark smells like cinnamon.

Flowers: Fresh

> The flowers have a refreshing scent of ripe apples.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calycanthus florida* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Calycanthaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9

Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
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[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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Covers all aspects of growing your own clothes, from fibre plants to dyes.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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If you know of another site which has good information about this plant fill in the following the

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Name of Site:

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Details:

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Calycanthus+floridus`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Calycanthus+floridus`

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Plants For A Future: Database Search Results

Calycanthus floridus

Common name:	Carolina allspice	Family:	Calycanthaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Calycanthus sterilis (Walter.)		
Known Hazards:	Ruminants are reported to have a toxic reaction from grazing this plant[4, 222].		
Range:	South-eastern N. America - Virginia to Florida, west to Alberta and West Virginia.		
Habitat:	Rich low shady woodlands[4, 43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. florida[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carolina Allspice [H], Common Sweetshrub [DEN1], Eastern Sweetshrub [P,B], Sweet Bush [H],
Epithets:	From a Dictionary of Botanical Epithets
	floridus = flowering;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 2.7m by 2m at a medium rate. It is hardy to zone 5. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The aromatic bark is dried and used as a substitute for cinnamon[2, 11, 46, 61, 105, 161, 183].

Medicinal Uses

Disclaimer

Antiperiodic; Antispasmodic; Cardiac; Disinfectant; Diuretic; Emetic; Ophthalmic; Skin.

Antispasmodic, disinfectant[106, 169].

The plant contains an alkaloid that has a powerfully depressant action on the heart[4]. A fluid extract has been used as an antiperiodic[4].

A tea made from the root or bark has been used as a strong emetic and diuretic for kidney and bladder ailments[222, 257]. A cold tea has been used as eye drops in the treatment of failing eyesight[222, 257].

An ooze from the bark has been used to treat children's sores, whilst an infusion has been used to treat hives[257].

Other Uses

Repellent.

Leaves contain small quantities of camphor. They can be used as an insect repellent, perfume and disinfectant[169, 257].

Cultivation details

Prefers a light loamy soil that is deep and moist but succeeds in most fertile soils[11, 182]. Requires a well-drained soil[188]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

All parts of the plant are richly fragrant[182]. The flowers have a refreshing scent of ripe apples[245]. The wood, leaves and roots smell strongly of camphor, whilst the bark smells like cinnamon[245].

This species is closely related to C. mohrii[182].

A very ornamental plant, there is at least one named variety developed for its ornamental value. 'Mrs Henry Type' is a large-flowered form[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. If the seed is harvested 'green' (as soon as it has fully developed but before it has dried on the plant) and sown immediately it can germinate in 3 weeks[113]. Dried seed germinates in 1 - 6 months at 15°c[138]. Stored seed requires between 3 weeks and 3 months cold stratification before sowing in the spring. When large enough to handle, prick out the seedlings into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. They can be difficult[113].

Layering in spring. Sever the new plants in a wet spell of weather about 15 months later and then lift them in the autumn[78]. High percentage[78].

Division of suckers in early spring[11]. Very easy, they can be planted straight out into their permanent positions if required.

Scent

Plant: Crushed Dried

> The wood, leaves and roots smell strongly of camphor, whilst the bark smells like cinnamon.

Flowers: Fresh

> The flowers have a refreshing scent of ripe apples.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calycanthus florida* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Calycanthaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

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Covers all aspects of growing your own clothes, from fibre plants to dyes.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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Plants For A Future: Database Search Results

Calycanthus floridus

Common name:	Carolina allspice	Family:	Calycanthaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Calycanthus sterilis (Walter.)		
Known Hazards:	Ruminants are reported to have a toxic reaction from grazing this plant[4, 222].		
Range:	South-eastern N. America - Virginia to Florida, west to Alberta and West Virginia.		
Habitat:	Rich low shady woodlands[4, 43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. florida[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carolina Allspice [H], Common Sweetshrub [DEN1], Eastern Sweetshrub [P,B], Sweet Bush [H],
Epithets:	From a Dictionary of Botanical Epithets
	floridus = flowering;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

A decidious shrub growing to 2.7m by 2m at a medium rate. It is hardy to zone 5. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The aromatic bark is dried and used as a substitute for cinnamon[2, 11, 46, 61, 105, 161, 183].

Medicinal Uses

Disclaimer

Antiperiodic; Antispasmodic; Cardiac; Disinfectant; Diuretic; Emetic; Ophthalmic; Skin.

Antispasmodic, disinfectant[106, 169].

The plant contains an alkaloid that has a powerfully depressant action on the heart[4]. A fluid extract has been used as an antiperiodic[4].

A tea made from the root or bark has been used as a strong emetic and diuretic for kidney and bladder ailments[222, 257]. A cold tea has been used as eye drops in the treatment of failing eyesight[222, 257].

An ooze from the bark has been used to treat children's sores, whilst an infusion has been used to treat hives[257].

Other Uses

Repellent.

Leaves contain small quantities of camphor. They can be used as an insect repellent, perfume and disinfectant[169, 257].

Cultivation details

Prefers a light loamy soil that is deep and moist but succeeds in most fertile soils[11, 182]. Requires a well-drained soil[188]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

All parts of the plant are richly fragrant[182]. The flowers have a refreshing scent of ripe apples[245]. The wood, leaves and roots smell strongly of camphor, whilst the bark smells like cinnamon[245].

This species is closely related to C. mohrii[182].

A very ornamental plant, there is at least one named variety developed for its ornamental value. 'Mrs Henry Type' is a large-flowered form[182].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. If the seed is harvested 'green' (as soon as it has fully developed but before it has dried on the plant) and sown immediately it can germinate in 3 weeks[113]. Dried seed germinates in 1 - 6 months at 15°c[138]. Stored seed requires between 3 weeks and 3 months cold stratification before sowing in the spring. When large enough to handle, prick out the seedlings into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. They can be difficult[113].

Layering in spring. Sever the new plants in a wet spell of weather about 15 months later and then lift them in the autumn[78]. High percentage[78].

Division of suckers in early spring[11]. Very easy, they can be planted straight out into their permanent positions if required.

Scent

Plant: Crushed Dried

> The wood, leaves and roots smell strongly of camphor, whilst the bark smells like cinnamon.

Flowers: Fresh

> The flowers have a refreshing scent of ripe apples.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Calycanthus floridus*

Subject:

Calycanthus floridus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calycanthus floridus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Calycanthus floridus glaucus

Common name:	Eastern sweetshrub	Family:	Calycanthaceae
Author:	(Willd.) Torr. & Gray.	Botanical references:	11, 43, 200
Synonyms:	Calycanthus glaucus (Willd.), Calycanthus floridus laevigatus ((Willd.)Torr.&A.Gray.), Calycanthus fertilis (Walter.)		
Known Hazards:	Some reports say that the fruits are poisonous to sheep[235].		
Range:	South-eastern N. America - Pennsylvania to North Carolina, Tennessee, Georgia and Alabama.		
Habitat:	Rich woodlands[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. floridus var. glaucus[B,P] C. floridus var. laevigatus[B,G,P] C. floridus var. oblongifolius[B,P] C. nanus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carolina Allspice [E], Eastern Sweetshrub [P],
Epithets:	From a Dictionary of Botanical Epithets
	floridus = flowering; glaucus = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Indian)

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 6. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The leaves, root and bark are dried and used as a substitute for cinnamon[177].

Medicinal Uses

Disclaimer

Diuretic; Emmenagogue.

Emmenagogue[61].

An infusion of the bark has been used to treat urinary problems[257].

Other Uses

None known

Cultivation details

Prefers a light loamy soil that is deep and moist but it succeeds in most fertile soils[11, 182]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

A very ornamental plant, it is often confused with the closely related C. floridus and is perhaps no more than a sub-species of that species[11]. The leaves smell strongly of cinnamon[245].

The seed only ripens in Britain after a hot summer[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. If the seed is harvested 'green' (as soon as it has fully developed but before it has dried on the plant) and sown immediately it can germinate in 3 weeks[113]. Dried seed germinates in 1 - 6 months at 15°c[138]. Stored seed requires between 3 weeks and 3 months cold stratification before sowing in the spring. When large enough to handle, prick out the seedlings into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. They can be difficult[113].

Layering in spring. Sever the new plants in a wet spell of weather about 15 months later and then lift them in the autumn[78]. High percentage[78].

Division of suckers in early spring[11]. Very easy, they can be planted straight out into their permanent positions if required.

Scent

Leaves: Crushed

> The leaves smell strongly of cinnamon.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for *Calycanthus fertilis* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calycanthus floridus var. glaucus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Calycanthus floridus var. laevigatus* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Calycanthaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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If you know of another site which has good information about this plant fill in the following the details here.

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Synonyms:	Calycanthus glaucus (Willd.), Calycanthus floridus laevigatus ((Willd.)Torr.&A.Gray.), Calycanthus fertilis (Walter.)		
Known Hazards:	Some reports say that the fruits are poisonous to sheep[235].		
Range:	South-eastern N. America - Pennsylvania to North Carolina, Tennessee, Georgia and Alabama.		
Habitat:	Rich woodlands[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. floridus var. glaucus[B,P] C. floridus var. laevigatus[B,G,P] C. floridus var. oblongifolius[B,P] C. nanus[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	floridus = flowering; glaucus = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Indian)

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 6. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The leaves, root and bark are dried and used as a substitute for cinnamon[177].

Medicinal Uses

Disclaimer

Diuretic; Emmenagogue.

Emmenagogue[61].

An infusion of the bark has been used to treat urinary problems[257].

Other Uses

None known

Cultivation details

Prefers a light loamy soil that is deep and moist but it succeeds in most fertile soils[11, 182]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

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The seed only ripens in Britain after a hot summer[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. If the seed is harvested 'green' (as soon as it has fully developed but before it has dried on the plant) and sown immediately it can germinate in 3 weeks[113]. Dried seed germinates in 1 - 6 months at 15°c[138]. Stored seed requires between 3 weeks and 3 months cold stratification before sowing in the spring. When large enough to handle, prick out the seedlings into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer of the following year.

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Division of suckers in early spring[11]. Very easy, they can be planted straight out into their permanent positions if required.

Scent

Leaves: Crushed

> The leaves smell strongly of cinnamon.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Calycanthus floridus glaucus

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Known Hazards:	Some reports say that the fruits are poisonous to sheep[235].		
Range:	South-eastern N. America - Pennsylvania to North Carolina, Tennessee, Georgia and Alabama.		
Habitat:	Rich woodlands[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	floridus = flowering; glaucus = glaucous;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Indian)

Physical Characteristics

A decidious shrub growing to 3m. It is hardy to zone 6. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The leaves, root and bark are dried and used as a substitute for cinnamon[177].

Medicinal Uses

Disclaimer

Diuretic; Emmenagogue.

Emmenagogue[61].

An infusion of the bark has been used to treat urinary problems[257].

Other Uses

None known

Cultivation details

Prefers a light loamy soil that is deep and moist but it succeeds in most fertile soils[11, 182]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

A very ornamental plant, it is often confused with the closely related C. floridus and is perhaps no more than a sub-species of that species[11]. The leaves smell strongly of cinnamon[245].

The seed only ripens in Britain after a hot summer[11].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. If the seed is harvested 'green' (as soon as it has fully developed but before it has dried on the plant) and sown immediately it can germinate in 3 weeks[113]. Dried seed germinates in 1 - 6 months at 15°c[138]. Stored seed requires between 3 weeks and 3 months cold stratification before sowing in the spring. When large enough to handle, prick out the seedlings into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. They can be difficult[113].

Layering in spring. Sever the new plants in a wet spell of weather about 15 months later and then lift them in the autumn[78]. High percentage[78].

Division of suckers in early spring[11]. Very easy, they can be planted straight out into their permanent positions if required.

Scent

Leaves: Crushed

> The leaves smell strongly of cinnamon.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Calycanthus floridus glaucus*

Subject:

Calycanthus floridus glaucus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calycanthus floridus glaucus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 04:25:11 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Calycanthus occidentalis

Common name:	Californian allspice	Family:	Calycanthaceae
Author:	Hook. & Arn.	Botanical references:	11, 200
Synonyms:	Calycanthus macrophyllus (Hort.)		
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Banks of streams, ponds and other wet places below 1200 metres[11, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Sweetshrub [DEN2], Western Sweetshrub [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	occidentalis = of the west;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 7. It is in flower from June to September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no

shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The aromatic bark is dried and used as a substitute for cinnamon and all spice[11, 105].

Medicinal Uses

Disclaimer

Expectorant; Stomachic.

The bark is expectorant[257]. A decoction of the fresh or dried bark has been used in the treatment of sore throats, severe colds and stomach disorders[257].

Other Uses

Basketry; Dye.

A light brown dye is obtained from the flowers[168].

The wood and the bark from fresh shoots has been used in basket making[257].

Cultivation details

Prefers a light loamy soil that is deep and moist but succeeds in most fertile soils if they are not shallow[11, 182]. Requires a well-drained soil[188]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

Plants are hardy to about -15°c[184].

The leaves and the flowers are very aromatic according to one report[188], whilst another says that the leaves and wood are pleasantly aromatic, whilst the flowers have no scent[245].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. If the seed is harvested 'green' (as soon as it has fully developed but before it has dried on the plant) and sown immediately it can germinate in 3 weeks[113]. Dried seed germinates in 1 - 6 months at 15°c[138]. Stored seed requires between 3 weeks and 3 months cold stratification before sowing in the spring. When large enough to handle, prick out the seedlings into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. They can be difficult[113].

Layering in spring. Sever the new plants in a wet spell of weather about 15 months later and then lift them in the autumn[78]. High percentage[78].

Division of suckers in early spring[11]. Very easy, they can be planted straight out into their permanent positions if required.

Scent

Plant: Fresh Crushed

The leaves and wood are pleasantly aromatic, whilst the flowers have no scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptaments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Calycanthaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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A very good and readable book on dyeing.

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Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Calycanthus occidentalis

Common name:	Californian allspice	Family:	Calycanthaceae
Author:	Hook. & Arn.	Botanical references:	11, 200
Synonyms:	Calycanthus macrophyllus (Hort.)		
Known Hazards:	None known		
Range:	South-western N. America - California.		
Habitat:	Banks of streams, ponds and other wet places below 1200 metres[11, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Sweetshrub [DEN2], Western Sweetshrub [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	occidentalis = of the west;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family

Physical Characteristics

A decidious shrub growing to 3m by 3m . It is hardy to zone 7. It is in flower from June to September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The aromatic bark is dried and used as a substitute for cinnamon and all spice[11, 105].

Medicinal Uses

Disclaimer

Expectorant; Stomachic.

The bark is expectorant[257]. A decoction of the fresh or dried bark has been used in the treatment of sore throats, severe colds and stomach disorders[257].

Other Uses

Basketry; Dye.

A light brown dye is obtained from the flowers[168].

The wood and the bark from fresh shoots has been used in basket making[257].

Cultivation details

Prefers a light loamy soil that is deep and moist but succeeds in most fertile soils if they are not shallow[11, 182]. Requires a well-drained soil[188]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

Plants are hardy to about -15°c[184].

The leaves and the flowers are very aromatic according to one report[188], whilst another says that the leaves and wood are pleasantly aromatic, whilst the flowers have no scent[245].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown in a cold frame as soon as it is ripe. If the seed is harvested 'green' (as soon as it has fully developed but before it has dried on the plant) and sown immediately it can germinate in 3 weeks[113]. Dried seed germinates in 1 - 6 months at 15°c[138]. Stored seed requires between 3 weeks and 3 months cold stratification before sowing in the spring. When large enough to handle, prick out the seedlings into individual pots and grow them on in the greenhouse for their first winter. Plant out in late spring or early summer of the following year.

Cuttings of half-ripe wood, July/August in a frame. They can be difficult[113].

Layering in spring. Sever the new plants in a wet spell of weather about 15 months later and then lift them in the autumn[78]. High percentage[78].

Division of suckers in early spring[11]. Very easy, they can be planted straight out into their permanent positions if required.

Scent

Plant: Fresh Crushed

The leaves and wood are pleasantly aromatic, whilst the flowers have no scent.

Suppliers

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Range:	South-western N. America - California.		
Habitat:	Banks of streams, ponds and other wet places below 1200 metres[11, 184].		
Plants For A Future Rating (1-5):	3		

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	occidentalis = of the west;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Strawberry-shrub family

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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The aromatic bark is dried and used as a substitute for cinnamon and all spice[11, 105].

Medicinal Uses

Disclaimer

Expectorant; Stomachic.

The bark is expectorant[257]. A decoction of the fresh or dried bark has been used in the treatment of sore throats, severe colds and stomach disorders[257].

Other Uses

Basketry; Dye.

A light brown dye is obtained from the flowers[168].

The wood and the bark from fresh shoots has been used in basket making[257].

Cultivation details

Prefers a light loamy soil that is deep and moist but succeeds in most fertile soils if they are not shallow[11, 182]. Requires a well-drained soil[188]. Prefers a sunny position but it tolerates shade when grown in warm temperate zones[11, 200]. Requires a sheltered position, protected from cold winds[245].

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Plants in this genus are notably resistant to honey fungus[200].

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Scent

Plant: Fresh Crushed

The leaves and wood are pleasantly aromatic, whilst the flowers have no scent.

Suppliers

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Add a comment on: *Calycanthus occidentalis*

Subject:

Calycanthus occidentalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calycanthus occidentalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Capparis spinosa

Common name:	Caper	Family:	Capparidaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean to E. Asia - Himalayas.		
Habitat:	On rocks, affecting the hottest localities, to 3600 metres in the Himalayas[146]. Old walls, cliffs and rocky hillsides in the Mediterranean[187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. rupestris[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Caper [H,P,E], Caper Bush [H], Capparis Spinosa [E], Kabar [E], Kebre [E],
Epithets:	From a Dictionary of Botanical Epithets
	spinosa = spiny;
Other Range Info:	From the Ethnobotany Database
	Egypt; Iraq; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 1m by 2m . It is hardy to zone 8. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves.

The flower buds are pickled and used as a flavouring in sauces, salads etc[146, 183]. The young fruits and tender branch tips can also be pickled and used as a condiment[183, 238]. The flower buds are harvested in the early morning and wilted before pickling them in white vinegar[238].

Young shoots - cooked and used like asparagus[177, 183].

Medicinal Uses

Disclaimer

Analgesic; Anthelmintic; Antihaemorrhoidal; Aperient; Deobstruent; Depurative; Diuretic; Emmenagogue; Expectorant; Tonic; Vasoconstrictor.

The root-bark is analgesic, anthelmintic, antihaemorrhoidal, aperient, deobstruent, depurative, diuretic, emmenagogue, expectorant, tonic and vasoconstrictive[7]. It is used internally in the treatment of gastrointestinal infections, diarrhoea, gout and rheumatism[238, 240]. Externally, it is used to treat skin conditions, capillary weakness and easy bruising[254]. The bark is harvested in the autumn and dried for later use[238].

The stem bark is bitter and diuretic[254]. If taken before meals it will increase the appetite[254].

The unopened flower buds are laxative[254]. They are used internally in the treatment of coughs, and externally to treat eye infections[238]. The buds are a rich source of compounds known as aldose-reductose inhibitors - it has been shown that these compounds are effective in preventing the formation of cataracts. The buds are harvested before the flowers open and can be pickled for later use - when prepared correctly they are said to ease stomach pain[254].

A decoction of the plant is used to treat vaginal thrush[7, 254].

The leaves are bruised and applied as a poultice in the treatment of gout[240].

Other Uses

Cosmetic.

An extract of the root is used as a cosmetic and is particularly useful in treating rose-coloured rashes and capillary weaknesses[7].

Cultivation details

Requires a hot, well-drained dry position in full sun[187, 200, 260]. Plants are tolerant of drought[260]. Tolerates a pH in the range 6.3 to 8.3.

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[187, 200].

A perennial species, this plant produces annual stems from a woody base[187].

The flowers open in the early morning and fade by midday[260].

Capers are often cultivated in tropical and sub-tropical zones for their aromatic flower buds, which are used as a condiment[187], they are also frequently gathered from the wild[238]. There are some named varieties[183], the most commonly cultivated form tends to be the spineless C. spinosa inermis[238].

Propagation

Seed - best sown as soon as it is ripe in a greenhouse. Prick out the seedlings into individual pots of well-drained soil when they are large enough to handle. Grow on the young plants for at least their first winter in a greenhouse and plant out in late spring or early summer.

Cuttings of half-ripe wood, July/August in sand in a cold frame[200].

Scent

Root:

No details on scent.

Cultivars

'Spineless' 'Senza spine'

> A spineless form, which makes harvesting the fruits much easier. The fruits are used in the same way as the species[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *capparis spinosa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean to E. Asia - Himalayas.		
Habitat:	On rocks, affecting the hottest localities, to 3600 metres in the Himalayas[146]. Old walls, cliffs and rocky hillsides in the Mediterranean[187].		
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Physical Characteristics

An evergreen shrub growing to 1m by 2m . It is hardy to zone 8. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves.

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Root:

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Capparis spinosa*

Subject:

Capparis spinosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Capparis spinosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:26:28 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Capsella bursa-pastoris

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Shepherd's purse	Family:	Cruciferae
Author:	(L.) Medik.	Botanical references:	17, 200
Synonyms:	Thlaspi bursa-pastoris (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Arable land, gardens, waste places etc, it is a common weed of cultivated soil[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Bursa bursa-pastoris[B,P] Bursa bursa-pastoris var. bifida[B,P] Bursa gracilis[B,P] Bursa rubella[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chi Ts'Ai [E], Coban Cantasi [E], Gewoon Herderstasje [D], Kees Al Rai'Y [E], Nazuna [E], Pan Y Quesillo [E], Shepherd'S Purse [E], Shepherd's Purse [H,P], Shepherd's-purse [B,L], Ti Mi Ts'Ai [E],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	China; Iraq; Italy; Poland; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.3m by 0.1m . It is not frost tender. It is in flower all year, and the seeds ripen all year. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Oil; Seed.

Leaves - raw or cooked[2, 4, 5, 52, 94]. The young leaves, used before the plant comes into flower, make a fine addition to salads[9]. The leaves are a cress and cabbage substitute[12], becoming peppery with age[172]. Leaves are usually available all year round, though they can also be dried for later use[12]. The leaves contain about 2.9% protein, 0.2% fat, 3.4% carbohydrate, 1% ash. They are rich in iron, calcium and vitamin C[179]. A zero moisture basis analysis is available[218].

The young flowering shoots can be eaten raw or cooked[264]. They are rather thin and fiddly but the taste is quite acceptable. They can be available at most times of the year.

Seed - raw or cooked[94, 172]. It can be ground into a meal and used in soups etc[102, 183]. It is very fiddly to harvest and utilize, the seed is very small[85].

The seed contains 35% of a fatty oil[179]. This oil can be extracted and is edible[74].

The seedpods can be used as a peppery seasoning for soups and stews[183].

The fresh or dried root is a ginger substitute[85, 172, 183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Fat: 35

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 280 Protein: 35.6 Fat: 4.2 Carbohydrate: 44.1 Fibre: 10.2 Ash: 16.1
In milligrammes per 100g weight of food:
Calcium: 1763 Phosphorus: 729 Iron: 40.7 Potassium: 3939 VitaminA: 21949 Thiamine: 2.12 Riboflavin: 1.44 Niacin: 3.4 VitaminC: 305
Source: [218]

Medicinal Uses

Disclaimer

Antiscorbutic; Astringent; Cancer; Diuretic; Emmenagogue; Haemostatic; Homeopathy; Hypotensive; Oxytoxic; Stimulant; Vasoconstrictor; Vasodilator; Vulnerary.

Shepherd's purse is little used in herbalism, though it is a commonly used domestic remedy, being especially efficacious in the treatment of both internal and external bleeding, diarrhoea etc[4, 222].

A tea made from the whole plant is antiscorbutic, astringent, diuretic, emmenagogue, haemostatic, hypotensive, oxytocic, stimulant, vasoconstrictor, vasodilator and vulnerary[4, 7, 9, 13, 21, 46, 147, 165, 172, 176, 222]. A tea made from the dried herb is considered to be a sovereign remedy against haemorrhages of all kinds - the stomach, the lungs, the uterus and more especially the kidneys[4, 222]. The plant can be used fresh or dried, for drying it is harvested in the summer[9]. The dried herb quickly loses its effectiveness and should not be stored for more than a year[9].

Clinical trials on the effectiveness of this plant as a wound herb have been inconclusive[244]. It appears that either it varies considerably in its effectiveness from batch to batch, or perhaps a white fungus that is often found on the plant contains the medically active properties[244].

The plant has been ranked 7th amongst 250 potential anti-fertility plants in China[218]. It has proven uterine-contracting properties and is traditionally used during childbirth[222].

The plant is a folk remedy for cancer - it contains fumaric acid which has markedly reduced growth and viability of Ehrlich tumour in mice[218].

A homeopathic remedy is made from the fresh plant[4]. It is used in the treatment of nose bleeds and urinary calculus[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Insecticide; Soil reclamation.

The seed, when placed in water, attracts mosquitoes. It has a gummy substance that binds the insects mouth to the seed[201]. The seed also releases a substance toxic to the larvae. ½ kilo of seed is said to be able to kill 10 million larvae[172].

Plants can be grown on salty or marshy land in order to reclaim it by absorbing the salt and 'sweetening' the soil[201].

Cultivation details

Plants flourish in most soils[17]. They will grow even in the poorest of soils, though in such a situation the plants might only reach a few centimetres tall before they flower and set seed[4]. In rich soils plants will take longer to go to seed and will grow up to 60cm tall[4].

Shepherd's purse is a very common garden weed that can spread freely in cultivated ground. It is usually in flower and producing seed in all months of the year. This species is a prime example of how a plant can be viewed as an annoying weed in some areas of the world whilst in others it is actually cultivated for its wide range of uses[4, 183]. The plant is extensively cultivated in some areas of the world as a cabbage-flavoured spring greens[268], in Japan it is one of the essential ingredients of a ceremonial rice and barley gruel that is eaten on January 7th[183]. The leaves grow rather larger under cultivation, they can be harvested about a month after sowing and can be treated as a cut and come again crop[206]. They do run to seed fairly rapidly, however, especially in hot dry weather or when in poor soils[206, K].

A member of the cabbage family, it is a host plant for many diseases of Brassicas[200].

Birds are very fond of the seeds of shepherd's purse[201].

Propagation

Seed - sow in situ February to May. Seed can also be sown as late as mid autumn[206]. A common weed of disturbed ground, the plant does not normally need any help to maintain itself[K].

Suppliers

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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Plants For A Future: Database Search Results

Capsella bursa-pastoris

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Shepherd's purse	Family:	Cruciferae
Author:	(L.) Medik.	Botanical references:	17, 200
Synonyms:	Thlaspi bursa-pastoris (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Arable land, gardens, waste places etc, it is a common weed of cultivated soil[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

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Cultivated Beds.

Edible Uses

Condiment; Leaves; Oil; Seed.

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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Capsella bursa-pastoris

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Shepherd's purse	Family:	Cruciferae
Author:	(L.) Medik.	Botanical references:	17, 200
Synonyms:	Thlaspi bursa-pastoris (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Arable land, gardens, waste places etc, it is a common weed of cultivated soil[9, 17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Bursa bursa-pastoris[B,P] Bursa bursa-pastoris var. bifida[B,P] Bursa gracilis[B,P] Bursa rubella[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chi Ts'Ai [E], Coban Cantasi [E], Gewoon Herderstasje [D], Kees Al Rai'Y [E], Nazuna [E], Pan Y Quesillo [E], Shepherd'S Purse [E], Shepherd's Purse [H,P], Shepherd's-purse [B,L], Ti Mi Ts'Ai [E],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	China; Iraq; Italy; Poland; Spain; Turkey; Us

Physical Characteristics

Annual growing to 0.3m by 0.1m . It is not frost tender. It is in flower all year, and the seeds ripen all year. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Oil; Seed.

Leaves - raw or cooked[2, 4, 5, 52, 94]. The young leaves, used before the plant comes into flower, make a fine addition to salads[9]. The leaves are a cress and cabbage substitute[12], becoming peppery with age[172]. Leaves are usually available all year round, though they can also be dried for later use[12]. The leaves contain about 2.9% protein, 0.2% fat, 3.4% carbohydrate, 1% ash. They are rich in iron, calcium and vitamin C[179]. A zero moisture basis analysis is available[218].

The young flowering shoots can be eaten raw or cooked[264]. They are rather thin and fiddly but the taste is quite acceptable. They can be available at most times of the year.

Seed - raw or cooked[94, 172]. It can be ground into a meal and used in soups etc[102, 183]. It is very fiddly to harvest and utilize, the seed is very small[85].

The seed contains 35% of a fatty oil[179]. This oil can be extracted and is edible[74].

The seedpods can be used as a peppery seasoning for soups and stews[183].

The fresh or dried root is a ginger substitute[85, 172, 183].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Fat: 35

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Calories: 280 Protein: 35.6 Fat: 4.2 Carbohydrate: 44.1 Fibre: 10.2 Ash: 16.1
In milligrammes per 100g weight of food:
Calcium: 1763 Phosphorus: 729 Iron: 40.7 Potassium: 3939 VitaminA: 21949 Thiamine: 2.12 Riboflavin: 1.44 Niacin: 3.4 VitaminC: 305
Source: [218]

Medicinal Uses

Disclaimer

Antiscorbutic; Astringent; Cancer; Diuretic; Emmenagogue; Haemostatic; Homeopathy; Hypotensive; Oxytoxic; Stimulant; Vasoconstrictor; Vasodilator; Vulnerary.

Shepherd's purse is little used in herbalism, though it is a commonly used domestic remedy, being especially efficacious in the treatment of both internal and external bleeding, diarrhoea etc[4, 222].

A tea made from the whole plant is antiscorbutic, astringent, diuretic, emmenagogue, haemostatic, hypotensive, oxytocic, stimulant, vasoconstrictor, vasodilator and vulnerary[4, 7, 9, 13, 21, 46, 147, 165, 172, 176, 222]. A tea made from the dried herb is considered to be a sovereign remedy against haemorrhages of all kinds - the stomach, the lungs, the uterus and more especially the kidneys[4, 222]. The plant can be used fresh or dried, for drying it is harvested in the summer[9]. The dried herb quickly loses its effectiveness and should not be stored for more than a year[9].

Clinical trials on the effectiveness of this plant as a wound herb have been inconclusive[244]. It appears that either it varies considerably in its effectiveness from batch to batch, or perhaps a white fungus that is often found on the plant contains the medically active properties[244].

The plant has been ranked 7th amongst 250 potential anti-fertility plants in China[218]. It has proven uterine-contracting properties and is traditionally used during childbirth[222].

The plant is a folk remedy for cancer - it contains fumaric acid which has markedly reduced growth and viability of Ehrlich tumour in mice[218].

A homeopathic remedy is made from the fresh plant[4]. It is used in the treatment of nose bleeds and urinary calculus[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Insecticide; Soil reclamation.

The seed, when placed in water, attracts mosquitoes. It has a gummy substance that binds the insects mouth to the seed[201]. The seed also releases a substance toxic to the larvae. ½ kilo of seed is said to be able to kill 10 million larvae[172].

Plants can be grown on salty or marshy land in order to reclaim it by absorbing the salt and 'sweetening' the soil[201].

Cultivation details

Plants flourish in most soils[17]. They will grow even in the poorest of soils, though in such a situation the plants might only reach a few centimetres tall before they flower and set seed[4]. In rich soils plants will take longer to go to seed and will grow up to 60cm tall[4].

Shepherd's purse is a very common garden weed that can spread freely in cultivated ground. It is usually in flower and producing seed in all months of the year. This species is a prime example of how a plant can be viewed as an annoying weed in some areas of the world whilst in others it is actually cultivated for its wide range of uses[4, 183]. The plant is extensively cultivated in some areas of the world as a cabbage-flavoured spring greens[268], in Japan it is one of the essential ingredients of a ceremonial rice and barley gruel that is eaten on January 7th[183]. The leaves grow rather larger under cultivation, they can be harvested about a month after sowing and can be treated as a cut and come again crop[206]. They do run to seed fairly rapidly, however, especially in hot dry weather or when in poor soils[206, K].

A member of the cabbage family, it is a host plant for many diseases of Brassicas[200].

Birds are very fond of the seeds of shepherd's purse[201].

Propagation

Seed - sow in situ February to May. Seed can also be sown as late as mid autumn[206]. A common weed of disturbed ground, the plant does not normally need any help to maintain itself[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Capsella bursa-pastoris*

Subject:

Capsella bursa-pastoris

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Capsella bursa-pastoris

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Capsicum baccatum

Common name:	Locoto	Family:	Solanaceae
Author:	L.	Botanical references:	200
Synonyms:	Capsicum microcarpum (Cav.)		
Known Hazards:	Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	S. America - Ecuador and the Andes		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. annum var. aviculare[P] C. annuum[] C. annuum var. annuum[B,G,P] C. annuum var. aviculare[B,G,P] C. annuum var. frutescens[B] C. annuum var. glabriusculum[B,G,P] C. annuum var. minimum[G,P] C. annuum var. minus[B,P] C. baccatum auct. non[P] C. baccatum var. baccatum[G,P] C. frutescens[B] C. frutescens sensu[P] C. frutescens var. baccatum[G] C. hispidum var. glabriusculum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aji Habanero Chile [H], Aji Montesino [E], Cayenne [E], Cayenne Pepper [P], Hint Biberi [E], Piment Zouezeau [E], Piment Zouezo [E],
Epithets:	From a Dictionary of Botanical Epithets
	baccatum = bearing berries;

Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Europe; Haiti; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 2m by 1m . It is hardy to zone 9 and is frost tender. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[238]. A medium to very hot pungent flavour, it is mainly used as a flavouring in cooked foods[238]. The fruit can be dried and ground into a powder for use as a pepper-like condiment[238]. The fruit is up to 13cm long[238].

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Antirheumatic; Digestive; Irritant; Rubefacient; Sialagogue.

The hot and pungent fruit is antihaemorrhoidal when taken in small amounts, antirheumatic, antiseptic, diaphoretic, digestive, irritant, rubefacient, sialagogue and tonic[7, 238]. It is taken internally in the treatment of the cold stage of fevers, debility in convalescence or old age, varicose veins, asthma and digestive problems[238]. Externally it is used in the treatment of sprains, unbroken chilblains, neuralgia, pleurisy etc[238].

Other Uses

The growing plant repels insects[20].

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Tolerates a pH in the range 4.3 to 8.3.

This species is a half-hardy perennial that can tolerate light frosts[238]. The sub-species C. baccata pendulum is hardier than the type and more likely to be successful in temperate climates[238]. It might be possible to grow it outdoors in the mildest areas of the country, especially if given the protection of a sunny wall[K]. It is usually cultivated as an annual when grown for its fruits[34, 61].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Capsicum annuum var. annuum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized

Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for the family Solanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989

Very readable magazine with lots of information on propagation.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

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Cultivation details

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References for the family Solanaceae.

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[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

Readers Comments

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Capsicum+baccatum`
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Plants For A Future: Database Search Results

Capsicum baccatum

Common name:	Locoto	Family:	Solanaceae
Author:	L.	Botanical references:	200
Synonyms:	Capsicum microcarpum (Cav.)		
Known Hazards:	Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	S. America - Ecuador and the Andes		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. annum var. aviculare[P] C. annuum[] C. annuum var. annuum[B,G,P] C. annuum var. aviculare[B,G,P] C. annuum var. frutescens[B] C. annuum var. glabriusculum[B,G,P] C. annuum var. minimum[G,P] C. annuum var. minus[B,P] C. baccatum auct. non[P] C. baccatum var. baccatum[G,P] C. frutescens[B] C. frutescens sensu[P] C. frutescens var. baccatum[G] C. hispidum var. glabriusculum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aji Habanero Chile [H], Aji Montesino [E], Cayenne [E], Cayenne Pepper [P], Hint Biberi [E], Piment Zouezeau [E], Piment Zouezo [E],
Epithets:	From a Dictionary of Botanical Epithets
	baccatum = bearing berries;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database
	Dominican Republic; Europe; Haiti; Turkey

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 2m by 1m . It is hardy to zone 9 and is frost tender. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[238]. A medium to very hot pungent flavour, it is mainly used as a flavouring in cooked foods[238]. The fruit can be dried and ground into a powder for use as a pepper-like condiment[238]. The fruit is up to 13cm long[238].

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Antirheumatic; Digestive; Irritant; Rubefacient; Sialagogue.

The hot and pungent fruit is antihaemorrhoidal when taken in small amounts, antirheumatic, antiseptic, diaphoretic, digestive, irritant, rubefacient, sialagogue and tonic[7, 238]. It is taken internally in the treatment of the cold stage of fevers, debility in convalescence or old age, varicose veins, asthma and digestive problems[238]. Externally it is used in the treatment of sprains, unbroken chilblains, neuralgia, pleurisy etc[238].

Other Uses

The growing plant repels insects[20].

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Tolerates a pH in the range 4.3 to 8.3.

This species is a half-hardy perennial that can tolerate light frosts[238]. The sub-species C. baccata pendulum is hardier than the type and more likely to be successful in temperate climates[238]. It might be possible to grow it outdoors in the mildest areas of the country, especially if given the protection of a sunny wall[K]. It is usually cultivated as an annual when grown for its fruits[34, 61].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Capsicum+baccatum`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Capsicum baccatum*

Subject:

Capsicum baccatum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Capsicum baccatum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:27:39 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Capsicum frutescens

Common name:	Tabasco pepper	Family:	Solanaceae
Author:	L.	Botanical references:	200
Synonyms:	Capsicum minimum (Roxb.)		
Known Hazards:	Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	Probably native of the Tropics, but the original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. annum var. aviculare[P] C. annuum[B,E,G,H,HPIC,HORTIPLEX,Sc,,P] C. annuum var. annuum[B,G,P] C. annuum var. aviculare[B,G,P] C. annuum var. frutescens[B,P] C. annuum var. glabriusculum[B,G,P] C. annuum var. minimum[G,P] C. annuum var. minus[B,P] C. baccatum[B] C. baccatum auct. non[P] C. cordiforme[G] C. frutescens sensu[P] C. frytescens[E] C. hispidum var. glabriusculum[G] Croton annum[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	African Pepper [H], Aji Dulce [E], Bird Pepper [H], Capsicum [S], Cayenne [H], Cayenne Pepper [P,B], Chabai Achong [E], Chile [H,E], Chillies [H], Filfil [E], Filfil Darah [E], Hungarian Pepper [H], Kirmizi Biber [E], La Chiao [E], Mexican Chili [H], Paprika [H], Pepper, Bird Or Chili [S], Pepper,Red [E], Peppers [H], Piment De Cayenne [E], Piment Doux [E], Pimiento [E], Red Pepper [H], Sakaipilo [E], Sili Biberi [E], Sweet Pepper [H],

Epithets:	From a Dictionary of Botanical Epithets frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database Order: Solanales . Potato family
Other Range Info:	From the Ethnobotany Database China; Dominican Republic; Gabon; Haiti; Hawaii; India; India(Santal); Iraq; Malagasy; Malaya; Mexico; Mexico(Aztec); Mongolia; Panama(Cuna); Philippines; Philippines(Ifugao); Samoa; Spain; Tonga; Trinidad; Turkey; Us; Us(Nm)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 9 and is frost tender. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit; Leaves.

Fruit - raw or cooked[34, 46, 132]. Very hot and normally used as a flavouring[183]. The fruit can be dried and ground into a powder for use as a flavouring[142]. The fruit is up to 7.5cm long and 1cm wide[200].

Seed - dried, ground and used as a pepper[2].

Leaves - cooked as a potherb[183]. Some caution is advised, see note at top of the page.

Medicinal Uses

Disclaimer

Anaesthetic; Antihaemorrhoidal; Antirheumatic; Antiseptic; Carminative; Diaphoretic; Digestive; Irritant; Rubefacient; Sialagogue; Stimulant; Stomachic.

The dried fruit is a powerful local stimulant with no narcotic effect, it is most useful in atony of the intestines and stomach[4]. It has proved efficacious in dilating blood vessels and thus relieving chronic congestion of people addicted to drink[4]. It is sometimes used as a tonic and is said to be unequalled in warding off disease[4] (probably due to the high vitamin C content[K]). Some caution should be employed, however, since large doses are extremely irritating to the gastro-intestinal system[268].

Used externally, the fruit is a strong rubefacient stimulating the circulation, aiding the removal of waste products and increasing the flow of nutrients to the tissues[254]. It is applied as a cataplasm or liniment[4]. It has also been powdered and placed inside socks as a traditional remedy for those prone to cold feet[254]. A weak infusion can be used as a gargle to treat throat complaints[268].

The fruit is also antihaemorrhoidal, antirheumatic, antiseptic, carminative, diaphoretic, digestive, sialagogue and stomachic[7, 165, 171]. These pungent fruited peppers are important in the tropics as gastrointestinal detoxifiers and food preservatives[238].

The fruits contain 0.1 - 1.5% capsaicin[254]. This substance stimulates the circulation and alters temperature regulation. Applied to the skin it desensitizes nerve endings and so has been used as a local anaesthetic[254].

The seed contains capsicidins[254]. These are thought to have antibiotic properties[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Repellent.

The growing plant repels insects[20].

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Tolerates a pH in the range 4.3 to 8.3.

This species is a frost-tender perennial that is usually cultivated as an annual[34, 61]. It does not commonly do well outdoors in an average British summer and it is usually grown in a greenhouse in this country[1]. However, if a very warm sheltered position outdoors is chosen then reasonable crops could be obtained in good summers.

Widely grown throughout the world, but especially in warm temperate to tropical climates for its edible fruit, tabasco peppers. There are many named varieties[132].

The growing plant is a good companion for aubergines[20].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Capsicum annuum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Capsicum annuum var. annuum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Capsicum annuum var. frutescens* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Capsicum annuum var. glabriusculum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Capsicum frytescens* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Capsicum minimum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *capsicum annuum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for *capsicum frutescens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Solanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Capsicum frutescens

Common name:	Tabasco pepper	Family:	Solanaceae
Author:	L.	Botanical references:	200
Synonyms:	Capsicum minimum (Roxb.)		
Known Hazards:	Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	Probably native of the Tropics, but the original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. annum var. aviculare[P] C. annuum[B,E,G,H,HPIC,HORTIPLEX,Sc,,P] C. annuum var. annuum[B,G,P] C. annuum var. aviculare[B,G,P] C. annuum var. frutescens[B,P] C. annuum var. glabriusculum[B,G,P] C. annuum var. minimum[G,P] C. annuum var. minus[B,P] C. baccatum[B] C. baccatum auct. non[P] C. cordiforme[G] C. frutescens sensu[P] C. frytescens[E] C. hispidum var. glabriusculum[G] Croton annum[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	African Pepper [H], Aji Dulce [E], Bird Pepper [H], Capsicum [S], Cayenne [H], Cayenne Pepper [P,B], Chabai Achong [E], Chile [H,E], Chillies [H], Filfil [E], Filfil Darah [E], Hungarian Pepper [H], Kirmizi Biber [E], La Chiao [E], Mexican Chili [H], Paprika [H], Pepper, Bird Or Chili [S], Pepper,Red [E], Peppers [H], Piment De Cayenne [E], Piment Doux [E], Pimiento [E], Red Pepper [H], Sakaipilo [E], Sili Biberi [E], Sweet Pepper [H],
Epithets:	From a Dictionary of Botanical Epithets
	frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family

Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Gabon; Haiti; Hawaii; India; India(Santal); Iraq; Malagasy; Malaya; Mexico; Mexico(Aztec); Mongolia; Panama(Cuna); Philippines; Philippines(Ifugao); Samoa; Spain; Tonga; Trinidad; Turkey; Us; Us(Nm)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 9 and is frost tender. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit; Leaves.

Fruit - raw or cooked[34, 46, 132]. Very hot and normally used as a flavouring[183]. The fruit can be dried and ground into a powder for use as a flavouring[142]. The fruit is up to 7.5cm long and 1cm wide[200].

Seed - dried, ground and used as a pepper[2].

Leaves - cooked as a potherb[183]. Some caution is advised, see note at top of the page.

Medicinal Uses

Disclaimer

Anaesthetic; Antihaemorrhoidal; Antirheumatic; Antiseptic; Carminative; Diaphoretic; Digestive; Irritant; Rubefacient; Sialagogue; Stimulant; Stomachic.

The dried fruit is a powerful local stimulant with no narcotic effect, it is most useful in atony of the intestines and stomach[4]. It has proved efficacious in dilating blood vessels and thus relieving chronic congestion of people addicted to drink[4]. It is sometimes used as a tonic and is said to be unequalled in warding off disease[4] (probably due to the high vitamin C content[K]). Some caution should be employed, however, since large doses are extremely irritating to the gastro-intestinal system[268].

Used externally, the fruit is a strong rubefacient stimulating the circulation, aiding the removal of waste products and increasing the flow of nutrients to the tissues[254]. It is applied as a cataplasm or liniment[4]. It has also been powdered and placed inside socks as a traditional remedy for those prone to cold feet[254]. A weak infusion can be used as a gargle to treat throat complaints[268].

The fruit is also antihaemorrhoidal, antirheumatic, antiseptic, carminative, diaphoretic, digestive, sialagogue and stomachic[7, 165, 171]. These pungent fruited peppers are important in the tropics as gastrointestinal detoxifiers and food preservatives[238].

The fruits contain 0.1 - 1.5% capsaicin[254]. This substance stimulates the circulation and alters temperature regulation. Applied to the skin it desensitizes nerve endings and so has been used as a local anaesthetic[254].

The seed contains capsicidins[254]. These are thought to have antibiotic properties[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Repellent.

The growing plant repels insects[20].

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Tolerates a pH in the range 4.3 to 8.3.

This species is a frost-tender perennial that is usually cultivated as an annual[34, 61]. It does not commonly do well outdoors in an average British summer and it is usually grown in a greenhouse in this country[1]. However, if a very warm sheltered position outdoors is chosen then reasonable crops could be obtained in good summers.

Widely grown throughout the world, but especially in warm temperate to tropical climates for its edible fruit, tabasco peppers. There are many named varieties[132].

The growing plant is a good companion for aubergines[20].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

"

> There are many named varieties of this annual vegetable, with new forms being developed. At present there is not time to enter these in the database and it is recommended that you consult the book 'The Fruit and Vegetable Finder' which is updated regularly and can be obtained from libraries.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Capsicum annuum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Capsicum annuum var. frutescens* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Capsicum annuum var. glabriusculum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Capsicum frytescens* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Capsicum minimum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *capsicum annuum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for *capsicum frutescens* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Solanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989

Very readable magazine with lots of information on propagation.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany*. The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Capsicum+frutescens`

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Plants For A Future: Database Search Results

Capsicum frutescens

Common name:	Tabasco pepper	Family:	Solanaceae
Author:	L.	Botanical references:	200
Synonyms:	Capsicum minimum (Roxb.)		
Known Hazards:	Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	Probably native of the Tropics, but the original habitat is obscure.		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. annum var. aviculare[P] C. annuum[B,E,G,H,HPIC,HORTIPLEX,Sc,,P] C. annuum var. annuum[B,G,P] C. annuum var. aviculare[B,G,P] C. annuum var. frutescens[B,P] C. annuum var. glabriusculum[B,G,P] C. annuum var. minimum[G,P] C. annuum var. minus[B,P] C. baccatum[B] C. baccatum auct. non[P] C. cordiforme[G] C. frutescens sensu[P] C. frytescens[E] C. hispidum var. glabriusculum[G] Croton annum[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	African Pepper [H], Aji Dulce [E], Bird Pepper [H], Capsicum [S], Cayenne [H], Cayenne Pepper [P,B], Chabai Achong [E], Chile [H,E], Chillies [H], Filfil [E], Filfil Darah [E], Hungarian Pepper [H], Kirmizi Biber [E], La Chiao [E], Mexican Chili [H], Paprika [H], Pepper, Bird Or Chili [S], Pepper,Red [E], Peppers [H], Piment De Cayenne [E], Piment Doux [E], Pimiento [E], Red Pepper [H], Sakaipilo [E], Sili Biberi [E], Sweet Pepper [H],
Epithets:	From a Dictionary of Botanical Epithets
	frutescens = becoming shrubby;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family

Other Range Info:	From the Ethnobotany Database China; Dominican Republic; Gabon; Haiti; Hawaii; India; India(Santal); Iraq; Malagasy; Malaya; Mexico; Mexico(Aztec); Mongolia; Panama(Cuna); Philippines; Philippines(Ifugao); Samoa; Spain; Tonga; Trinidad; Turkey; Us; Us(Nm)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 0.6m . It is hardy to zone 9 and is frost tender. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit; Leaves.

Fruit - raw or cooked[34, 46, 132]. Very hot and normally used as a flavouring[183]. The fruit can be dried and ground into a powder for use as a flavouring[142]. The fruit is up to 7.5cm long and 1cm wide[200].

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Disclaimer

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The seed contains capsicidins[254]. These are thought to have antibiotic properties[254].

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Other Uses

Repellent.

The growing plant repels insects[20].

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Tolerates a pH in the range 4.3 to 8.3.

This species is a frost-tender perennial that is usually cultivated as an annual[34, 61]. It does not commonly do well outdoors in an average British summer and it is usually grown in a greenhouse in this country[1]. However, if a very warm sheltered position outdoors is chosen then reasonable crops could be obtained in good summers.

Widely grown throughout the world, but especially in warm temperate to tropical climates for its edible fruit, tabasco peppers. There are many named varieties[132].

The growing plant is a good companion for aubergines[20].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

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Suppliers

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Capsicum+frutescens`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Capsicum+frutescens`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Capsicum frutescens*

Subject:

Capsicum frutescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Capsicum frutescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 04:28:18 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Capsicum pubescens

Common name:	Tree pepper	Family:	Solanaceae
Author:	Ruiz. & Pav.	Botanical references:	200
Synonyms:			
Known Hazards:	Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	S. America - Andes.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Chile [H], Rocoto [P],
Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 3m by 2m . It is hardy to zone 9 and is frost tender. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Cultivar **'Cuzco'**: Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[238]. The distinctive thick-fleshed pungent fruits are used as a vegetable condiment or made into a sauce[183]. A hot pungent flavour, it is mainly used as a flavouring in cooked foods[238]. In Peru the seeds are removed, the fruit stuffed with a savoury filling and then baked[183]. The fruit can be dried and ground into a powder for use as a pepper-like condiment[238].

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Antirheumatic; Digestive; Irritant; Rubefacient; Sialagogue.

The hot and pungent fruit is antihaemorrhoidal when taken in small amounts, antirheumatic, antiseptic, diaphoretic, digestive, irritant, rubefacient, sialagogue and tonic[7, 238]. It is taken internally in the treatment of the cold stage of fevers, debility in convalescence or old age, varicose veins, asthma and digestive problems[238]. Externally it is used in the treatment of sprains, unbroken chilblains, neuralgia, pleurisy etc[238].

Other Uses

The growing plant repels insects[20].

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Tolerates a pH in the range 4.3 to 8.3.

This species is only likely to be hardy in the milder areas of Britain, it can tolerate temperatures down to at least -5°c[238]. It might be possible to get it to fruit outdoors in the mildest areas of the country, especially if given the protection of a sunny wall[K]. Plants are able to continue fruiting for 15 years in cool moist climates[238].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

'Cuzco'

> The heavy squat fruit has a thick, sweet, flavourful flesh with an extremely hot seed core[183]. A bushy, thick-trunked plant that bears prolifically and is perennial in warm climates[183]. It tolerates light frosts[183].

Suppliers

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Plants For A Future: Database Search Results

Capsicum pubescens

Common name:	Tree pepper	Family:	Solanaceae
Author:	Ruiz. & Pav.	Botanical references:	200
Synonyms:			
Known Hazards:	Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	S. America - Andes.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Chile [H], Rocoto [P],
Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 3m by 2m . It is hardy to zone 9 and is frost tender. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Cultivar **'Cuzco'**: Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[238]. The distinctive thick-fleshed pungent fruits are used as a vegetable condiment or made into a sauce[183]. A hot pungent flavour, it is mainly used as a flavouring in cooked foods[238]. In Peru the seeds are removed, the fruit stuffed with a savoury filling and then baked[183]. The fruit can be dried and ground into a powder for use as a pepper-like condiment[238].

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Antirheumatic; Digestive; Irritant; Rubefacient; Sialagogue.

The hot and pungent fruit is antihaemorrhoidal when taken in small amounts, antirheumatic, antiseptic, diaphoretic, digestive, irritant, rubefacient, sialagogue and tonic[7, 238]. It is taken internally in the treatment of the cold stage of fevers, debility in convalescence or old age, varicose veins, asthma and digestive problems[238]. Externally it is used in the treatment of sprains, unbroken chilblains, neuralgia, pleurisy etc[238].

Other Uses

The growing plant repels insects[20].

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Tolerates a pH in the range 4.3 to 8.3.

This species is only likely to be hardy in the milder areas of Britain, it can tolerate temperatures down to at least -5°c[238]. It might be possible to get it to fruit outdoors in the mildest areas of the country, especially if given the protection of a sunny wall[K]. Plants are able to continue fruiting for 15 years in cool moist climates[238].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

'Cuzco'

> The heavy squat fruit has a thick, sweet, flavourful flesh with an extremely hot seed core[183]. A bushy, thick-trunked plant that bears prolifically and is perennial in warm climates[183]. It tolerates light frosts[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Solanaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

Readers Comments

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Plants For A Future: Database Search Results

Capsicum pubescens

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Author:	Ruiz. & Pav.	Botanical references:	200
Synonyms:			
Known Hazards:	Although no reports have been seen for this species, many plants in this family produce toxins in their leaves. The sap of the plant can cause the skin to blister[200].		
Range:	S. America - Andes.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Chile [H], Rocoto [P],
Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Potato family
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 3m by 2m . It is hardy to zone 9 and is frost tender. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By West Wall.

Cultivar **'Cuzco'**: Cultivated Beds, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[238]. The distinctive thick-fleshed pungent fruits are used as a vegetable condiment or made into a sauce[183]. A hot pungent flavour, it is mainly used as a flavouring in cooked foods[238]. In Peru the seeds are removed, the fruit stuffed with a savoury filling and then baked[183]. The fruit can be dried and ground into a powder for use as a pepper-like condiment[238].

Medicinal Uses

Disclaimer

Antihaemorrhoidal; Antirheumatic; Digestive; Irritant; Rubefacient; Sialagogue.

The hot and pungent fruit is antihaemorrhoidal when taken in small amounts, antirheumatic, antiseptic, diaphoretic, digestive, irritant, rubefacient, sialagogue and tonic[7, 238]. It is taken internally in the treatment of the cold stage of fevers, debility in convalescence or old age, varicose veins, asthma and digestive problems[238]. Externally it is used in the treatment of sprains, unbroken chilblains, neuralgia, pleurisy etc[238].

Other Uses

The growing plant repels insects[20].

Cultivation details

Requires a very warm sunny position and a fertile well-drained soil. Tolerates a pH in the range 4.3 to 8.3.

This species is only likely to be hardy in the milder areas of Britain, it can tolerate temperatures down to at least -5°c[238]. It might be possible to get it to fruit outdoors in the mildest areas of the country, especially if given the protection of a sunny wall[K]. Plants are able to continue fruiting for 15 years in cool moist climates[238].

Propagation

Seed - sow late winter to early spring in a warm greenhouse[138]. The seed usually germinates in 3 - 4 weeks at 20°c. Prick out the seedlings into individual pots of reasonably rich soil and grow them on fast. If trying them outdoors, then plant them out after the last expected frosts and give them the protection of a cloche or frame at least until they are established and growing away well.

Cultivars

'Cuzco'

> The heavy squat fruit has a thick, sweet, flavourful flesh with an extremely hot seed core[183]. A bushy, thick-trunked plant that bears prolifically and is perennial in warm climates[183]. It tolerates light frosts[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Capsicum pubescens*

Subject:

Capsicum pubescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Capsicum pubescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Cardamine bulbosa

Common name:	Bulbous bittercress	Family:	Cruciferae
Author:	(Schreb.) Britt, Stern. & Pogg.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Vermont to Ontario and Minnesota, south to Florida and Texas.		
Habitat:	By springs, bottomland woods and meadows[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Arabis bulbosa[B,P] Arabis rhomboidea[B,P] C. rhomboidea[B,,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bulbous Bittercress [P],
Epithets:	From a Dictionary of Botanical Epithets
	bulbosa = bulbous;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5 and is not frost tender. It is in flower from April to August, and the seeds ripen from May to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves.

Leaves - raw[105, 177]. Added to salads.

The rootstock is grated and used as a condiment[207], it is a horse radish substitute[105, 177]. A hot pungent taste.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a moist humus rich soil in shade or semi-shade[200] but succeeds in most soils that are not dry[1].

Propagation

Seed - sow outdoors in a seedbed in a shady position in April. Plant out in autumn or spring.

Division in spring. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

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[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

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Details:

Enter your details here:

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Add a longer comment

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Plants For A Future: Database Search Results

Cardamine bulbosa

Common name:	Bulbous bittercress	Family:	Cruciferae
Author:	(Schreb.) Britt, Stern. & Pogg.	Botanical references:	43, 235
Synonyms:			
Known Hazards:	None known		
Range:	Eastern N. America - Vermont to Ontario and Minnesota, south to Florida and Texas.		
Habitat:	By springs, bottomland woods and meadows[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Arabis bulbosa[B,P] Arabis rhomboidea[B,P] C. rhomboidea[B,,P]
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Medicinal Uses

Disclaimer

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Other Uses

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Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

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Propagation

Seed - sow outdoors in a seedbed in a shady position in April. Plant out in autumn or spring.

Division in spring. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

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Cardamine bulbosa

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Plants For A Future Rating (1-5):	2		

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	Bulbous Bittercress [P],
Epithets:	From a Dictionary of Botanical Epithets
	bulbosa = bulbous;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Perennial growing to 0.5m. It is hardy to zone 5 and is not frost tender. It is in flower from April to August, and the seeds ripen from May to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves.

Leaves - raw[105, 177]. Added to salads.

The rootstock is grated and used as a condiment[207], it is a horse radish substitute[105, 177]. A hot pungent taste.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in many parts of this country. The following notes are based on the general needs of the genus.

Prefers a moist humus rich soil in shade or semi-shade[200] but succeeds in most soils that are not dry[1].

Propagation

Seed - sow outdoors in a seedbed in a shady position in April. Plant out in autumn or spring.

Division in spring. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cardamine+bulbosa`

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cardamine bulbosa*

Subject:

Cardamine bulbosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cardamine bulbosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 04:29:30 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Cardamine pennsylvanica

Common name:		Family:	Cruciferae
Author:	Muhl.	Botanical references:	43
Synonyms:			
Known Hazards:	None known		
Range:	N. America - Newfoundland to Minnesota and Montana, south to Florida, Tennessee and Kansas.		
Habitat:	Usually found in moist or wet soils[159], it grows in most soils and habitats in eastern N. America[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. pensylvanica[B,C,CAL,P] C. pensylvanica var. brittoniana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pennsylvania Bittercress [P], Quaker Bittercress [B],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.6m. It is hardy to zone 5. It is in flower from April to August, and the seeds ripen from May to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - raw or cooked[46, 61, 159, 171]. An excellent water cress substitute[105]. A slightly bitter flavour, but not disagreeable[207].

The grated raw root is used as a condiment[207].

Medicinal Uses

Disclaimer

Carminative; Digestive.

The leaves and the flowering plant are carminative and digestive[172].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. A polymorphic species[43]. The following notes are based on the general needs of the genus.

Prefers a moist humus rich soil in shade or semi-shade[200] but succeeds in most soils that are not dry[1].

Propagation

Seed - sow outdoors in a seedbed in a shady position in April. Plant out in autumn or spring.

Division.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cardamine pensylvanica* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

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An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[159] **McPherson. A. and S.** *Wild Food Plants of Indiana.* Indiana University Press 1977 ISBN 0-253-28925-4
A nice pocket guide to this region of America.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
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it does cover.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cardamine pennsylvanica

Common name:		Family:	Cruciferae
Author:	Muhl.	Botanical references:	43
Synonyms:			
Known Hazards:	None known		
Range:	N. America - Newfoundland to Minnesota and Montana, south to Florida, Tennessee and Kansas.		
Habitat:	Usually found in moist or wet soils[159], it grows in most soils and habitats in eastern N. America[43].		
Plants For A Future Rating (1-5):	2		

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	Pennsylvania Bittercress [P], Quaker Bittercress [B],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.6m. It is hardy to zone 5. It is in flower from April to August, and the seeds ripen from May to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - raw or cooked[46, 61, 159, 171]. An excellent water cress substitute[105]. A slightly bitter flavour, but not disagreeable[207].

The grated raw root is used as a condiment[207].

Medicinal Uses

Disclaimer

Carminative; Digestive.

The leaves and the flowering plant are carminative and digestive[172].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. A polymorphic species[43]. The following notes are based on the general needs of the genus.

Prefers a moist humus rich soil in shade or semi-shade[200] but succeeds in most soils that are not dry[1].

Propagation

Seed - sow outdoors in a seedbed in a shady position in April. Plant out in autumn or spring.

Division.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Cardamine pennsylvanica

Common name:		Family:	Cruciferae
Author:	Muhl.	Botanical references:	43
Synonyms:			
Known Hazards:	None known		
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Habitat:	Usually found in moist or wet soils[159], it grows in most soils and habitats in eastern N. America[43].		
Plants For A Future Rating (1-5):	2		

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	Pennsylvania Bittercress [P], Quaker Bittercress [B],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.6m. It is hardy to zone 5. It is in flower from April to August, and the seeds ripen from May to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and Lepidoptera (Moths & Butterflies). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - raw or cooked[46, 61, 159, 171]. An excellent water cress substitute[105]. A slightly bitter flavour, but not disagreeable[207].

The grated raw root is used as a condiment[207].

Medicinal Uses

Disclaimer

Carminative; Digestive.

The leaves and the flowering plant are carminative and digestive[172].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most parts of this country. A polymorphic species[43]. The following notes are based on the general needs of the genus.

Prefers a moist humus rich soil in shade or semi-shade[200] but succeeds in most soils that are not dry[1].

Propagation

Seed - sow outdoors in a seedbed in a shady position in April. Plant out in autumn or spring.

Division.

Suppliers

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Add a comment on: *Cardamine pennsylvanica*

Subject:

Cardamine pennsylvanica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cardamine pennsylvanica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

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Cardaria draba

Common name:	Hoary cress	Family:	Cruciferae
Author:	(L.) Desv.	Botanical references:	17
Synonyms:	Lepidium draba (L.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean to W. Asia. Naturalized in Britain[17].		
Habitat:	A weed of arable fields, it is spreading rapidly in Britain[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. draba subsp. draba[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Draba [E], Heart-pod Hoarycress [B], Hoary Cress [L], Pepperweed Whitetop [P], Pijlkruidkers [D], Whitetop [FEIS],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Australia; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Arizona, California, Idaho, Iowa, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming, Victoria, New South Wales, South Australia, Western Australia, Tasmaina.

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Young leaves and shoots - raw in salads or cooked as a potherb[2, 61, 105, 183]. A report says that the young leaves contain the toxin hydrogen cyanide, though does not give any more details[240]. In small quantities this substance is fairly harmless, and has even been recommended as having health benefits, but caution is suggested if you eat these leaves[K].

The pungent leaves are used as a seasoning[183].

The seed is used as a condiment, it is a pepper substitute[2, 17, 61, 74, 148, 183].

Medicinal Uses

Disclaimer

Antiscorbutic; Carminative.

The plant is antiscorbutic[240].

The seeds have been used as a cure for flatulence and fish poison[240]. It is assumed that this report is referring to food poisoning caused by eating suspect fish[K].

Other Uses

None known

Cultivation details

Succeeds in a sunny position in most soils.

Propagation

Seed - sow in situ in spring. There is very little need to encourage this plant, it is a rapidly spreading weed in Britain.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cardaria draba subsp. draba* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Lepidium draba* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[148] **Niebuhr. A. D.** *Herbs of Greece.* Herb Society of America. 1970
A pleasant little book about Greek herbs.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Plants For A Future: Database Search Results

Cardaria draba

Common name:	Hoary cress	Family:	Cruciferae
Author:	(L.) Desv.	Botanical references:	17
Synonyms:	Lepidium draba (L.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean to W. Asia. Naturalized in Britain[17].		
Habitat:	A weed of arable fields, it is spreading rapidly in Britain[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. draba subsp. draba[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Draba [E], Heart-pod Hoarycress [B], Hoary Cress [L], Pepperweed Whitetop [P], Pijlkruidkers [D], Whitetop [FEIS],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Australia; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona, California, Idaho, Iowa, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming, Victoria, New South Wales, South Australia, Western Australia, Tasmaina.

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Young leaves and shoots - raw in salads or cooked as a potherb[2, 61, 105, 183]. A report says that the young leaves contain the toxin hydrogen cyanide, though does not give any more details[240]. In small quantities this substance is fairly harmless, and has even been recommended as having health benefits, but caution is suggested if you eat these leaves[K].

The pungent leaves are used as a seasoning[183].

The seed is used as a condiment, it is a pepper substitute[2, 17, 61, 74, 148, 183].

Medicinal Uses

Disclaimer

Antiscorbutic; Carminative.

The plant is antiscorbutic[240].

The seeds have been used as a cure for flatulence and fish poison[240]. It is assumed that this report is referring to food poisoning caused by eating suspect fish[K].

Other Uses

None known

Cultivation details

Succeeds in a sunny position in most soils.

Propagation

Seed - sow in situ in spring. There is very little need to encourage this plant, it is a rapidly spreading weed in Britain.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cardaria draba subsp. draba* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Lepidium draba* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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Plants For A Future: Database Search Results

Cardaria draba

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Author:	(L.) Desv.	Botanical references:	17
Synonyms:	Lepidium draba (L.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean to W. Asia. Naturalized in Britain[17].		
Habitat:	A weed of arable fields, it is spreading rapidly in Britain[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. C. draba subsp. draba[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Draba [E], Heart-pod Hoarycress [B], Hoary Cress [L], Pepperweed Whitetop [P], Pijlkruidkers [D], Whitetop [FEIS],
Systematics:	From a UDSA Plants Database Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database Australia; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Arizona, California, Idaho, Iowa, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming, Victoria, New South Wales, South Australia, Western Australia, Tasmaina.

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Young leaves and shoots - raw in salads or cooked as a potherb[2, 61, 105, 183]. A report says that the young leaves contain the toxin hydrogen cyanide, though does not give any more details[240]. In small quantities this substance is fairly harmless, and has even been recommended as having health benefits, but caution is suggested if you eat these leaves[K].

The pungent leaves are used as a seasoning[183].

The seed is used as a condiment, it is a pepper substitute[2, 17, 61, 74, 148, 183].

Medicinal Uses

Disclaimer

Antiscorbutic; Carminative.

The plant is antiscorbutic[240].

The seeds have been used as a cure for flatulence and fish poison[240]. It is assumed that this report is referring to food poisoning caused by eating suspect fish[K].

Other Uses

None known

Cultivation details

Succeeds in a sunny position in most soils.

Propagation

Seed - sow in situ in spring. There is very little need to encourage this plant, it is a rapidly spreading weed in Britain.

Division in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cardaria draba

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Carum carvi

Common name:	Caraway	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:	Apium carvi		
Known Hazards:	Caraway is said to contain the alleged 'psychotroph' myristicine[218].		
Range:	Europe. Rarely naturalized in Britain. Perhaps native in S.E. England[17].		
Habitat:	Moist meadows, arable land and waste places from lowland to mountain elevations[9, 165, 244].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. C. velenovskyi[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Alcaravea [E], Annual Caraway [H], Caraway [B,H,L,P,E], Caraway Seed [H], Echte Karwij [D], Hime-Uikyo [E], Karamankimyonu [E], Kexbenz [E], Krawyah [E],
Systematics:	From a UDSA Plants Database Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database Europe; India; India(Santal); Iraq; Kurdistan; Spain; Turkey

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Biennial growing to 0.6m by 0.25m . It is not frost tender. It is in flower from June to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed; Tea.

Seed - raw or cooked. A spicy flavour, it is used as a flavouring in confectionery and bread, also as a flavouring in salads, vegetables etc[2, 4, 5, 9, 18, 20, 27, 183]. It is high in protein and fat[14]. The seed is often chewed after a meal in order to sweeten the breath and also to relieve heartburn after a rich meal[244]. Per 100g, the seed contains 333 calories, 10g water, 20g protein, 14.5g fat, 50g carbohydrate, 12.5g fibre, 6g ash, 689mg calcium, 568mg phosphorus, 16.2mg iron, 258mg magnesium, 17mg sodium, 1351mg potassium, 5.5mg zinc, 363 IU vitamin A, 0.383mg thiamine, 0.379mg riboflavin, 3.61mg niacin[218].

An essential oil from the seed is used as a flavouring in ice creams, candy, soft drinks etc[183, 238]. It is an essential ingredient of the liqueur kümmel[244].

Root - cooked[183]. Used as a vegetable like parsnips[2, 4, 9, 14, 55, 115]. Stronger in taste than parsnips, but liked by many[207]. A delicious vegetable[244].

Leaves - raw or as a flavouring in soups etc[2, 14, 27, 55, 115]. The young leaves are much less spicy than the seeds and are a good salad[9], having a mild parsley-dill flavour[238]. They give an aromatic tang to salads[244]. Older leaves can be cooked as a spinach[183].

The crushed seeds are brewed into a tea[183]. It has a soothing effect on the digestion[244].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 9.9 Calories: 333 Protein: 19.8 Fat: 14.6 Carbohydrate: 49.9 Fibre: 12.6 Ash: 5.9
In milligrammes per 100g weight of food:
Calcium: 689 Phosphorus: 568 Iron: 16.2 Magnesium: 258 Sodium: 17 Potassium: 1351 Zinc: 5.5 VitaminA: 363 Thiamine: 0.38 Riboflavin: 0.37999 Niacin: 3.6

Leaf (Fresh weight)

In grammes per 100g weight of food:
Water: 7.2 Calories: 253 Protein: 20 Fat: 4.4 Carbohydrate: 55.8 Fibre: 11.9 Ash: 12.6
In milligrammes per 100g weight of food:
Calcium: 1784 Phosphorus: 543 Iron: 48.8 Magnesium: 451 Sodium: 208 Potassium: 3308 Zinc: 3.3 Thiamine: 0.42 Riboflavin: 0.28 Niacin: 2.8 VitaminB6: 1.5

Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Aromatic; Carminative; Digestive; Emmenagogue; Expectorant; Galactogogue; Ophthalmic; Stimulant.

Caraway has a long history of use as a household remedy especially in the treatment of digestive complaints where its antispasmodic action soothes the digestive tract and its carminative action relieves bloating caused by wind and improves the appetite[4, 238, 254]. It is often added to laxative medicines to prevent griping[238].

The seed is antiseptic, antispasmodic, aromatic, carminative, digestive, emmenagogue, expectorant, galactogogue and stimulant[4, 7, 9, 21, 46, 165, 222, 240]. It can be chewed raw for the almost immediate relief of indigestion and can also be made into infusions[238]. The seed is also used in the treatment of bronchitis and are an ingredient of cough remedies, especially useful for children[254]. The seed is also said to increase the production of breast milk in nursing mothers[254]. The seed is harvested when fully ripe, then dried and stored in a cool, dry place out of the sunlight[244]. The essential oil can be extracted from the seed and has similar properties[4].

A tea made from the seeds is a pleasant stomachic and carminative, it has been used to treat flatulent colic[207, 222].

The seed is used in Tibetan medicine where it is considered to have an acrid taste and a heating potency[241]. It is used to treat failing vision and loss of appetite[241].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that

Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Parasiticide.

An essential oil from the seed is used in perfumery, for scenting soap, as a parasiticide etc[7, 46, 74, 171]. Twenty-five kilos of seed yield about 1 kilo of essential oil[4]. The essential oil yield of the seed from plants cultivated in Poland is up to 10.33%[240].

Cultivation details

Succeeds in ordinary garden soil as long as it is not too wet in winter[1]. Prefers a moist soil in full sun or partial shade[4, 200]. Tolerates a pH in the range 4.8 to 7.6.

Caraway is a well-known herb that has been cultivated for its culinary and medicinal uses since ancient times[244]. It is frequently cultivated in the modern herb garden and sometimes also commercially[4, 46], there are some named varieties[183]. Plants growing in more northerly latitudes and also in full sun are richer in essential oils and therefore more aromatic[4, 245].

Plants strongly resent root disturbance[200]. They often self-sow freely when in a suitable location[244].

This species is deep rooted[201] and is a good plant for breaking up the sub-soil on heavy, wet land[18, 20]. It dislikes growing near fennel or wormwood[14, 20] but is a good companion for most plants, especially those that are shallow-rooted[201]. The flowers attract parasitic wasps to the garden, these prey on aphids and so help to reduce populations of insect pests[238].

Propagation

Seed - it is best sown in situ as soon as it is ripe in late summer and early autumn[4, 200]. The seed can also be sown March/April in situ[200], though in areas with cool summers the plants might not produce a crop of ripe seeds[238]. Plants are very sensitive to root disturbance and should not be transplanted.

Scent

Plant: Fresh Crushed Dried

All parts of the plant are aromatic.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *carum carvi* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces

in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of

research into the plants chemistry. Not for the casual reader.

[241] **Tsarong. Tsewang. J.** *Tibetan Medicinal Plants* Tibetan Medical Publications, India 1994 ISBN 81-900489-0-2
A nice little pocket guide to the subject with photographs of 95 species and brief comments on their uses.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Carum+carvi`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Carum+carvi`

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Plants For A Future: Database Search Results

Carum carvi

Common name:	Caraway	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:	Apium carvi		
Known Hazards:	Caraway is said to contain the alleged 'psychotroph' myristicine[218].		
Range:	Europe. Rarely naturalized in Britain. Perhaps native in S.E. England[17].		
Habitat:	Moist meadows, arable land and waste places from lowland to mountain elevations[9, 165, 244].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. velenovskyi[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alcaravea [E], Annual Caraway [H], Caraway [B,H,L,P,E], Caraway Seed [H], Echte Karwij [D], Hime-Uikyo [E], Karamankimyonu [E], Kexbenz [E], Krawyah [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; India; India(Santal); Iraq; Kurdistan; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Biennial growing to 0.6m by 0.25m . It is not frost tender. It is in flower from June to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed; Tea.

Seed - raw or cooked. A spicy flavour, it is used as a flavouring in confectionery and bread, also as a flavouring in salads, vegetables etc[2, 4, 5, 9, 18, 20, 27, 183]. It is high in protein and fat[14]. The seed is often chewed after a meal in order to sweeten the breath and also to relieve heartburn after a rich meal[244]. Per 100g, the seed contains 333 calories, 10g water, 20g protein, 14.5g fat, 50g carbohydrate, 12.5g fibre, 6g ash, 689mg calcium, 568mg phosphorus, 16.2mg iron, 258mg magnesium, 17mg sodium, 1351mg potassium, 5.5mg zinc, 363 IU vitamin A, 0.383mg thiamine, 0.379mg riboflavin, 3.61mg niacin[218].

An essential oil from the seed is used as a flavouring in ice creams, candy, soft drinks etc[183, 238]. It is an essential ingredient of the liqueur kümmel[244].

Root - cooked[183]. Used as a vegetable like parsnips[2, 4, 9, 14, 55, 115]. Stronger in taste than parsnips, but liked by many[207]. A delicious vegetable[244].

Leaves - raw or as a flavouring in soups etc[2, 14, 27, 55, 115]. The young leaves are much less spicy than the seeds and are a good salad[9], having a mild parsley-dill flavour[238]. They give an aromatic tang to salads[244]. Older leaves can be cooked as a spinach[183].

The crushed seeds are brewed into a tea[183]. It has a soothing effect on the digestion[244].

Composition

Seed (Fresh weight)

> In grammes per 100g weight of food:
> Water: 9.9 Calories: 333 Protein: 19.8 Fat: 14.6 Carbohydrate: 49.9 Fibre: 12.6 Ash: 5.9

In milligrammes per 100g weight of food:
Calcium: 689 Phosphorus: 568 Iron: 16.2 Magnesium: 258 Sodium: 17 Potassium: 1351 Zinc: 5.5 VitaminA: 363 Thiamine: 0.38 Riboflavin: 0.37999 Niacin: 3.6

Leaf (Fresh weight)

In grammes per 100g weight of food:
Water: 7.2 Calories: 253 Protein: 20 Fat: 4.4 Carbohydrate: 55.8 Fibre: 11.9 Ash: 12.6
In milligrammes per 100g weight of food:
Calcium: 1784 Phosphorus: 543 Iron: 48.8 Magnesium: 451 Sodium: 208 Potassium: 3308 Zinc: 3.3 Thiamine: 0.42 Riboflavin: 0.28 Niacin: 2.8 VitaminB6: 1.5

Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Aromatic; Carminative; Digestive; Emmenagogue; Expectorant; Galactogogue; Ophthalmic; Stimulant.

Caraway has a long history of use as a household remedy especially in the treatment of digestive complaints where its antispasmodic action soothes the digestive tract and its carminative action relieves bloating caused by wind and improves the appetite[4, 238, 254]. It is often added to laxative medicines to prevent griping[238].

The seed is antiseptic, antispasmodic, aromatic, carminative, digestive, emmenagogue, expectorant, galactogogue and stimulant[4, 7, 9, 21, 46, 165, 222, 240]. It can be chewed raw for the almost immediate relief of indigestion and can also be made into infusions[238]. The seed is also used in the treatment of bronchitis and are an ingredient of cough remedies, especially useful for children[254]. The seed is also said to increase the production of breast milk in nursing mothers[254]. The seed is harvested when fully ripe, then dried and stored in a cool, dry place out of the sunlight[244]. The essential oil can be extracted from the seed and has similar properties[4].

A tea made from the seeds is a pleasant stomachic and carminative, it has been used to treat flatulent colic[207, 222].

The seed is used in Tibetan medicine where it is considered to have an acrid taste and a heating potency[241]. It is used to treat failing vision and loss of appetite[241].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Parasiticide.

An essential oil from the seed is used in perfumery, for scenting soap, as a parasiticide etc[7, 46, 74, 171]. Twenty-five kilos of seed yield about 1 kilo of essential oil[4]. The essential oil yield of the seed from plants cultivated in Poland is up to 10.33%[240].

Cultivation details

Succeeds in ordinary garden soil as long as it is not too wet in winter[1]. Prefers a moist soil in full sun or partial shade[4, 200]. Tolerates a pH in the range 4.8 to 7.6.

Caraway is a well-known herb that has been cultivated for its culinary and medicinal uses since ancient times[244]. It is frequently cultivated in the modern herb garden and sometimes also commercially[4, 46], there are some named varieties[183]. Plants growing in more northerly latitudes and also in full sun are richer in essential oils and therefore more aromatic[4, 245].

Plants strongly resent root disturbance[200]. They often self-sow freely when in a suitable location[244].

This species is deep rooted[201] and is a good plant for breaking up the sub-soil on heavy, wet land[18, 20]. It dislikes growing near fennel or wormwood[14, 20] but is a good companion for most plants, especially those that are shallow-rooted[201]. The flowers attract parasitic wasps to the garden, these prey on aphids and so help to reduce populations of insect pests[238].

Propagation

Seed - it is best sown in situ as soon as it is ripe in late summer and early autumn[4, 200]. The seed can also be sown March/April in situ[200], though in areas with cool summers the plants might not produce a crop of ripe seeds[238]. Plants are very sensitive to root disturbance and should not be transplanted.

Scent

Plant: Fresh Crushed Dried

> All parts of the plant are aromatic.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *carum carvi* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9

Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

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Plants For A Future: Database Search Results

Carum carvi

Common name:	Caraway	Family:	Umbelliferae
Author:	L.	Botanical references:	17
Synonyms:	Apium carvi		
Known Hazards:	Caraway is said to contain the alleged 'psychotroph' myristicine[218].		
Range:	Europe. Rarely naturalized in Britain. Perhaps native in S.E. England[17].		
Habitat:	Moist meadows, arable land and waste places from lowland to mountain elevations[9, 165, 244].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. velenovskyi[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alcaravea [E], Annual Caraway [H], Caraway [B,H,L,P,E], Caraway Seed [H], Echte Karwij [D], Hime-Uikyo [E], Karamankimyonu [E], Kexbenz [E], Krawyah [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; India; India(Santal); Iraq; Kurdistan; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado.

Physical Characteristics

Biennial growing to 0.6m by 0.25m . It is not frost tender. It is in flower from June to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed; Tea.

Seed - raw or cooked. A spicy flavour, it is used as a flavouring in confectionery and bread, also as a flavouring in salads, vegetables etc[2, 4, 5, 9, 18, 20, 27, 183]. It is high in protein and fat[14]. The seed is often chewed after a meal in order to sweeten the breath and also to relieve heartburn after a rich meal[244]. Per 100g, the seed contains 333 calories, 10g water, 20g protein, 14.5g fat, 50g carbohydrate, 12.5g fibre, 6g ash, 689mg calcium, 568mg phosphorus, 16.2mg iron, 258mg magnesium, 17mg sodium, 1351mg potassium, 5.5mg zinc, 363 IU vitamin A, 0.383mg thiamine, 0.379mg riboflavin, 3.61mg niacin[218].

An essential oil from the seed is used as a flavouring in ice creams, candy, soft drinks etc[183, 238]. It is an essential ingredient of the liqueur kümmel[244].

Root - cooked[183]. Used as a vegetable like parsnips[2, 4, 9, 14, 55, 115]. Stronger in taste than parsnips, but liked by many[207]. A delicious vegetable[244].

Leaves - raw or as a flavouring in soups etc[2, 14, 27, 55, 115]. The young leaves are much less spicy than the seeds and are a good salad[9], having a mild parsley-dill flavour[238]. They give an aromatic tang to salads[244]. Older leaves can be cooked as a spinach[183].

The crushed seeds are brewed into a tea[183]. It has a soothing effect on the digestion[244].

Composition

Seed (Fresh weight)

In grammes per 100g weight of food:
Water: 9.9 Calories: 333 Protein: 19.8 Fat: 14.6 Carbohydrate: 49.9 Fibre: 12.6 Ash: 5.9

In milligrammes per 100g weight of food:
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In grammes per 100g weight of food:
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Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Aromatic; Carminative; Digestive; Emmenagogue; Expectorant; Galactogogue; Ophthalmic; Stimulant.

Caraway has a long history of use as a household remedy especially in the treatment of digestive complaints where its antispasmodic action soothes the digestive tract and its carminative action relieves bloating caused by wind and improves the appetite[4, 238, 254]. It is often added to laxative medicines to prevent griping[238].

The seed is antiseptic, antispasmodic, aromatic, carminative, digestive, emmenagogue, expectorant, galactogogue and stimulant[4, 7, 9, 21, 46, 165, 222, 240]. It can be chewed raw for the almost immediate relief of indigestion and can also be made into infusions[238]. The seed is also used in the treatment of bronchitis and are an ingredient of cough remedies, especially useful for children[254]. The seed is also said to increase the production of breast milk in nursing mothers[254]. The seed is harvested when fully ripe, then dried and stored in a cool, dry place out of the sunlight[244]. The essential oil can be extracted from the seed and has similar properties[4].

A tea made from the seeds is a pleasant stomachic and carminative, it has been used to treat flatulent colic[207, 222].

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Other Uses

Essential; Parasiticide.

An essential oil from the seed is used in perfumery, for scenting soap, as a parasiticide etc[7, 46, 74, 171]. Twenty-five kilos of seed yield about 1 kilo of essential oil[4]. The essential oil yield of the seed from plants cultivated in Poland is up to 10.33%[240].

Cultivation details

Succeeds in ordinary garden soil as long as it is not too wet in winter[1]. Prefers a moist soil in full sun or partial shade[4, 200]. Tolerates a pH in the range 4.8 to 7.6.

Caraway is a well-known herb that has been cultivated for its culinary and medicinal uses since ancient times[244]. It is frequently cultivated in the modern herb garden and sometimes also commercially[4, 46], there are some named varieties[183]. Plants growing in more northerly latitudes and also in full sun are richer in essential oils and therefore more aromatic[4, 245].

Plants strongly resent root disturbance[200]. They often self-sow freely when in a suitable location[244].

This species is deep rooted[201] and is a good plant for breaking up the sub-soil on heavy, wet land[18, 20]. It dislikes growing near fennel or wormwood[14, 20] but is a good companion for most plants, especially those that are shallow-rooted[201]. The flowers attract parasitic wasps to the garden, these prey on aphids and so help to reduce populations of insect pests[238].

Propagation

Seed - it is best sown in situ as soon as it is ripe in late summer and early autumn[4, 200]. The seed can also be sown March/April in situ[200], though in areas with cool summers the plants might not produce a crop of ripe seeds[238]. Plants are very sensitive to root disturbance and should not be transplanted.

Scent

Plant: Fresh Crushed Dried

All parts of the plant are aromatic.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Carum carvi*

Subject:

Carum carvi

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Carum carvi

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Centaurium erythraea

Common name:	Centaury	Family:	Gentianaceae
Author:	Rafn.	Botanical references:	17
Synonyms:	Erythraea centaurium (Auct.), Centaurium umbellatum (Gilib.), Centaurium minus (Auct.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Open woods, meadows and dry grasslands[9, 13], often on chalky soils[4].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. littorale[G,HPIC,L,P] C. minus auct. non[P] C. umbellatum auct. non[P] Chironia littoralis[G] Erythraea minus[H] Gentiana centaurium[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Gentianales . Gentian family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

Annual/Biennial growing to 0.25m by 0.15m . . It is in flower from June to October, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The plant is used as a flavouring in bitter herbal liqueurs and is an ingredient of vermouth[268].

Medicinal Uses

Disclaimer

Appetizer; Aromatic; Bach; Bitter; Cholagogue; Diaphoretic; Digestive; Emetic; Febrifuge; Hepatic; Homeopathy; Poultice; Stomachic; Tonic.

One of the most useful bitter herbs, centaury strengthens digestive function, especially within the stomach[254]. By increasing stomach secretions it hastens the breakdown of food, it also stimulates the appetite and increases bile production[254]. The plant needs to be take over a number of weeks and an infusion should be slowly sipped so that the components (their bitterness can be detected at a dilution of 1:3,500) can stimulate reflex activity throughout the upper digestive tract[254].

The whole herb is appetizer, aromatic, bitter, cholagogue, diaphoretic, digestive, emetic, weakly febrifuge, hepatic, stomachic and tonic[9, 13, 21, 165, 268]. It acts on the liver and kidneys, purifies the blood and is an excellent tonic for the digestive system[4, 238]. Externally, the fresh green herb is said to be a good application to wounds and sores[4]. It is often used in combination with other herbs such as camomile (Chamaemelum nobile), meadowsweet (Filipendula ulmaria) and marshmallow (Althaea officinalis)[238]. The whole plant is harvested when in flower and can be dried for later use[4, 238].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Weak willed', 'Too easily influenced' and 'Willing servitors'[209].

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Other Uses

Dye.

A long-lasting bright yellowish-green dye is obtained from the flowers[13, 100].

Cultivation details

Prefers a well-drained sandy loam with some peat[1] and a sunny position[238]. It avoids wet or rich soils[115].

Plants are not easy to grow in a garden[4].

The flowers only open in fine weather and close at midday[4].

Although the growing plant is scentless, if the cut stems are immersed in warm water for 24 hours a most penetrating odour will be observed on distillation[245].

A very variable plant, some botanists divide it into a number of separate species[4].

Propagation

Seed - sow February to May in situ or as soon as it is ripe in situ[17]. Germination is usually rapid.

Scent

Plant: Dried

> Although the growing plant is scentless, if the cut stems are immersed in warm water for 24 hours a most penetrating odour will be observed on distillation.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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References for *Centaurium littorale* (a possible synonym).

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

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- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Centaurium umbellatum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Erythraea centaurium* (a possible synonym).

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- [HP] PhotoFrom Henriette's plant pictures
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References for the family Gentianaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Centaurium erythraea

Common name:	Centaury	Family:	Gentianaceae
Author:	Rafn.	Botanical references:	17
Synonyms:	Erythraea centaurium (Auct.), Centaurium umbellatum (Gilib.), Centaurium minus (Auct.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Open woods, meadows and dry grasslands[9, 13], often on chalky soils[4].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. littorale[G,HPIC,L,P] C. minus auct. non[P] C. umbellatum auct. non[P] Chironia littoralis[G] Erythraea minus[H] Gentiana centaurium[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Centaura Menor [E], Centaury [H,E,L], Centre Of The Sun [H], Echt Duizendguldenkruid [D], European Centaury [B,P], Kantaron [E], Seaside Centaury [L,P],
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Gentian family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey

Physical Characteristics

Annual/Biennial growing to 0.25m by 0.15m . . It is in flower from June to October, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow

in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The plant is used as a flavouring in bitter herbal liqueurs and is an ingredient of vermouth[268].

Medicinal Uses

Disclaimer

Appetizer; Aromatic; Bach; Bitter; Cholagogue; Diaphoretic; Digestive; Emetic; Febrifuge; Hepatic; Homeopathy; Poultice; Stomachic; Tonic.

One of the most useful bitter herbs, centaury strengthens digestive function, especially within the stomach[254]. By increasing stomach secretions it hastens the breakdown of food, it also stimulates the appetite and increases bile production[254]. The plant needs to be take over a number of weeks and an infusion should be slowly sipped so that the components (their bitterness can be detected at a dilution of 1:3,500) can stimulate reflex activity throughout the upper digestive tract[254].

The whole herb is appetizer, aromatic, bitter, cholagogue, diaphoretic, digestive, emetic, weakly febrifuge, hepatic, stomachic and tonic[9, 13, 21, 165, 268]. It acts on the liver and kidneys, purifies the blood and is an excellent tonic for the digestive system[4, 238]. Externally, the fresh green herb is said to be a good application to wounds and sores[4]. It is often used in combination with other herbs such as camomile (Chamaemelum nobile), meadowsweet (Filipendula ulmaria) and marshmallow (Althaea officinalis)[238]. The whole plant is harvested when in flower and can be dried for later use[4, 238].

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Other Uses

Dye.

A long-lasting bright yellowish-green dye is obtained from the flowers[13, 100].

Cultivation details

Prefers a well-drained sandy loam with some peat[1] and a sunny position[238]. It avoids wet or rich soils[115].

Plants are not easy to grow in a garden[4].

The flowers only open in fine weather and close at midday[4].

Although the growing plant is scentless, if the cut stems are immersed in warm water for 24 hours a most penetrating odour will be observed on distillation[245].

A very variable plant, some botanists divide it into a number of separate species[4].

Propagation

Seed - sow February to May in situ or as soon as it is ripe in situ[17]. Germination is usually rapid.

Scent

Plant: Dried

> Although the growing plant is scentless, if the cut stems are immersed in warm water for 24 hours a most penetrating odour will be observed on distillation.

Suppliers

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References

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Annual/Biennial growing to 0.25m by 0.15m . . It is in flower from June to October, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow

in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Meadow, Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The plant is used as a flavouring in bitter herbal liqueurs and is an ingredient of vermouth[268].

Medicinal Uses

Disclaimer

Appetizer; Aromatic; Bach; Bitter; Cholagogue; Diaphoretic; Digestive; Emetic; Febrifuge; Hepatic; Homeopathy; Poultice; Stomachic; Tonic.

One of the most useful bitter herbs, centaury strengthens digestive function, especially within the stomach[254]. By increasing stomach secretions it hastens the breakdown of food, it also stimulates the appetite and increases bile production[254]. The plant needs to be take over a number of weeks and an infusion should be slowly sipped so that the components (their bitterness can be detected at a dilution of 1:3,500) can stimulate reflex activity throughout the upper digestive tract[254].

The whole herb is appetizer, aromatic, bitter, cholagogue, diaphoretic, digestive, emetic, weakly febrifuge, hepatic, stomachic and tonic[9, 13, 21, 165, 268]. It acts on the liver and kidneys, purifies the blood and is an excellent tonic for the digestive system[4, 238]. Externally, the fresh green herb is said to be a good application to wounds and sores[4]. It is often used in combination with other herbs such as camomile (Chamaemelum nobile), meadowsweet (Filipendula ulmaria) and marshmallow (Althaea officinalis)[238]. The whole plant is harvested when in flower and can be dried for later use[4, 238].

The plant is used in Bach flower remedies - the keywords for prescribing it are 'Weak willed', 'Too easily influenced' and 'Willing servitors'[209].

A homeopathic remedy is made from the plant[9]. It is used in the treatment of liver and gall bladder ailments[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

make a credit card donation with PayPal

Other Uses

Dye.

A long-lasting bright yellowish-green dye is obtained from the flowers[13, 100].

Cultivation details

Prefers a well-drained sandy loam with some peat[1] and a sunny position[238]. It avoids wet or rich soils[115].

Plants are not easy to grow in a garden[4].

The flowers only open in fine weather and close at midday[4].

Although the growing plant is scentless, if the cut stems are immersed in warm water for 24 hours a most penetrating odour will be observed on distillation[245].

A very variable plant, some botanists divide it into a number of separate species[4].

Propagation

Seed - sow February to May in situ or as soon as it is ripe in situ[17]. Germination is usually rapid.

Scent

Plant: Dried

> Although the growing plant is scentless, if the cut stems are immersed in warm water for 24 hours a most penetrating odour will be observed on distillation.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Centaurium+erythraea`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Centaurium erythraea*

Subject:

Centaurium erythraea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Centaurium erythraea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Search for

Edible Use: Condiment (548);

Latin Name	Common Name	Description	PFAF Rating
Cercis canadensis	Redbud	Condiment	3
Chamaemelum nobile	Camomile	Condiment	4
Chenopodium ficifolium	Fig-leaved goosefoot	Condiment	2
Chimaphila umbellata	Pipsissewa	Condiment	2
Chrysosplenium americanum	Water mat	Condiment	1
Chrysothamnus viscidiflorus	Green rabbitbrush	Condiment	2
Ciclospermum leptophyllum	Slender celery	Condiment	1
Cimicifuga simplex		Condiment	1
Cinnamomum camphora	Camphor	Condiment	3
Cistus albidus	Rock rose	Condiment	1
Cistus creticus	Rock rose	Condiment	2
Cistus ladanifer	Labdanum	Condiment	3
Cistus salviifolius	Rock rose	Condiment	1
Citrofortunella microcarpa	Calamondin orange	Condiment	2
Citrus aurantium	Bitter orange	Condiment	2
Citrus limon	Lemon	Condiment	3
Citrus reticulata	Mandarin	Condiment	2
Citrus sinensis	Sweet orange	Condiment	2
Cleome monophylla		Condiment	2
Cleome ornithopodioides		Condiment	1
Cleome viscosa	Tickweed	Condiment	2
Clinopodium vulgare	Wild basil	Condiment	2
Cnicus benedictus	Blessed thistle	Condiment	2

Cochlearia anglica	Long leaved scurvy grass	Condiment	1
Cochlearia macrocarpa		Condiment	1
Cochlearia scotica		Condiment	1
Coelopleurum lucidum		Condiment	2
Coluria geoides		Condiment	2
Comptonia peregrina	Sweet fern	Condiment	3
Comptonia peregrina asplenifolia	Sweet fern	Condiment	3
Conradina verticillata	Cumberland rosemary	Condiment	1
Convolvulus arvensis	Field bindweed	Condiment	1
Conyza canadensis	Canada fleabane	Condiment	1
Coptis trifolia	Goldthread	Condiment	2
Coriandrum sativum	Coriander	Condiment	3
Crambe orientalis		Condiment	3
Crocus nudiflorus		Condiment	3
Crocus sativus	Saffron	Condiment	3
Crocus serotinus		Condiment	2
Cryptotaenia japonica	Mitsuba	Condiment	4
Cuminum cyminum	Cumin	Condiment	3
Cymopterus bulbosus	Bulbous springparsley	Condiment	1
Cymopterus fendleri	Fendler's springparsley	Condiment	2
Cyperus longus	Galingale	Condiment	2
Cytisus scoparius	Broom	Condiment	3
Dahlia pinnata	Dahlia	Condiment	1
Dahlia rosea	Dahlia	Condiment	1
Daucus carota	Wild carrot	Condiment	2
Daucus carota sativus	Carrot	Condiment	4
Descurainia pinnata	Tansy mustard	Condiment	2
Descurainia sophia	Flixweed	Condiment	2
Dianthus caryophyllus	Carnation	Condiment	2
Diospyros kaki	Persimmon	Condiment	3
Diplotaxis muralis	Wall rocket	Condiment	2
Dodonaea viscosa	Native hops	Condiment	2

Dracocephalum parviflorum	American dragonhead	Condiment	1
Drimys lanceolata	Mountain pepper	Condiment	3
Drimys winteri	Winter's bark	Condiment	3
Eleutherococcus divaricatus		Condiment	2
Elsholtzia ciliata		Condiment	2
Eriodictyon californicum	Yerba santa	Condiment	3
Eruca vesicaria sativa	Rocket	Condiment	3
Eucalyptus globulus	Tasmanian blue gum	Condiment	1
Eucalyptus leucoxylon	Yellow gum	Condiment	1
Eucalyptus polybractea	Blue mallee	Condiment	1
Eupatorium chinense		Condiment	1
Ferula assa-foetida	Asafoetida	Condiment	3
Ferula foetida	Asafoetida	Condiment	2
Ferula gummosa	Galbanum	Condiment	2
Ferula narthex		Condiment	2
Filipendula ulmaria	Meadowsweet	Condiment	3
Foeniculum vulgare	Fennel	Condiment	5
Foeniculum vulgare azoricum	Florence fennel	Condiment	3
Fraxinus angustifolia	Narrow-leaved ash	Condiment	1
Galinsoga parviflora	Gallant soldier	Condiment	2
Galium odoratum	Sweet woodruff	Condiment	3
Gaultheria fragrantissima		Condiment	2
Gaultheria procumbens	Checkerberry	Condiment	4
Genista tinctoria	Dyer's greenweed	Condiment	2
Gentiana lutea	Yellow gentian	Condiment	3
Geum rivale	Water avens	Condiment	3
Geum urbanum	Wood avens	Condiment	3
Glechoma hederacea	Ground ivy	Condiment	3
Guizotia abyssinica	Niger seed	Condiment	2
Gynandriris sisyrinchium	Spanish nut	Condiment	1
Hedeoma pulegioides	American pennyroyal	Condiment	3
Hedychium gracile		Condiment	1

Helichrysum italicum	Curry plant	Condiment	2
Heracleum sphondylium montanum	Cow parsnip	Condiment	3
Hierochloe odorata	Holy grass	Condiment	2
Hydrangea anomala		Condiment	3
Hyssopus officinalis	Hyssop	Condiment	4
Iberis amara	Rocket candytuft	Condiment	1
Ilex vomitoria	Yaupon holly	Condiment	1
Illicium anisatum	Star anise	Condiment	1
Illicium floridanum	Aniseed tree	Condiment	1
Inula crithmoides	Golden samphire	Condiment	2
Iris germanica	Purple flag	Condiment	2
Iris germanica florentina	Orris	Condiment	2
Iris pallida	Dalmation iris	Condiment	2

Previous Next List by genus

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Cercis canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Redbud	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern and Central N. America - New York to Florida, west to Texas and Wisconsin[222].		
Habitat:	Rich woods, ravines and borders of streams[43, 82]. It often forms a distinct understorey in woodlands[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Eastern Redbud [DEN1,FEIS,H,P], North America Red Bud [H], North America Redbud [H], Redbud [E,H,B],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Indian); Us(Pa)

Physical Characteristics

A decidious tree growing to 12m by 10m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower from May to June, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Flowers.

Flowers - raw[46, 61, 94, 183] or pickled[2, 105, 149]. A nice refreshing acid taste, the flowers are rich in vitamin C and make a pleasant addition to salads[183, K]. They can also be used as a condiment[200]. The unopened buds are pickled or used as a caper substitute[183].

On a zero moisture basis, the seed contains 22.9 - 27.5% protein, 7.7 - 8.8% fat and 3% ash[218]. (This report does not say if the seed is edible[K].)

Medicinal Uses

Disclaimer

Astringent; Cancer; Febrifuge; Pectoral.

A tea made from the inner bark is highly astringent[46, 61, 94, 149, 222]. Used in the treatment of fevers, diarrhoea and dysentery, it is also a folk remedy for leukaemia[222].

A cold infusion of the roots and inner bark have been used to treat various chest complaints including whooping cough and congestion[257].

Other Uses

Basketry; Wood.

The bark of young shoots is used in basket making[94, 106].

Wood - heavy, hard, not strong, close grained, takes a very fine polish[82, 94]. It weighs 40lb per cubic foot[235].

Cultivation details

Succeeds in most soils and pH types, but dislikes growing in wet soils, especially when these are of clay[200]. Prefers a deep sandy loam and a very sunny position[11, 98, 182]. Succeeds in light shade[200]. Dislikes drought[200].

Although the dormant plant is cold-hardy, the young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

A fast-growing but short-lived tree in the wild[229]. It does not flower freely in Britain[188]. There is at least one named form, selected for its ornamental value[188].

The flowers are produced on the branches of the previous or earlier years, and also on the trunk of the plant[82].

Plants are susceptible to coral spot fungus, especially when growing in areas with cooler summers where the wood is not fully ripened[11]. Plants in this genus are notably resistant to honey fungus[200].

A good bee plant[149].

Resents root disturbance, plants should be planted into their permanent positions as soon as possible, preferably in May, and should be kept well watered until established[11, 188].

This species is one of the few members of the family Leguminosae that do not fix atmospheric nitrogen[226].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[200]. Pre-soak stored seed for 24 hours in warm water then cold stratify for 3 months[113]. Sow spring in the greenhouse[78]. As soon as they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Plants resent root disturbance and are best planted out in their permanent positions as soon as possible[11].

Cuttings of half-ripe wood, July/August in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9

Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cercis canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

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Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern and Central N. America - New York to Florida, west to Texas and Wisconsin[222].		
Habitat:	Rich woods, ravines and borders of streams[43, 82]. It often forms a distinct understorey in woodlands[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Indian); Us(Pa)

Physical Characteristics

A decidious tree growing to 12m by 10m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower from May to June, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It

can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Flowers.

Flowers - raw[46, 61, 94, 183] or pickled[2, 105, 149]. A nice refreshing acid taste, the flowers are rich in vitamin C and make a pleasant addition to salads[183, K]. They can also be used as a condiment[200]. The unopened buds are pickled or used as a caper substitute[183].

On a zero moisture basis, the seed contains 22.9 - 27.5% protein, 7.7 - 8.8% fat and 3% ash[218]. (This report does not say if the seed is edible[K].)

Medicinal Uses

Disclaimer

Astringent; Cancer; Febrifuge; Pectoral.

A tea made from the inner bark is highly astringent[46, 61, 94, 149, 222]. Used in the treatment of fevers, diarrhoea and dysentery, it is also a folk remedy for leukaemia[222].

A cold infusion of the roots and inner bark have been used to treat various chest complaints including whooping cough and congestion[257].

Other Uses

Basketry; Wood.

The bark of young shoots is used in basket making[94, 106].

Wood - heavy, hard, not strong, close grained, takes a very fine polish[82, 94]. It weighs 40lb per cubic foot[235].

Cultivation details

Succeeds in most soils and pH types, but dislikes growing in wet soils, especially when these are of clay[200]. Prefers a deep sandy loam and a very sunny position[11, 98, 182]. Succeeds in light shade[200]. Dislikes drought[200].

Although the dormant plant is cold-hardy, the young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

A fast-growing but short-lived tree in the wild[229]. It does not flower freely in Britain[188]. There is at least one named form, selected for its ornamental value[188].

The flowers are produced on the branches of the previous or earlier years, and also on the trunk of the plant[82].

Plants are susceptible to coral spot fungus, especially when growing in areas with cooler summers where the wood is not fully ripened[11]. Plants in this genus are notably resistant to honey fungus[200].

A good bee plant[149].

Resents root disturbance, plants should be planted into their permanent positions as soon as possible, preferably in May, and should be kept well watered until established[11, 188].

This species is one of the few members of the family Leguminosae that do not fix atmospheric nitrogen[226].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[200]. Pre-soak stored seed for 24 hours in warm water then cold stratify for 3 months[113]. Sow spring in the greenhouse[78]. As soon as they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Plants resent root disturbance and are best planted out in their permanent positions as soon as possible[11].

Cuttings of half-ripe wood, July/August in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses

without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[82] **Sargent. C. S.** *Manual of the Trees of N. America.* Dover Publications Inc. New York. 1965 ISBN 0-486-20278-X
Two volumes, a comprehensive listing of N. American trees though a bit out of date now. Good details on habitats, some details on plant uses. Not really for the casual reader.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[98] **Gordon. A. G. and Rowe. D. C. f.** *Seed Manual for Ornamental Trees and Shrubs.*
Very comprehensive guide to growing trees and shrubs from seed. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[149] **Vines. R. A.** *Trees of Central Texas.* University of Texas Press 1987 ISBN 0-292-78958-3
Fairly readable, it gives details of habitats and some of the uses of trees growing in Texas.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[226] **Lauriault. J.** *Identification Guide to the Trees of Canada* Fitzhenry and Whiteside, Ontario. 1989 ISBN 0889025649
Very good on identification for non-experts, the book also has a lot of information on plant uses.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
A very good concise guide. Gives habitats, good descriptions, maps showing distribution and a few of the uses. It also includes the many shrubs that occasionally reach tree proportions.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada* Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)

`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cercis+canadensis`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cercis+canadensis`

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Plants For A Future: Database Search Results

Cercis canadensis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Redbud	Family:	Leguminosae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Eastern and Central N. America - New York to Florida, west to Texas and Wisconsin[222].		
Habitat:	Rich woods, ravines and borders of streams[43, 82]. It often forms a distinct understorey in woodlands[229].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Eastern Redbud [DEN1,FEIS,H,P], North America Red Bud [H], North America Redbud [H], Redbud [E,H,B],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Fabales . Renamed to Fabaceae -- Pea family
Other Range Info:	From the Ethnobotany Database
	Mexico; Us(Indian); Us(Pa)

Physical Characteristics

A decidious tree growing to 12m by 10m at a medium rate. It is hardy to zone 4 and is frost tender. It is in flower from May to June, and the seeds ripen in October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It

can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Flowers.

Flowers - raw[46, 61, 94, 183] or pickled[2, 105, 149]. A nice refreshing acid taste, the flowers are rich in vitamin C and make a pleasant addition to salads[183, K]. They can also be used as a condiment[200]. The unopened buds are pickled or used as a caper substitute[183].

On a zero moisture basis, the seed contains 22.9 - 27.5% protein, 7.7 - 8.8% fat and 3% ash[218]. (This report does not say if the seed is edible[K].)

Medicinal Uses

Disclaimer

Astringent; Cancer; Febrifuge; Pectoral.

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A cold infusion of the roots and inner bark have been used to treat various chest complaints including whooping cough and congestion[257].

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Basketry; Wood.

The bark of young shoots is used in basket making[94, 106].

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Cultivation details

Succeeds in most soils and pH types, but dislikes growing in wet soils, especially when these are of clay[200]. Prefers a deep sandy loam and a very sunny position[11, 98, 182]. Succeeds in light shade[200]. Dislikes drought[200].

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A fast-growing but short-lived tree in the wild[229]. It does not flower freely in Britain[188]. There is at least one named form, selected for its ornamental value[188].

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Plants are susceptible to coral spot fungus, especially when growing in areas with cooler summers where the wood is not fully ripened[11]. Plants in this genus are notably resistant to honey fungus[200].

A good bee plant[149].

Resents root disturbance, plants should be planted into their permanent positions as soon as possible, preferably in May, and should be kept well watered until established[11, 188].

This species is one of the few members of the family Leguminosae that do not fix atmospheric nitrogen[226].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[200]. Pre-soak stored seed for 24 hours in warm water then cold stratify for 3 months[113]. Sow spring in the greenhouse[78]. As soon as they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Plants resent root disturbance and are best planted out in their permanent positions as soon as possible[11].

Cuttings of half-ripe wood, July/August in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cercis canadensis*

Subject:

Cercis canadensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cercis canadensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Chamaemelum nobile

Common name:	Camomile	Family:	Compositae
Author:	(L.) All.	Botanical references:	17, 200
Synonyms:	Anthemis nobilis (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Sandy commons, pastures and roadsides[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anthemis nobile[H] C. nobilis[E] Ormenis nobilis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alman Papatyasi [E], Babunah [E], Babunj [E], Babunnag [E], Baghdad Hawingi [E], Camomile [E], Chamomile [E,H,L], Creeping Chamomile [H], English Chamomile [H], Garden Chamomile [L], Garden Dog-fennel [B], Garden Dogfennel [P], Ground Apple [H], Gula Faq [E], Manzanilla [H], Manzanilla Romana [E], Maythe [E], Oil Chamomile [H], Perennial Chamomile [H], Roman Chamomile [H,L], Roman Chamomille [H], Rumi Papatya [E],
Epithets:	From a Dictionary of Botanical Epithets
	nobile = notable, famous;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Arabic; Britain; Britain(Wales); France; Germany; Iran; Iraq; Kurdistan; Mexico; Spain; Turkey

Physical Characteristics

An evergreen perennial growing to 0.15m by 0.3m . It is hardy to zone 4 and is not frost tender. It is in leaf all year, in flower from June to July, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Lawn, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall, Ground Cover.

Cultivar **'Flore Pleno'**: Lawn, In Walls, In South Wall, In East Wall, In West Wall, Ground Cover.
Cultivar **'Treneague'**: Lawn, In Walls, In South Wall, In East Wall, In West Wall, Ground Cover.

Edible Uses

Condiment; Tea.

Young sprigs are used as a seasoning and a flavouring in herb beers[15, 183].

The fresh or dried flowers are used to make herb teas[21, 37, 183]. This has a strong aromatic odour and a bitter flavour, especially the single-flowered form[4].

The whole herb is used for making herbal beers[4].

Medicinal Uses

Disclaimer

Anodyne; Antiinflammatory; Antispasmodic; Aromatherapy; Nervine; Stomachic; Tonic; Vasodilator.

Camomile is a common herb with a long history of safe and effective medicinal use - it is widely used as a household herbal remedy. It is particularly useful as a remedy for various problems of the digestive system, as a sedative and a nervine, it is especially suited for young children[4, 20, 21]. A tea is made from the flowers and this should be prepared in a closed vessel to prevent loss of the essential oils[4].

The flowers are anodyne, anti-inflammatory, antispasmodic, nervine, stomachic, tonic, vasodilator[4, 14, 21, 37, 165, 201]. The single-flowered form is the most potent medicinally, though it can in large doses damage the lining of the stomach and bowels[4]. For this reason, the double-flowered form is usually preferred since this contains less of the alkaloid that causes the problem[4].

The flowers are gathered in the summer when they are fully open and are distilled for their oil or dried for later use[238]. They should not be stored for longer than 12 months[238].

The whole herb is used to make a lotion for external application in the treatment of toothache, earache, neuralgia etc[4].

The essential oil is used in aromatherapy. Its keyword is 'Soothing'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Dye; Essential; Fungicide; Ground cover; Hair; Liquid feed; Repellent; Strewing.

An infusion of the flowers is used as a hair shampoo, especially for fair hair[14, 20, 168]. It is also used as a liquid feed and general plant tonic[14], effective against a number of plant diseases[18, 20, 201]. It has fungicidal properties and its use is said to prevent damping off in seedlings[238].

The flowers are an ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

The whole plant was formerly used as a strewing herb[4, 168]. The whole plant is insect repellent both when growing and when dried[14, 20].

An essential oil from the whole plant is used as a flavouring and in perfumery[46].

Yellow to gold dyes are obtained from the flowers[168].

The plant makes a very good ground cover[197] and can also be used as an edging plant[200]. It does tend to become bare in patches[208].

Cultivation details

Tolerates most well-drained soils, preferring a dry sandy soil and a sunny position[4, 37, 200]. Tolerates partial shade[16]. Established plants are drought tolerant[190]. Can be grown in grass[54]. Tolerates a pH in the range 6.8 to 8.

Plants are hardy to at least -15°c[200]. They often deteriorate in very wet or cold winters, but usually recover quickly in the spring and early summer[238].

Chamomile is commonly grown in the domestic herb garden, it is also cultivated commercially for its flowers which are used in herb teas and medicinally. The double-flowered form is highly regarded for its medicinal virtues[165]. Plants can be invasive when growing in good conditions[188], though they are easy to control[K].

There is some confusion between this plant (which is a perennial) and the annual chamomile (Matricaria chamomilla) as to which is the genuine medicinal chamomile. Some reports say that this plant is the most effective herbally[4], whilst others says that Matricaria is more potent[9]. Both plants seem to have very similar properties and either can probably be used quite successfully.

Camomile is a very good companion plant, promoting the health of plants it is growing close to, it is especially good for growing near cabbages, onions and, in small quantities, wheat[4, 14, 20, 54, 201, 238].

The cultivar 'Treneague' is a low-growing non-flowering form that makes an excellent ground cover[197]. Fairly tolerant of being walked on, it is sometimes used instead of grass for making a lawn though it is more difficult to maintain and can become weed infested, especially in its early stages[200]. It also tends to become bare in places[208]. The whole plant has a pungent aroma, this being especially noticeable on hot days or when the plant is bruised.

Propagation

Seed - sow March in a cold frame. Only just cover the seed and do not let the compost dry out. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in the summer.

Division in spring or autumn. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Basal cuttings in spring. Harvest the shoots when they are about 5cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Scent

Leaves: Crushed Dried

The leaves are pungently scented.

Cultivars

'Treneague'

A low-growing form of camomile suitable for making lawns. It tolerates light traffic. Does not flower.

'Flore Pleno'

This is the double flowered form. Because it has more petals and less disk florets (which are the most active medicinally), the flowers are milder-flavoured and more suitable for children.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Chamaemelum nobile* (chamomile)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Ground cover plants.

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- PFAF Plant Catalogue (B-C)
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References for *anthemis nobilis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
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[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
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[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
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Interesting reading.

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[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Chamaemelum+nobile`

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Plants For A Future: Database Search Results

Chamaemelum nobile

Common name:	Camomile	Family:	Compositae
Author:	(L.) All.	Botanical references:	17, 200
Synonyms:	Anthemis nobilis (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Sandy commons, pastures and roadsides[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anthemis nobile[H] C. nobilis[E] Ormenis nobilis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alman Papatyasi [E], Babunah [E], Babunj [E], Babunnag [E], Baghdad Hawingi [E], Camomile [E], Chamomile [E,H,L], Creeping Chamomile [H], English Chamomile [H], Garden Chamomile [L], Garden Dog-fennel [B], Garden Dogfennel [P], Ground Apple [H], Gula Faq [E], Manzanilla [H], Manzanilla Romana [E], Maythe [E], Oil Chamomile [H], Perennial Chamomile [H], Roman Chamomile [H,L], Roman Chamomille [H], Rumi Papatya [E],
Epithets:	From a Dictionary of Botanical Epithets
	nobile = notable, famous;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Arabic; Britain; Britain(Wales); France; Germany; Iran; Iraq; Kurdistan; Mexico; Spain; Turkey

Physical Characteristics

An evergreen perennial growing to 0.15m by 0.3m . It is hardy to zone 4 and is not frost tender. It is in leaf all year, in flower from June to July, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Lawn, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall, Ground Cover.

Cultivar **'Flore Pleno'**: Lawn, In Walls, In South Wall, In East Wall, In West Wall, Ground Cover.
Cultivar **'Treneague'**: Lawn, In Walls, In South Wall, In East Wall, In West Wall, Ground Cover.

Edible Uses

Condiment; Tea.

Young sprigs are used as a seasoning and a flavouring in herb beers[15, 183].

The fresh or dried flowers are used to make herb teas[21, 37, 183]. This has a strong aromatic odour and a bitter flavour, especially the single-flowered form[4].

The whole herb is used for making herbal beers[4].

Medicinal Uses

Disclaimer

Anodyne; Antiinflammatory; Antispasmodic; Aromatherapy; Nervine; Stomachic; Tonic; Vasodilator.

Camomile is a common herb with a long history of safe and effective medicinal use - it is widely used as a household herbal remedy. It is particularly useful as a remedy for various problems of the digestive system, as a sedative and a nervine, it is especially suited for young children[4, 20, 21]. A tea is made from the flowers and this should be prepared in a closed vessel to prevent loss of the essential oils[4].

The flowers are anodyne, anti-inflammatory, antispasmodic, nervine, stomachic, tonic, vasodilator[4, 14, 21, 37, 165, 201]. The single-flowered form is the most potent medicinally, though it can in large doses damage the lining of the stomach and bowels[4]. For this reason, the double-flowered form is usually preferred since this contains less of the alkaloid that causes the problem[4].

The flowers are gathered in the summer when they are fully open and are distilled for their oil or dried for later use[238]. They should not be stored for longer than 12 months[238].

The whole herb is used to make a lotion for external application in the treatment of toothache, earache, neuralgia etc[4].

The essential oil is used in aromatherapy. Its keyword is 'Soothing'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Dye; Essential; Fungicide; Ground cover; Hair; Liquid feed; Repellent; Strewing.

An infusion of the flowers is used as a hair shampoo, especially for fair hair[14, 20, 168]. It is also used as a liquid feed and general plant tonic[14], effective against a number of plant diseases[18, 20, 201]. It has fungicidal properties and its use is said to prevent damping off in seedlings[238].

The flowers are an ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

The whole plant was formerly used as a strewing herb[4, 168]. The whole plant is insect repellent both when growing and when dried[14, 20].

An essential oil from the whole plant is used as a flavouring and in perfumery[46].

Yellow to gold dyes are obtained from the flowers[168].

The plant makes a very good ground cover[197] and can also be used as an edging plant[200]. It does tend to become bare in patches[208].

Cultivation details

Tolerates most well-drained soils, preferring a dry sandy soil and a sunny position[4, 37, 200]. Tolerates partial shade[16]. Established plants are drought tolerant[190]. Can be grown in grass[54]. Tolerates a pH in the range 6.8 to 8.

Plants are hardy to at least -15°c[200]. They often deteriorate in very wet or cold winters, but usually recover quickly in the spring and early summer[238].

Chamomile is commonly grown in the domestic herb garden, it is also cultivated commercially for its flowers which are used in herb teas and medicinally. The double-flowered form is highly regarded for its medicinal virtues[165]. Plants can be invasive when growing in good conditions[188], though they are easy to control[K].

There is some confusion between this plant (which is a perennial) and the annual chamomile (Matricaria chamomilla) as to which is the genuine medicinal chamomile. Some reports say that this plant is the most effective herbally[4], whilst others says that Matricaria is more potent[9]. Both plants seem to have very similar properties and either can probably be used quite successfully.

Camomile is a very good companion plant, promoting the health of plants it is growing close to, it is especially good for growing near cabbages, onions and, in small quantities, wheat[4, 14, 20, 54, 201, 238].

The cultivar 'Treneague' is a low-growing non-flowering form that makes an excellent ground cover[197]. Fairly tolerant of being walked on, it is sometimes used instead of grass for making a lawn though it is more difficult to maintain and can become weed infested, especially in its early stages[200]. It also tends to become bare in places[208]. The whole plant has a pungent aroma, this being especially noticeable on hot days or when the plant is bruised.

Propagation

Seed - sow March in a cold frame. Only just cover the seed and do not let the compost dry out. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in the summer.

Division in spring or autumn. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Basal cuttings in spring. Harvest the shoots when they are about 5cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Scent

Leaves: Crushed Dried

> The leaves are pungently scented.

Cultivars

'Treneague'

A low-growing form of camomile suitable for making lawns. It tolerates light traffic. Does not flower.

'Flore Pleno'

This is the double flowered form. Because it has more petals and less disk florets (which are the most active medicinally), the flowers are milder-flavoured and more suitable for children.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Chamaemelum nobile* (chamomile)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Ground cover plants.
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- PFAF Plant Catalogue (B-C)
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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Plants For A Future: Database Search Results

Chamaemelum nobile

Common name:	Camomile	Family:	Compositae
Author:	(L.) All.	Botanical references:	17, 200
Synonyms:	Anthemis nobilis (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Sandy commons, pastures and roadsides[17].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Arabic; Britain; Britain(Wales); France; Germany; Iran; Iraq; Kurdistan; Mexico; Spain; Turkey

Physical Characteristics

An evergreen perennial growing to 0.15m by 0.3m . It is hardy to zone 4 and is not frost tender. It is in leaf all year, in flower from June to July, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

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Anodyne; Antiinflammatory; Antispasmodic; Aromatherapy; Nervine; Stomachic; Tonic; Vasodilator.

Camomile is a common herb with a long history of safe and effective medicinal use - it is widely used as a household herbal remedy. It is particularly useful as a remedy for various problems of the digestive system, as a sedative and a nervine, it is especially suited for young children[4, 20, 21]. A tea is made from the flowers and this should be prepared in a closed vessel to prevent loss of the essential oils[4].

The flowers are anodyne, anti-inflammatory, antispasmodic, nervine, stomachic, tonic, vasodilator[4, 14, 21, 37, 165, 201]. The single-flowered form is the most potent medicinally, though it can in large doses damage the lining of the stomach and bowels[4]. For this reason, the double-flowered form is usually preferred since this contains less of the alkaloid that causes the problem[4].

The flowers are gathered in the summer when they are fully open and are distilled for their oil or dried for later use[238]. They should not be stored for longer than 12 months[238].

The whole herb is used to make a lotion for external application in the treatment of toothache, earache, neuralgia etc[4].

The essential oil is used in aromatherapy. Its keyword is 'Soothing'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Compost; Dye; Essential; Fungicide; Ground cover; Hair; Liquid feed; Repellent; Strewing.

An infusion of the flowers is used as a hair shampoo, especially for fair hair[14, 20, 168]. It is also used as a liquid feed and general plant tonic[14], effective against a number of plant diseases[18, 20, 201]. It has fungicidal properties and its use is said to prevent damping off in seedlings[238].

The flowers are an ingredient of 'QR' herbal compost activator[32]. This is a dried and powdered mixture of several herbs that can be added to a compost heap in order to speed up bacterial activity and thus shorten the time needed to make the compost[K].

The whole plant was formerly used as a strewing herb[4, 168]. The whole plant is insect repellent both when growing and when dried[14, 20].

An essential oil from the whole plant is used as a flavouring and in perfumery[46].

Yellow to gold dyes are obtained from the flowers[168].

The plant makes a very good ground cover[197] and can also be used as an edging plant[200]. It does tend to become bare in patches[208].

Cultivation details

Tolerates most well-drained soils, preferring a dry sandy soil and a sunny position[4, 37, 200]. Tolerates partial shade[16]. Established plants are drought tolerant[190]. Can be grown in grass[54]. Tolerates a pH in the range 6.8 to 8.

Plants are hardy to at least -15°c[200]. They often deteriorate in very wet or cold winters, but usually recover quickly in the spring and early summer[238].

Chamomile is commonly grown in the domestic herb garden, it is also cultivated commercially for its flowers which are used in herb teas and medicinally. The double-flowered form is highly regarded for its medicinal virtues[165]. Plants can be invasive when growing in good conditions[188], though they are easy to control[K].

There is some confusion between this plant (which is a perennial) and the annual chamomile (Matricaria chamomilla) as to which is the genuine medicinal chamomile. Some reports say that this plant is the most effective herbally[4], whilst others says that Matricaria is more potent[9]. Both plants seem to have very similar properties and either can probably be used quite successfully.

Camomile is a very good companion plant, promoting the health of plants it is growing close to, it is especially good for growing near cabbages, onions and, in small quantities, wheat[4, 14, 20, 54, 201, 238].

The cultivar 'Treneague' is a low-growing non-flowering form that makes an excellent ground cover[197]. Fairly tolerant of being walked on, it is sometimes used instead of grass for making a lawn though it is more difficult to maintain and can become weed infested, especially in its early stages[200]. It also tends to become bare in places[208]. The whole plant has a pungent aroma, this being especially noticeable on hot days or when the plant is bruised.

Propagation

Seed - sow March in a cold frame. Only just cover the seed and do not let the compost dry out. When they are large enough to handle, prick the seedlings out into individual pots and plant them out into their permanent positions in the summer.

Division in spring or autumn. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Basal cuttings in spring. Harvest the shoots when they are about 5cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Scent

Leaves: Crushed Dried

> The leaves are pungently scented.

Cultivars

'Treneague'

A low-growing form of camomile suitable for making lawns. It tolerates light traffic. Does not flower.

'Flore Pleno'

This is the double flowered form. Because it has more petals and less disk florets (which are the most active medicinally), the flowers are milder-flavoured and more suitable for children.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Chamaemelum nobile* (chamomile)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Chamaemelum nobile*

Subject:

Chamaemelum nobile

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Chamaemelum nobile

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:33:24 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Chenopodium ficifolium

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Range:	Britain.		
Habitat:	Waste ground and arable land, especially on rich soils and near compost heaps. Avoids acid soils[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.

	C. serotinum auct. non[P]
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Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Goosefoot family

Physical Characteristics

Annual growing to 0.9m. It is hardy to zone 4. It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves and flower buds - cooked[12, 105, 177]. Used like spinach or added to soups etc[183]. The raw leaves should only be eaten in small quantities, see the notes above on toxicity.

Seed - roasted and used as a condiment[105]. Used like sesame for flavouring foods[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

Gold/green dyes can be obtained from the whole plant[168].

Cultivation details

An easily grown plant, succeeding in most soils but disliking shade[1, 200]. It prefers a moderately fertile soil[200].

Propagation

Seed - sow spring in situ. Most of the seed usually germinates within a few days of sowing.

Suppliers

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Web References

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References for the family Chenopodiaceae.

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References

[K] **Ken Fern**
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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

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Your Name:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Range:	Britain.		
Habitat:	Waste ground and arable land, especially on rich soils and near compost heaps. Avoids acid soils[17].		
Plants For A Future Rating (1-5):	2		

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

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Medicinal Uses

Disclaimer

None known

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Suppliers

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Chenopodium ficifolium

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Plant Information

Comment:

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Chenopodium ficifolium

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Chimaphila umbellata

Common name:	Pipsissewa	Family:	Pyrolaceae
Author:	(L.) Barton.	Botanical references:	50, 200
Synonyms:	Pyrola umbellata (L.)		
Known Hazards:	None known		
Range:	N. Europe, N. America, E. Asia.		
Habitat:	Dry coniferous woods in Europe[9]. Moist woods, particularly coniferous stands, and along mountain streams from the lower hills to about 2,500 metres in Western N. America[212].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. umbeltata[E] Chimophila umbellata[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bitter Wintergreen [H], Chimaphile [E], Doldiges Wintergrun [E], Ground Ivy [E], Pipissewa [H], Pipsissewa [S,P,B,L,E], Prince'S Pine [E], Prince's Pine [S,L,FEIS], Pyrole En Ombelle [E], Rheumatism Weed [H], Skjaerm Vintergron [E], Spotted Wintergreen [E], Umbellate Wintergreen [L], Winterlieb [E],
Epithets:	From a Dictionary of Botanical Epithets
	bella = pretty;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Shinleaf family
Other Range Info:	From the Ethnobotany Database

	Canada(Salish); Denmark; France; Germany; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot); Us(Flathead); Us(Indian); Us(Pa); Us(Paiute)

Physical Characteristics

An evergreen shrub growing to 0.35m by 0.5m at a slow rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

The leaves are nibbled[177], brewed into a tea or used as a flavouring in root beer[183]. They have a delicious scent and flavour. An extract of the leaves is used to flavour candy and soft drinks[177, 183]. In Mexico the herb is used in the preparation of 'navaitai', an alcoholic beverage produced from sprouted maize[183].

A tea can be made from an infusion of the stems and roots[161, 177, 212].

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Astringent; Disinfectant; Diuretic; Rubefacient; Stimulant; Tonic.

Pipsissewa was much used by many tribes of native North American Indians to induce sweating and treat fevers, including typhus[254, 257]. The plant contains hydroquinones which have a pronounced disinfectant effect within the urinary tract and modern day herbalism mainly employs the plant to treat urinary problems such as cystitis and urethritis[254].

The whole plant is alterative, antibacterial, astringent, diaphoretic, diuretic, rubefacient, stimulant and tonic[4, 9, 14, 21, 46, 165, 213, 207, 222]. An infusion is used in the treatment of various problems related to the urinary system, it is also prescribed for more serious conditions such as kidney stones and gonorrhoea[254]. A decoction is very efficacious in the treatment of skin diseases[4]. Used externally, the fresh leaves are rubefacient and internally they are of great use in cardiac and kidney diseases, chronic rheumatism and scrofula[4, 238]. Only the leaves are officinal, though the whole plant is often used[4].

The plant is loaded with the biologically active compounds arbutin, sitosterol and ursolic acid[222]. Arbutin hydrolyzes to the toxic urinary antiseptic hydroquinone[222]. The plant contains glycosides and an essential oil that are used as an astringent and tonic[212].

The plant is harvested when in flower, and the leaves on their own can be harvested during the growing season. They are dried for later use[238].

A homeopathic remedy is made from the leaves[9]. It is used in the treatment of inflammations of the urinary system[9].

Other Uses

Essential; Ground cover.

The plant's stoloniferous root system, and dwarf spreading habit make it a god ground cover, though it is a difficult plant to establish and grow well[245].

The plant is used in perfumery because of its delicate scent[9].

Cultivation details

Requires a light moist but well-drained lime-free soil and shade from direct sunlight[1].

This species is difficult to propagate and grow in cultivation, mainly because it has certain mycorrhizal associations in the wild and these are necessary if the plant is to thrive[200]. It is best to use some soil collected from around an established plant when sowing seed or planting out into a new position[200].

The plant has wide-spreading fibrous feeding roots and will often die or fail to increase in size if these are disturbed.

The flowers have a sweet but refreshing perfume[245].

Propagation

Seed - this is very difficult to germinate, see the notes above in cultivation details. It is best sown in a shady area of the greenhouse on moist sphagnum peat as soon as it is ripe. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a shady position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division. Rather difficult because the plant is very sensitive to root disturbance. It is best attempted in the spring as the plant comes into growth[200].

Cuttings of softwood, June in a frame. Use some soil from around an established plant[14].

Scent

Flowers: Fresh

The flowers have a sweet but refreshing perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Plants For A Future: Database Search Results

Chimaphila umbellata

Common name:	Pipsissewa	Family:	Pyrolaceae
Author:	(L.) Barton.	Botanical references:	50, 200
Synonyms:	Pyrola umbellata (L.)		
Known Hazards:	None known		
Range:	N. Europe, N. America, E. Asia.		
Habitat:	Dry coniferous woods in Europe[9]. Moist woods, particularly coniferous stands, and along mountain streams from the lower hills to about 2,500 metres in Western N. America[212].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. umbeltata[E] Chimophila umbellata[H]
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Epithets:	From a Dictionary of Botanical Epithets
	bella = pretty;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Shinleaf family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Denmark; France; Germany; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot); Us(Flathead); Us(Indian); Us(Pa); Us(Paiute)

Physical Characteristics

An evergreen shrub growing to 0.35m by 0.5m at a slow rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

The leaves are nibbled[177], brewed into a tea or used as a flavouring in root beer[183]. They have a delicious scent and flavour. An extract of the leaves is used to flavour candy and soft drinks[177, 183]. In Mexico the herb is used in the preparation of 'navaitai', an alcoholic beverage produced from sprouted maize[183].

A tea can be made from an infusion of the stems and roots[161, 177, 212].

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Astringent; Disinfectant; Diuretic; Rubefacient; Stimulant; Tonic.

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Essential; Ground cover.

The plant's stoloniferous root system, and dwarf spreading habit make it a god ground cover, though it is a difficult plant to establish and grow well[245].

The plant is used in perfumery because of its delicate scent[9].

Cultivation details

Requires a light moist but well-drained lime-free soil and shade from direct sunlight[1].

This species is difficult to propagate and grow in cultivation, mainly because it has certain mycorrhizal associations in the wild and these are necessary if the plant is to thrive[200]. It is best to use some soil collected from around an established plant when sowing seed or planting out into a new position[200].

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The flowers have a sweet but refreshing perfume[245].

Propagation

Seed - this is very difficult to germinate, see the notes above in cultivation details. It is best sown in a shady area of the greenhouse on moist sphagnum peat as soon as it is ripe. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a shady position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Cuttings of softwood, June in a frame. Use some soil from around an established plant[14].

Scent

Flowers: Fresh

The flowers have a sweet but refreshing perfume.

Suppliers

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References

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	C. umbeltata[E] Chimophila umbellata[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bitter Wintergreen [H], Chimaphile [E], Doldiges Wintergrun [E], Ground Ivy [E], Pipissewa [H], Pipsissewa [S,P,B,L,E], Prince'S Pine [E], Prince's Pine [S,L,FEIS], Pyrole En Ombelle [E], Rheumatism Weed [H], Skjaerm Vintergron [E], Spotted Wintergreen [E], Umbellate Wintergreen [L], Winterlieb [E],
Epithets:	From a Dictionary of Botanical Epithets
	bella = pretty;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Shinleaf family
Other Range Info:	From the Ethnobotany Database
	Canada(Salish); Denmark; France; Germany; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot); Us(Flathead); Us(Indian); Us(Pa); Us(Paiute)

Physical Characteristics

An evergreen shrub growing to 0.35m by 0.5m at a slow rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

The leaves are nibbled[177], brewed into a tea or used as a flavouring in root beer[183]. They have a delicious scent and flavour. An extract of the leaves is used to flavour candy and soft drinks[177, 183]. In Mexico the herb is used in the preparation of 'navaitai', an alcoholic beverage produced from sprouted maize[183].

A tea can be made from an infusion of the stems and roots[161, 177, 212].

Medicinal Uses

Disclaimer

Alterative; Antibacterial; Astringent; Disinfectant; Diuretic; Rubefacient; Stimulant; Tonic.

Pipsissewa was much used by many tribes of native North American Indians to induce sweating and treat fevers, including typhus[254, 257]. The plant contains hydroquinones which have a pronounced disinfectant effect within the urinary tract and modern day herbalism mainly employs the plant to treat urinary problems such as cystitis and urethritis[254].

The whole plant is alterative, antibacterial, astringent, diaphoretic, diuretic, rubefacient, stimulant and tonic[4, 9, 14, 21, 46, 165, 213, 207, 222]. An infusion is used in the treatment of various problems related to the urinary system, it is also prescribed for more serious conditions such as kidney stones and gonorrhoea[254]. A decoction is very efficacious in the treatment of skin diseases[4]. Used externally, the fresh leaves are rubefacient and internally they are of great use in cardiac and kidney diseases, chronic rheumatism and scrofula[4, 238]. Only the leaves are officinal, though the whole plant is often used[4].

The plant is loaded with the biologically active compounds arbutin, sitosterol and ursolic acid[222]. Arbutin hydrolyzes to the toxic urinary antiseptic hydroquinone[222]. The plant contains glycosides and an essential oil that are used as an astringent and tonic[212].

The plant is harvested when in flower, and the leaves on their own can be harvested during the growing season. They are dried for later use[238].

A homeopathic remedy is made from the leaves[9]. It is used in the treatment of inflammations of the urinary system[9].

Other Uses

Essential; Ground cover.

The plant's stoloniferous root system, and dwarf spreading habit make it a god ground cover, though it is a difficult plant to establish and grow well[245].

The plant is used in perfumery because of its delicate scent[9].

Cultivation details

Requires a light moist but well-drained lime-free soil and shade from direct sunlight[1].

This species is difficult to propagate and grow in cultivation, mainly because it has certain mycorrhizal associations in the wild and these are necessary if the plant is to thrive[200]. It is best to use some soil collected from around an established plant when sowing seed or planting out into a new position[200].

The plant has wide-spreading fibrous feeding roots and will often die or fail to increase in size if these are disturbed.

The flowers have a sweet but refreshing perfume[245].

Propagation

Seed - this is very difficult to germinate, see the notes above in cultivation details. It is best sown in a shady area of the greenhouse on moist sphagnum peat as soon as it is ripe. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a shady position in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division. Rather difficult because the plant is very sensitive to root disturbance. It is best attempted in the spring as the plant comes into growth[200].

Cuttings of softwood, June in a frame. Use some soil from around an established plant[14].

Scent

Flowers: Fresh

The flowers have a sweet but refreshing perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Chimaphila umbellata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Chimaphila umbellata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Chrysosplenium americanum

Common name:	Water mat	Family:	Saxifragaceae
Author:	Schwein.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Central and Western N. America - Quebec to Minnesota, south to Nova Scotia and Montana.		
Habitat:	Acid soils[200] in springheads, rills and cold wet places[43]		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Golden Saxifrage [P], American Golden-saxifrage [B],
Epithets:	From a Dictionary of Botanical Epithets
	canum = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Saxifrage family

Physical Characteristics

Perennial growing to 0.1m by 0.5m . It is hardy to zone 3. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Beetles and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light

woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Ground Cover.

Edible Uses

Condiment.

Used as a spice in salads[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

The plants creeping habit makes it a good ground cover for the bog garden[200].

Cultivation details

Succeeds in most soils if they are moist. Requires a constantly wet but well-drained soil[200]. Prefers acid soils[200]. Prefers a shady position, succeeding in woodland.

Propagation

Seed - sow spring or autumn in a lightly shaded position in a cold frame. Stand the pot in 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a tray of water in the cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in light shade in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Saxifragaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Chrysosplenium americanum

Common name:	Water mat	Family:	Saxifragaceae
Author:	Schwein.	Botanical references:	43, 200
Synonyms:			
Known Hazards:	None known		
Range:	Central and Western N. America - Quebec to Minnesota, south to Nova Scotia and Montana.		
Habitat:	Acid soils[200] in springheads, rills and cold wet places[43]		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Golden Saxifrage [P], American Golden-saxifrage [B],
Epithets:	From a Dictionary of Botanical Epithets
	canum = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Saxifrage family

Physical Characteristics

Perennial growing to 0.1m by 0.5m . It is hardy to zone 3. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Beetles and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Ground Cover.

Edible Uses

Condiment.

Used as a spice in salads[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

The plants creeping habit makes it a good ground cover for the bog garden[200].

Cultivation details

Succeeds in most soils if they are moist. Requires a constantly wet but well-drained soil[200]. Prefers acid soils[200]. Prefers a shady position, succeeding in woodland.

Propagation

Seed - sow spring or autumn in a lightly shaded position in a cold frame. Stand the pot in 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a tray of water in the cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Suppliers

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Range:	Central and Western N. America - Quebec to Minnesota, south to Nova Scotia and Montana.		
Habitat:	Acid soils[200] in springheads, rills and cold wet places[43]		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	canum = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Saxifrage family

Physical Characteristics

Perennial growing to 0.1m by 0.5m . It is hardy to zone 3. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Beetles and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Bog Garden, Ground Cover.

Edible Uses

Condiment.

Used as a spice in salads[177].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

The plants creeping habit makes it a good ground cover for the bog garden[200].

Cultivation details

Succeeds in most soils if they are moist. Requires a constantly wet but well-drained soil[200]. Prefers acid soils[200]. Prefers a shady position, succeeding in woodland.

Propagation

Seed - sow spring or autumn in a lightly shaded position in a cold frame. Stand the pot in 2cm of water. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a tray of water in the cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Suppliers

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Add a comment on: *Chrysosplenium americanum*

Subject:

Chrysosplenium americanum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Chrysosplenium americanum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Chrysothamnus viscidiflorus

Common name:	Green rabbitbrush	Family:	Compositae
Author:	(Hook.) Nutt.	Botanical references:	60, 200
Synonyms:	Bigelovia douglasii (A.Gray.)		
Known Hazards:	None known		
Range:	Western N. America - southern British Columbia to California.		
Habitat:	Dry open places in lowlands and up to moderate elevations[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. viscidiflorus ssp. latifolius[B] C. viscidiflorus var. latifolius[B,C,CAL] Ericameria viscidiflora[G] Ericameria viscidiflora var. latifolia[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Green Rabbitbrush [P,FEIS,B],
Epithets:	From a Dictionary of Botanical Epithets
	florus = flowered;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Indian)

Physical Characteristics

A decidious shrub growing to 1m. It is hardy to zone 3. It is in flower from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Condiment; Gum.

A latex obtained from the root is used as a chewing gum[46, 61, 105, 257].

The plant has been used as a spice[257].

Medicinal Uses

Disclaimer

Antirheumatic; Odontalgic; Poultice.

A poultice made from the chewed plant tips has been applied to boils and rheumatic joints[257].

An infusion of the leaves has been used to treat colds[257].

The finely mashed leaves have been inserted in tooth cavities to treat toothache[257].

Other Uses

Dye; Latex.

The latex obtained from the roots could be used in making rubber[46, 61, 161, 177]. Unfortunately it is not produced in sufficient quantity to make commercial extraction worthwhile[K].

A green dye is obtained from the bark[168].

A yellow-gold dye is obtained from the flowers[168, 257]. It is orange when alum is used as a mordant[257].

Cultivation details

Requires a sunny position and prefers a well-drained sandy soil[1, 11]. Plants do not require a rich soil[11]. They tolerate alkaline soils[200].

A very hardy plant but it prefers a drier climate than it finds in Britain though it succeeds in this country if given the protection of a dry sunny wall[200].

A very variable and ornamental species[60].

The leaves and stems are pleasantly aromatic[219].

Propagation

Seed - we have no information for this species but suggest sowing the seed in spring in a greenhouse and only just covering the seed. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in sand in a frame[200].

Scent

Leaves: Crushed

> The leaves and stems are pleasantly aromatic when crushed.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN

taxonomic database.

- [C] Taxon data. from the CalFlora database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Chrysothamnus viscidiflorus var. latifolius* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of

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A comprehensive but very terse guide. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Plants For A Future: Database Search Results

Chrysothamnus viscidiflorus

Common name:	Green rabbitbrush	Family:	Compositae
Author:	(Hook.) Nutt.	Botanical references:	60, 200
Synonyms:	Bigelovia douglasii (A.Gray.)		
Known Hazards:	None known		
Range:	Western N. America - southern British Columbia to California.		
Habitat:	Dry open places in lowlands and up to moderate elevations[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. viscidiflorus ssp. latifolius[B] C. viscidiflorus var. latifolius[B,C,CAL] Ericameria viscidiflora[G] Ericameria viscidiflora var. latifolia[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Green Rabbitbrush [P,FEIS,B],
Epithets:	From a Dictionary of Botanical Epithets
	florus = flowered;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Us(Indian)

Physical Characteristics

A decidious shrub growing to 1m. It is hardy to zone 3. It is in flower from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in

very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Condiment; Gum.

A latex obtained from the root is used as a chewing gum[46, 61, 105, 257].

The plant has been used as a spice[257].

Medicinal Uses

Disclaimer

Antirheumatic; Odontalgic; Poultice.

A poultice made from the chewed plant tips has been applied to boils and rheumatic joints[257].

An infusion of the leaves has been used to treat colds[257].

The finely mashed leaves have been inserted in tooth cavities to treat toothache[257].

Other Uses

Dye; Latex.

The latex obtained from the roots could be used in making rubber[46, 61, 161, 177]. Unfortunately it is not produced in sufficient quantity to make commercial extraction worthwhile[K].

A green dye is obtained from the bark[168].

A yellow-gold dye is obtained from the flowers[168, 257]. It is orange when alum is used as a mordant[257].

Cultivation details

Requires a sunny position and prefers a well-drained sandy soil[1, 11]. Plants do not require a rich soil[11]. They tolerate alkaline soils[200].

A very hardy plant but it prefers a drier climate than it finds in Britain though it succeeds in this country if given the protection of a dry sunny wall[200].

A very variable and ornamental species[60].

The leaves and stems are pleasantly aromatic[219].

Propagation

Seed - we have no information for this species but suggest sowing the seed in spring in a greenhouse and only just covering the seed. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in sand in a frame[200].

Scent

Leaves: Crushed

> The leaves and stems are pleasantly aromatic when crushed.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
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Range:	Western N. America - southern British Columbia to California.		
Habitat:	Dry open places in lowlands and up to moderate elevations[60].		
Plants For A Future Rating (1-5):	2		

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Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	florus = flowered;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

A decidious shrub growing to 1m. It is hardy to zone 3. It is in flower from July to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in

very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge.

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Condiment; Gum.

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The plant has been used as a spice[257].

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Scent

Leaves: Crushed

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Suppliers

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Ciclospermum leptophyllum

Common name:	Slender celery	Family:	Umbelliferae
Author:	(Pers.)Sprague.	Botanical references:	265
Synonyms:	Apium leptophyllum (Pers.), Apium ammi ((Jacq.)Urb.)		
Known Hazards:	None known		
Range:	Australia.		
Habitat:	Basalt areas in Eastern Australia[154]. A weed of cultivation and waste places[265].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Apium tenuifolium[B,P] C. ammi[P] Cyclospermum ammi[B,P] Cyclospermum leptophyllum[B,G,P] Pimpinella leptophylla[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Marsh Parsley [P], Wild Celery [L],
Epithets:	From a Dictionary of Botanical Epithets
	leptophyllum = thin leaved;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Annual growing to 0.7m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment.

The leaves are used as a parsley substitute, though they occasionally have an acrid flavour[144].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

154

Propagation

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Apium leptophyllum* (a possible synonym).

References for *Cyclospermum leptophyllum* (a possible synonym).

- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Add a longer comment

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Physical Characteristics

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment.

The leaves are used as a parsley substitute, though they occasionally have an acrid flavour[144].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Propagation

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[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

Readers Comments

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Plants For A Future: Database Search Results

Ciclospermum leptophyllum

Common name:	Slender celery	Family:	Umbelliferae
Author:	(Pers.)Sprague.	Botanical references:	265
Synonyms:	Apium leptophyllum (Pers.), Apium ammi ((Jacq.)Urb.)		
Known Hazards:	None known		
Range:	Australia.		
Habitat:	Basalt areas in Eastern Australia[154]. A weed of cultivation and waste places[265].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Apium tenuifolium[B,P] C. ammi[P] Cyclospermum ammi[B,P] Cyclospermum leptophyllum[B,G,P] Pimpinella leptophylla[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Marsh Parsley [P], Wild Celery [L],
Epithets:	From a Dictionary of Botanical Epithets
	leptophyllum = thin leaved;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Annual growing to 0.7m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment.

The leaves are used as a parsley substitute, though they occasionally have an acrid flavour[144].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

154

Propagation

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List] or email [webmaster@pfaf.org] (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ciclospermum leptophyllum*

Subject:

Ciclospermum leptophyllum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ciclospermum leptophyllum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Cimicifuga simplex

Common name:		Family:	Ranunculaceae
Author:	Wormsk.	Botanical references:	58, 200
Synonyms:	Cimicifuga foetida intermedia, Actaea simplex ((DC.)Wormsk. ex Prantl.)		
Known Hazards:	Although no specific mention of toxicity has been seen for this species, it does belong to a family that contains a number of toxic species and at least one species in this genus is said to be mildly poisonous. Some caution is therefore advised.		
Range:	E. Asia - Japan, Dahurica.		
Habitat:	Mountain meadows and alpine regions all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Actaea cimicifuga var. simplex[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Sarasina-Shoma [E],
Epithets:	From a Dictionary of Botanical Epithets
	simplex = simple;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

Perennial growing to 1.5m by 0.6m . It is hardy to zone 5. It is in flower in October, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. lepidoptera. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves.

Leaves - cooked[105, 177, 183]. Some caution is advised, see the notes above on toxicity.

The fragrant root is used as a spice[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist humus rich soil and some shade[1, 200]. Succeeds in ordinary garden soil[1]. Grows well in the dappled shade of woodland[88].

Plants are hardy to at least -25°c[187].

A number of named varieties have been selected for their ornamental value[187].

A good bee and butterfly plant[88]. The flowers have an unusual, slightly unpleasant smell[188].

A greedy plant, inhibiting the growth of nearby plants, especially legumes[54].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[1]. Only just cover the seed. It germinates in 1 - 12 months or even longer at 15°c[164]. The seed does not store well and soon loses its viability[200], stored seed may germinate better if given 6 - 8 weeks warm stratification at 15°c and then 8 weeks cold stratification[164]. Prick out the young seedlings into individual pots when they are large enough to handle and grow them on in a frame for their first winter. Plant out in late spring or early summer[K].

Division in spring or autumn[1]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Scent

Flowers: Fresh

> The flowers have an unusual, slightly unpleasant smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Actaea simplex* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Ranunculaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
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[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
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[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7

Excellent range of photographs, some cultivation details but very little information on plant uses.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Range:	E. Asia - Japan, Dahurica.		
Habitat:	Mountain meadows and alpine regions all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

Perennial growing to 1.5m by 0.6m . It is hardy to zone 5. It is in flower in October, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. lepidoptera. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves.

Leaves - cooked[105, 177, 183]. Some caution is advised, see the notes above on toxicity.

The fragrant root is used as a spice[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a moist humus rich soil and some shade[1, 200]. Succeeds in ordinary garden soil[1]. Grows well in the dappled shade of woodland[88].

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A number of named varieties have been selected for their ornamental value[187].

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A greedy plant, inhibiting the growth of nearby plants, especially legumes[54].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[1]. Only just cover the seed. It germinates in 1 - 12 months or even longer at 15°c[164]. The seed does not store well and soon loses its viability[200], stored seed may germinate better if given 6 - 8 weeks warm stratification at 15°c and then 8 weeks cold stratification[164]. Prick out the young seedlings into individual pots when they are large enough to handle and grow them on in a frame for their first winter. Plant out in late spring or early summer[K].

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Scent

Flowers: Fresh

> The flowers have an unusual, slightly unpleasant smell.

Suppliers

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Known Hazards:	Although no specific mention of toxicity has been seen for this species, it does belong to a family that contains a number of toxic species and at least one species in this genus is said to be mildly poisonous. Some caution is therefore advised.		
Range:	E. Asia - Japan, Dahurica.		
Habitat:	Mountain meadows and alpine regions all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Actaea cimicifuga var. simplex[G]
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Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family
Other Range Info:	From the Ethnobotany Database
	China; Japan

Physical Characteristics

Perennial growing to 1.5m by 0.6m . It is hardy to zone 5. It is in flower in October, and the seeds ripen from October to November. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. lepidoptera. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves.

Leaves - cooked[105, 177, 183]. Some caution is advised, see the notes above on toxicity.

The fragrant root is used as a spice[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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A number of named varieties have been selected for their ornamental value[187].

A good bee and butterfly plant[88]. The flowers have an unusual, slightly unpleasant smell[188].

A greedy plant, inhibiting the growth of nearby plants, especially legumes[54].

Propagation

Seed - best sown as soon as it is ripe in a cold frame[1]. Only just cover the seed. It germinates in 1 - 12 months or even longer at 15°c[164]. The seed does not store well and soon loses its viability[200], stored seed may germinate better if given 6 - 8 weeks warm stratification at 15°c and then 8 weeks cold stratification[164]. Prick out the young seedlings into individual pots when they are large enough to handle and grow them on in a frame for their first winter. Plant out in late spring or early summer[K].

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Scent

Flowers: Fresh

> The flowers have an unusual, slightly unpleasant smell.

Suppliers

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Add a comment on: *Cimicifuga simplex*

Subject:

Cimicifuga simplex

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cimicifuga simplex

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Cinnamomum camphora

Common name:	Camphor	Family:	Lauraceae
Author:	(L.) Sieb.	Botanical references:	11, 109, 200
Synonyms:	Laurus camphora (L.)		
Known Hazards:	The plant is poisonous in large quantities[4]. Large doses can cause respiratory failure in children[268]. See the report below on medicinal uses for more information.		
Range:	E. Asia - China, Japan.		
Habitat:	Banks of streams in China[109], to elevations of 750 metres[268].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Camphora camphora[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Camphor [H,S], Camphor Tree [H], Camphora [E], Camphortree [P,B], Chang [E], Kafur [E], Kusu-No-Ki [E],
Epithets:	From a Dictionary of Botanical Epithets
	amomum = a balsam spice plant;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database

	China; Cuba; Italy; Nepal; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales.

Physical Characteristics

An evergreen tree growing to 6m by 6m at a slow rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from March to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Diptera. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves.

Young shoots and leaves - cooked[105, 177]. Some caution is suggested because there is a report that the plant is poisonous in large quantities.

The old leaves are dried and used as a spice[105, 177].

Medicinal Uses

Disclaimer

Analgesic; Anthelmintic; Antirheumatic; Antispasmodic; Aromatherapy; Cardiotonic; Carminative; Diaphoretic; Odontalgic; Rubefacient; Sedative; Stimulant; Tonic.

Camphor has a long history of herbal use in the Orient with a wide range of uses. It has occasionally been used internally in the treatment of hysteria, but in modern day herbalism it is mainly used as the essential oil and internal use is not advised[254].

The wood and leaves are analgesic, antispasmodic, odontalgic, rubefacient, stimulant. An infusion is used as an inhalant in the treatment of colds and diseases of the lungs[46, 57, 176, 178, 238].

The plant is more commonly used in the form of the essential oil which can be obtained by distillation of the chipped branches, trunk and wood of the tree, or from the leaves and twigs. Wood 24 - 40 years old is normally used[268]. The essential oil is anthelmintic, antirheumatic, antispasmodic, cardiotonic, carminative, diaphoretic, sedative and tonic[4, 218, 238, 240]. It is used externally in liniments for treating joint and muscle pains, balms for chilblains, chapped lips, cold sores, skin diseases etc and as an inhalant for bronchial congestion[238]. Some caution is advised, excessive use causes vomiting, palpitations, convulsions and death[238]. It is possible that the oil can be absorbed through the skin, causing systemic poisoning[238].

The essential oil is used in aromatherapy. Its keyword is 'Piercing'[210]. It is used in the treatment of digestive complaints and depression[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Deodorant; Essential; Preservative; Repellent; Wood.

The essential oil 'camphor' is obtained from the leaves and twigs[1, 4, 46, 57, 61]. It is extracted commercially by passing a current of steam through the wood chips, 30 kilos of wood yielding 1 kilo of camphor[149]. Camphor is used medicinally, in perfumes, as an insecticide and also to make celluloid and as a wood preservative[171]. It can also be put in shoes to cure perspiring feet[178] (probably by acting as a deodorant rather than preventing perspiration[K]).

The wood has been burnt as a fumigant during epidemics[245].

Wood - beautifully grained. Used for furniture etc[4, 46].

Cultivation details

Succeeds in most soils[57] but prefers a fertile sandy moisture-retentive well-drained soil in full sun or light part-day shade[200]. Tolerates a pH in the range 4.3 to 8.

Camphor is grown commercially in China and Japan as a medicinal tree and also for its essential oil[46]. It is only hardy in the milder areas of Britain[11, 166], though it can survive occasional lows down to about -10°c when fully dormant[57]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. There are various large trees that are growing well in Cornwall[59].

A very slow growing tree[4]. The roots are very sensitive to disturbance[164].

There are some named varieties, selected for their ornamental value[200].

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in a greenhouse[200]. Remove the fruit pulp since this can inhibit germination[200]. Germination can take 1 - 6 months at 20°c[164]. Stored seed should be sown as soon as possible in a warm greenhouse[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection from the cold for at least their first two winters outdoors.

Cuttings of semi-ripe side shoots, 7cm with a heel, June/July in a frame with bottom heat[78].

Scent

Stem: Fresh Crushed Dried

The sweetly scented wood contains camphor.

Cultivars

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No entries have been made for this species as yet.

Suppliers

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Plants For A Future: Database Search Results

Cinnamomum camphora

Common name:	Camphor	Family:	Lauraceae
Author:	(L.) Sieb.	Botanical references:	11, 109, 200
Synonyms:	Laurus camphora (L.)		
Known Hazards:	The plant is poisonous in large quantities[4]. Large doses can cause respiratory failure in children[268]. See the report below on medicinal uses for more information.		
Range:	E. Asia - China, Japan.		
Habitat:	Banks of streams in China[109], to elevations of 750 metres[268].		
Plants For A Future Rating (1-5):	3		

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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

An evergreen tree growing to 6m by 6m at a slow rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from March to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Diptera. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves.

Young shoots and leaves - cooked[105, 177]. Some caution is suggested because there is a report that the plant is poisonous in large quantities.

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The wood has been burnt as a fumigant during epidemics[245].

Wood - beautifully grained. Used for furniture etc[4, 46].

Cultivation details

Succeeds in most soils[57] but prefers a fertile sandy moisture-retentive well-drained soil in full sun or light part-day shade[200]. Tolerates a pH in the range 4.3 to 8.

Camphor is grown commercially in China and Japan as a medicinal tree and also for its essential oil[46]. It is only hardy in the milder areas of Britain[11, 166], though it can survive occasional lows down to about -10°c when fully dormant[57]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. There are various large trees that are growing well in Cornwall[59].

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Seed - the seed has a short viability and is best sown as soon as it is ripe in a greenhouse[200]. Remove the fruit pulp since this can inhibit germination[200]. Germination can take 1 - 6 months at 20°c[164]. Stored seed should be sown as soon as possible in a warm greenhouse[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection from the cold for at least their first two winters outdoors.

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Scent

Stem: Fresh Crushed Dried

The sweetly scented wood contains camphor.

Cultivars

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No entries have been made for this species as yet.

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Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cinnamomum+camphora`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cinnamomum+camphora`

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Plants For A Future: Database Search Results

Cinnamomum camphora

Common name:	Camphor	Family:	Lauraceae
Author:	(L.) Sieb.	Botanical references:	11, 109, 200
Synonyms:	Laurus camphora (L.)		
Known Hazards:	The plant is poisonous in large quantities[4]. Large doses can cause respiratory failure in children[268]. See the report below on medicinal uses for more information.		
Range:	E. Asia - China, Japan.		
Habitat:	Banks of streams in China[109], to elevations of 750 metres[268].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Camphora camphora[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Camphor [H,S], Camphor Tree [H], Camphora [E], Camphortree [P,B], Chang [E], Kafur [E], Kusu-No-Ki [E],
Epithets:	From a Dictionary of Botanical Epithets
	amomum = a balsam spice plant;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database
	China; Cuba; Italy; Nepal; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: New South Wales.

Physical Characteristics

An evergreen tree growing to 6m by 6m at a slow rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from March to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Diptera. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves.

Young shoots and leaves - cooked[105, 177]. Some caution is suggested because there is a report that the plant is poisonous in large quantities.

The old leaves are dried and used as a spice[105, 177].

Medicinal Uses

Disclaimer

Analgesic; Anthelmintic; Antirheumatic; Antispasmodic; Aromatherapy; Cardiotonic; Carminative; Diaphoretic; Odontalgic; Rubefacient; Sedative; Stimulant; Tonic.

Camphor has a long history of herbal use in the Orient with a wide range of uses. It has occasionally been used internally in the treatment of hysteria, but in modern day herbalism it is mainly used as the essential oil and internal use is not advised[254].

The wood and leaves are analgesic, antispasmodic, odontalgic, rubefacient, stimulant. An infusion is used as an inhalant in the treatment of colds and diseases of the lungs[46, 57, 176, 178, 238].

The plant is more commonly used in the form of the essential oil which can be obtained by distillation of the chipped branches, trunk and wood of the tree, or from the leaves and twigs. Wood 24 - 40 years old is normally used[268]. The essential oil is anthelmintic, antirheumatic, antispasmodic, cardiotonic, carminative, diaphoretic, sedative and tonic[4, 218, 238, 240]. It is used externally in liniments for treating joint and muscle pains, balms for chilblains, chapped lips, cold sores, skin diseases etc and as an inhalant for bronchial congestion[238]. Some caution is advised, excessive use causes vomiting, palpitations, convulsions and death[238]. It is possible that the oil can be absorbed through the skin, causing systemic poisoning[238].

The essential oil is used in aromatherapy. Its keyword is 'Piercing'[210]. It is used in the treatment of digestive complaints and depression[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Deodorant; Essential; Preservative; Repellent; Wood.

The essential oil 'camphor' is obtained from the leaves and twigs[1, 4, 46, 57, 61]. It is extracted commercially by passing a current of steam through the wood chips, 30 kilos of wood yielding 1 kilo of camphor[149]. Camphor is used medicinally, in perfumes, as an insecticide and also to make celluloid and as a wood preservative[171]. It can also be put in shoes to cure perspiring feet[178] (probably by acting as a deodorant rather than preventing perspiration[K]).

The wood has been burnt as a fumigant during epidemics[245].

Wood - beautifully grained. Used for furniture etc[4, 46].

Cultivation details

Succeeds in most soils[57] but prefers a fertile sandy moisture-retentive well-drained soil in full sun or light part-day shade[200]. Tolerates a pH in the range 4.3 to 8.

Camphor is grown commercially in China and Japan as a medicinal tree and also for its essential oil[46]. It is only hardy in the milder areas of Britain[11, 166], though it can survive occasional lows down to about -10°c when fully dormant[57]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. There are various large trees that are growing well in Cornwall[59].

A very slow growing tree[4]. The roots are very sensitive to disturbance[164].

There are some named varieties, selected for their ornamental value[200].

Propagation

Seed - the seed has a short viability and is best sown as soon as it is ripe in a greenhouse[200]. Remove the fruit pulp since this can inhibit germination[200]. Germination can take 1 - 6 months at 20°c[164]. Stored seed should be sown as soon as possible in a warm greenhouse[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Consider giving them some protection from the cold for at least their first two winters outdoors.

Cuttings of semi-ripe side shoots, 7cm with a heel, June/July in a frame with bottom heat[78].

Scent

Stem: Fresh Crushed Dried

The sweetly scented wood contains camphor.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cinnamomum camphora*

Subject:

Cinnamomum camphora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cinnamomum camphora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Cistus albidus

Common name:	Rock rose	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:			
Known Hazards:	None known		
Range:	S.W. Europe to N. Africa - Mediterranean.		
Habitat:	Garigue, rocky places on limestone soils and open pine forest[89].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	albidus = whitish;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family

Physical Characteristics

An evergreen shrub growing to 1m by 1m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Tea.

The leaves are used as a tea substitute[177, 183].

The dried leaves are sometimes used as an adulterant for marjoram (Origanum majorana)[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sunny position in a well-drained light sandy soil[1, 182]. Prefers a calcareous soil[190]. Withstands drought once it is established[190]. Tolerates maritime exposure[188].

One of the hardiest species in this genus, tolerating temperatures down to about -15°c[184] and surviving all but the coldest winters in Britain[11], it is however apt to be short-lived[182]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[200].

Dislikes pruning or root disturbance[182, 200]. Plants should be pot grown and then planted out in their final positions whilst still small. Plants in this genus are notably resistant to honey fungus[200].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cistaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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A good list of drought resistant plants with details on how to grow them.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Cistus albidus

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Cistus albidus

Common name:	Rock rose	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:			
Known Hazards:	None known		
Range:	S.W. Europe to N. Africa - Mediterranean.		
Habitat:	Garigue, rocky places on limestone soils and open pine forest[89].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	albidus = whitish;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family

Physical Characteristics

An evergreen shrub growing to 1m by 1m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Tea.

The leaves are used as a tea substitute[177, 183].

The dried leaves are sometimes used as an adulterant for marjoram (Origanum majorana)[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sunny position in a well-drained light sandy soil[1, 182]. Prefers a calcareous soil[190]. Withstands drought once it is established[190]. Tolerates maritime exposure[188].

One of the hardiest species in this genus, tolerating temperatures down to about -15°c[184] and surviving all but the coldest winters in Britain[11], it is however apt to be short-lived[182]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[200].

Dislikes pruning or root disturbance[182, 200]. Plants should be pot grown and then planted out in their final positions whilst still small. Plants in this genus are notably resistant to honey fungus[200].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Suppliers

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Cistus albidus

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Link: www.plants.com

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Range:	S.W. Europe to N. Africa - Mediterranean.		
Habitat:	Garigue, rocky places on limestone soils and open pine forest[89].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	albidus = whitish;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family

Physical Characteristics

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Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Tea.

The leaves are used as a tea substitute[177, 183].

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Medicinal Uses

Disclaimer

None known

Other Uses

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Cultivation details

Requires a sunny position in a well-drained light sandy soil[1, 182]. Prefers a calcareous soil[190]. Withstands drought once it is established[190]. Tolerates maritime exposure[188].

One of the hardiest species in this genus, tolerating temperatures down to about -15°c[184] and surviving all but the coldest winters in Britain[11], it is however apt to be short-lived[182]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[200].

Dislikes pruning or root disturbance[182, 200]. Plants should be pot grown and then planted out in their final positions whilst still small. Plants in this genus are notably resistant to honey fungus[200].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cistus albidus*

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Cistus albidus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cistus albidus

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Cistus creticus

Common name:	Rock rose	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Cistus villosus creticus, Cistus polymorphus (Willk.), Cistus incanus creticus ((L.)Heywood.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Amongst scrub and in bushy places on rocks, dry hills etc to 1000 metres[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cretica[E] C. incanus ssp. creticus[B,C,CAL] C. villosus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Gum Cistus [E],
Epithets:	From a Dictionary of Botanical Epithets
	creticus = of Crete;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database
	Greece

Physical Characteristics

An evergreen shrub growing to 1m by 1m . It is hardy to zone 8. It is in leaf all year, in flower in June, and the seeds ripen in August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Tea.

The leaves are used as a tea substitute[2, 89].

The oleo-resin obtained from the leaves and stems is used as a commercial food flavouring in baked goods, ice cream, chewing gum etc[183, 238].

Medicinal Uses

Disclaimer

Emmenagogue; Expectorant; Stimulant.

This plant is an aromatic, expectorant, stimulant herb that controls bleeding and has antibiotic effects[4, 238]. It is used internally in the treatment of catarrh and diarrhoea[4, 238] and as an emmenagogue[4]. The leaves are harvested in late spring and early summer and can be dried for later use, or the resin extracted from them[238].

Other Uses

Resin.

The glandular hairs on the leaves yield the oleo-resin 'ladanum', used medicinally and in soaps, perfumery, fumigation etc[4, 11, 46, 61, 64, 89, 100]. This resin is an acceptable substitute for ambergris (which is obtained from the sperm whale) and so is important in perfume manufacture[238]. The resin is collected by dragging a type of rake through the plant, the resin adhering to the teeth of the rake, or by boiling the twigs and skimming off the resin[64, 89]. Most resin is produced at the hottest time of the year[46]. There is a mauve-flowered variety of this species that is the most prolific producer of the resin[245].

Cultivation details

Requires a sunny position in a dry or moist well-drained light sandy soil[11, 182]. Withstands drought once it is established[11, 184]. Tolerates maritime exposure[188, K].

Plants are hardy to about -15°c[184], but they require protection in severe winters[11]. Plants are somewhat hardier when grown in poor soils[182]. This is usually a short-lived plant in cultivation, it probably exhausts itself by its very free-flowering habit[K]. Plants often self-sow when growing in a suitable position[166].

Dislikes pruning or root disturbance[11, 200]. Plants should be pot grown and then planted out in their final positions whilst still small.

Individual flowers only last one day but there is a long succession of them[11, 200].

A polymorphic species, some forms do not yield much gum[11].

Hybridizes freely with other members of this genus.

This species is notably resistant to honey fungus[88, 200].

The flowers are very attractive to bees[108]. The leaves, which exude a balsamic resin, are especially fragrant on warm sunny days[245].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

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Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Scent

Leaves: Fresh Crushed

> The leaves, which exude a balsamic resin, are especially fragrant on warm sunny days.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [C] Taxon data. from the CalFlora database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Cistus cretica* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Cistus incanus creticus* (a possible synonym).

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cistus incanus ssp. creticus* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

References for the family Cistaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

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Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

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Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Cistus creticus

Common name:	Rock rose	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Cistus villosus creticus, Cistus polymorphus (Willk.), Cistus incanus creticus ((L.)Heywood.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Amongst scrub and in bushy places on rocks, dry hills etc to 1000 metres[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	creticus = of Crete;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database
	Greece

Physical Characteristics

An evergreen shrub growing to 1m by 1m . It is hardy to zone 8. It is in leaf all year, in flower in June, and the seeds ripen in August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow

in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

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Condiment; Tea.

The leaves are used as a tea substitute[2, 89].

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Resin.

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Leaves: Fresh Crushed

> The leaves, which exude a balsamic resin, are especially fragrant on warm sunny days.

Cultivars

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Plants For A Future: Database Search Results

Cistus creticus

Common name:	Rock rose	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Cistus villosus creticus, Cistus polymorphus (Willk.), Cistus incanus creticus ((L.)Heywood.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Amongst scrub and in bushy places on rocks, dry hills etc to 1000 metres[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. cretica[E] C. incanus ssp. creticus[B,C,CAL] C. villosus[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Gum Cistus [E],
Epithets:	From a Dictionary of Botanical Epithets
	creticus = of Crete;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database
	Greece

Physical Characteristics

An evergreen shrub growing to 1m by 1m . It is hardy to zone 8. It is in leaf all year, in flower in June, and the seeds ripen in August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow

in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Tea.

The leaves are used as a tea substitute[2, 89].

The oleo-resin obtained from the leaves and stems is used as a commercial food flavouring in baked goods, ice cream, chewing gum etc[183, 238].

Medicinal Uses

Disclaimer

Emmenagogue; Expectorant; Stimulant.

This plant is an aromatic, expectorant, stimulant herb that controls bleeding and has antibiotic effects[4, 238]. It is used internally in the treatment of catarrh and diarrhoea[4, 238] and as an emmenagogue[4]. The leaves are harvested in late spring and early summer and can be dried for later use, or the resin extracted from them[238].

Other Uses

Resin.

The glandular hairs on the leaves yield the oleo-resin 'ladanum', used medicinally and in soaps, perfumery, fumigation etc[4, 11, 46, 61, 64, 89, 100]. This resin is an acceptable substitute for ambergris (which is obtained from the sperm whale) and so is important in perfume manufacture[238]. The resin is collected by dragging a type of rake through the plant, the resin adhering to the teeth of the rake, or by boiling the twigs and skimming off the resin[64, 89]. Most resin is produced at the hottest time of the year[46]. There is a mauve-flowered variety of this species that is the most prolific producer of the resin[245].

Cultivation details

Requires a sunny position in a dry or moist well-drained light sandy soil[11, 182]. Withstands drought once it is established[11, 184]. Tolerates maritime exposure[188, K].

Plants are hardy to about -15°c[184], but they require protection in severe winters[11]. Plants are somewhat hardier when grown in poor soils[182]. This is usually a short-lived plant in cultivation, it probably exhausts itself by its very free-flowering habit[K]. Plants often self-sow when growing in a suitable position[166].

Dislikes pruning or root disturbance[11, 200]. Plants should be pot grown and then planted out in their final positions whilst still small.

Individual flowers only last one day but there is a long succession of them[11, 200].

A polymorphic species, some forms do not yield much gum[11].

Hybridizes freely with other members of this genus.

This species is notably resistant to honey fungus[88, 200].

The flowers are very attractive to bees[108]. The leaves, which exude a balsamic resin, are especially fragrant on warm sunny days[245].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Scent

Leaves: Fresh Crushed

> The leaves, which exude a balsamic resin, are especially fragrant on warm sunny days.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cistus creticus*

Subject:

Cistus creticus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cistus creticus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Cistus ladanifer

Common name:	Labdanum	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Cistus ladaniferus (L.)		
Known Hazards:	None known		
Range:	Europe - W. Mediterranean.		
Habitat:	Pine woods, copses and on dry usually granitic hills[89, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Girit Ladeni [E], Gum Cistus [MS], Gum Rock-rose [B], Gum Rockrose [P], Jara [E], Ladanum [E], Rock Rose [H],
Epithets:	From a Dictionary of Botanical Epithets
	ladanifer = ladanum bearing;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database
	Greece; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 1.5m by 1m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in June, and the seeds ripen in August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Condiment; Gum; Manna; Seed.

Seed - ground into a powder and used with cereal flours in making cakes and breads[177, 183].

An oleo-resin obtained from the leaves and stems is eaten raw or used as a commercial food flavouring in baked goods, ice cream, chewing gum etc[2, 105, 177, 183, 238].

The plant is said to yield a sweet manna[183].This report is probably referring to the oleo-resin mentioned above[K].

Medicinal Uses

Disclaimer

Antibiotic; Emmenagogue; Expectorant; Stimulant.

Labdanum is an aromatic, expectorant, stimulant herb that controls bleeding and has antibiotic effects[4, 238]. It is used internally in the treatment of catarrh and diarrhoea[238] and as an emmenagogue[4]. The leaves are harvested in late spring and early summer and can be dried for later use, or the resin extracted from them[238].

Other Uses

Resin.

The glandular hairs on the leaves yield the oleo-resin 'ladanum', used medicinally and in soaps, perfumery, fumigation etc[4, 11, 46, 61, 64, 89, 100]. This resin is an acceptable substitute for ambergris (which is obtained from the sperm whale) and so is important in perfume manufacture[238]. The resin is collected by dragging a type of rake through the plant, the resin adhering to the teeth of the rake, or by boiling the twigs and skimming off the resin[64, 89]. Most resin is produced at the hottest time of the year[46].

Cultivation details

Requires a sunny position in a well-drained light sandy soil[11, 182], growing well in poor soils[238]. Withstands drought once it is established[11, 190]. Plants are fairly wind resistant[166, K], tolerating maritime exposure[188]. Resents root disturbance[11].

Plants are hardy to about -10c[184], but they require protection in severe winters[11]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[11, 200].

Labdanum dislikes pruning, especially as it gets older and so any formative work should be restricted to removing dead, straggly or damaged growths[238]. The plant also resents root disturbance[200]. Plants should be pot grown and then planted out in their final positions whilst still small.

Sometimes cultivated for its gum, which is known as 'Labdanum', this is exuded in such quantity in hot weather that the plant becomes very sticky[4, 61]. The leaves have glandular hairs which produce an aromatic gum. The sweet balsamic smell is most apparent in the summer in the early morning[245].

A very ornamental plant, it is very free-flowering and fast growing[49]. There are a number of named forms developed for their ornamental value[182].

An excellent nurse plant for sheltering young seedlings[49].

This species is notably resistant to honey fungus[88, 200].

The flowers are very attractive to bees[108].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame.

High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Scent

Leaves: Fresh Crushed

> The leaves have glandular hairs which produce an aromatic gum. The sweet balsamic smell is most apparent in the summer in the early morning.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cistus ladaniferus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's

Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Cistaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN

0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Cistus ladanifer

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Plants For A Future: Database Search Results

Cistus ladanifer

Common name:	Labdanum	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Cistus ladaniferus (L.)		
Known Hazards:	None known		
Range:	Europe - W. Mediterranean.		
Habitat:	Pine woods, copses and on dry usually granitic hills[89, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Girit Ladeni [E], Gum Cistus [MS], Gum Rock-rose [B], Gum Rockrose [P], Jara [E], Ladanum [E], Rock Rose [H],
Epithets:	From a Dictionary of Botanical Epithets
	ladanifer = ladanum bearing;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database
	Greece; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 1.5m by 1m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in June, and the seeds ripen in August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Condiment; Gum; Manna; Seed.

Seed - ground into a powder and used with cereal flours in making cakes and breads[177, 183].

An oleo-resin obtained from the leaves and stems is eaten raw or used as a commercial food flavouring in baked goods, ice cream, chewing gum etc[2, 105, 177, 183, 238].

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Resin.

The glandular hairs on the leaves yield the oleo-resin 'ladanum', used medicinally and in soaps, perfumery, fumigation etc[4, 11, 46, 61, 64, 89, 100]. This resin is an acceptable substitute for ambergris (which is obtained from the sperm whale) and so is important in perfume manufacture[238]. The resin is collected by dragging a type of rake through the plant, the resin adhering to the teeth of the rake, or by boiling the twigs and skimming off the resin[64, 89]. Most resin is produced at the hottest time of the year[46].

Cultivation details

Requires a sunny position in a well-drained light sandy soil[11, 182], growing well in poor soils[238]. Withstands drought once it is established[11, 190]. Plants are fairly wind resistant[166, K], tolerating maritime exposure[188]. Resents root disturbance[11].

Plants are hardy to about -10c[184], but they require protection in severe winters[11]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[11, 200].

Labdanum dislikes pruning, especially as it gets older and so any formative work should be restricted to removing dead, straggly or damaged growths[238]. The plant also resents root disturbance[200]. Plants should be pot grown and then planted out in their final positions whilst still small.

Sometimes cultivated for its gum, which is known as 'Labdanum', this is exuded in such quantity in hot weather that the plant becomes very sticky[4, 61]. The leaves have glandular hairs which produce an aromatic gum. The sweet balsamic smell is most apparent in the summer in the early morning[245].

A very ornamental plant, it is very free-flowering and fast growing[49]. There are a number of named forms developed for their ornamental value[182].

An excellent nurse plant for sheltering young seedlings[49].

This species is notably resistant to honey fungus[88, 200].

The flowers are very attractive to bees[108].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Scent

Leaves: Fresh Crushed

> The leaves have glandular hairs which produce an aromatic gum. The sweet balsamic smell is most apparent in the summer in the early morning.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cistus ladaniferus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Cistaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218

An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN

0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

Cistus ladanifer

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Also present in Portugal

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Plants For A Future: Database Search Results

Cistus ladanifer

Common name:	Labdanum	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:	Cistus ladaniferus (L.)		
Known Hazards:	None known		
Range:	Europe - W. Mediterranean.		
Habitat:	Pine woods, copses and on dry usually granitic hills[89, 184].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Girit Ladeni [E], Gum Cistus [MS], Gum Rock-rose [B], Gum Rockrose [P], Jara [E], Ladanum [E], Rock Rose [H],
Epithets:	From a Dictionary of Botanical Epithets
	ladanifer = ladanum bearing;
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database
	Greece; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 1.5m by 1m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower in June, and the seeds ripen in August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Condiment; Gum; Manna; Seed.

Seed - ground into a powder and used with cereal flours in making cakes and breads[177, 183].

An oleo-resin obtained from the leaves and stems is eaten raw or used as a commercial food flavouring in baked goods, ice cream, chewing gum etc[2, 105, 177, 183, 238].

The plant is said to yield a sweet manna[183].This report is probably referring to the oleo-resin mentioned above[K].

Medicinal Uses

Disclaimer

Antibiotic; Emmenagogue; Expectorant; Stimulant.

Labdanum is an aromatic, expectorant, stimulant herb that controls bleeding and has antibiotic effects[4, 238]. It is used internally in the treatment of catarrh and diarrhoea[238] and as an emmenagogue[4]. The leaves are harvested in late spring and early summer and can be dried for later use, or the resin extracted from them[238].

Other Uses

Resin.

The glandular hairs on the leaves yield the oleo-resin 'ladanum', used medicinally and in soaps, perfumery, fumigation etc[4, 11, 46, 61, 64, 89, 100]. This resin is an acceptable substitute for ambergris (which is obtained from the sperm whale) and so is important in perfume manufacture[238]. The resin is collected by dragging a type of rake through the plant, the resin adhering to the teeth of the rake, or by boiling the twigs and skimming off the resin[64, 89]. Most resin is produced at the hottest time of the year[46].

Cultivation details

Requires a sunny position in a well-drained light sandy soil[11, 182], growing well in poor soils[238]. Withstands drought once it is established[11, 190]. Plants are fairly wind resistant[166, K], tolerating maritime exposure[188]. Resents root disturbance[11].

Plants are hardy to about -10c[184], but they require protection in severe winters[11]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[11, 200].

Labdanum dislikes pruning, especially as it gets older and so any formative work should be restricted to removing dead, straggly or damaged growths[238]. The plant also resents root disturbance[200]. Plants should be pot grown and then planted out in their final positions whilst still small.

Sometimes cultivated for its gum, which is known as 'Labdanum', this is exuded in such quantity in hot weather that the plant becomes very sticky[4, 61]. The leaves have glandular hairs which produce an aromatic gum. The sweet balsamic smell is most apparent in the summer in the early morning[245].

A very ornamental plant, it is very free-flowering and fast growing[49]. There are a number of named forms developed for their ornamental value[182].

An excellent nurse plant for sheltering young seedlings[49].

This species is notably resistant to honey fungus[88, 200].

The flowers are very attractive to bees[108].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Scent

Leaves: Fresh Crushed

> The leaves have glandular hairs which produce an aromatic gum. The sweet balsamic smell is most apparent in the summer in the early morning.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cistus ladanifer*

Subject:

Cistus ladanifer

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cistus ladanifer

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Plants For A Future: Database Search Results

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Cistus salviifolius

Common name:	Rock rose	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry woods, thickets and banks, often on acid soils and on limestone, from sea level to 1200 metres in the Alpes Maritimes[11, 89].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. C. salvifolius[E]
Other Common Names:	From various places around the Web, may not be correct. See below. Cistus [P], Sage-leaved Rockrose [H],
Systematics:	From a UDSA Plants Database Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database Arab

Physical Characteristics

An evergreen shrub growing to 0.6m by 0.75m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Ground Cover.

Edible Uses

Condiment.

The dried leaves are used as an adulterant for marjoram (Origanum majorana)[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

A good ground cover plant for the milder areas of Britain[208]. The form 'Prostratus' has been recommended[197].

Cultivation details

Requires a sunny position in a dry or moist well-drained light sandy soil[11, 182]. Withstands drought once it is established[11, 184]. Tolerates maritime exposure[188].

Plants are hardy to about -12°c, but they require protection in severe winters[11]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[11, 200].

Dislikes pruning or root disturbance[200]. Plants should be pot grown and then planted out in their final positions whilst still small.

This species is notably resistant to honey fungus[88, 200].

The flowers are very attractive to bees[108].

Hybridizes freely with other members of this genus[200].

This species is closely related to C. hirsutus[182].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Cultivars

'Prostratus'

> A low, spreading bush to about 30cm tall, it is said to be hardier than the type species[11]. It has been recommended as suitable for ground cover[197].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cistus salvifolius* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Cistaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

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Plants For A Future: Database Search Results

Cistus salviifolius

Common name:	Rock rose	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry woods, thickets and banks, often on acid soils and on limestone, from sea level to 1200 metres in the Alpes Maritimes[11, 89].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. salvifolius[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cistus [P], Sage-leaved Rockrose [H],
Systematics:	From a UDSA Plants Database
	Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database
	Arab

Physical Characteristics

An evergreen shrub growing to 0.6m by 0.75m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Ground Cover.

Edible Uses

Condiment.

The dried leaves are used as an adulterant for marjoram (Origanum majorana)[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

A good ground cover plant for the milder areas of Britain[208]. The form 'Prostratus' has been recommended[197].

Cultivation details

Requires a sunny position in a dry or moist well-drained light sandy soil[11, 182]. Withstands drought once it is established[11, 184]. Tolerates maritime exposure[188].

Plants are hardy to about -12°c, but they require protection in severe winters[11]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[11, 200].

Dislikes pruning or root disturbance[200]. Plants should be pot grown and then planted out in their final positions whilst still small.

This species is notably resistant to honey fungus[88, 200].

The flowers are very attractive to bees[108].

Hybridizes freely with other members of this genus[200].

This species is closely related to C. hirsutus[182].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Cultivars

'Prostratus'

> A low, spreading bush to about 30cm tall, it is said to be hardier than the type species[11]. It has been recommended as suitable for ground cover[197].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cistus salvifolius* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Cistaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[88] **RHS.** *The Garden. Volume 112.* Royal Horticultural Society 1987
Snippets of information from the magazine of the RHS. In particular, there are articles on plants that are resistant to honey fungus, oriental vegetables, Cimicifuga spp, Passiflora species and Cucurbits.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on

Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

Readers Comments

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Plants For A Future: Database Search Results

Cistus salviifolius

Common name:	Rock rose	Family:	Cistaceae
Author:	L.	Botanical references:	11, 89, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry woods, thickets and banks, often on acid soils and on limestone, from sea level to 1200 metres in the Alpes Maritimes[11, 89].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. C. salvifolius[E]
Other Common Names:	From various places around the Web, may not be correct. See below. Cistus [P], Sage-leaved Rockrose [H],
Systematics:	From a UDSA Plants Database Order: Violales . Rock-rose family
Other Range Info:	From the Ethnobotany Database Arab

Physical Characteristics

An evergreen shrub growing to 0.6m by 0.75m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Ground Cover.

Edible Uses

Condiment.

The dried leaves are used as an adulterant for marjoram (Origanum majorana)[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover.

A good ground cover plant for the milder areas of Britain[208]. The form 'Prostratus' has been recommended[197].

Cultivation details

Requires a sunny position in a dry or moist well-drained light sandy soil[11, 182]. Withstands drought once it is established[11, 184]. Tolerates maritime exposure[188].

Plants are hardy to about -12°c, but they require protection in severe winters[11]. Plants are somewhat hardier when grown in poor soils[182].

Individual flowers only last one day but there is a long succession of them[11, 200].

Dislikes pruning or root disturbance[200]. Plants should be pot grown and then planted out in their final positions whilst still small.

This species is notably resistant to honey fungus[88, 200].

The flowers are very attractive to bees[108].

Hybridizes freely with other members of this genus[200].

This species is closely related to C. hirsutus[182].

Propagation

Seed - gather when ripe and store dry[78]. Surface sow in late winter in a greenhouse[164]. The seed usually germinates in 1 - 4 weeks at 20°c[164]. Prick out the seedlings as soon as they are large enough to handle into individual pots. Grow them on in the greenhouse for their first winter and plant them out the in the following spring or early summer, after the last expected frosts[164]. The seed stores for at least 3 years[K].

Cuttings of softish to half-ripe wood, 8cm long with a heel or at a node, June/August in a frame. Roots are formed within 3 weeks[78]. High percentage[78].

Cuttings of almost mature wood, 8 - 12cm with a heel or at a node, September/October in a frame. High percentage[78]. Lift and pot up in the spring, plant out when a good root system has formed[78].

Layering in spring.

Cultivars

'Prostratus'

> A low, spreading bush to about 30cm tall, it is said to be hardier than the type species[11]. It has been recommended as suitable for ground cover[197].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cistus salviifolius*

Subject:

Cistus salviifolius

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cistus salviifolius

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Citrofortunella microcarpa

Common name:	Calamondin orange	Family:	Rutaceae
Author:	(Bunge.) Wijnands.	Botanical references:	200
Synonyms:	Citrus mitis (Blanco.), Citrus madurensis (Lour.), Citrofortunella mitis ((Blanco.)J.W.Ingram.&H.E.Moore.)		
Known Hazards:	None known		
Range:	A bi-generic hybrid, Citrus reticulata x Fortunella margarita?[200].		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Citrus microcarpa[G] X Citrofortunella microcarpa[G] X Citrofortunella mitis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calamondin Orange [H],
Epithets:	From a Dictionary of Botanical Epithets
	microcarpa = small fruits;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Physical Characteristics

An evergreen tree growing to 5m. It is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Cultivar **'Variegated'**: Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked. Very acid, they are usually pickled, preserved or used in drinks, teas, marmalades, chutneys etc[183]. They can be used in all the ways that lemons or limes are used[200]. The fruit is less acid than a lemon and makes a very acceptable raw fruit, especially if eaten with the skin which has a pleasant sweet flavour[K]. The whole fruit is fried in coconut oil with various seasonings and is eaten with curry[183]. The fruit is about 25 - 35mm in diameter[200].

The preserved peel is used as a flavouring in other foods[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a position in full sun in a fertile well-drained but not dry soil[188]. Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

Plants are not very hardy in Britain but they do tolerate a few degrees of frost[200], so it should be possible to grow them in selected areas in the mildest parts of the country[K]. So long as the temperature falls gradually over a period of several days to allow the plant to become dormant, this species can tolerate short periods where temperatures fall to about -6°c[260].

Plants are susceptible to lime-induced and magnesium-deficiency chlorosis[188].

A popular house plant[200], pot-grown specimens less than 30cm tall can carry a dozen or more fruits[K]. There are several named varieties, selected both for ornament and for fruit[183, 200].

Propagation

The following notes are based on Citrus species. They are probably applicable here as well, even though this is a bi-generic hybrid, since any seed might be produced polyembrionically.

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Cultivars

'Variegated'

> The small spherical fruit has a thin smooth orange to orange-red skin[183]. The tender flesh is juicy but very acid and with few seeds[183]. The fruit holds onto the tree nearly all year round[183]. Amoderately vigorous upright tree, it is slightly smaller than the species[183]. A highly productive plant, it is very cold hardy[183] (for a Citrus[K]).

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Citrus madurensis* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Citrus mitis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Known Hazards:	None known		
Range:	A bi-generic hybrid, Citrus reticulata x Fortunella margarita?[200].		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

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Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Cultivar **'Variegated'**: Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

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Fruit - raw or cooked. Very acid, they are usually pickled, preserved or used in drinks, teas, marmalades, chutneys etc[183]. They can be used in all the ways that lemons or limes are used[200]. The fruit is less acid than a lemon and makes a very acceptable raw fruit, especially if eaten with the skin which has a pleasant sweet flavour[K]. The whole fruit is fried in coconut oil with various seasonings and is eaten with curry[183]. The fruit is about 25 - 35mm in diameter[200].

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Medicinal Uses

Disclaimer

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Other Uses

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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

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This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Citrofortunella+microcarpa`
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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Citrofortunella+microcarpa`

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Plants For A Future: Database Search Results

Citrofortunella microcarpa

Common name:	Calamondin orange	Family:	Rutaceae
Author:	(Bunge.) Wijnands.	Botanical references:	200
Synonyms:	Citrus mitis (Blanco.), Citrus madurensis (Lour.), Citrofortunella mitis ((Blanco.)J.W.Ingram.&H.E.Moore.)		
Known Hazards:	None known		
Range:	A bi-generic hybrid, Citrus reticulata x Fortunella margarita?[200].		
Habitat:	Not known in the wild.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Citrus microcarpa[G] X Citrofortunella microcarpa[G] X Citrofortunella mitis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calamondin Orange [H],
Epithets:	From a Dictionary of Botanical Epithets
	microcarpa = small fruits;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Physical Characteristics

An evergreen tree growing to 5m. It is frost tender. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Cultivar **'Variegated'**: Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked. Very acid, they are usually pickled, preserved or used in drinks, teas, marmalades, chutneys etc[183]. They can be used in all the ways that lemons or limes are used[200]. The fruit is less acid than a lemon and makes a very acceptable raw fruit, especially if eaten with the skin which has a pleasant sweet flavour[K]. The whole fruit is fried in coconut oil with various seasonings and is eaten with curry[183]. The fruit is about 25 - 35mm in diameter[200].

The preserved peel is used as a flavouring in other foods[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a position in full sun in a fertile well-drained but not dry soil[188]. Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

Plants are not very hardy in Britain but they do tolerate a few degrees of frost[200], so it should be possible to grow them in selected areas in the mildest parts of the country[K]. So long as the temperature falls gradually over a period of several days to allow the plant to become dormant, this species can tolerate short periods where temperatures fall to about -6°c[260].

Plants are susceptible to lime-induced and magnesium-deficiency chlorosis[188].

A popular house plant[200], pot-grown specimens less than 30cm tall can carry a dozen or more fruits[K]. There are several named varieties, selected both for ornament and for fruit[183, 200].

Propagation

The following notes are based on Citrus species. They are probably applicable here as well, even though this is a bi-generic hybrid, since any seed might be produced polyembrionically.

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Cultivars

'Variegated'

> The small spherical fruit has a thin smooth orange to orange-red skin[183]. The tender flesh is juicy but very acid and with few seeds[183]. The fruit holds onto the tree nearly all year round[183]. Amoderately vigorous upright tree, it is slightly smaller than the species[183]. A highly productive plant, it is very cold hardy[183] (for a Citrus[K]).

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

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Add a comment on: *Citrofortunella microcarpa*

Subject:

Citrofortunella microcarpa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Citrofortunella microcarpa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:41:08 2004

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Add Comment Reset

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Citrus aurantium

Common name:	Bitter orange	Family:	Rutaceae
Author:	L.	Botanical references:	200
Synonyms:	Citrus vulgaris (Risso.), Citrus bigarradia (Loisel.)		
Known Hazards:	None known		
Range:	Tropical Asia?		
Habitat:	Original habitat is obscure, possibly a back cross involving C. maxima X C. reticulata[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. aurantium amara[H] C. aurantium ssp. aurantium[P] C. bigaradia[E,H] C. vulgaris bigaradia[H] C. vulgaris var. bigaradia[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bergamot [E], Bitter Orange [H], Ch'Eng [E], Chin Ch'Iu [E], Coolie Orange [E], Hua Chu Hung [E], Kuang Chu [E], Naranja Agria [E], Naranja De Babor [E], Naranjo Amargo [E], Orange [E], Orange Sure [E], Oranger [E], Seville Orange [H], Sour Orange [H,P,B], Turunc [E], Z'Orange Sure [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family

Other Range Info:	From the Ethnobotany Database
	China; Curacao; Dominican Republic; Ecuador(Jivaro); Haiti; India(Santal); Mexico; Mexico(Chinantec); Spain; Trinidad; Turkey; Us; Us(Ny); Venezuela
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 9m by 6m . It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from April to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit; Oil.

Fruit - raw or cooked[1, 3]. Very bitter[46]. It is used in making marmalade and other preserves[3, 46, 61, 183]. The fruit is about 5 - 7cm in diameter[200].

The rind of the fruit is often used as a flavouring in cakes etc[1, 4]. Used in 'bouquet garni'[183].

An oil obtained from the seeds contains linolenic acid and is becoming more widely used as a food because of its ability to reduce levels of cholesterol in the blood[7].

The flowers are used for scenting tea[183].

An essential oil from the dried peel of immature fruits is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antibacterial; Antiemetic; Antifungal; Antispasmodic; Antitussive; Aromatherapy; Carminative; Contraceptive; Diaphoretic; Digestive; Miscellany; Sedative; Stimulant; Stomachic; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238]. The plants also contain umbelliferone, which is antifungal, as well as essential oils that are antifungal and antibacterial[218]. They also contain the pyrone citrantin, which shows antifertility activity and was once used as a component of contraceptives[218].

Both the leaves and the flowers are antispasmodic, digestive and sedative[7, 9]. An infusion is used in the treatment of stomach problems, sluggish digestion etc[9].

The fruit is antiemetic, antitussive, carminative, diaphoretic, digestive and expectorant[218].The immature fruit can be used (called Zhi Shi in China) or the mature fruit with seeds and endocarp removed (called Zhi Ke). The immature fruit has a stronger action. They are used in the treatment of dyspepsia, constipation, abdominal distension, stuffy sensation in the chest, prolapse of the uterus, rectum and stomach[176].

The fruit peel is bitter, digestive and stomachic[7].

The seed and the pericarp are used in the treatment of anorexia, chest pains, colds, coughs etc[218].

The essential oil is used in aromatherapy. Its keyword is 'Radiance'[210]. It is used in treating depression, tension and skin problems[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Oil; Repellent; Rootstock.

This species is much used as a rootstock for the sweet orange, C. sinensis, because of its disease resistance and greater hardiness[3, 46, 61].

Grown as a hedging plant in N. America[260].

A semi-drying oil obtained from the seed is used in soap making[46, 61].

Essential oils obtained from the peel, petals and leaves are used as a food flavouring and also in perfumery and medicines[1, 4, 46, 61, 171]. The oil from the flowers is called 'Neroli oil' - yields are very low from this species and so it is often adulterated with inferior oils[7]. The oil from the leaves and young shoots is called 'petit-grain' - 400 kilos of plant material yield about 1 kilo of oil[7]. This is also often adulterated with inferior products[7].

Neroli oil, mixed with vaseline, is used in India as a preventative against leeches[268].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.8 to 8.3. Plants are intolerant of water logging[200]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

Dormant plants can withstand temperatures down to about -6°c so long as this is preceded by cool weather in order to harden off the plant[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. A tree grown outdoors on the coast at Salcombe in Devon lived for over 200 years[166].

The bitter orange is often grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot that is placed outdoors in the summer and brought into a greenhouse during the winter[3, 200].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in

the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Nanshô-daidai'

The medium large fruit is very seedy[183]. The rind is medium-thick but easily peeled and lemon-yellow in colour[183]. The flesh is dull yellow, juicy with an acid flavour but a bitter aftertaste[183]. A vigorous, very thorny, upright-spreading tree, it is relatively cold-hardy[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Citrus aurantium ssp. aurantium* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Citrus bigaradia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Citrus vulgaris* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Citrus vulgaris var. bigaradia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *citrus aurantium* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5

Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN

0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Citrus+aurantium`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Citrus+aurantium`

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Plants For A Future: Database Search Results

Citrus aurantium

Common name:	Bitter orange	Family:	Rutaceae
Author:	L.	Botanical references:	200
Synonyms:	Citrus vulgaris (Risso.), Citrus bigarradia (Loisel.)		
Known Hazards:	None known		
Range:	Tropical Asia?		
Habitat:	Original habitat is obscure, possibly a back cross involving C. maxima X C. reticulata[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. aurantium amara[H] C. aurantium ssp. aurantium[P] C. bigaradia[E,H] C. vulgaris bigaradia[H] C. vulgaris var. bigaradia[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bergamot [E], Bitter Orange [H], Ch'Eng [E], Chin Ch'Iu [E], Coolie Orange [E], Hua Chu Hung [E], Kuang Chu [E], Naranja Agria [E], Naranja De Babor [E], Naranjo Amargo [E], Orange [E], Orange Sure [E], Oranger [E], Seville Orange [H], Sour Orange [H,P,B], Turunc [E], Z'Orange Sure [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China; Curacao; Dominican Republic; Ecuador(Jivaro); Haiti; India(Santal); Mexico; Mexico(Chinantec); Spain; Trinidad; Turkey; Us; Us(Ny); Venezuela
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 9m by 6m . It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from April to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit; Oil.

Fruit - raw or cooked[1, 3]. Very bitter[46]. It is used in making marmalade and other preserves[3, 46, 61, 183]. The fruit is about 5 - 7cm in diameter[200].

The rind of the fruit is often used as a flavouring in cakes etc[1, 4]. Used in 'bouquet garni'[183].

An oil obtained from the seeds contains linolenic acid and is becoming more widely used as a food because of its ability to reduce levels of cholesterol in the blood[7].

The flowers are used for scenting tea[183].

An essential oil from the dried peel of immature fruits is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antibacterial; Antiemetic; Antifungal; Antispasmodic; Antitussive; Aromatherapy; Carminative; Contraceptive; Diaphoretic; Digestive; Miscellany; Sedative; Stimulant; Stomachic; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238]. The plants also contain umbelliferone, which is antifungal, as well as essential oils that are antifungal and antibacterial[218]. They also contain the pyrone citrantin, which shows antifertility activity and was once used as a component of contraceptives[218].

Both the leaves and the flowers are antispasmodic, digestive and sedative[7, 9]. An infusion is used in the treatment of stomach problems, sluggish digestion etc[9].

The fruit is antiemetic, antitussive, carminative, diaphoretic, digestive and expectorant[218].The immature fruit can be used (called Zhi Shi in China) or the mature fruit with seeds and endocarp removed (called Zhi Ke). The immature fruit has a stronger action. They are used in the treatment of dyspepsia, constipation, abdominal distension, stuffy sensation in the chest, prolapse of the uterus, rectum and stomach[176].

The fruit peel is bitter, digestive and stomachic[7].

The seed and the pericarp are used in the treatment of anorexia, chest pains, colds, coughs etc[218].

The essential oil is used in aromatherapy. Its keyword is 'Radiance'[210]. It is used in treating depression, tension and skin problems[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Oil; Repellent; Rootstock.

This species is much used as a rootstock for the sweet orange, C. sinensis, because of its disease resistance and greater hardiness[3, 46, 61].

Grown as a hedging plant in N. America[260].

A semi-drying oil obtained from the seed is used in soap making[46, 61].

Essential oils obtained from the peel, petals and leaves are used as a food flavouring and also in perfumery and medicines[1, 4, 46, 61, 171]. The oil from the flowers is called 'Neroli oil' - yields are very low from this species and so it is often adulterated with inferior oils[7]. The oil from the leaves and young shoots is called 'petit-grain' - 400 kilos of plant material yield about 1 kilo of oil[7]. This is also often adulterated with inferior products[7].

Neroli oil, mixed with vaseline, is used in India as a preventative against leeches[268].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.8 to 8.3. Plants are intolerant of water logging[200]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

Dormant plants can withstand temperatures down to about -6°c so long as this is preceded by cool weather in order to harden off the plant[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. A tree grown outdoors on the coast at Salcombe in Devon lived for over 200 years[166].

The bitter orange is often grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot that is placed outdoors in the summer and brought into a greenhouse during the winter[3, 200].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Nanshô-daidai'

The medium large fruit is very seedy[183]. The rind is medium-thick but easily peeled and lemon-yellow in colour[183]. The flesh is dull yellow, juicy with an acid flavour but a bitter aftertaste[183]. A vigorous, very thorny, upright-spreading tree, it is relatively cold-hardy[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Citrus aurantium ssp. aurantium* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Citrus bigaradia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Citrus vulgaris* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Citrus vulgaris var. bigaradia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *citrus aurantium* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London.

1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Citrus+aurantium`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Citrus aurantium

Common name:	Bitter orange	Family:	Rutaceae
Author:	L.	Botanical references:	200
Synonyms:	Citrus vulgaris (Risso.), Citrus bigarradia (Loisel.)		
Known Hazards:	None known		
Range:	Tropical Asia?		
Habitat:	Original habitat is obscure, possibly a back cross involving C. maxima X C. reticulata[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. aurantium amara[H] C. aurantium ssp. aurantium[P] C. bigaradia[E,H] C. vulgaris bigaradia[H] C. vulgaris var. bigaradia[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bergamot [E], Bitter Orange [H], Ch'Eng [E], Chin Ch'Iu [E], Coolie Orange [E], Hua Chu Hung [E], Kuang Chu [E], Naranja Agria [E], Naranja De Babor [E], Naranjo Amargo [E], Orange [E], Orange Sure [E], Oranger [E], Seville Orange [H], Sour Orange [H,P,B], Turunc [E], Z'Orange Sure [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China; Curacao; Dominican Republic; Ecuador(Jivaro); Haiti; India(Santal); Mexico; Mexico(Chinantec); Spain; Trinidad; Turkey; Us; Us(Ny); Venezuela
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.

	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 9m by 6m . It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower from April to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid and neutral soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit; Oil.

Fruit - raw or cooked[1, 3]. Very bitter[46]. It is used in making marmalade and other preserves[3, 46, 61, 183]. The fruit is about 5 - 7cm in diameter[200].

The rind of the fruit is often used as a flavouring in cakes etc[1, 4]. Used in 'bouquet garni'[183].

An oil obtained from the seeds contains linolenic acid and is becoming more widely used as a food because of its ability to reduce levels of cholesterol in the blood[7].

The flowers are used for scenting tea[183].

An essential oil from the dried peel of immature fruits is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antibacterial; Antiemetic; Antifungal; Antispasmodic; Antitussive; Aromatherapy; Carminative; Contraceptive; Diaphoretic; Digestive; Miscellany; Sedative; Stimulant; Stomachic; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238]. The plants also contain umbelliferone, which is antifungal, as well as essential oils that are antifungal and antibacterial[218]. They also contain the pyrone citrantin, which shows antifertility activity and was once used as a component of contraceptives[218].

Both the leaves and the flowers are antispasmodic, digestive and sedative[7, 9]. An infusion is used in the treatment of stomach problems, sluggish digestion etc[9].

The fruit is antiemetic, antitussive, carminative, diaphoretic, digestive and expectorant[218].The immature fruit can be used (called Zhi Shi in China) or the mature fruit with seeds and endocarp removed (called Zhi Ke). The immature fruit has a stronger action. They are used in the treatment of dyspepsia, constipation, abdominal distension, stuffy sensation in the chest, prolapse of the uterus, rectum and stomach[176].

The fruit peel is bitter, digestive and stomachic[7].

The seed and the pericarp are used in the treatment of anorexia, chest pains, colds, coughs etc[218].

The essential oil is used in aromatherapy. Its keyword is 'Radiance'[210]. It is used in treating depression, tension and skin problems[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Oil; Repellent; Rootstock.

This species is much used as a rootstock for the sweet orange, C. sinensis, because of its disease resistance and greater hardiness[3, 46, 61].

Grown as a hedging plant in N. America[260].

A semi-drying oil obtained from the seed is used in soap making[46, 61].

Essential oils obtained from the peel, petals and leaves are used as a food flavouring and also in perfumery and medicines[1, 4, 46, 61, 171]. The oil from the flowers is called 'Neroli oil' - yields are very low from this species and so it is often adulterated with inferior oils[7]. The oil from the leaves and young shoots is called 'petit-grain' - 400 kilos of plant material yield about 1 kilo of oil[7]. This is also often adulterated with inferior products[7].

Neroli oil, mixed with vaseline, is used in India as a preventative against leeches[268].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.8 to 8.3. Plants are intolerant of water logging[200]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

Dormant plants can withstand temperatures down to about -6°c so long as this is preceded by cool weather in order to harden off the plant[200]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. A tree grown outdoors on the coast at Salcombe in Devon lived for over 200 years[166].

The bitter orange is often grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot that is placed outdoors in the summer and brought into a greenhouse during the winter[3, 200].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Nanshô-daidai'

The medium large fruit is very seedy[183]. The rind is medium-thick but easily peeled and lemon-yellow in colour[183]. The flesh is dull yellow, juicy with an acid flavour but a bitter aftertaste[183]. A vigorous, very thorny, upright-spreading tree, it is relatively cold-hardy[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Citrus aurantium*

Subject:

Citrus aurantium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Citrus aurantium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:41:49 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Citrus limon

Common name:	Lemon	Family:	Rutaceae
Author:	(L.) Burm. f.	Botanical references:	200
Synonyms:	Citrus x limonia (Osbeck.), Citrus limonum (Risso.)		
Known Hazards:	None known		
Range:	Original range is obscure, possible Asia.		
Habitat:	Original habitat is obscure, probably a hybrid involving C. medica x C. aurantifolia[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. limonia[G] C. medica[H] C. medica limon[H] C. medica var. limon[G,H] C. taitensis[G,P] C. volkameriana[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Citrus [P], Lemon [H,B,E,P], Lemun Hamedh [E], Lemun Tresh [E], Limon [E], Limonero [E], Miski [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	Australia; Chile; Ecuador(Jivaro); Gabon; Iraq; Kurdistan; Peru; Spain; Turkey

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 3m by 1m at a medium rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Cultivar **'Meyers Lemon'**: Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[1, 3, 46]. A very acid taste[61]. Mainly used as a drink and as a flavouring[183, 238]. It is also used in salad dressings etc where it acts as an antioxidant as well as imparting an acid flavour[183]. The juice is used to help set jam[238]. The fruit can be up to 15cm long and 7cm wide[200].

The dried rind of the fruit is often used as a flavouring in cakes etc[1, 4, 61, 183].

The dried leaves are sometimes mixed with tea leaves for use as a flavouring[183].

An essential oil from the rind is used as a food flavouring[46, 64, 183].

The flowers are eaten in ice creams, fritters, jams etc[183].

Composition

Fruit (Fresh weight)

In grammes per 100g weight of food:
Water: 90 Calories: 28 Protein: 0.8 Fat: 0.5 Carbohydrate: 8.2 Fibre: 0.6 Ash: 5.4
In milligrammes per 100g weight of food:

Calcium: 33 Phosphorus: 15 Iron: 0.5 Sodium: 3 Potassium: 137 VitaminA: 12 Thiamine: 0.5 Riboflavin: 0.02 Niacin: 0.1 VitaminC: 52
Source: [218]
Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Antibacterial; Antiperiodic; Antiscorbutic; Aromatherapy; Astringent; Carminative; Miscellany; Refrigerant; Rubefacient; Stimulant; Stomachic.

Lemons are an excellent preventative medicine and have a wide range of uses in the domestic medicine chest. The fruit is rich in vitamin C which helps the body to fight off infections and also to prevent or treat scurvy[4, 240, 254]. It was at one time a legal requirement that sailors should be given an ounce of lemon each day in order to prevent scurvy[4]. Applied locally, the juice is a good astringent and is used as a gargle for sore throats etc[4]. Lemon juice is also a very effective bactericide[7]. It is also a good antiperiodic and has been used as a substitute for quinine in treating malaria and other fevers[4].

Although the fruit is very acid, once eaten it has an alkalizing effect upon the body[254]. This makes it useful in the treatment of rheumatic conditions[254].

The skin of the ripe fruit is carminative and stomachic[240].

The essential oil from the skin of the fruit is strongly rubefacient and when taken internally in small doses has stimulating and carminative properties[4].

The stem bark is bitter, stomachic and tonic[218].

An essential oil from the fruit rind is used in aromatherapy. Its keyword is 'Refreshing'[210].

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, bioflavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

The bioflavonoids in the fruit help to strengthen the inner lining of blood vessels, especially veins and capillaries, and help counter varicose veins and easy bruising[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

make a credit card donation with PayPal

Other Uses

Cleanser; Essential; Oil; Polish; Pot-pourri; Repellent.

A semi-drying oil obtained from the seed is used in soap making[46, 61].

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[7, 46, 61]. A higher quality essential oil is obtained from the flowers[7]. The peel contains 0.4% essential oil[240].

An essential oil obtained from the leaves and young twigs is called 'petitgrain oil'. Yields are around 0.4%[240].

The dried fruit rind has been used as an insect repellent in the clothes cupboard[7] and also in pot-pourri[238].

The juice of the fruit is used for polishing bronze and other metals that have been neglected[7]. It can also be used for removing ink stains[7].

Wood - nicely veined, it takes a beautiful polish[4].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.8 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

Dormant plants can withstand temperatures down to about -6°c so long as this is preceded by a spell of 2 - 3 weeks of cool weather to allow the plant to acclimatize[3]. If the change from mild to cold weather is more sudden then the plant will still be in growth and will be much more susceptible to damage and can be harmed by temperatures below 0°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. It is best if a winter minimum of 4°c is maintained[3].

The lemon is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot that is placed outdoors in the summer and brought into a greenhouse for the winter[3].

By budding onto hardier species such as C. aurantium, C. ichangensis or Poncirus trifoliata, the lemon becomes more cold tolerant and its climatic range can be somewhat extended[3].

The flowers are sweetly scented[245].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

    No details on scent.

Flowers: Fresh

    The flowers are sweetly scented.

Cultivars

'Villa Franca'

    An almost thornless plant producing medium to large fruits[260].

'Quatre Saisons' 'Eureka'

    An everbearing variety, producing fruits all year round[260]. Commonly grown in Mediterranean areas[260].

'Ponderosa'

    The plant has a dwarf habit but produces large fruits[260].

'Imperial'

Produces larger fruits than the species[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Database Search: Canned Queries

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Citrus limonia* (a possible synonym).

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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

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- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
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[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Citrus+limon`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Citrus+limon`

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Plants For A Future: Database Search Results

Citrus limon

Common name:	Lemon	Family:	Rutaceae
Author:	(L.) Burm. f.	Botanical references:	200
Synonyms:	Citrus x limonia (Osbeck.), Citrus limonum (Risso.)		
Known Hazards:	None known		
Range:	Original range is obscure, possible Asia.		
Habitat:	Original habitat is obscure, probably a hybrid involving C. medica x C. aurantifolia[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. limonia[G] C. medica[H] C. medica limon[H] C. medica var. limon[G,H] C. taitensis[G,P] C. volkameriana[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Citrus [P], Lemon [H,B,E,P], Lemun Hamedh [E], Lemun Tresh [E], Limon [E], Limonero [E], Miski [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	Australia; Chile; Ecuador(Jivaro); Gabon; Iraq; Kurdistan; Peru; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 3m by 1m at a medium rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Cultivar **'Meyers Lemon'**: Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[1, 3, 46]. A very acid taste[61]. Mainly used as a drink and as a flavouring[183, 238]. It is also used in salad dressings etc where it acts as an antioxidant as well as imparting an acid flavour[183]. The juice is used to help set jam[238]. The fruit can be up to 15cm long and 7cm wide[200].

The dried rind of the fruit is often used as a flavouring in cakes etc[1, 4, 61, 183].

The dried leaves are sometimes mixed with tea leaves for use as a flavouring[183].

An essential oil from the rind is used as a food flavouring[46, 64, 183].

The flowers are eaten in ice creams, fritters, jams etc[183].

Composition

Fruit (Fresh weight)

> In grammes per 100g weight of food:
> Water: 90 Calories: 28 Protein: 0.8 Fat: 0.5 Carbohydrate: 8.2 Fibre: 0.6 Ash: 5.4
> In milligrammes per 100g weight of food:
> Calcium: 33 Phosphorus: 15 Iron: 0.5 Sodium: 3 Potassium: 137 VitaminA: 12 Thiamine: 0.5 Riboflavin: 0.02 Niacin: 0.1 VitaminC: 52
> Source: [218]
> Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Antibacterial; Antiperiodic; Antiscorbutic; Aromatherapy; Astringent; Carminative; Miscellany; Refrigerant; Rubefacient; Stimulant; Stomachic.

Lemons are an excellent preventative medicine and have a wide range of uses in the domestic medicine chest. The fruit is rich in vitamin C which helps the body to fight off infections and also to prevent or treat scurvy[4, 240, 254]. It was at one time a legal requirement that sailors should be given an ounce of lemon each day in order to prevent scurvy[4]. Applied locally, the juice is a good astringent and is used as a gargle for sore throats etc[4]. Lemon juice is also a very effective bactericide[7]. It is also a good antiperiodic and has been used as a substitute for quinine in treating malaria and other fevers[4].

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Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, bioflavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

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Other Uses

Cleanser; Essential; Oil; Polish; Pot-pourri; Repellent.

A semi-drying oil obtained from the seed is used in soap making[46, 61].

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[7, 46, 61]. A higher quality essential oil is obtained from the flowers[7]. The peel contains 0.4% essential oil[240].

An essential oil obtained from the leaves and young twigs is called 'petitgrain oil'. Yields are around 0.4%[240].

The dried fruit rind has been used as an insect repellent in the clothes cupboard[7] and also in pot-pourri[238].

The juice of the fruit is used for polishing bronze and other metals that have been neglected[7]. It can also be used for removing ink stains[7].

Wood - nicely veined, it takes a beautiful polish[4].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.8 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

Dormant plants can withstand temperatures down to about -6°c so long as this is preceded by a spell of 2 - 3 weeks of cool weather to allow the plant to acclimatize[3]. If the change from mild to cold weather is more sudden then the plant will still be in growth and will be much more susceptible to damage and can be harmed by temperatures below 0°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. It is best if a winter minimum of 4°c is maintained[3].

The lemon is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot that is placed outdoors in the summer and brought into a greenhouse for the winter[3].

By budding onto hardier species such as C. aurantium, C. ichangensis or Poncirus trifoliata, the lemon becomes more cold tolerant and its climatic range can be somewhat extended[3].

The flowers are sweetly scented[245].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

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The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

> No details on scent.

Flowers: Fresh

> The flowers are sweetly scented.

Cultivars

'Villa Franca'

> An almost thornless plant producing medium to large fruits[260].

'Quatre Saisons' 'Eureka'

> An everbearing variety, producing fruits all year round[260]. Commonly grown in Mediterranean areas[260].

'Ponderosa'

> The plant has a dwarf habit but produces large fruits[260].

'Imperial'

> Produces larger fruits than the species[260].

Suppliers

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Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Citrus+limon`
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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Citrus limon

Common name:	Lemon	Family:	Rutaceae
Author:	(L.) Burm. f.	Botanical references:	200
Synonyms:	Citrus x limonia (Osbeck.), Citrus limonum (Risso.)		
Known Hazards:	None known		
Range:	Original range is obscure, possible Asia.		
Habitat:	Original habitat is obscure, probably a hybrid involving C. medica x C. aurantifolia[200].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. limonia[G] C. medica[H] C. medica limon[H] C. medica var. limon[G,H] C. taitensis[G,P] C. volkameriana[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Citrus [P], Lemon [H,B,E,P], Lemun Hamedh [E], Lemun Tresh [E], Limon [E], Limonero [E], Miski [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	Australia; Chile; Ecuador(Jivaro); Gabon; Iraq; Kurdistan; Peru; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen shrub growing to 3m by 1m at a medium rate. It is hardy to zone 9 and is frost tender. It is in leaf all year, in flower all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Cultivar **'Meyers Lemon'**: Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[1, 3, 46]. A very acid taste[61]. Mainly used as a drink and as a flavouring[183, 238]. It is also used in salad dressings etc where it acts as an antioxidant as well as imparting an acid flavour[183]. The juice is used to help set jam[238]. The fruit can be up to 15cm long and 7cm wide[200].

The dried rind of the fruit is often used as a flavouring in cakes etc[1, 4, 61, 183].

The dried leaves are sometimes mixed with tea leaves for use as a flavouring[183].

An essential oil from the rind is used as a food flavouring[46, 64, 183].

The flowers are eaten in ice creams, fritters, jams etc[183].

Composition

Fruit (Fresh weight)

> In grammes per 100g weight of food:
> Water: 90 Calories: 28 Protein: 0.8 Fat: 0.5 Carbohydrate: 8.2 Fibre: 0.6 Ash: 5.4
> In milligrammes per 100g weight of food:
> Calcium: 33 Phosphorus: 15 Iron: 0.5 Sodium: 3 Potassium: 137 VitaminA: 12 Thiamine: 0.5 Riboflavin: 0.02 Niacin: 0.1 VitaminC: 52
> Source: [218]
> Notes: The figures given here are the median of a range given in the report.

Medicinal Uses

Disclaimer

Antibacterial; Antiperiodic; Antiscorbutic; Aromatherapy; Astringent; Carminative; Miscellany; Refrigerant; Rubefacient; Stimulant; Stomachic.

Lemons are an excellent preventative medicine and have a wide range of uses in the domestic medicine chest. The fruit is rich in vitamin C which helps the body to fight off infections and also to prevent or treat scurvy[4, 240, 254]. It was at one time a legal requirement that sailors should be given an ounce of lemon each day in order to prevent scurvy[4]. Applied locally, the juice is a good astringent and is used as a gargle for sore throats etc[4]. Lemon juice is also a very effective bactericide[7]. It is also a good antiperiodic and has been used as a substitute for quinine in treating malaria and other fevers[4].

Although the fruit is very acid, once eaten it has an alkalizing effect upon the body[254]. This makes it useful in the treatment of rheumatic conditions[254].

The skin of the ripe fruit is carminative and stomachic[240].

The essential oil from the skin of the fruit is strongly rubefacient and when taken internally in small doses has stimulating and carminative properties[4].

The stem bark is bitter, stomachic and tonic[218].

An essential oil from the fruit rind is used in aromatherapy. Its keyword is 'Refreshing'[210].

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, bioflavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

The bioflavonoids in the fruit help to strengthen the inner lining of blood vessels, especially veins and capillaries, and help counter varicose veins and easy bruising[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cleanser; Essential; Oil; Polish; Pot-pourri; Repellent.

A semi-drying oil obtained from the seed is used in soap making[46, 61].

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[7, 46, 61]. A higher quality essential oil is obtained from the flowers[7]. The peel contains 0.4% essential oil[240].

An essential oil obtained from the leaves and young twigs is called 'petitgrain oil'. Yields are around 0.4%[240].

The dried fruit rind has been used as an insect repellent in the clothes cupboard[7] and also in pot-pourri[238].

The juice of the fruit is used for polishing bronze and other metals that have been neglected[7]. It can also be used for removing ink stains[7].

Wood - nicely veined, it takes a beautiful polish[4].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.8 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

Dormant plants can withstand temperatures down to about -6°c so long as this is preceded by a spell of 2 - 3 weeks of cool weather to allow the plant to acclimatize[3]. If the change from mild to cold weather is more sudden then the plant will still be in growth and will be much more susceptible to damage and can be harmed by temperatures below 0°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. It is best if a winter minimum of 4°c is maintained[3].

The lemon is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot that is placed outdoors in the summer and brought into a greenhouse for the winter[3].

By budding onto hardier species such as C. aurantium, C. ichangensis or Poncirus trifoliata, the lemon becomes more cold tolerant and its climatic range can be somewhat extended[3].

The flowers are sweetly scented[245].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Villa Franca'

An almost thornless plant producing medium to large fruits[260].

'Quatre Saisons' 'Eureka'

An everbearing variety, producing fruits all year round[260]. Commonly grown in Mediterranean areas[260].

'Ponderosa'

The plant has a dwarf habit but produces large fruits[260].

'Imperial'

Produces larger fruits than the species[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Citrus limon*

Subject:

Citrus limon

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Citrus limon

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Date: Sun May 16 04:42:31 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Citrus reticulata

Common name:	Mandarin	Family:	Rutaceae
Author:	Blanco.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China or Indo-China.		
Habitat:	Original habitat is obscure.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. nobilis[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chu Sha Chu [E], Kan [E], Mandarine [E], Tangerine [P,B], Tran Bi [E],
Epithets:	From a Dictionary of Botanical Epithets
	reticulata = netted;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	China; Haiti; Vietnam
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 4.5m by 3m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked in puddings, cakes, confectionery etc[183]. It is sweet and delicious[1, 3, 46]. The fruit is up to 8cm in diameter[200].

The dried rind of the fruit has a sweet spicy flavour and is often used as a flavouring in cakes etc[183].

Medicinal Uses

Disclaimer

Analgesic; Antiasthmatic; Anticholesterolemic; Antiemetic; Antiinflammatory; Antiscorbutic; Antiseptic; Antitussive; Aphrodisiac; Astringent; Carminative; Expectorant; Laxative; Miscellany; Stomachic; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

The fruit is antiemetic, aphrodisiac, astringent, laxative and tonic[240].

The flowers are stimulant[240].

The pericarp is analgesic, antiasthmatic, anticholesterolemic, anti-inflammatory, antiscorbutic, antiseptic, antitussive, carminative, expectorant, stomachic[176]. It is used in the treatment of dyspepsia, gastro-intestinal distension, cough with profuse phlegm, hiccup and vomiting[176].

The endocarp is carminative and expectorant[176]. It is used in the treatment of dyspepsia, gastro-intestinal distension, coughs and profuse phlegm[176].

The unripened green exocarp is carminative and stomachic[176]. It is used in the treatment of pain in the chest and hypochondrium, gastro-intestinal distension, swelling of the liver and spleen and cirrhosis of the liver[176].

The seed is analgesic and carminative[176]. It is used in the treatment of hernia, lumbago, mastitis and pain or swellings of the testes[176].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[61]. Yields are around 0.5%[240].

An essential oil obtained from the leaves and young twigs is called 'petitgrain oil'. Yields are around 0.5%[240].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added plus a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.3 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

The mandarin is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot placed outdoors in the summer and brought into a greenhouse during the winter[3]. It is more resistant than the sweet or bitter orange to cold (because it quickly becomes dormant at low temperatures) but it is best it the temperature does not fall below 7°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Satsuma'

One of the most popular cultivars of this species, it is widely cultivated commercially. The skin is loose on the fruit and so is very easy to peel[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202

Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Readers Comments

Citrus reticulata

Robert Fleming Sat Mar 15 16:40:55 2003

Link: http://forums.gardenweb.com/forums/load/citrus/msg12100334121939.html It tells you how to propogate a clementine from a seed.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Citrus+reticulata`
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Plants For A Future: Database Search Results

Citrus reticulata

Common name:	Mandarin	Family:	Rutaceae
Author:	Blanco.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China or Indo-China.		
Habitat:	Original habitat is obscure.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. C. nobilis[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Chu Sha Chu [E], Kan [E], Mandarine [E], Tangerine [P,B], Tran Bi [E],
Epithets:	From a Dictionary of Botanical Epithets reticulata = netted;
Systematics:	From a UDSA Plants Database Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database China; Haiti; Vietnam
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 4.5m by 3m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked in puddings, cakes, confectionery etc[183]. It is sweet and delicious[1, 3, 46]. The fruit is up to 8cm in diameter[200].

The dried rind of the fruit has a sweet spicy flavour and is often used as a flavouring in cakes etc[183].

Medicinal Uses

Disclaimer

Analgesic; Antiasthmatic; Anticholesterolemic; Antiemetic; Antiinflammatory; Antiscorbutic; Antiseptic; Antitussive; Aphrodisiac; Astringent; Carminative; Expectorant; Laxative; Miscellany; Stomachic; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

The fruit is antiemetic, aphrodisiac, astringent, laxative and tonic[240].

The flowers are stimulant[240].

The pericarp is analgesic, antiasthmatic, anticholesterolemic, anti-inflammatory, antiscorbutic, antiseptic, antitussive, carminative, expectorant, stomachic[176]. It is used in the treatment of dyspepsia, gastro-intestinal distension, cough with profuse phlegm, hiccup and vomiting[176].

The endocarp is carminative and expectorant[176]. It is used in the treatment of dyspepsia, gastro-intestinal distension, coughs and profuse phlegm[176].

The unripened green exocarp is carminative and stomachic[176]. It is used in the treatment of pain in the chest and hypochondrium, gastro-intestinal distension, swelling of the liver and spleen and cirrhosis of the liver[176].

The seed is analgesic and carminative[176]. It is used in the treatment of hernia, lumbago, mastitis and pain or swellings of the testes[176].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[61]. Yields are around 0.5%[240].

An essential oil obtained from the leaves and young twigs is called 'petitgrain oil'. Yields are around 0.5%[240].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added plus a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.3 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

The mandarin is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot placed outdoors in the summer and brought into a greenhouse during the winter[3]. It is more resistant than the sweet or bitter orange to cold (because it quickly becomes dormant at low temperatures) but it is best it the temperature does not fall below 7°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Satsuma'

One of the most popular cultivars of this species, it is widely cultivated commercially. The skin is loose on the fruit and so is very easy to peel[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
A very readable book with information on about 100 species that can be grown in Britain (some in greenhouses) and details on how to grow and use them.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985

A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

Citrus reticulata

Robert Fleming Sat Mar 15 16:40:55 2003

Link: http://forums.gardenweb.com/forums/load/citrus/msg12100334121939.html It tells you how to propogate a clementine from a seed.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Citrus+reticulata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Citrus+reticulata`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Citrus reticulata

Common name:	Mandarin	Family:	Rutaceae
Author:	Blanco.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China or Indo-China.		
Habitat:	Original habitat is obscure.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. C. nobilis[G,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Chu Sha Chu [E], Kan [E], Mandarine [E], Tangerine [P,B], Tran Bi [E],
Epithets:	From a Dictionary of Botanical Epithets reticulata = netted;
Systematics:	From a UDSA Plants Database Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database China; Haiti; Vietnam
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 4.5m by 3m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked in puddings, cakes, confectionery etc[183]. It is sweet and delicious[1, 3, 46]. The fruit is up to 8cm in diameter[200].

The dried rind of the fruit has a sweet spicy flavour and is often used as a flavouring in cakes etc[183].

Medicinal Uses

Disclaimer

Analgesic; Antiasthmatic; Anticholesterolemic; Antiemetic; Antiinflammatory; Antiscorbutic; Antiseptic; Antitussive; Aphrodisiac; Astringent; Carminative; Expectorant; Laxative; Miscellany; Stomachic; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

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The endocarp is carminative and expectorant[176]. It is used in the treatment of dyspepsia, gastro-intestinal distension, coughs and profuse phlegm[176].

The unripened green exocarp is carminative and stomachic[176]. It is used in the treatment of pain in the chest and hypochondrium, gastro-intestinal distension, swelling of the liver and spleen and cirrhosis of the liver[176].

The seed is analgesic and carminative[176]. It is used in the treatment of hernia, lumbago, mastitis and pain or swellings of the testes[176].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential.

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[61]. Yields are around 0.5%[240].

An essential oil obtained from the leaves and young twigs is called 'petitgrain oil'. Yields are around 0.5%[240].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added plus a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.3 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

The mandarin is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot placed outdoors in the summer and brought into a greenhouse during the winter[3]. It is more resistant than the sweet or bitter orange to cold (because it quickly becomes dormant at low temperatures) but it is best it the temperature does not fall below 7°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

'Satsuma'

One of the most popular cultivars of this species, it is widely cultivated commercially. The skin is loose on the fruit and so is very easy to peel[260].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Citrus+reticulata`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Citrus+reticulata`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Citrus reticulata*

Subject:

Citrus reticulata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Citrus reticulata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:43:15 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Citrus sinensis

Common name:	Sweet orange	Family:	Rutaceae
Author:	(L.) Osbeck.	Botanical references:	200
Synonyms:	Citrus aurantium sinensis (L.)		
Known Hazards:	None known		
Range:	Original range is obscure, possible Asia in southern China and Vietnam.		
Habitat:	Original habitat is obscure, possibly an introgressed hybrid of C. maxima x C. reticulata[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. aurantium var. sinensis[B,G,P] C. cinensis[H] C. macracantha[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Naranja De China [E], Naranjo Dulce [E], Orange [E,H], Orange Blossom [S], Orange Tree [MS], Oranger Doux [E], Portakal [E], Sweet Orange [B,P], Z'Orange Douce [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database

	Angola; China; Dominican Republic; Guatemala; Haiti; Spain; Trinidad; Turkey; Us(Ny)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 9 and is frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Flowers; Fruit; Tea.

Fruit - raw. Sweet and delicious[1, 3, 46, 61]. The juice is often extracted from the fruit and sold as a refreshing and healthy drink or used in jellies, ice cream etc[183].

The rind of the fruit is often used as a flavouring in cakes etc or made into marmalade[1, 46, 183].

Flowers - cooked as a vegetable or made into a tea[183].

Medicinal Uses

Disclaimer

Appetizer; Blood purifier; Carminative; Miscellany; Skin; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

The fruit is appetizer and blood purifier[240]. It is used to allay thirst in people with fevers and also treats catarrh[240].

The fruit juice is useful in the treatment of bilious affections and bilious diarrhoea[240].

The fruit rind is carminative and tonic[240]. The fresh rind is rubbed on the face as a cure for acne[240].

The dried peel is used in the treatment of anorexia, colds, coughs etc[218].

Other Uses

Essential; Oil.

A semi-drying oil obtained from the seed is used in soap making[46, 61].

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[1, 46, 61].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.3 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

The sweet orange is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot placed outdoors in the summer and brought into a greenhouse during the winter[3]. Plants are almost hardy in the mildest areas of Britain[1] but the fruit is insipid if it is developed when the mean temperature is below 18°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The flowers are sweetly scented[245].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Citrus+sinensis`

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Plants For A Future: Database Search Results

Citrus sinensis

Common name:	Sweet orange	Family:	Rutaceae
Author:	(L.) Osbeck.	Botanical references:	200
Synonyms:	Citrus aurantium sinensis (L.)		
Known Hazards:	None known		
Range:	Original range is obscure, possible Asia in southern China and Vietnam.		
Habitat:	Original habitat is obscure, possibly an introgressed hybrid of C. maxima x C. reticulata[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. aurantium var. sinensis[B,G,P] C. cinensis[H] C. macracantha[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Naranja De China [E], Naranjo Dulce [E], Orange [E,H], Orange Blossom [S], Orange Tree [MS], Oranger Doux [E], Portakal [E], Sweet Orange [B,P], Z'Orange Douce [E],
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	Angola; China; Dominican Republic; Guatemala; Haiti; Spain; Trinidad; Turkey; Us(Ny)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 9 and is frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Flowers; Fruit; Tea.

Fruit - raw. Sweet and delicious[1, 3, 46, 61]. The juice is often extracted from the fruit and sold as a refreshing and healthy drink or used in jellies, ice cream etc[183].

The rind of the fruit is often used as a flavouring in cakes etc or made into marmalade[1, 46, 183].

Flowers - cooked as a vegetable or made into a tea[183].

Medicinal Uses

Disclaimer

Appetizer; Blood purifier; Carminative; Miscellany; Skin; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

The fruit is appetizer and blood purifier[240]. It is used to allay thirst in people with fevers and also treats catarrh[240].

The fruit juice is useful in the treatment of bilious affections and bilious diarrhoea[240].

The fruit rind is carminative and tonic[240]. The fresh rind is rubbed on the face as a cure for acne[240].

The dried peel is used in the treatment of anorexia, colds, coughs etc[218].

Other Uses

Essential; Oil.

A semi-drying oil obtained from the seed is used in soap making[46, 61].

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[1, 46, 61].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.3 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

The sweet orange is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot placed outdoors in the summer and brought into a greenhouse during the winter[3]. Plants are almost hardy in the mildest areas of Britain[1] but the fruit is insipid if it is developed when the mean temperature is below 18°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The flowers are sweetly scented[245].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in

the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:
 No details on scent.
Flowers: Fresh
 The flowers are sweetly scented.

Cultivars

"
 No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Rutaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[3] **Simmons. A. E.** *Growing Unusual Fruit.* David and Charles 1972 ISBN 0-7153-5531-7
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Author:	(L.) Osbeck.	Botanical references:	200
Synonyms:	Citrus aurantium sinensis (L.)		
Known Hazards:	None known		
Range:	Original range is obscure, possible Asia in southern China and Vietnam.		
Habitat:	Original habitat is obscure, possibly an introgressed hybrid of C. maxima x C. reticulata[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Sapindales . Rue family
Other Range Info:	From the Ethnobotany Database
	Angola; China; Dominican Republic; Guatemala; Haiti; Spain; Trinidad; Turkey; Us(Ny)
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for trade in the UK/Europe.

Physical Characteristics

An evergreen tree growing to 9m. It is hardy to zone 9 and is frost tender. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Apomictic (reproduce by seeds formed without sexual fusion) and insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Flowers; Fruit; Tea.

Fruit - raw. Sweet and delicious[1, 3, 46, 61]. The juice is often extracted from the fruit and sold as a refreshing and healthy drink or used in jellies, ice cream etc[183].

The rind of the fruit is often used as a flavouring in cakes etc or made into marmalade[1, 46, 183].

Flowers - cooked as a vegetable or made into a tea[183].

Medicinal Uses

Disclaimer

Appetizer; Blood purifier; Carminative; Miscellany; Skin; Tonic.

Citrus species contain a wide range of active ingredients and research is still underway in finding uses for them. They are rich in vitamin C, flavonoids, acids and volatile oils. They also contain coumarins such as bergapten which sensitizes the skin to sunlight. Bergapten is sometimes added to tanning preparations since it promotes pigmentation in the skin, though it can cause dermatitis or allergic responses in some people[238]. Some of the plants more recent applications are as sources of anti-oxidants and chemical exfoliants in specialized cosmetics[238].

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The dried peel is used in the treatment of anorexia, colds, coughs etc[218].

Other Uses

Essential; Oil.

A semi-drying oil obtained from the seed is used in soap making[46, 61].

An essential oil from the peel is used as a food flavouring and also in perfumery and medicines[1, 46, 61].

Cultivation details

Prefers a moderately heavy loam with a generous amount of compost and sand added and a very sunny position[1, 200]. Prefers a pH between 5 and 6[200]. Tolerates a pH in the range 4.3 to 8.3. Plants are intolerant of water logging[3]. When growing plants in pots, a compost comprising equal quantities of loam and leafmould plus a little charcoal should produce good results[260]. Do not use manure since Citrus species dislike it[260]. When watering pot plants it is important to neither overwater or underwater since the plant will soon complain by turning yellow and dying. Water only when the compost is almost dry, but do not allow it to become completely dry[260].

The sweet orange is widely grown for its edible fruit in warm temperate and tropical zones, there are many named varieties[183]. In Britain it can be grown in a pot placed outdoors in the summer and brought into a greenhouse during the winter[3]. Plants are almost hardy in the mildest areas of Britain[1] but the fruit is insipid if it is developed when the mean temperature is below 18°c[3]. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

The flowers are sweetly scented[245].

Plants dislike root disturbance and so should be placed into their permanent positions when young. If growing them in pots, great care must be exercised when potting them on into larger containers[238].

Propagation

The seed is best sown in a greenhouse as soon as it ripe after thoroughly rinsing it[164, 200]. Sow stored seed in March in a greenhouse[3]. Germination usually takes place within 2 - 3 weeks at 13°c. Seedlings are liable to damp off so they must be watered with care and kept well ventilated. The seed is usually polyembrionic, two or more seedlings arise from each seed and they are genetically identical to the parent but they do not usually carry any virus that might be present in

the parent plant[200]. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least three growing seasons before trying them outdoors. Plant them out in the summer and give them some protection from the cold for their first few winters outdoors.

Cuttings of half-ripe wood, July/August in a frame.

Layering in October.

Scent

Leaves:

No details on scent.

Flowers: Fresh

The flowers are sweetly scented.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Citrus sinensis*

Subject:

Citrus sinensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Citrus sinensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Cleome monophylla

Common name:		Family:	Capparidaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	A weed of fields and waste places[240].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	monophylla = 1 leaved;
Other Range Info:	From the Ethnobotany Database
	India(Santal)

Physical Characteristics

Annual growing to 0.5m. It is frost tender. It is in leaf from May to October. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - cooked and used like spinach[183]. The young shoots and flowers can also be used[183].

The pungent seed is used as a mustard substitute[183].

Medicinal Uses

Disclaimer

Restorative.

The pounded root is put on the lips to restore consciousness when in a faint[240].

Other Uses

None known

Cultivation details

Prefers a light fertile soil in a warm dry sunny position with plenty of room to spread[1, 200].

A frost tender plant, it can be grown as a summer annual in Britain[200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cleome+monophylla`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cleome monophylla

Common name:		Family:	Capparidaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	S. Africa.		
Habitat:	A weed of fields and waste places[240].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	monophylla = 1 leaved;
Other Range Info:	From the Ethnobotany Database
	India(Santal)

Physical Characteristics

Annual growing to 0.5m. It is frost tender. It is in leaf from May to October. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - cooked and used like spinach[183]. The young shoots and flowers can also be used[183].

The pungent seed is used as a mustard substitute[183].

Medicinal Uses

Disclaimer

Restorative.

The pounded root is put on the lips to restore consciousness when in a faint[240].

Other Uses

None known

Cultivation details

Prefers a light fertile soil in a warm dry sunny position with plenty of room to spread[1, 200].

A frost tender plant, it can be grown as a summer annual in Britain[200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Readers Comments

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Habitat:	A weed of fields and waste places[240].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	monophylla = 1 leaved;
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

Annual growing to 0.5m. It is frost tender. It is in leaf from May to October. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - cooked and used like spinach[183]. The young shoots and flowers can also be used[183].

The pungent seed is used as a mustard substitute[183].

Medicinal Uses

Disclaimer

Restorative.

The pounded root is put on the lips to restore consciousness when in a faint[240].

Other Uses

None known

Cultivation details

Prefers a light fertile soil in a warm dry sunny position with plenty of room to spread[1, 200].

A frost tender plant, it can be grown as a summer annual in Britain[200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

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Add a comment on: *Cleome monophylla*

Subject:

Cleome monophylla

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cleome monophylla

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Cleome ornithopodioides

Common name:		Family:	Capparidaceae
Author:	L.	Botanical references:	50, 74
Synonyms:			
Known Hazards:	None known		
Range:	Europe to W. Asia.		
Habitat:	Rocky debris on hillsides, gravels and river drifts, occasionally on waste ground[74].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bird Spider-flower [B], Bird Spiderflower [P],

Physical Characteristics

Annual growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Seed.

Seed. Used as a mustard substitute[74, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species but it should succeed as a spring-sown annual in Britain. The following notes are based on the general needs of the genus.

Prefers a light fertile soil in a warm dry sunny position with plenty of room to spread[1, 200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

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Plants For A Future: Database Search Results

Cleome ornithopodioides

Common name:		Family:	Capparidaceae
Author:	L.	Botanical references:	50, 74
Synonyms:			
Known Hazards:	None known		
Range:	Europe to W. Asia.		
Habitat:	Rocky debris on hillsides, gravels and river drifts, occasionally on waste ground[74].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bird Spider-flower [B], Bird Spiderflower [P],

Physical Characteristics

Annual growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Seed.

Seed. Used as a mustard substitute[74, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have very little information on this species but it should succeed as a spring-sown annual in Britain. The following notes are based on the general needs of the genus.

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Condiment; Seed.

Seed. Used as a mustard substitute[74, 177].

Medicinal Uses

Disclaimer

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Other Uses

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Subject:

Cleome ornithopodioides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cleome ornithopodioides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Cleome viscosa

Common name:	Tickweed	Family:	Capparidaceae
Author:	L.	Botanical references:	200
Synonyms:	Polanisia viscosa ((L.)DC.)		
Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Sandy and freely draining soils in open woodland scrub and on scree slopes in dry areas[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. icosandra[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asian Spider-flower [B], Asian Spiderflower [P], L [E],
Epithets:	From a Dictionary of Botanical Epithets
	viscosa = sticky;
Other Range Info:	From the Ethnobotany Database
	Etjeng; India; India(Gujarat); India(Santal); Indochina; Machmud panta; Maman; Maman hutan; Sudan

Physical Characteristics

Annual growing to 1.5m. It is frost tender. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves and young shoots - cooked. A sharp mustard-like flavour[183].

The pungent seed is used as a mustard substitute in curries[183].

The seedpods are made into pickles[183].

The juice of the plant is used as a condiment[183].

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Diaphoretic; Rubefacient.

The leaves are diaphoretic, rubefacient and vesicant[240]. They are used as an external application to wounds and ulcers[240].

The juice of the leaves has been used to relieve earache[240].

The seeds are anthelmintic, carminative, rubefacient and vesicant[240]. The seed contains 0.1% viscosic acid and 0.04% viscosin[240].

Other Uses

None known

Cultivation details

Prefers a light fertile soil in a warm dry sunny position with plenty of room to spread[200].

A frost tender plant, it can be grown as a summer annual in Britain[200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Polanisia viscosa* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cleome viscosa

Common name:	Tickweed	Family:	Capparidaceae
Author:	L.	Botanical references:	200
Synonyms:	Polanisia viscosa ((L.)DC.)		
Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Sandy and freely draining soils in open woodland scrub and on scree slopes in dry areas[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. icosandra[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asian Spider-flower [B], Asian Spiderflower [P], L [E],
Epithets:	From a Dictionary of Botanical Epithets
	viscosa = sticky;
Other Range Info:	From the Ethnobotany Database
	Etjeng; India; India(Gujarat); India(Santal); Indochina; Machmud panta; Maman; Maman hutan; Sudan

Physical Characteristics

Annual growing to 1.5m. It is frost tender. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves and young shoots - cooked. A sharp mustard-like flavour[183].

The pungent seed is used as a mustard substitute in curries[183].

The seedpods are made into pickles[183].

The juice of the plant is used as a condiment[183].

Medicinal Uses

Disclaimer

Anthelmintic; Carminative; Diaphoretic; Rubefacient.

The leaves are diaphoretic, rubefacient and vesicant[240]. They are used as an external application to wounds and ulcers[240].

The juice of the leaves has been used to relieve earache[240].

The seeds are anthelmintic, carminative, rubefacient and vesicant[240]. The seed contains 0.1% viscosic acid and 0.04% viscosin[240].

Other Uses

None known

Cultivation details

Prefers a light fertile soil in a warm dry sunny position with plenty of room to spread[200].

A frost tender plant, it can be grown as a summer annual in Britain[200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

Suppliers

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Web References

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Polanisia viscosa* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

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References

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
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Plants For A Future: Database Search Results

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Author:	L.	Botanical references:	200
Synonyms:	Polanisia viscosa ((L.)DC.)		
Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Sandy and freely draining soils in open woodland scrub and on scree slopes in dry areas[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. icosandra[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	viscosa = sticky;
Other Range Info:	From the Ethnobotany Database
	Etjeng; India; India(Gujarat); India(Santal); Indochina; Machmud panta; Maman; Maman hutan; Sudan

Physical Characteristics

Annual growing to 1.5m. It is frost tender. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves and young shoots - cooked. A sharp mustard-like flavour[183].

The pungent seed is used as a mustard substitute in curries[183].

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Other Uses

None known

Cultivation details

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A frost tender plant, it can be grown as a summer annual in Britain[200].

Propagation

Seed - surface sow or only lightly cover the seed in spring in a greenhouse[164]. The seed usually germinates in 5 - 14 days at 25°c[164]. When large enough to handle, prick the seedlings out into individual pots and plant them out in late spring. Day time temperatures below 20°c depress germination but a night time fall to 20° is necessary[164].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cleome viscosa*

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Cleome viscosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cleome viscosa

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Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Clinopodium vulgare

Common name:	Wild basil	Family:	Labiatae
Author:	L.	Botanical references:	17, 200
Synonyms:	Calamintha vulgaris ((L.)Druce.), Calamintha clinopodium (Benth.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Heaths and dry grassy places, usually on calcareous soils[5, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. vulgare var. neogaea[B,P] Calamintha vulgare[H] Satureja vulgaris[B,G,P] Satureja vulgaris var. diminuta[B,P] Satureja vulgaris var. neogaea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Borstelkrans [D], Dog Mint [H], Hedge Basil [H], Hedge Calamint [H], Wild Basil [H,B,P],
Epithets:	From a Dictionary of Botanical Epithets
	clinopodium = like a bed's foot ?; vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.45m by 0.45m . It is hardy to zone 7 and is not frost tender. It is in flower from July to September, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, Lepidoptera (Moths & Butterflies) and insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

Edible leaves - used fresh or dried as a flavouring in cooked foods[5, 8, 12, 183] or fresh as a flavouring in salads[177].

A sweet and aromatic herb tea is made from the fresh leaves[183].

Medicinal Uses

Disclaimer

Aromatic; Astringent; Cardiotonic; Carminative; Diaphoretic; Expectorant.

The plant is aromatic, astringent, cardiotonic, carminative, diaphoretic and expectorant[4, 145]. An infusion of the plant helps to overcome weak digestion[244].

Other Uses

Dye.

A yellow and a brown dye are obtained from the leaves[46, 61].

Cultivation details

Succeeds in almost any well-drained soil[1].

Propagation

Seed - sow spring in a cold frame. Only just cover the seed. Germination usually takes place within 2 weeks at 21°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse. Plant them out in the summer if they have made sufficient growth, otherwise plant them out in late spring or early summer of the following year.

Division in spring. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Cuttings of soft wood in May or June.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calamintha clinopodium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Calamintha vulgare* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

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If you know of another site which has good information about this plant fill in the following the details here.

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Author:	L.	Botanical references:	17, 200
Synonyms:	Calamintha vulgaris ((L.)Druce.), Calamintha clinopodium (Benth.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Heaths and dry grassy places, usually on calcareous soils[5, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. vulgare var. neogaea[B,P] Calamintha vulgare[H] Satureja vulgaris[B,G,P] Satureja vulgaris var. diminuta[B,P] Satureja vulgaris var. neogaea[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	clinopodium = like a bed's foot ?; vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.45m by 0.45m . It is hardy to zone 7 and is not frost tender. It is in flower from July to September, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, Lepidoptera (Moths & Butterflies) and insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no

shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

Edible leaves - used fresh or dried as a flavouring in cooked foods[5, 8, 12, 183] or fresh as a flavouring in salads[177].

A sweet and aromatic herb tea is made from the fresh leaves[183].

Medicinal Uses

Disclaimer

Aromatic; Astringent; Cardiotonic; Carminative; Diaphoretic; Expectorant.

The plant is aromatic, astringent, cardiotonic, carminative, diaphoretic and expectorant[4, 145]. An infusion of the plant helps to overcome weak digestion[244].

Other Uses

Dye.

A yellow and a brown dye are obtained from the leaves[46, 61].

Cultivation details

Succeeds in almost any well-drained soil[1].

Propagation

Seed - sow spring in a cold frame. Only just cover the seed. Germination usually takes place within 2 weeks at 21°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse. Plant them out in the summer if they have made sufficient growth, otherwise plant them out in late spring or early summer of the following year.

Division in spring. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Cuttings of soft wood in May or June.

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- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calamintha clinopodium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Calamintha vulgare* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5

Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[8] **Ceres.** *Free for All.* Thorsons Publishers 1977 ISBN 0-7225-0445-4
Edible wild plants in Britain. Small booklet, nothing special.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Clinopodium+vulgare`

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Plants For A Future: Database Search Results

Clinopodium vulgare

Common name:	Wild basil	Family:	Labiatae
Author:	L.	Botanical references:	17, 200
Synonyms:	Calamintha vulgaris ((L.)Druce.), Calamintha clinopodium (Benth.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Heaths and dry grassy places, usually on calcareous soils[5, 17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. vulgare var. neogaea[B,P] Calamintha vulgare[H] Satureja vulgaris[B,G,P] Satureja vulgaris var. diminuta[B,P] Satureja vulgaris var. neogaea[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Borstelkrans [D], Dog Mint [H], Hedge Basil [H], Hedge Calamint [H], Wild Basil [H,B,P],
Epithets:	From a Dictionary of Botanical Epithets
	clinopodium = like a bed's foot ?; vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Perennial growing to 0.45m by 0.45m . It is hardy to zone 7 and is not frost tender. It is in flower from July to September, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, Lepidoptera (Moths & Butterflies) and insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no

shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Tea.

Edible leaves - used fresh or dried as a flavouring in cooked foods[5, 8, 12, 183] or fresh as a flavouring in salads[177].

A sweet and aromatic herb tea is made from the fresh leaves[183].

Medicinal Uses

Disclaimer

Aromatic; Astringent; Cardiotonic; Carminative; Diaphoretic; Expectorant.

The plant is aromatic, astringent, cardiotonic, carminative, diaphoretic and expectorant[4, 145]. An infusion of the plant helps to overcome weak digestion[244].

Other Uses

Dye.

A yellow and a brown dye are obtained from the leaves[46, 61].

Cultivation details

Succeeds in almost any well-drained soil[1].

Propagation

Seed - sow spring in a cold frame. Only just cover the seed. Germination usually takes place within 2 weeks at 21°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse. Plant them out in the summer if they have made sufficient growth, otherwise plant them out in late spring or early summer of the following year.

Division in spring. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Cuttings of soft wood in May or June.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Clinopodium vulgare*

Subject:

Clinopodium vulgare

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Clinopodium vulgare

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 04:46:46 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cnicus benedictus

Common name:	Blessed thistle	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:	Carbenia benedicta		
Known Hazards:	None known		
Range:	S. Europe to W. Asia. An infrequent casual in Britain[17].		
Habitat:	Dry sunny places in arable, stony and waste ground[7, 9, 165].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Carduus benedictus[H] Centaurea benedicta[B,P] Cirsium pugnax[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ash Sherka Al Mubaraka [E], Blessed Thistle [P,E,H], Blessed-thistle [B], Cardo Santo [E], Chardon Beni [E], Derga Peroza [E], Holy Thistle [H], Mubarek Diken [E], St Benedict's Thistle [H],
Epithets:	From a Dictionary of Botanical Epithets
	benedictus = praised;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Czechoslovakia; France; Iraq; Italy; Kurdistan; South Africa; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from May to September, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Root.

Young leaves - raw[4, 268].

Flower heads, harvested before the flowers open, have been used as a globe artichoke (Cynara cardunculus) substitute[268]. The flower heads are rather small and using them in this way is very fiddly[K].

Root - boiled as a pot herb[268].

The herb is used as a flavouring[105, 183] (the part that is used is not specified).

Medicinal Uses

Disclaimer

Astringent; Bitter; Cholagogue; Contraceptive; Diaphoretic; Diuretic; Emetic; Emmenagogue; Galactogogue; Homeopathy; Stimulant; Stomachic; Tonic; VD.

The blessed thistle was widely cultivated in the middle ages, when it was seen as a cure-all for all manner of diseases including the plague[238]. Although less widely used nowadays, it is still seen to have a wide range of applications though it is mainly employed as an ingredient in herbal tonics[268].

The whole plant is astringent, bitter, cholagogue, diaphoretic, diuretic, strongly emetic in large doses, emmenagogue, galactogogue, stimulant, stomachic and tonic[4, 7, 9, 21, 165, 207, 222, 268]. A warm infusion of the plant is said to be one of the most effective means of improving the milk supply of a nursing mother[4]. An infusion of the whole plant has also been used as a contraceptive[213] and is often used in the treatment of liver and gall bladder problems[9]. The plant is also used internally in the treatment of anorexia, poor appetite associated with depression, dyspepsia, flatulent colic etc[238].

The whole plant was infused overnight in cold water and the liquid drunk three times daily in the treatment of VD. Men were required to run after each dose in order to encourage sweating. The treatment often caused nausea and vomiting[213] - excessive doses of the plant cause vomiting[7].

The plant is used externally in the treatment of wounds and ulcers[238].

The plant is harvested in the summer as it comes into flower and is dried for later use[4].

A homeopathic remedy is made from the plant[9]. It is used in the treatment of the liver and gall bladder[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Oil.

A good quality oil is obtained from the seed[4, 61]. It has been used in emergencies when other oils were not available[222].

Cultivation details

Easily grown in ordinary garden soil[1]. Prefers a dry soil and a sunny position[7]. Grows best in a well manured soil[268].

A very ornamental plant, it is often cultivated in Europe as a medicinal herb and for its oil yielding seed[9, 61].

Propagation

Seed - sow in situ in the spring or early autumn[111]. The seed usually germinates in 2 - 6 weeks at 10°c[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Carbenia benedicta* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *cnicus benedictus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Name of Site:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cnicus+benedictus`
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Plants For A Future: Database Search Results

Cnicus benedictus

Common name:	Blessed thistle	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:	Carbenia benedicta		
Known Hazards:	None known		
Range:	S. Europe to W. Asia. An infrequent casual in Britain[17].		
Habitat:	Dry sunny places in arable, stony and waste ground[7, 9, 165].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Carduus benedictus[H] Centaurea benedicta[B,P] Cirsium pugnax[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	benedictus = praised;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Czechoslovakia; France; Iraq; Italy; Kurdistan; South Africa; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from May to September, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Root.

Young leaves - raw[4, 268].

Flower heads, harvested before the flowers open, have been used as a globe artichoke (Cynara cardunculus) substitute[268]. The flower heads are rather small and using them in this way is very fiddly[K].

Root - boiled as a pot herb[268].

The herb is used as a flavouring[105, 183] (the part that is used is not specified).

Medicinal Uses

Disclaimer

Astringent; Bitter; Cholagogue; Contraceptive; Diaphoretic; Diuretic; Emetic; Emmenagogue; Galactogogue; Homeopathy; Stimulant; Stomachic; Tonic; VD.

The blessed thistle was widely cultivated in the middle ages, when it was seen as a cure-all for all manner of diseases including the plague[238]. Although less widely used nowadays, it is still seen to have a wide range of applications though it is mainly employed as an ingredient in herbal tonics[268].

The whole plant is astringent, bitter, cholagogue, diaphoretic, diuretic, strongly emetic in large doses, emmenagogue, galactogogue, stimulant, stomachic and tonic[4, 7, 9, 21, 165, 207, 222, 268]. A warm infusion of the plant is said to be one of the most effective means of improving the milk supply of a nursing mother[4]. An infusion of the whole plant has also been used as a contraceptive[213] and is often used in the treatment of liver and gall bladder problems[9]. The plant is also used internally in the treatment of anorexia, poor appetite associated with depression, dyspepsia, flatulent colic etc[238].

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The plant is harvested in the summer as it comes into flower and is dried for later use[4].

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Other Uses

Oil.

A good quality oil is obtained from the seed[4, 61]. It has been used in emergencies when other oils were not available[222].

Cultivation details

Easily grown in ordinary garden soil[1]. Prefers a dry soil and a sunny position[7]. Grows best in a well manured soil[268].

A very ornamental plant, it is often cultivated in Europe as a medicinal herb and for its oil yielding seed[9, 61].

Propagation

Seed - sow in situ in the spring or early autumn[111]. The seed usually germinates in 2 - 6 weeks at 10°c[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [W] Photos (common names, range) from the University of Washington Medicinal Herb Garden.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Carbenia benedicta* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *cnicus benedictus* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces

in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Cnicus benedictus

Common name:	Blessed thistle	Family:	Compositae
Author:	L.	Botanical references:	200
Synonyms:	Carbenia benedicta		
Known Hazards:	None known		
Range:	S. Europe to W. Asia. An infrequent casual in Britain[17].		
Habitat:	Dry sunny places in arable, stony and waste ground[7, 9, 165].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Carduus benedictus[H] Centaurea benedicta[B,P] Cirsium pugnax[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ash Sherka Al Mubaraka [E], Blessed Thistle [P,E,H], Blessed-thistle [B], Cardo Santo [E], Chardon Beni [E], Derga Peroza [E], Holy Thistle [H], Mubarek Diken [E], St Benedict's Thistle [H],
Epithets:	From a Dictionary of Botanical Epithets
	benedictus = praised;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Britain; Czechoslovakia; France; Iraq; Italy; Kurdistan; South Africa; Spain; Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 8. It is in flower from May to September, and the seeds ripen from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Leaves; Root.

Young leaves - raw[4, 268].

Flower heads, harvested before the flowers open, have been used as a globe artichoke (Cynara cardunculus) substitute[268]. The flower heads are rather small and using them in this way is very fiddly[K].

Root - boiled as a pot herb[268].

The herb is used as a flavouring[105, 183] (the part that is used is not specified).

Medicinal Uses

Disclaimer

Astringent; Bitter; Cholagogue; Contraceptive; Diaphoretic; Diuretic; Emetic; Emmenagogue; Galactogogue; Homeopathy; Stimulant; Stomachic; Tonic; VD.

The blessed thistle was widely cultivated in the middle ages, when it was seen as a cure-all for all manner of diseases including the plague[238]. Although less widely used nowadays, it is still seen to have a wide range of applications though it is mainly employed as an ingredient in herbal tonics[268].

The whole plant is astringent, bitter, cholagogue, diaphoretic, diuretic, strongly emetic in large doses, emmenagogue, galactogogue, stimulant, stomachic and tonic[4, 7, 9, 21, 165, 207, 222, 268]. A warm infusion of the plant is said to be one of the most effective means of improving the milk supply of a nursing mother[4]. An infusion of the whole plant has also been used as a contraceptive[213] and is often used in the treatment of liver and gall bladder problems[9]. The plant is also used internally in the treatment of anorexia, poor appetite associated with depression, dyspepsia, flatulent colic etc[238].

The whole plant was infused overnight in cold water and the liquid drunk three times daily in the treatment of VD. Men were required to run after each dose in order to encourage sweating. The treatment often caused nausea and vomiting[213] - excessive doses of the plant cause vomiting[7].

The plant is used externally in the treatment of wounds and ulcers[238].

The plant is harvested in the summer as it comes into flower and is dried for later use[4].

A homeopathic remedy is made from the plant[9]. It is used in the treatment of the liver and gall bladder[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Oil.

A good quality oil is obtained from the seed[4, 61]. It has been used in emergencies when other oils were not available[222].

Cultivation details

Easily grown in ordinary garden soil[1]. Prefers a dry soil and a sunny position[7]. Grows best in a well manured soil[268].

A very ornamental plant, it is often cultivated in Europe as a medicinal herb and for its oil yielding seed[9, 61].

Propagation

Seed - sow in situ in the spring or early autumn[111]. The seed usually germinates in 2 - 6 weeks at 10°c[164].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cnicus benedictus*

Subject:

Cnicus benedictus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cnicus benedictus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:47:29 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment   Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Cochlearia anglica

Common name:	Long leaved scurvy grass	Family:	Cruciferae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Muddy shores and estuaries[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. officinalis anglica[DUTCH]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Engels Lepelblad [D], English Scurvy-grass [H], Long-leaved Scurvy-grass [H],
Epithets:	From a Dictionary of Botanical Epithets
	anglica = of England; angli = of England; cochlear = spoon shaped;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.3m. . It is in flower from April to July, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Condiment; Leaves.

Young leaves and flower heads - raw. Bitter[K]. Used as a flavouring in salads[183]. The leaves are very rich in vitamin C, though very few people will actually enjoy the pungent flavour[K].

Used as a spice[105, 177] (the part used is not specified).

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a cool shady position. Grows well on acid or calcareous soils but it avoids shady positions in the wild. Prefers a sandy or gritty well-drained soil[200].

Hybridizes with C. officinalis[17].

Propagation

Seed - sow spring or autumn in situ. Germination usually takes place within 2 - 3 weeks at 15°c[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cochlearia anglica

Common name:	Long leaved scurvy grass	Family:	Cruciferae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Muddy shores and estuaries[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. officinalis anglica[DUTCH]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	anglica = of England; angli = of England; cochlear = spoon shaped;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.3m. . It is in flower from April to July, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

Edible Uses

Condiment; Leaves.

Young leaves and flower heads - raw. Bitter[K]. Used as a flavouring in salads[183]. The leaves are very rich in vitamin C, though very few people will actually enjoy the pungent flavour[K].

Used as a spice[105, 177] (the part used is not specified).

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a cool shady position. Grows well on acid or calcareous soils but it avoids shady positions in the wild. Prefers a sandy or gritty well-drained soil[200].

Hybridizes with C. officinalis[17].

Propagation

Seed - sow spring or autumn in situ. Germination usually takes place within 2 - 3 weeks at 15°c[164].

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Range:	Britain.		
Habitat:	Muddy shores and estuaries[17].		
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Epithets:	From a Dictionary of Botanical Epithets
	anglica = of England; angli = of England; cochlear = spoon shaped;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.3m. . It is in flower from April to July, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires moist or wet soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Bog Garden, Cultivated Beds.

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Condiment; Leaves.

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Used as a spice[105, 177] (the part used is not specified).

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cochlearia+anglica`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cochlearia anglica*

Subject:

Cochlearia anglica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cochlearia anglica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:48:08 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Cochlearia macrocarpa

Common name:		Family:	Cruciferae
Author:	Waldst. & Kit.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	C. Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Armoracia armoracia[B,P] Armoracia lapathifolia[B,G,H,P] Armoracia rusticana[B,C,CAL,DUTCH,E,G,H,HPIC,HORTIPLEX,L,P] C. armoracia[B,G,H,P] Nasturtium armoracia[G,P] Radicula armoracia[B,G,P] Raphanus rusticanus[H] Rorippa armoracia[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bayirturpu [E], Great Raifort [H], Horse-radish [B,L], Horseradish [H,P,E], Mierik [D], Mountain Radish [H], Red Cole [H], Wild Horseradish [H],
Epithets:	From a Dictionary of Botanical Epithets
	cochlear = spoon shaped; macrocarpa = large fruited;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Sweden; Turkey; Us

Physical Characteristics

. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The root is a condiment[105]. It is used like horseradish (Armoracia rusticana)[177] and is said to be less acrid[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have virtually no information on this species or its hardiness in Britain and do not even know if it is a perennial or annual. There is no record of it in 'Flora europaea'. It is likely to succeed in an acid or calcareous sandy or gritty well-drained soils in a sunny position.

Propagation

Seed - sow spring or autumn in situ. Germination usually takes place within 2 - 3 weeks at 15°c[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Armoracia rusticana* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *armoracia rusticana* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990

Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cochlearia macrocarpa

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Author:	Waldst. & Kit.	Botanical references:	
Synonyms:			
Known Hazards:	None known		
Range:	C. Europe.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

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Epithets:	From a Dictionary of Botanical Epithets
	cochlear = spoon shaped; macrocarpa = large fruited;
Systematics:	From a UDSA Plants Database
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Other Range Info:	From the Ethnobotany Database
	Sweden; Turkey; Us

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The root is a condiment[105]. It is used like horseradish (Armoracia rusticana)[177] and is said to be less acrid[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have virtually no information on this species or its hardiness in Britain and do not even know if it is a perennial or annual. There is no record of it in 'Flora europaea'. It is likely to succeed in an acid or calcareous sandy or gritty well-drained soils in a sunny position.

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Cochlearia macrocarpa

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Known Hazards:	None known		
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Physical Characteristics

. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The root is a condiment[105]. It is used like horseradish (Armoracia rusticana)[177] and is said to be less acrid[2].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have virtually no information on this species or its hardiness in Britain and do not even know if it is a perennial or annual. There is no record of it in 'Flora europaea'. It is likely to succeed in an acid or calcareous sandy or gritty well-drained soils in a sunny position.

Propagation

Seed - sow spring or autumn in situ. Germination usually takes place within 2 - 3 weeks at 15°c[164].

Suppliers

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Add a comment on: *Cochlearia macrocarpa*

Subject:

Cochlearia macrocarpa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Cochlearia macrocarpa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Cochlearia scotica

Common name:		Family:	Cruciferae
Author:	Druce.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Maritime areas on the Isle of Man, N. Scotland, Orkneys, Hebrides and Shetland islands[17].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	cochlear = spoon shaped; scotica = of Scotland;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.3m. . It is in flower from May to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Used as a spice[105]. No further details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a cool shady position. Grows on acid or calcareous soils but avoids shady positions. Prefers a sandy or gritty well-drained soil[200].

Propagation

Seed - sow spring or autumn in situ. Germination usually takes place within 2 - 3 weeks at 15°c[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

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Submit

Add a longer comment

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Plants For A Future: Database Search Results

Cochlearia scotica

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Author:	Druce.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Maritime areas on the Isle of Man, N. Scotland, Orkneys, Hebrides and Shetland islands[17].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	cochlear = spoon shaped; scotica = of Scotland;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.3m. . It is in flower from May to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Used as a spice[105]. No further details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a cool shady position. Grows on acid or calcareous soils but avoids shady positions. Prefers a sandy or gritty well-drained soil[200].

Propagation

Seed - sow spring or autumn in situ. Germination usually takes place within 2 - 3 weeks at 15°c[164].

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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Cochlearia scotica

Common name:		Family:	Cruciferae
Author:	Druce.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Maritime areas on the Isle of Man, N. Scotland, Orkneys, Hebrides and Shetland islands[17].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	cochlear = spoon shaped; scotica = of Scotland;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Biennial/Perennial growing to 0.3m. . It is in flower from May to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

Used as a spice[105]. No further details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a cool shady position. Grows on acid or calcareous soils but avoids shady positions. Prefers a sandy or gritty well-drained soil[200].

Propagation

Seed - sow spring or autumn in situ. Germination usually takes place within 2 - 3 weeks at 15°c[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

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Add a comment on: *Cochlearia scotica*

Subject:

Cochlearia scotica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cochlearia scotica

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Coelopleurum lucidum

Common name:		Family:	Umbelliferae
Author:	(L.) Fern.	Botanical references:	43, 60
Synonyms:	Coelopleurum maritimum, Coelopleurum longipes, Coelopleurum actaeifolium ((Michx.)Coult.&Rose.), Angelica lucida (L.)		
Known Hazards:	None known		
Range:	E. Asia - Siberia. Northern N. America - Alaska to northern California.		
Habitat:	Beaches and bluffs by the coast and occasionally inland in western N. America[60]. Rocky and gravelly coastal to sub-alpine meadows[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. gmelinii[B,P] C. lucidum ssp. gmelinii[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bellyache Root [E], Seacoast Angelica [B], Wild Celery [P],
Epithets:	From a Dictionary of Botanical Epithets
	lucidum = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Stem.

Young stems and leafstalks - cooked[61] or peeled and eaten raw[172].

The seed is used as a flavouring[172].

Medicinal Uses

Disclaimer

Tonic.

Tonic[172].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors in most parts of this country and could be resistant to maritime exposure. It is quite probable that this species is better included in the genus Angelica, as A. lucida[K]. The following notes are based on the general needs of the genus.

Requires a deep moist fertile soil in dappled shade or full sun[200].

Propagation

Seed - best sown in a cold frame or in situ as soon as it is ripe since the seed only has a short viability[200]. Seed can also be stored and then sown in the spring, though germination rates will be lower. It requires light for germination[200]. If sown in a seedbed or in pots, the plants should be planted out into their permanent positions as soon as possible[1].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Angelica lucida* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Coelopleurum lucidum

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Habitat:	Beaches and bluffs by the coast and occasionally inland in western N. America[60]. Rocky and gravelly coastal to sub-alpine meadows[43].		
Plants For A Future Rating (1-5):	2		

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	lucidum = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Stem.

Young stems and leafstalks - cooked[61] or peeled and eaten raw[172].

The seed is used as a flavouring[172].

Medicinal Uses

Disclaimer

Tonic.

Tonic[172].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors in most parts of this country and could be resistant to maritime exposure. It is quite probable that this species is better included in the genus Angelica, as A. lucida[K]. The following notes are based on the general needs of the genus.

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Habitat:	Beaches and bluffs by the coast and occasionally inland in western N. America[60]. Rocky and gravelly coastal to sub-alpine meadows[43].		
Plants For A Future Rating (1-5):	2		

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	C. gmelinii[B,P] C. lucidum ssp. gmelinii[B,P]
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Epithets:	From a Dictionary of Botanical Epithets
	lucidum = shining, clear;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

Perennial growing to 1.2m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Stem.

Young stems and leafstalks - cooked[61] or peeled and eaten raw[172].

The seed is used as a flavouring[172].

Medicinal Uses

Disclaimer

Tonic.

Tonic[172].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how hardy it will be in Britain, though judging by its native range it should succeed outdoors in most parts of this country and could be resistant to maritime exposure. It is quite probable that this species is better included in the genus Angelica, as A. lucida[K]. The following notes are based on the general needs of the genus.

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Propagation

Seed - best sown in a cold frame or in situ as soon as it is ripe since the seed only has a short viability[200]. Seed can also be stored and then sown in the spring, though germination rates will be lower. It requires light for germination[200]. If sown in a seedbed or in pots, the plants should be planted out into their permanent positions as soon as possible[1].

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Add a comment on: *Coelopleurum lucidum*

Subject:

Coelopleurum lucidum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coelopleurum lucidum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Coluria geoides

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	(Pall.) Ledeb.	Botanical references:	1, 74
Synonyms:	Dryas geoides, Coluria potentilloides, Coluria laxmanii		
Known Hazards:	None known		
Range:	E. Asia - Altai, Siberia.		
Habitat:	Mountains and high mountain steppes, often on stony or rocky slopes, especially along river valleys[74].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	geoides = like Geum;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

Perennial growing to 0.3m by 0.3m . . It is in flower in June, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The root is a cinnamon substitute[74]. It smells and tastes strongly of cloves[1].

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

An essential oil is obtained from the plant (the root?). A substitute for cloves (Eugenia caryophyllata)[74].

Cultivation details

An easily grown plant, succeeding in ordinary garden soil[1].

Plants form large mats[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the cold frame for their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Division in spring or autumn. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

Back to: Plant For A Future home page, Main Search Page Help Bibliography

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Plants For A Future: Database Search Results

Coluria geoides

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:		Family:	Rosaceae
Author:	(Pall.) Ledeb.	Botanical references:	1, 74
Synonyms:	Dryas geoides, Coluria potentilloides, Coluria laxmanii		
Known Hazards:	None known		
Range:	E. Asia - Altai, Siberia.		
Habitat:	Mountains and high mountain steppes, often on stony or rocky slopes, especially along river valleys[74].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	geoides = like Geum;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

Perennial growing to 0.3m by 0.3m . . It is in flower in June, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The root is a cinnamon substitute[74]. It smells and tastes strongly of cloves[1].

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

An essential oil is obtained from the plant (the root?). A substitute for cloves (Eugenia caryophyllata)[74].

Cultivation details

An easily grown plant, succeeding in ordinary garden soil[1].

Plants form large mats[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the cold frame for their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Division in spring or autumn. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Coluria geoides

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Common name:		Family:	Rosaceae
Author:	(Pall.) Ledeb.	Botanical references:	1, 74
Synonyms:	Dryas geoides, Coluria potentilloides, Coluria laxmanii		
Known Hazards:	None known		
Range:	E. Asia - Altai, Siberia.		
Habitat:	Mountains and high mountain steppes, often on stony or rocky slopes, especially along river valleys[74].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	geoides = like Geum;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family

Physical Characteristics

Perennial growing to 0.3m by 0.3m . . It is in flower in June, and the seeds ripen in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The root is a cinnamon substitute[74]. It smells and tastes strongly of cloves[1].

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

An essential oil is obtained from the plant (the root?). A substitute for cloves (Eugenia caryophyllata)[74].

Cultivation details

An easily grown plant, succeeding in ordinary garden soil[1].

Plants form large mats[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the cold frame for their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Division in spring or autumn. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the summer or following spring.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coluria geoides*

Subject:

Coluria geoides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coluria geoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Comptonia peregrina

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Sweet fern	Family:	Myricaceae
Author:	(L.) Coult.	Botanical references:	43, 200
Synonyms:	Liquidambar peregrina (L.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia south to Georgia and east to Minnesota and Tennessee..		
Habitat:	Dry rocky or sandy soils in clearings, pastures and poor open woodland[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. peregrina var. aspleniifolia[B,P] Myrica aspleniifolia[B,P] Myrica aspleniifolia var. tomentosa[B,P] Myrica peregrina[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Sweet Fern [P], Sweet-fern [B], Sweetfern [E,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	peregrina = foreign;
Systematics:	From a UDSA Plants Database
	Order: Myricales . Bayberry family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 1.5m by 1m . It is hardy to zone 4. It is in flower from March to April. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Fruit; Tea.

The young fruits are eaten as a pleasant nibble[55, 62, 183].

The aromatic leaves, fresh or dried, are used to make a palatable tea[55, 62, 102, 183]. The leaves are also used as a seasoning[183].

Medicinal Uses

Disclaimer

Astringent; Blood purifier; Expectorant; Febrifuge; Odontalgic; Parasiticide; Poultice; Tonic.

Sweet fern was employed medicinally by several native North American Indian tribes who used it especially as a poultice to treat a variety of complaints[257]. It is still used for most of the same purposes in modern herbalism.

The leaves are astringent, blood purifier, expectorant and tonic[21, 62, 222, 257]. A tea made from the leaves and flowering tops is used as a remedy for diarrhoea, headache, fevers, catarrh, vomiting of blood, rheumatism etc[213, 222, 257]. The infusion has also been used to treat ringworm[257]. The leaves have also been used as a poultice for toothaches, sprains etc[238, 257].

A cold water infusion of the leaves has been used externally to counter the effect of poison ivy[213, 222, 257] and to bathe stings, minor haemorrhages etc[238].

The leaves are harvested in early summer and dried for later use[238].

Other Uses

Incense; Lining; Repellent.

The leaves are used as a lining in baskets etc in order to preserve the fruit[55].

The crushed leaves repel insects[102]. They can be thrown onto a camp fire to keep mosquitoes away[257].

The dried leaves have been burnt as an incense[257].

Cultivation details

Requires a peaty or light loam lime-free soil[11, 182, 200]. Requires an acid well-drained soil of low to medium fertility in partial shade but tolerates full sun if the soil does not dry out in the summer[200]. Tolerates dry sandy soils when grown in the shade[200].

A very ornamental plant[1], it is hardy to at least -25°c[184, 200].

The crushed leaves are very aromatic[182], their scent is most noticeable in the early morning and the evening[238]. The scent increases when the leaves are dried[245].

This species is somewhat intolerant of root disturbance and should be planted out into its permanent position whilst small[238].

Suckering freely[184], this plant is well suited to clothing banks on soils of low fertility[200]. It has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - it has a very tough seed coat and also contains germination inhibitors and so is very difficult to germinate[113]. It is probably best to harvest the seed 'green' (after the seed has fully developed but before it dries on the plant) and sow immediately in a cold frame. If the seed has been stored then soaking in hot water for 24 hours will leach out some of the inhibitors and also help to soften the seed coat. Scarification will also help as will a period of cold stratification. Prick out the seedlings into individual pots as soon as they are large enough to handle. Grow them on in a greenhouse or cold frame for their first winter and plant them out into their permanent positions in late spring or early summer[K].

Root cuttings, 4cm long December in a frame[78, 113]. Plant the root horizontally. High percentage[78].

Suckers removed in the dormant season and potted up or planted into their permanent positions[200]. Plants can be difficult to move successfully[238].

Layering in spring[238].

Scent

Leaves: Crushed Dried

> The crushed leaves are very aromatic, their scent is most noticeable in the early morning and the evening. The scent increases when the plant is dried.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Myricaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Comptonia peregrina

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Sweet fern	Family:	Myricaceae
Author:	(L.) Coult.	Botanical references:	43, 200
Synonyms:	Liquidambar peregrina (L.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia south to Georgia and east to Minnesota and Tennessee..		
Habitat:	Dry rocky or sandy soils in clearings, pastures and poor open woodland[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. peregrina var. aspleniifolia[B,P] Myrica aspleniifolia[B,P] Myrica aspleniifolia var. tomentosa[B,P] Myrica peregrina[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Sweet Fern [P], Sweet-fern [B], Sweetfern [E,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	peregrina = foreign;
Systematics:	From a UDSA Plants Database
	Order: Myricales . Bayberry family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 1.5m by 1m . It is hardy to zone 4. It is in flower from March to April. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Fruit; Tea.

The young fruits are eaten as a pleasant nibble[55, 62, 183].

The aromatic leaves, fresh or dried, are used to make a palatable tea[55, 62, 102, 183]. The leaves are also used as a seasoning[183].

Medicinal Uses

Disclaimer

Astringent; Blood purifier; Expectorant; Febrifuge; Odontalgic; Parasiticide; Poultice; Tonic.

Sweet fern was employed medicinally by several native North American Indian tribes who used it especially as a poultice to treat a variety of complaints[257]. It is still used for most of the same purposes in modern herbalism.

The leaves are astringent, blood purifier, expectorant and tonic[21, 62, 222, 257]. A tea made from the leaves and flowering tops is used as a remedy for diarrhoea, headache, fevers, catarrh, vomiting of blood, rheumatism etc[213, 222, 257]. The infusion has also been used to treat ringworm[257]. The leaves have also been used as a poultice for toothaches, sprains etc[238, 257].

A cold water infusion of the leaves has been used externally to counter the effect of poison ivy[213, 222, 257] and to bathe stings, minor haemorrhages etc[238].

The leaves are harvested in early summer and dried for later use[238].

Other Uses

Incense; Lining; Repellent.

The leaves are used as a lining in baskets etc in order to preserve the fruit[55].

The crushed leaves repel insects[102]. They can be thrown onto a camp fire to keep mosquitoes away[257].

The dried leaves have been burnt as an incense[257].

Cultivation details

Requires a peaty or light loam lime-free soil[11, 182, 200]. Requires an acid well-drained soil of low to medium fertility in partial shade but tolerates full sun if the soil does not dry out in the summer[200]. Tolerates dry sandy soils when grown in the shade[200].

A very ornamental plant[1], it is hardy to at least -25°c[184, 200].

The crushed leaves are very aromatic[182], their scent is most noticeable in the early morning and the evening[238]. The scent increases when the leaves are dried[245].

This species is somewhat intolerant of root disturbance and should be planted out into its permanent position whilst small[238].

Suckering freely[184], this plant is well suited to clothing banks on soils of low fertility[200]. It has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - it has a very tough seed coat and also contains germination inhibitors and so is very difficult to germinate[113]. It is probably best to harvest the seed 'green' (after the seed has fully developed but before it dries on the plant) and sow immediately in a cold frame. If the seed has been stored then soaking in hot water for 24 hours will leach out some of the inhibitors and also help to soften the seed coat. Scarification will also help as will a period of cold stratification. Prick out the seedlings into individual pots as soon as they are large enough to handle. Grow them on in a greenhouse or cold frame for their first winter and plant them out into their permanent positions in late spring or early summer[K].

Root cuttings, 4cm long December in a frame[78, 113]. Plant the root horizontally. High percentage[78].

Suckers removed in the dormant season and potted up or planted into their permanent positions[200]. Plants can be difficult to move successfully[238].

Layering in spring[238].

Scent

Leaves: Crushed Dried

> The crushed leaves are very aromatic, their scent is most noticeable in the early morning and the evening. The scent increases when the plant is dried.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
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References for the family Myricaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Plants For A Future: Database Search Results

Comptonia peregrina

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Sweet fern	Family:	Myricaceae
Author:	(L.) Coult.	Botanical references:	43, 200
Synonyms:	Liquidambar peregrina (L.)		
Known Hazards:	None known		
Range:	Eastern N. America - Nova Scotia south to Georgia and east to Minnesota and Tennessee..		
Habitat:	Dry rocky or sandy soils in clearings, pastures and poor open woodland[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. peregrina var. aspleniifolia[B,P] Myrica aspleniifolia[B,P] Myrica aspleniifolia var. tomentosa[B,P] Myrica peregrina[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Sweet Fern [P], Sweet-fern [B], Sweetfern [E,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	peregrina = foreign;
Systematics:	From a UDSA Plants Database
	Order: Myricales . Bayberry family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

A decidious shrub growing to 1.5m by 1m . It is hardy to zone 4. It is in flower from March to April. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Fruit; Tea.

The young fruits are eaten as a pleasant nibble[55, 62, 183].

The aromatic leaves, fresh or dried, are used to make a palatable tea[55, 62, 102, 183]. The leaves are also used as a seasoning[183].

Medicinal Uses

Disclaimer

Astringent; Blood purifier; Expectorant; Febrifuge; Odontalgic; Parasiticide; Poultice; Tonic.

Sweet fern was employed medicinally by several native North American Indian tribes who used it especially as a poultice to treat a variety of complaints[257]. It is still used for most of the same purposes in modern herbalism.

The leaves are astringent, blood purifier, expectorant and tonic[21, 62, 222, 257]. A tea made from the leaves and flowering tops is used as a remedy for diarrhoea, headache, fevers, catarrh, vomiting of blood, rheumatism etc[213, 222, 257]. The infusion has also been used to treat ringworm[257]. The leaves have also been used as a poultice for toothaches, sprains etc[238, 257].

A cold water infusion of the leaves has been used externally to counter the effect of poison ivy[213, 222, 257] and to bathe stings, minor haemorrhages etc[238].

The leaves are harvested in early summer and dried for later use[238].

Other Uses

Incense; Lining; Repellent.

The leaves are used as a lining in baskets etc in order to preserve the fruit[55].

The crushed leaves repel insects[102]. They can be thrown onto a camp fire to keep mosquitoes away[257].

The dried leaves have been burnt as an incense[257].

Cultivation details

Requires a peaty or light loam lime-free soil[11, 182, 200]. Requires an acid well-drained soil of low to medium fertility in partial shade but tolerates full sun if the soil does not dry out in the summer[200]. Tolerates dry sandy soils when grown in the shade[200].

A very ornamental plant[1], it is hardy to at least -25°c[184, 200].

The crushed leaves are very aromatic[182], their scent is most noticeable in the early morning and the evening[238]. The scent increases when the leaves are dried[245].

This species is somewhat intolerant of root disturbance and should be planted out into its permanent position whilst small[238].

Suckering freely[184], this plant is well suited to clothing banks on soils of low fertility[200]. It has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - it has a very tough seed coat and also contains germination inhibitors and so is very difficult to germinate[113]. It is probably best to harvest the seed 'green' (after the seed has fully developed but before it dries on the plant) and sow immediately in a cold frame. If the seed has been stored then soaking in hot water for 24 hours will leach out some of the inhibitors and also help to soften the seed coat. Scarification will also help as will a period of cold stratification. Prick out the seedlings into individual pots as soon as they are large enough to handle. Grow them on in a greenhouse or cold frame for their first winter and plant them out into their permanent positions in late spring or early summer[K].

Root cuttings, 4cm long December in a frame[78, 113]. Plant the root horizontally. High percentage[78].

Suckers removed in the dormant season and potted up or planted into their permanent positions[200]. Plants can be difficult to move successfully[238].

Layering in spring[238].

Scent

Leaves: Crushed Dried

The crushed leaves are very aromatic, their scent is most noticeable in the early morning and the evening. The scent increases when the plant is dried.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Comptonia peregrina*

Subject:

Comptonia peregrina

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Comptonia peregrina

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

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Comptonia peregrina asplenifolia

Common name:	Sweet fern	Family:	Myricaceae
Author:	(L.) Fern.	Botanical references:	43, 200
Synonyms:	Myrica asplenifolia (L.), Comptonia asplenifolia ((L.)Aiton.)		
Known Hazards:	None known		
Range:	Eastern N. America.		
Habitat:	Dry rocky or sandy soils in clearings, pastures and poor open woodland[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. aspleniifolia[E] C. peregrina[B,E,G,H,HORTIPLEX,P] C. peregrina var. asplenifolia[H] C. peregrina var. aspleniifolia[B,P] Liquidambar peregrina[G] Myrica aspleniifolia[B,P] Myrica aspleniifolia var. tomentosa[B,P] Myrica peregrina[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	peregrina = foreign;
Systematics:	From a UDSA Plants Database
	Order: Myricales . Bayberry family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Appalachia); Us(Indian)

Physical Characteristics

A decidious shrub growing to 1.2m by 1m . It is hardy to zone 4. It is in flower from March to April. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Fruit; Tea.

The young fruits are eaten as a pleasant nibble[55, 62, 183].

The aromatic leaves, fresh or dried, are used to make a palatable tea[55, 62, 102, 183]. The leaves are also used as a seasoning[183].

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Disclaimer

Astringent; Blood purifier; Expectorant; Febrifuge; Odontalgic; Parasiticide; Poultice; Tonic.

Sweet fern was employed medicinally by several native North American Indian tribes who used it especially as a poultice to treat a variety of complaints[257]. It is still used for most of the same purposes in modern herbalism.

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The leaves are harvested in early summer and dried for later use[238].

Other Uses

Incense; Lining; Repellent.

The leaves are used as a lining in baskets etc in order to preserve the fruit[55].

The crushed leaves repel insects[102]. They can be thrown onto a camp fire to keep mosquitoes away[257].

The dried leaves have been burnt as an incense[257].

Cultivation details

Requires a peaty or light loam lime-free soil[11, 182, 200]. Requires an acid well-drained soil of low to medium fertility in partial shade but tolerates full sun if the soil does not dry out in the summer[200]. Tolerates dry sandy soils when grown in the shade[200].

A very ornamental plant[1], it is hardy to at least -25°c[184, 200]. This form is probably no more than a phenotypic variant of the species that is found growing in harsh conditions[200].

The crushed leaves are very aromatic[182], their scent is most noticeable in the early morning and the evening[238]. The scent increases when the leaves are dried[245].

This species is somewhat intolerant of root disturbance and should be planted out into its permanent position whilst small[238].

Suckering freely[184], this plant is well suited to clothing banks on soils of low fertility[200]. It has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

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Leaves: Crushed

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Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Comptonia aspleniifolia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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Plants For A Future: Database Search Results

Comptonia peregrina asplenifolia

Common name:	Sweet fern	Family:	Myricaceae
Author:	(L.) Fern.	Botanical references:	43, 200
Synonyms:	Myrica asplenifolia (L.), Comptonia asplenifolia ((L.)Aiton.)		
Known Hazards:	None known		
Range:	Eastern N. America.		
Habitat:	Dry rocky or sandy soils in clearings, pastures and poor open woodland[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. aspleniifolia[E] C. peregrina[B,E,G,H,HORTIPLEX,P] C. peregrina var. asplenifolia[H] C. peregrina var. aspleniifolia[B,P] Liquidambar peregrina[G] Myrica aspleniifolia[B,P] Myrica aspleniifolia var. tomentosa[B,P] Myrica peregrina[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Sweet Fern [P], Sweet-fern [B], Sweetfern [E,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	peregrina = foreign;
Systematics:	From a UDSA Plants Database
	Order: Myricales . Bayberry family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Appalachia); Us(Indian)

Physical Characteristics

A decidious shrub growing to 1.2m by 1m . It is hardy to zone 4. It is in flower from March to April. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Fruit; Tea.

The young fruits are eaten as a pleasant nibble[55, 62, 183].

The aromatic leaves, fresh or dried, are used to make a palatable tea[55, 62, 102, 183]. The leaves are also used as a seasoning[183].

Medicinal Uses

Disclaimer

Astringent; Blood purifier; Expectorant; Febrifuge; Odontalgic; Parasiticide; Poultice; Tonic.

Sweet fern was employed medicinally by several native North American Indian tribes who used it especially as a poultice to treat a variety of complaints[257]. It is still used for most of the same purposes in modern herbalism.

The leaves are astringent, blood purifier, expectorant and tonic[21, 62, 222, 257]. A tea made from the leaves and flowering tops is used as a remedy for diarrhoea, headache, fevers, catarrh, vomiting of blood, rheumatism etc[213, 222, 257]. The infusion has also been used to treat ringworm[257]. The leaves have also been used as a poultice for toothaches, sprains etc[238, 257].

A cold water infusion of the leaves has been used externally to counter the effect of poison ivy[213, 222, 257] and to bathe stings, minor haemorrhages etc[238].

The leaves are harvested in early summer and dried for later use[238].

Other Uses

Incense; Lining; Repellent.

The leaves are used as a lining in baskets etc in order to preserve the fruit[55].

The crushed leaves repel insects[102]. They can be thrown onto a camp fire to keep mosquitoes away[257].

The dried leaves have been burnt as an incense[257].

Cultivation details

Requires a peaty or light loam lime-free soil[11, 182, 200]. Requires an acid well-drained soil of low to medium fertility in partial shade but tolerates full sun if the soil does not dry out in the summer[200]. Tolerates dry sandy soils when grown in the shade[200].

A very ornamental plant[1], it is hardy to at least -25°c[184, 200]. This form is probably no more than a phenotypic variant of the species that is found growing in harsh conditions[200].

The crushed leaves are very aromatic[182], their scent is most noticeable in the early morning and the evening[238]. The scent increases when the leaves are dried[245].

This species is somewhat intolerant of root disturbance and should be planted out into its permanent position whilst small[238].

Suckering freely[184], this plant is well suited to clothing banks on soils of low fertility[200]. It has a symbiotic relationship with certain soil micro-organisms, these form nodules on the roots of the plants and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby[200].

Propagation

Seed - it has a very tough seed coat and also contains germination inhibitors and so is very difficult to germinate[113]. It is probably best to harvest the seed 'green' (after the seed has fully developed but before it dries on the plant) and sow immediately in a cold frame. If the seed has been stored then soaking in hot water for 24 hours will leach out some of the inhibitors and also help to soften the seed coat. Scarification will also help as will a period of cold stratification. Prick out the seedlings into individual pots as soon as they are large enough to handle. Grow them on in a greenhouse or cold frame for their first winter and plant them out into their permanent positions in late spring or early summer[K].

Root cuttings, 4cm long December in a frame[78, 113]. Plant the root horizontally. High percentage[78].

Suckers removed in the dormant season and potted up or planted into their permanent positions[200]. Plants can be difficult to move successfully[238].

Layering in spring[238].

Scent

Leaves: Crushed

> The crushed leaves are very aromatic, their scent is most noticeable in the early morning and the evening. The scent increases when the leaves are dried.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: C
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Comptonia aspleniifolia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Comptonia peregrina* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Comptonia peregrina var. asplenifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Myrica asplenifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Myricaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[102] **Kavasch. B.** *Native Harvests.* Vintage Books 1979 ISBN 0-394-72811-4
Another guide to the wild foods of America.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Author:	(L.) Fern.	Botanical references:	43, 200
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Known Hazards:	None known		
Range:	Eastern N. America.		
Habitat:	Dry rocky or sandy soils in clearings, pastures and poor open woodland[43].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	peregrina = foreign;
Systematics:	From a UDSA Plants Database
	Order: Myricales . Bayberry family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian); Us(Appalachia); Us(Indian)

Physical Characteristics

A decidious shrub growing to 1.2m by 1m . It is hardy to zone 4. It is in flower from March to April. The scented flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant). It can fix Nitrogen. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Fruit; Tea.

The young fruits are eaten as a pleasant nibble[55, 62, 183].

The aromatic leaves, fresh or dried, are used to make a palatable tea[55, 62, 102, 183]. The leaves are also used as a seasoning[183].

Medicinal Uses

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Sweet fern was employed medicinally by several native North American Indian tribes who used it especially as a poultice to treat a variety of complaints[257]. It is still used for most of the same purposes in modern herbalism.

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Other Uses

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The crushed leaves repel insects[102]. They can be thrown onto a camp fire to keep mosquitoes away[257].

The dried leaves have been burnt as an incense[257].

Cultivation details

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A very ornamental plant[1], it is hardy to at least -25°c[184, 200]. This form is probably no more than a phenotypic variant of the species that is found growing in harsh conditions[200].

The crushed leaves are very aromatic[182], their scent is most noticeable in the early morning and the evening[238]. The scent increases when the leaves are dried[245].

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Propagation

Seed - it has a very tough seed coat and also contains germination inhibitors and so is very difficult to germinate[113]. It is probably best to harvest the seed 'green' (after the seed has fully developed but before it dries on the plant) and sow immediately in a cold frame. If the seed has been stored then soaking in hot water for 24 hours will leach out some of the inhibitors and also help to soften the seed coat. Scarification will also help as will a period of cold stratification. Prick out the seedlings into individual pots as soon as they are large enough to handle. Grow them on in a greenhouse or cold frame for their first winter and plant them out into their permanent positions in late spring or early summer[K].

Root cuttings, 4cm long December in a frame[78, 113]. Plant the root horizontally. High percentage[78].

Suckers removed in the dormant season and potted up or planted into their permanent positions[200]. Plants can be difficult to move successfully[238].

Layering in spring[238].

Scent

Leaves: Crushed

> The crushed leaves are very aromatic, their scent is most noticeable in the early morning and the evening. The scent increases when the leaves are dried.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Comptonia peregrina asplenifolia*

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Comptonia peregrina asplenifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Comptonia peregrina asplenifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Conradina verticillata

Common name:	Cumberland rosemary	Family:	Labiatae
Author:	Jennison.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Tennessee.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. montana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cumberland False Rosemary [B,P], Cumberland Rosemary [B],
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

A decidious shrub growing to 0.3m by 1m . It is hardy to zone 7. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment.

The leaves have a strong pleasant scent, reminiscent of rosemary, and are used as a rosemary substitute as a flavouring in cooking[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a light soil and a very sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

This is an endangered species in the wild[183].

Propagation

Seed - sow spring in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Cuttings of new shoots in spring in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Readers Comments

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URL for Site: http://
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Plants For A Future: Database Search Results

Conradina verticillata

Common name:	Cumberland rosemary	Family:	Labiatae
Author:	Jennison.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	South-eastern N. America - Tennessee.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. montana[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Cumberland False Rosemary [B,P], Cumberland Rosemary [B],
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

A decidious shrub growing to 0.3m by 1m . It is hardy to zone 7. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment.

The leaves have a strong pleasant scent, reminiscent of rosemary, and are used as a rosemary substitute as a flavouring in cooking[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a light soil and a very sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

This is an endangered species in the wild[183].

Propagation

Seed - sow spring in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Cuttings of new shoots in spring in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Conradina+verticillata`

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	C. montana[B,P]
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	Cumberland False Rosemary [B,P], Cumberland Rosemary [B],
Systematics:	From a UDSA Plants Database
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Physical Characteristics

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The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment.

The leaves have a strong pleasant scent, reminiscent of rosemary, and are used as a rosemary substitute as a flavouring in cooking[183].

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Disclaimer

None known

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Conradina verticillata*

Subject:

Conradina verticillata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Conradina verticillata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Plants For A Future: Database Search Results

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Convolvulus arvensis

Common name:	Field bindweed	Family:	Convolvulaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Hedgerows, fields, waste places, fences etc[7, 100], it can be a troublesome weed of agriculture.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. ambigens[B,P] C. incanus[B] C. incanus auct. non[P] Strophocaulos arvensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akkerwinde [D], Bearwind [H], Bindweed [MS], Boru Chichegi [E], Cornbind [H], Correguella [E], Correhuela [E], Devil's Garters [H], Field Bindweed [FEIS,B,L,P,S], Field Convolvulus [H], Hedge Bells [H], Heleblab [E], Jack-run'-in'-the-Country [H], Lawlawa [E], Leflaf [E], Liseron [E], Ropebind [H], Tarla Sarmasigi [E], Withywind [H,E],
Epithets:	From a Dictionary of Botanical Epithets
	arvensis = of cultivated fields;

Systematics:	From a UDSA Plants Database Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database Afghanistan; Argentina; Britain; Haiti; Iraq; Kurdistan; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Arizona, California, Colorado, Hawaii, Idaho, Iowa, Minnesota, Missouri, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, Wyoming, Victoria, South Australia, Western Australia.

Physical Characteristics

Perennial Climber growing to 2m. It is hardy to zone 5. It is in flower from June to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedgerow.

Edible Uses

Condiment.

The plant has been used as a flavouring in a liqueur called 'Noyeau'[2]. No details are given as to which part of the plant is used[K].

Medicinal Uses

Disclaimer

Cholagogue; Diuretic; Laxative; Purgative; Stings; Women's complaints.

The root, and also a resin made from the root, is cholagogue, diuretic, laxative and strongly purgative[4, 7. 9. 13, 240]. The dried root contains 4.9% resin[240].

A tea made from the flowers is laxative and is also used in the treatment of fevers and wounds[222].

A cold tea made from the leaves is laxative and is also used as a wash for spider bites or taken internally to reduce excessive menstrual flow[222, 257].

Other Uses

Dye; String.

The stem is used as a twine for tying up plants etc[6, 99]. It is fairly flexible and strong but not long-lasting.

A green dye is obtained from the whole plant[168].

Cultivation details

Prefers a lighter basic soil[17] of low to medium fertility[200].

Bindweed is a very deep-rooting plant with a vigorous root system that extends to a considerable distance and is very hard to eradicate from the soil. Even a small piece of the root will grow into a new plant if it is left in the ground. Once established this plant soon becomes a pernicious weed[1, 4]. It is a climbing plant that supports itself by twining around any support it can find and can soon swamp and strangle other plants[4].

The flowers close at night and also during rainy weather[4]. Although visited by numerous insects, the flowers seldom set fertile seed[4]. On sunny days the flowers diffuse a scent of heliotrope[245].

The plant harbours tobacco mosaic virus of the Solanaceae[13] and so should not be grown near potatoes, tomatoes and other members of that family.

Propagation

Seed - best sown in situ as soon as it is ripe, it germinates in the autumn[164]. This species can become a real pest in the garden so it is unwise to encourage it.

Scent

Flowers: Fresh

> On sunny days the flowers diffuse a scent of heliotrope.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
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- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *convolvulus arvensis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951

Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Morning Glory Website

Rich Tue Oct 24 09:27:47 2000

An interesting page from a Convolvulaceae enthusiast which features many pictures of the plants and a seed swap area. The page is at http://www.exoticplants.org.uk/.

Cross references: *Plants:* Calystegia japonica. *Genera:* Calystegia , Ipomoea , Convolvulus.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Convolvulus+arvensis`
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Plants For A Future: Database Search Results

Convolvulus arvensis

Common name:	Field bindweed	Family:	Convolvulaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Hedgerows, fields, waste places, fences etc[7, 100], it can be a troublesome weed of agriculture.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. ambigens[B,P] C. incanus[B] C. incanus auct. non[P] Strophocaulos arvensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Afghanistan; Argentina; Britain; Haiti; Iraq; Kurdistan; Spain; Turkey

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona, California, Colorado, Hawaii, Idaho, Iowa, Minnesota, Missouri, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, Wyoming, Victoria, South Australia, Western Australia.

Physical Characteristics

Perennial Climber growing to 2m. It is hardy to zone 5. It is in flower from June to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedgerow.

Edible Uses

Condiment.

The plant has been used as a flavouring in a liqueur called 'Noyeau'[2]. No details are given as to which part of the plant is used[K].

Medicinal Uses

Disclaimer

Cholagogue; Diuretic; Laxative; Purgative; Stings; Women's complaints.

The root, and also a resin made from the root, is cholagogue, diuretic, laxative and strongly purgative[4, 7. 9. 13, 240]. The dried root contains 4.9% resin[240].

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A cold tea made from the leaves is laxative and is also used as a wash for spider bites or taken internally to reduce excessive menstrual flow[222, 257].

Other Uses

Dye; String.

The stem is used as a twine for tying up plants etc[6, 99]. It is fairly flexible and strong but not long-lasting.

A green dye is obtained from the whole plant[168].

Cultivation details

Prefers a lighter basic soil[17] of low to medium fertility[200].

Bindweed is a very deep-rooting plant with a vigorous root system that extends to a considerable distance and is very hard to eradicate from the soil. Even a small piece of the root will grow into a new plant if it is left in the ground. Once established this plant soon becomes a pernicious weed[1, 4]. It is a climbing plant that supports itself by twining around any support it can find and can soon swamp and strangle other plants[4].

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The plant harbours tobacco mosaic virus of the Solanaceae[13] and so should not be grown near potatoes, tomatoes and other members of that family.

Propagation

Seed - best sown in situ as soon as it is ripe, it germinates in the autumn[164]. This species can become a real pest in the garden so it is unwise to encourage it.

Scent

Flowers: Fresh

> On sunny days the flowers diffuse a scent of heliotrope.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *convolvulus arvensis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Convolvulaceae.

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[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

Morning Glory Website

Rich Tue Oct 24 09:27:47 2000

An interesting page from a Convolvulaceae enthusiast which features many pictures of the plants and a seed swap area. The page is at http://www.exoticplants.org.uk/.

Cross references: *Plants:* Calystegia japonica. *Genera:* Calystegia , Ipomoea , Convolvulus.

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Search for Latin Name: Calystegia

New Search: Calystegia Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Calystegia

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Calystegia
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Ipomoea

New Search: Ipomoea Search

Latin Name **Common Name** **Family** **Synonyms** **Rating**

Sorry could not find any plants matching Latin Name: Ipomoea

You could try using a shorter search term. For example instead of 'seabuckthorn' try 'sea' or 'buckthorn'

New Search

Latin Name	Ipomoea
Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Search for Latin Name: Convolvulus

New Search: Convolvulus Search

Latin Name	Common Name	Family	Synonyms	Rating
Calystegia pellita		Convolvulaceae	Convolvulus japonicus; Convolvulus pellitus	2
Calystegia pubescens	Japanese bindweed	Convolvulaceae	C. subvolubilis. non Don.; Convolvulus japonicus; Convolvulus pellitus	1
Calystegia sepium	Hedge bindweed	Convolvulaceae	Convolvulus sepium.; Convolvulus sepium; Convolvulus nashii; Convolvulus sepium var. communis	2
Calystegia soldanella	Sea bindweed	Convolvulaceae	Convolvulus soldanella.; Convolvulus soldanella	1
Convolvulus arvensis	Field bindweed	Convolvulaceae	C. ambigens; C. incanus; C. incanus auct. non; Strophocaulos arvensis	1
Convolvulus erubescens	Australian bindweed	Convolvulaceae		1
Convolvulus scammonia	Scammony	Convolvulaceae		1
Convolvulus tricolor	Dwarf morning glory	Convolvulaceae	C. minor	1

Fagopyrum dibotrys	Perennial buckwheat	Polygonaceae	F. cymosum. (Trev.)Meissn. Polygonum chinense. P. dibotrys.; Pleuropteus convolvulus	4
Ipomoea alba	Moonflower	Convolvulaceae	Calonyction aculeatum. C. album.; Convolvulus aculeatus; Convolvulus maximus	2
Ipomoea jalapa	Jalap	Convolvulaceae	I. purga.; Convolvulus jalapa; Convolvulus purga	1
Ipomoea nil	Japanese morning glory	Convolvulaceae	Pharbitis nil; Convolvulus hederaceus; Convolvulus nil	1
Ipomoea pandurata	Wild potato vine	Convolvulaceae	Convulvulus candicans. C. panduratus.; Convolvulus panduratus; Convolvulus candicans	3
Ipomoea purpurea	Common morning glory	Convolvulaceae	Pharbitis purpurea.; Convolvulus duartinus; Convolvulus purpureus	1
Polygonum convolvulus	Black bindweed	Polygonaceae	Tiniria convolvulus; Fallopia convolvulus; Bilderdykia convolvulus; P. convolvulus var. convolvulus; Reynoutria convolvulus; Tiniaria convolvulus	1
Polygonum multiflorum	He Shou Wu	Polygonaceae	Pleuropteus convolvulus	3

New Search

Latin Name Convolvulus

Common Name	
Family	
Rating	1 5 = Very Useful (141 plants), 4 = Pretty Useful (612), 3 = Useful (1925), 2 = Marginal Use (4279), 1 = Specialist Use Only (all 7389 plants)

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Calystegia pellita

Common name:		Family:	Convolvulaceae
Author:	(Ledeb.)G.Don.	Botanical references:	1, 74, 266
Synonyms:	Calystegia dahurica ((Herb.)Choisy.)		
Known Hazards:	Although no reports of toxicity have been seen for this species, at least some, if not all members of this genus are purgative[173], some caution is advised.		
Range:	E. Asia - Korea, Manchuria.		
Habitat:	Grassy places and mountain slopes, sometimes a weed of cultivation, at elevations of 300 - 1700 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. pubescens[B,P] Convolvulus japonicus[B,P] Convolvulus pellitus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calystegia [P], Hairy False Bindweed [B],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Perennial Climber growing to 3m. . It is in flower from July to September, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade.

Edible Uses

Leaves; Root.

Root - cooked[105, 177].

Young shoots - cooked[105, 177].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in ordinary garden soil in a sunny position, but plants are apt to become invasive[1, 200].

Nearly all taxa in Calystegia intergrade geographically into neighboring taxa with the exception of the widespread coastal species, C. soldanella (Linnaeus) R. Brown. It is impossible to draw clearly defined specific limits, and intermediate forms are always found where two taxa approximate geographically[266].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
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[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Range:	E. Asia - Korea, Manchuria.		
Habitat:	Grassy places and mountain slopes, sometimes a weed of cultivation, at elevations of 300 - 1700 metres[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calystegia pellita

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Calystegia pubescens

Common name:	Japanese bindweed	Family:	Convolvulaceae
Author:	Lindl.	Botanical references:	1, 58, 266
Synonyms:	Calystegia subvolubilis (non Don.), Calystegia japonica (Choisy.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny grassy places and thickets in lowland all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. pellita[B,P] Convolvulus japonicus[B,P] Convolvulus pellitus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calystegia [P], Hairy False Bindweed [B],
Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Perennial Climber growing to 3m. It is hardy to zone 4. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade.

Edible Uses

Leaves; Root.

Root - cooked[105, 177, 179]. Said to be purgative[179].

Young shoots - cooked[105, 177, 179].

Medicinal Uses

Disclaimer

Demulcent; Diuretic; Poultice; Tonic.

The flowers are diuretic, they are helpful in cases of diabetes[218].

The plant is demulcent, diuretic and tonic[218]. It is also used as a tonic to correct broken bones and tendons[218].

Other Uses

None known

Cultivation details

Easily grown in ordinary garden soil in a sunny position, but plants are apt to become invasive[1, 200].

Nearly all taxa in Calystegia intergrade geographically into neighboring taxa with the exception of the widespread coastal species, C. soldanella (Linnaeus) R. Brown. It is impossible to draw clearly defined specific limits, and intermediate forms are always found where two taxa approximate geographically[266].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Calystegia pellita* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
Very readable magazine with lots of information on propagation.

[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
A very well written and illustrated book based on the authors own experiments with living on a native diet.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Calystegia pubescens

Common name:	Japanese bindweed	Family:	Convolvulaceae
Author:	Lindl.	Botanical references:	1, 58, 266
Synonyms:	Calystegia subvolubilis (non Don.), Calystegia japonica (Choisy.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny grassy places and thickets in lowland all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. pellita[B,P] Convolvulus japonicus[B,P] Convolvulus pellitus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calystegia [P], Hairy False Bindweed [B],
Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Perennial Climber growing to 3m. It is hardy to zone 4. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade.

Edible Uses

Leaves; Root.

Root - cooked[105, 177, 179]. Said to be purgative[179].

Young shoots - cooked[105, 177, 179].

Medicinal Uses

Disclaimer

Demulcent; Diuretic; Poultice; Tonic.

The flowers are diuretic, they are helpful in cases of diabetes[218].

The plant is demulcent, diuretic and tonic[218]. It is also used as a tonic to correct broken bones and tendons[218].

Other Uses

None known

Cultivation details

Easily grown in ordinary garden soil in a sunny position, but plants are apt to become invasive[1, 200].

Nearly all taxa in Calystegia intergrade geographically into neighboring taxa with the exception of the widespread coastal species, C. soldanella (Linnaeus) R. Brown. It is impossible to draw clearly defined specific limits, and intermediate forms are always found where two taxa approximate geographically[266].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Calystegia pellita* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future: Database Search Results

Calystegia pubescens

Common name:	Japanese bindweed	Family:	Convolvulaceae
Author:	Lindl.	Botanical references:	1, 58, 266
Synonyms:	Calystegia subvolubilis (non Don.), Calystegia japonica (Choisy.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Sunny grassy places and thickets in lowland all over Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. pellita[B,P] Convolvulus japonicus[B,P] Convolvulus pellitus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calystegia [P], Hairy False Bindweed [B],
Epithets:	From a Dictionary of Botanical Epithets
	pubescens = becoming hairy;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Perennial Climber growing to 3m. It is hardy to zone 4. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade.

Edible Uses

Leaves; Root.

Root - cooked[105, 177, 179]. Said to be purgative[179].

Young shoots - cooked[105, 177, 179].

Medicinal Uses

Disclaimer

Demulcent; Diuretic; Poultice; Tonic.

The flowers are diuretic, they are helpful in cases of diabetes[218].

The plant is demulcent, diuretic and tonic[218]. It is also used as a tonic to correct broken bones and tendons[218].

Other Uses

None known

Cultivation details

Easily grown in ordinary garden soil in a sunny position, but plants are apt to become invasive[1, 200].

Nearly all taxa in Calystegia intergrade geographically into neighboring taxa with the exception of the widespread coastal species, C. soldanella (Linnaeus) R. Brown. It is impossible to draw clearly defined specific limits, and intermediate forms are always found where two taxa approximate geographically[266].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Calystegia pubescens*

Subject:

Calystegia pubescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calystegia pubescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:55:40 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

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Calystegia sepium

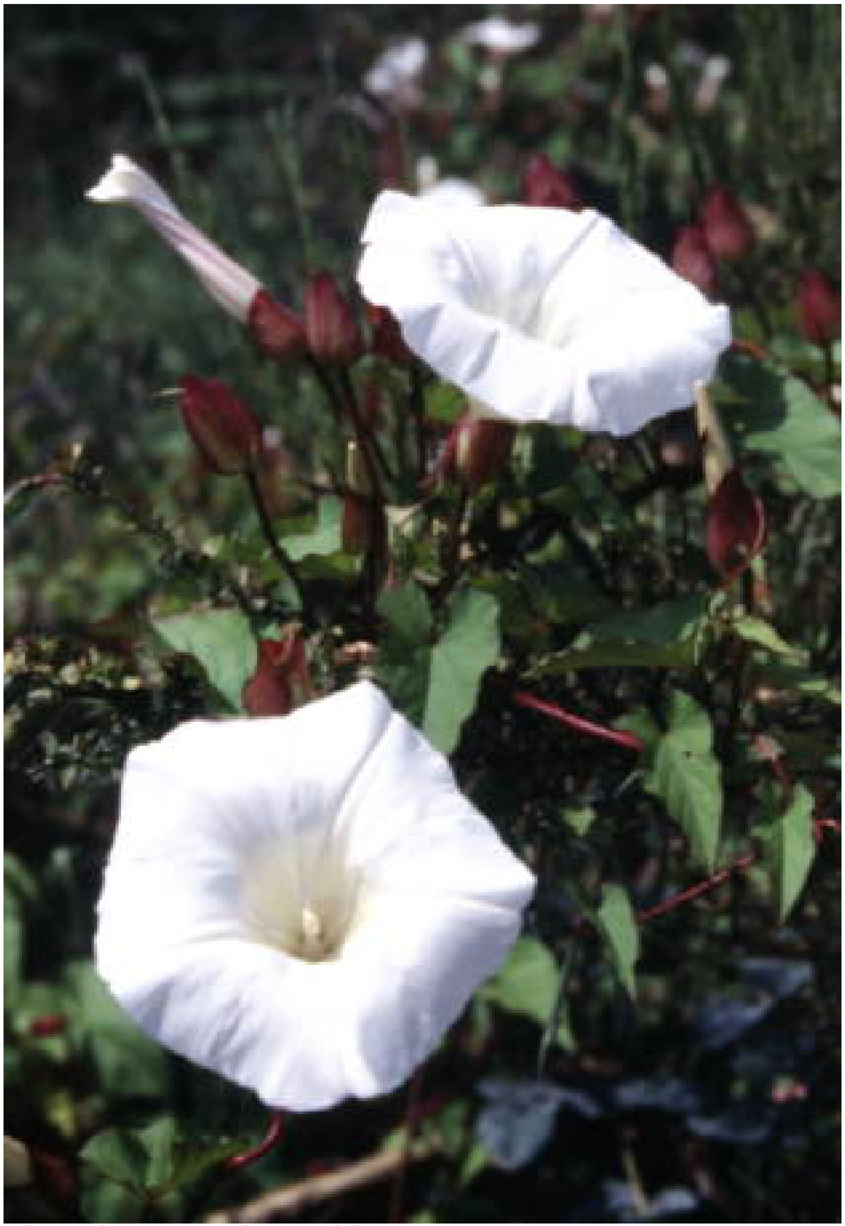

Photo by Derrick Ditchburn

Common name:	Hedge bindweed	Family:	Convolvulaceae

Author:	(L.) R. Br.	Botanical references:	17, 200
Synonyms:	Convolvulus sepium (L.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	Britain.		
Habitat:	Hedges, fences, edges of woods, waste ground etc[9].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sepium ssp. sepium[B,P] Convolvulus nashii[B,P] Convolvulus sepium var. communis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bearbind [H], Bindweed,Great [E], Cit Sarmasigi [E], Correhuela Mayor [E], Greater Bindweed [H], Haagwinde [D], Hedge Bindweed [L], Hedge Convolvulus [H], Hedge False Bindweed [B,P], Hooded Bindweed [H], Hsu Chin Keu [E], Hsuan Hua [E], Old Man's Night Cap [H], Tun Ch'Ang Ts'Ao [E],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Britain; China; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Utah.

Physical Characteristics

Perennial Climber growing to 3m at a fast rate. It is hardy to zone 4. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Root.

Stalks and root - cooked[2, 46, 128, 153]. Washed and steamed[179]. A pleasant sweet taste[178]. Rich in starch and sugars, it is very nutritious[179]. It should not be eaten regularly, however, due to its possible purgative effect[179].

Young shoots - cooked[46, 61, 105]. Some caution is advised since they are possibly purgative[179].

Medicinal Uses

Disclaimer

Cholagogue; Demulcent; Diuretic; Febrifuge; Poultice; Purgative.

The root is demulcent, diuretic, febrifuge, poultice and strongly purgative[9, 21, 178, 222]. Use of the root is believed to increase the flow of bile[222].

Other Uses

String.

The stems are very flexible and can be used as an emergency string for tying[6]. It is fairly strong but not very long-lasting[K].

Cultivation details

Easily grown in ordinary garden soil in a sunny position, but plants are apt to become invasive[1, 200].

Hedge bindweed is a troublesome garden weed, especially when growing on moist soils[1, 4]. The plant is a vigorous climber with annual shoots 3 metres or more long. These twine around other plants and can kill them by smothering them[4]. Once established, it is very difficult to eradicate the plant because it has very deep roots and is capable of re-growing from any part of the root left in the ground.

The flowers open in sunny weather and remain closed during dull weather[4].

Nearly all taxa in Calystegia intergrade geographically into neighboring taxa with the exception of the widespread coastal species, C. soldanella (Linnaeus) R. Brown. It is impossible to draw clearly defined specific limits, and intermediate forms are always found where two taxa approximate geographically[266].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calystegia sepium ssp. sepium* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Convolvulus sepium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *calystegia sepium* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[6] **Mabey. R.** *Plants with a Purpose.* Fontana 1979 ISBN 0-00-635555-2
Details on some of the useful wild plants of Britain. Poor on pictures but otherwise very good.

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Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

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The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

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[153] **Brooker. S. G., Cambie. R. C. and Cooper. R. C.** *Economic Native Plants of New Zealand.* Oxford University Press 1991 ISBN 0-19-558229-2
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[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Calystegia sepium

Ray (seeds@ca.tc) Mon Jul 7 07:11:37 2003

Link: Morning Glory Corner Calystegia Information

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Calystegia sepium

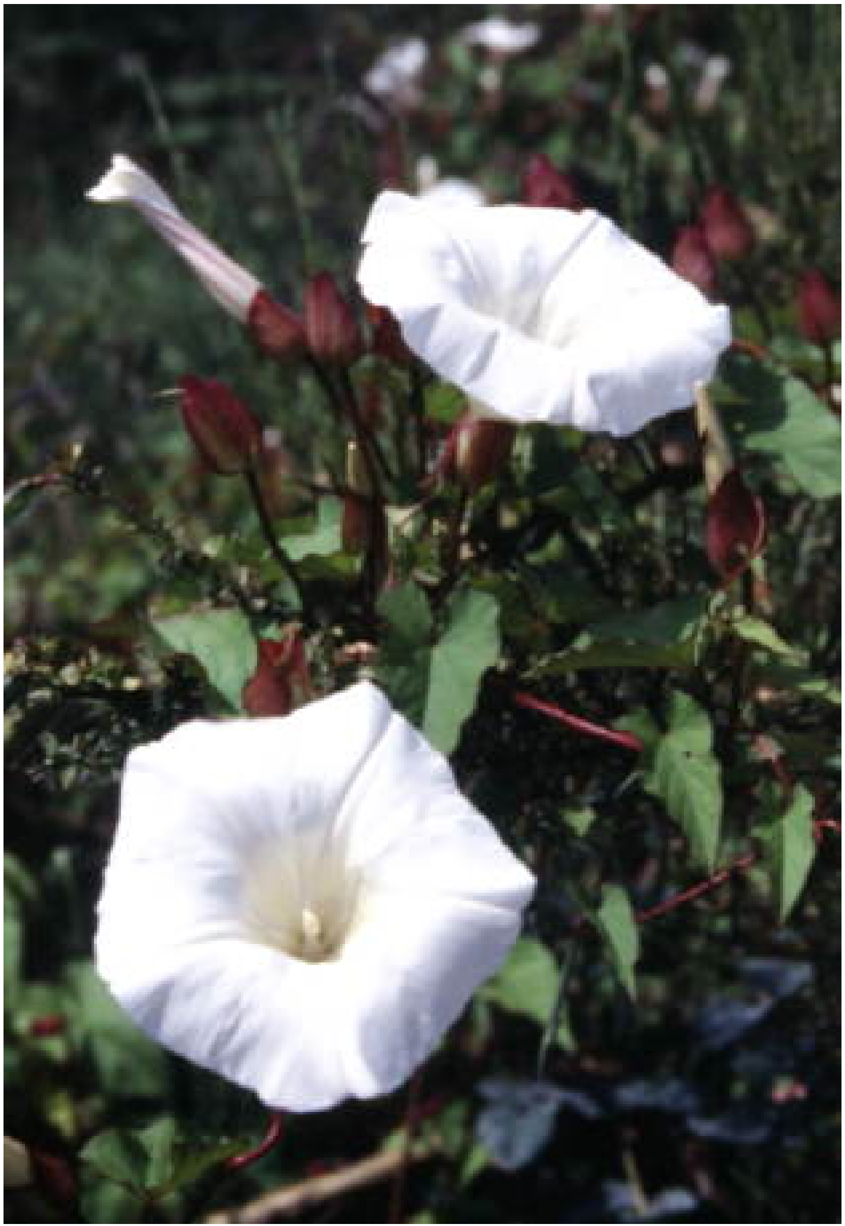

Photo by Derrick Ditchburn

Common name:	Hedge bindweed	Family:	Convolvulaceae
Author:	(L.) R. Br.	Botanical references:	17, 200
Synonyms:	Convolvulus sepium (L.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	Britain.		

Habitat:	Hedges, fences, edges of woods, waste ground etc[9].
Plants For A Future Rating (1-5):	2

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sepium ssp. sepium[B,P] Convolvulus nashii[B,P] Convolvulus sepium var. communis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bearbind [H], Bindweed,Great [E], Cit Sarmasigi [E], Correhuela Mayor [E], Greater Bindweed [H], Haagwinde [D], Hedge Bindweed [L], Hedge Convolvulus [H], Hedge False Bindweed [B,P], Hooded Bindweed [H], Hsu Chin Keu [E], Hsuan Hua [E], Old Man's Night Cap [H], Tun Ch'Ang Ts'Ao [E],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Britain; China; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Utah.

Physical Characteristics

Perennial Climber growing to 3m at a fast rate. It is hardy to zone 4. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Root.

Stalks and root - cooked[2, 46, 128, 153]. Washed and steamed[179]. A pleasant sweet taste[178]. Rich in starch and sugars, it is very nutritious[179]. It should not be eaten regularly, however, due to its possible purgative effect[179].

Young shoots - cooked[46, 61, 105]. Some caution is advised since they are possibly purgative[179].

Medicinal Uses

Disclaimer

Cholagogue; Demulcent; Diuretic; Febrifuge; Poultice; Purgative.

The root is demulcent, diuretic, febrifuge, poultice and strongly purgative[9, 21, 178, 222]. Use of the root is believed to increase the flow of bile[222].

Other Uses

String.

The stems are very flexible and can be used as an emergency string for tying[6]. It is fairly strong but not very long-lasting[K].

Cultivation details

Easily grown in ordinary garden soil in a sunny position, but plants are apt to become invasive[1, 200].

Hedge bindweed is a troublesome garden weed, especially when growing on moist soils[1, 4]. The plant is a vigorous climber with annual shoots 3 metres or more long. These twine around other plants and can kill them by smothering them[4]. Once established, it is very difficult to eradicate the plant because it has very deep roots and is capable of re-growing from any part of the root left in the ground.

The flowers open in sunny weather and remain closed during dull weather[4].

Nearly all taxa in Calystegia intergrade geographically into neighboring taxa with the exception of the widespread coastal species, C. soldanella (Linnaeus) R. Brown. It is impossible to draw clearly defined specific limits, and intermediate forms are always found where two taxa approximate geographically[266].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calystegia sepium ssp. sepium* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *calystegia sepium* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

Readers Comments

Calystegia sepium

Ray (seeds@ca.tc) Mon Jul 7 07:11:37 2003

Link: Morning Glory Corner Calystegia Information

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Plants For A Future: Database Search Results

Calystegia sepium

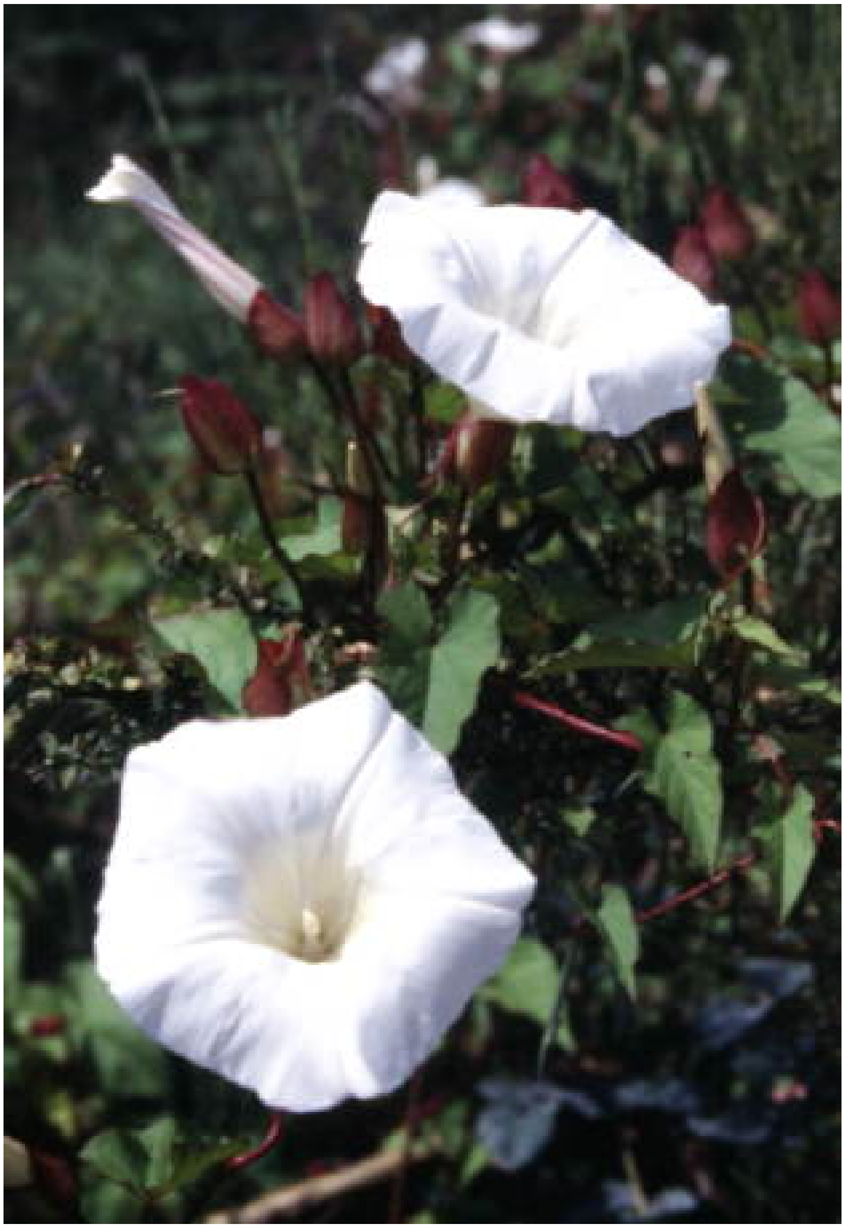

Photo by Derrick Ditchburn

Common name:	Hedge bindweed	Family:	Convolvulaceae
Author:	(L.) R. Br.	Botanical references:	17, 200
Synonyms:	Convolvulus sepium (L.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	Britain.		

Habitat:	Hedges, fences, edges of woods, waste ground etc[9].
Plants For A Future Rating (1-5):	2

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. sepium ssp. sepium[B,P] Convolvulus nashii[B,P] Convolvulus sepium var. communis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bearbind [H], Bindweed,Great [E], Cit Sarmasigi [E], Correhuela Mayor [E], Greater Bindweed [H], Haagwinde [D], Hedge Bindweed [L], Hedge Convolvulus [H], Hedge False Bindweed [B,P], Hooded Bindweed [H], Hsu Chin Keu [E], Hsuan Hua [E], Old Man's Night Cap [H], Tun Ch'Ang Ts'Ao [E],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Britain; China; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Utah.

Physical Characteristics

Perennial Climber growing to 3m at a fast rate. It is hardy to zone 4. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Leaves; Root.

Stalks and root - cooked[2, 46, 128, 153]. Washed and steamed[179]. A pleasant sweet taste[178]. Rich in starch and sugars, it is very nutritious[179]. It should not be eaten regularly, however, due to its possible purgative effect[179].

Young shoots - cooked[46, 61, 105]. Some caution is advised since they are possibly purgative[179].

Medicinal Uses

Disclaimer

Cholagogue; Demulcent; Diuretic; Febrifuge; Poultice; Purgative.

The root is demulcent, diuretic, febrifuge, poultice and strongly purgative[9, 21, 178, 222]. Use of the root is believed to increase the flow of bile[222].

Other Uses

String.

The stems are very flexible and can be used as an emergency string for tying[6]. It is fairly strong but not very long-lasting[K].

Cultivation details

Easily grown in ordinary garden soil in a sunny position, but plants are apt to become invasive[1, 200].

Hedge bindweed is a troublesome garden weed, especially when growing on moist soils[1, 4]. The plant is a vigorous climber with annual shoots 3 metres or more long. These twine around other plants and can kill them by smothering them[4]. Once established, it is very difficult to eradicate the plant because it has very deep roots and is capable of re-growing from any part of the root left in the ground.

The flowers open in sunny weather and remain closed during dull weather[4].

Nearly all taxa in Calystegia intergrade geographically into neighboring taxa with the exception of the widespread coastal species, C. soldanella (Linnaeus) R. Brown. It is impossible to draw clearly defined specific limits, and intermediate forms are always found where two taxa approximate geographically[266].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

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Calystegia sepium

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Plant Information

Comment:

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calystegia sepium

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Calystegia soldanella

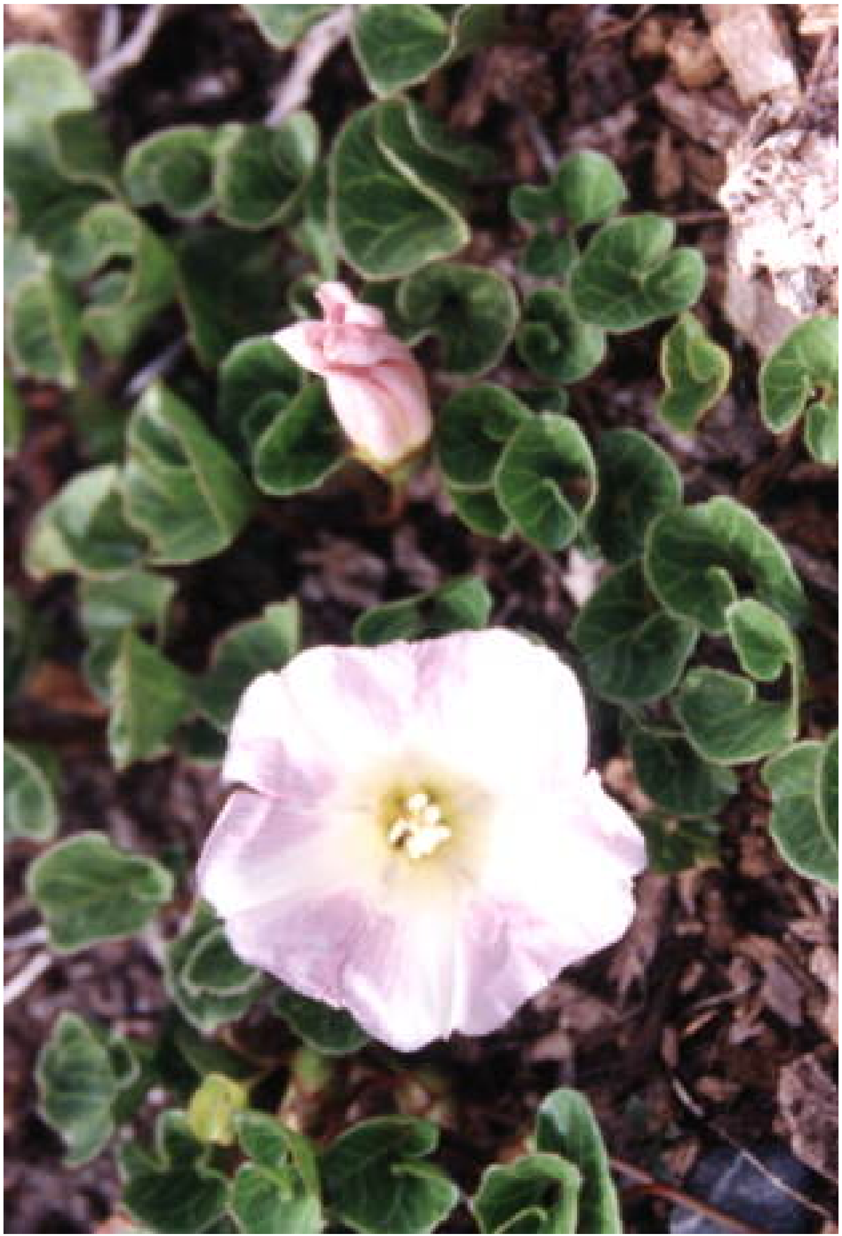

Photo by Derrick Ditchburn

Common name:	Sea bindweed	Family:	Convolvulaceae

Author:	(L.) R. Br.	Botanical references:	17, 200
Synonyms:	Convolvulus soldanella (L.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	Britain.		
Habitat:	Sandy and shingly sea shores and dunes[1, 17].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Berza Marina [E], Cavolo Di Mare [E], Liseron Soldanelle [E], Meerstrandswinde [E], Sea Bindweed [E,H], Seashore False Bindweed [P,B], Zeewinde [D,E],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Italy; Netherlands; Spain; Us

Physical Characteristics

Perennial Climber growing to 0.6m. It is hardy to zone 6. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young shoots - cooked as a vegetable or pickled and used as a samphire substitute[2, 105]. Caution is advised since the plant might have a purgative effect[173].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Febrifuge; Irritant; Purgative; Vermifuge.

Antiscorbutic, diuretic, febrifuge, irritant, purgative and vermifuge[218].

Other Uses

String.

The stems are very flexible and are used as a string for tying[66]. Fairly strong but not long-lasting[K].

Cultivation details

Easily grown in ordinary well-drained garden soil in a sunny position[1, 200].

This species is very difficult to establish successfully in the garden[1].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

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- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Convolvulus soldanella* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[138] **Bird. R. (Editor)** *Growing from Seed. Volume 3.* Thompson and Morgan. 1989
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[173] **Crowe. A.** *Native Edible Plants of New Zealand.* Hodder and Stoughton 1990 ISBN 0-340-508302
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[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Readers Comments

Calystegia soldanella

Ray (seeds@ca.tc) Mon Jul 7 07:13:13 2003

Link: Morning Glory Corner Calystegia information

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Name of Site:

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Plants For A Future: Database Search Results

Calystegia soldanella

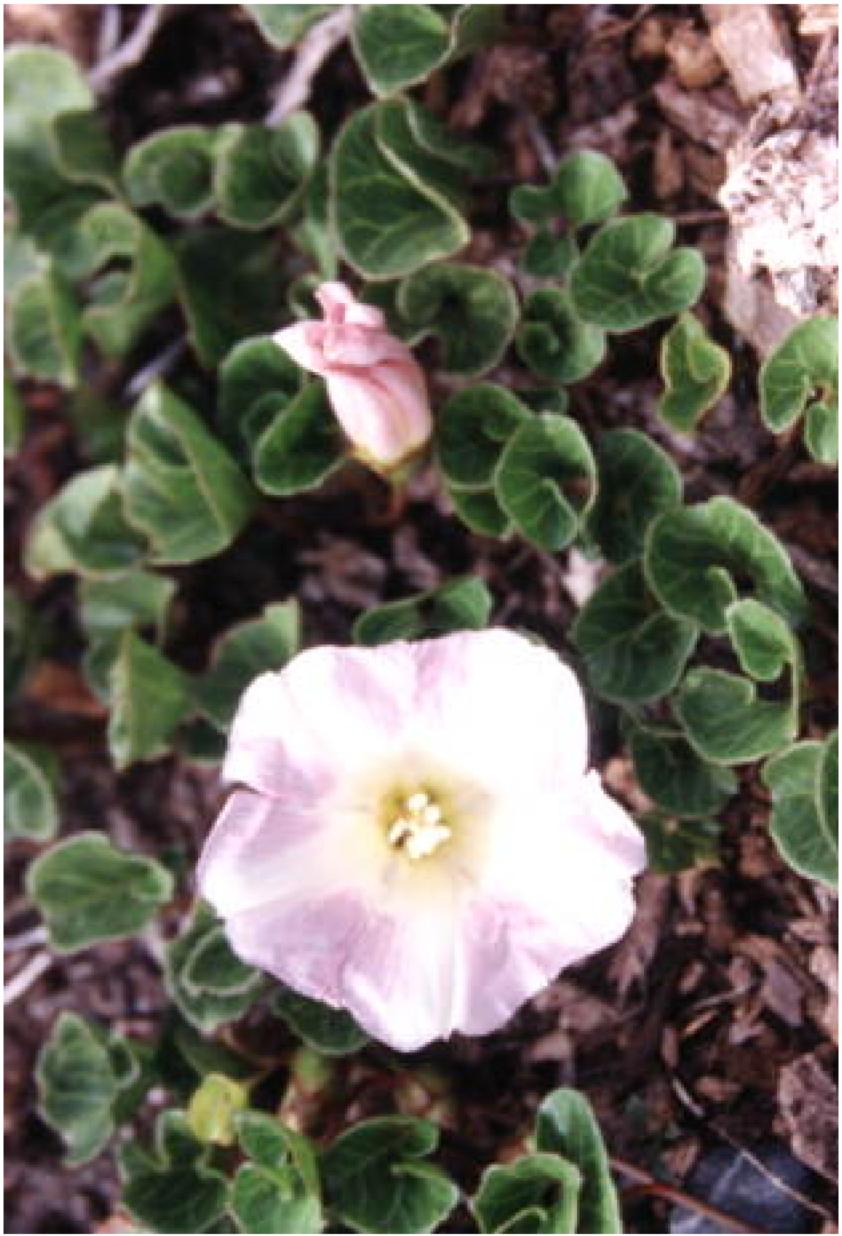

Photo by Derrick Ditchburn

Common name:	Sea bindweed	Family:	Convolvulaceae
Author:	(L.) R. Br.	Botanical references:	17, 200
Synonyms:	Convolvulus soldanella (L.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	Britain.		

Habitat:	Sandy and shingly sea shores and dunes[1, 17].
Plants For A Future Rating (1-5):	1

Other Common Names:	From various places around the Web, may not be correct. See below.
	Berza Marina [E], Cavolo Di Mare [E], Liseron Soldanelle [E], Meerstrandswinde [E], Sea Bindweed [E,H], Seashore False Bindweed [P,B], Zeewinde [D,E],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Italy; Netherlands; Spain; Us

Physical Characteristics

Perennial Climber growing to 0.6m. It is hardy to zone 6. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young shoots - cooked as a vegetable or pickled and used as a samphire substitute[2, 105]. Caution is advised since the plant might have a purgative effect[173].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Febrifuge; Irritant; Purgative; Vermifuge.

Antiscorbutic, diuretic, febrifuge, irritant, purgative and vermifuge[218].

Other Uses

String.

The stems are very flexible and are used as a string for tying[66]. Fairly strong but not long-lasting[K].

Cultivation details

Easily grown in ordinary well-drained garden soil in a sunny position[1, 200].

This species is very difficult to establish successfully in the garden[1].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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References

[K] **Ken Fern**
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A very well written and illustrated book based on the authors own experiments with living on a native diet.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4

Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

Readers Comments

Calystegia soldanella

Ray (seeds@ca.tc) Mon Jul 7 07:13:13 2003

Link: Morning Glory Corner Calystegia information

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Calystegia soldanella

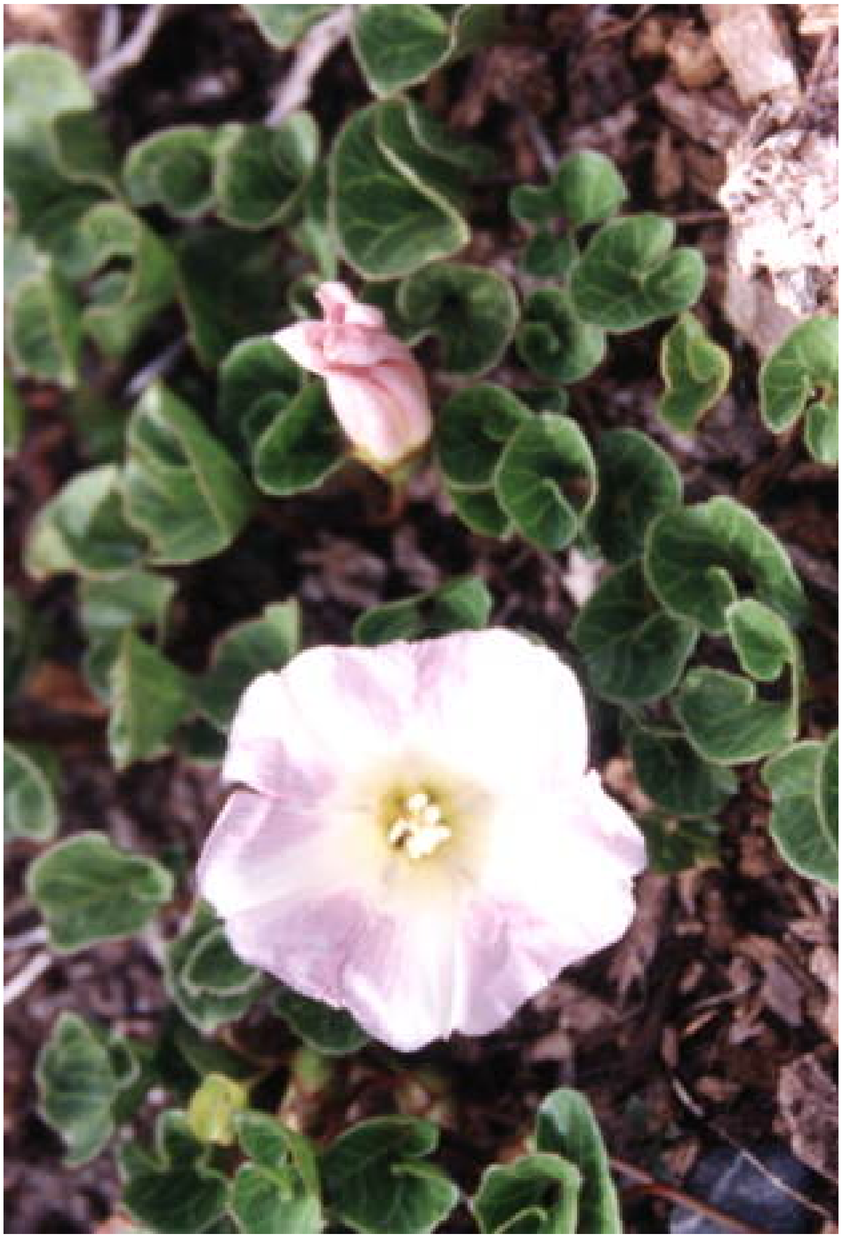

Photo by Derrick Ditchburn

Common name:	Sea bindweed	Family:	Convolvulaceae
Author:	(L.) R. Br.	Botanical references:	17, 200
Synonyms:	Convolvulus soldanella (L.)		
Known Hazards:	This species is said to be purgative[173], some caution is advised.		
Range:	Britain.		

Habitat:	Sandy and shingly sea shores and dunes[1, 17].
Plants For A Future Rating (1-5):	1

Other Common Names:	From various places around the Web, may not be correct. See below.
	Berza Marina [E], Cavolo Di Mare [E], Liseron Soldanelle [E], Meerstrandswinde [E], Sea Bindweed [E,H], Seashore False Bindweed [P,B], Zeewinde [D,E],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Italy; Netherlands; Spain; Us

Physical Characteristics

Perennial Climber growing to 0.6m. It is hardy to zone 6. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves.

Young shoots - cooked as a vegetable or pickled and used as a samphire substitute[2, 105]. Caution is advised since the plant might have a purgative effect[173].

Medicinal Uses

Disclaimer

Antiscorbutic; Diuretic; Febrifuge; Irritant; Purgative; Vermifuge.

Antiscorbutic, diuretic, febrifuge, irritant, purgative and vermifuge[218].

Other Uses

String.

The stems are very flexible and are used as a string for tying[66]. Fairly strong but not long-lasting[K].

Cultivation details

Easily grown in ordinary well-drained garden soil in a sunny position[1, 200].

This species is very difficult to establish successfully in the garden[1].

Propagation

Seed - sow spring in a cold frame in a free draining compost and only just cover. The seed usually germinates in 1 - 3 months at 15°c[138]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in a cold frame for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in early spring whilst dormant[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Add a comment on: *Calystegia soldanella*

Subject:

Calystegia soldanella

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Calystegia soldanella

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Convolvulus arvensis

Common name:	Field bindweed	Family:	Convolvulaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Hedgerows, fields, waste places, fences etc[7, 100], it can be a troublesome weed of agriculture.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. ambigens[B,P] C. incanus[B] C. incanus auct. non[P] Strophocaulos arvensis[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Akkerwinde [D], Bearwind [H], Bindweed [MS], Boru Chichegi [E], Cornbind [H], Correguella [E], Correhuela [E], Devil's Garters [H], Field Bindweed [FEIS,B,L,P,S], Field Convolvulus [H], Hedge Bells [H], Heleblab [E], Jack-run'-in'-the-Country [H], Lawlawa [E], Leflaf [E], Liseron [E], Ropebind [H], Tarla Sarmasigi [E], Withywind [H,E],
Epithets:	From a Dictionary of Botanical Epithets
	arvensis = of cultivated fields;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Afghanistan; Argentina; Britain; Haiti; Iraq; Kurdistan; Spain; Turkey

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona, California, Colorado, Hawaii, Idaho, Iowa, Minnesota, Missouri, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, Wyoming, Victoria, South Australia, Western Australia.

Physical Characteristics

Perennial Climber growing to 2m. It is hardy to zone 5. It is in flower from June to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedgerow.

Edible Uses

Condiment.

The plant has been used as a flavouring in a liqueur called 'Noyeau'[2]. No details are given as to which part of the plant is used[K].

Medicinal Uses

Disclaimer

Cholagogue; Diuretic; Laxative; Purgative; Stings; Women's complaints.

The root, and also a resin made from the root, is cholagogue, diuretic, laxative and strongly purgative[4, 7. 9. 13, 240]. The dried root contains 4.9% resin[240].

A tea made from the flowers is laxative and is also used in the treatment of fevers and wounds[222].

A cold tea made from the leaves is laxative and is also used as a wash for spider bites or taken internally to reduce excessive menstrual flow[222, 257].

Other Uses

Dye; String.

The stem is used as a twine for tying up plants etc[6, 99]. It is fairly flexible and strong but not long-lasting.

A green dye is obtained from the whole plant[168].

Cultivation details

Prefers a lighter basic soil[17] of low to medium fertility[200].

Bindweed is a very deep-rooting plant with a vigorous root system that extends to a considerable distance and is very hard to eradicate from the soil. Even a small piece of the root will grow into a new plant if it is left in the ground. Once established this plant soon becomes a pernicious weed[1, 4]. It is a climbing plant that supports itself by twining around any support it can find and can soon swamp and strangle other plants[4].

The flowers close at night and also during rainy weather[4]. Although visited by numerous insects, the flowers seldom set fertile seed[4]. On sunny days the flowers diffuse a scent of heliotrope[245].

The plant harbours tobacco mosaic virus of the Solanaceae[13] and so should not be grown near potatoes, tomatoes and other members of that family.

Propagation

Seed - best sown in situ as soon as it is ripe, it germinates in the autumn[164]. This species can become a real pest in the garden so it is unwise to encourage it.

Scent

Flowers: Fresh

> On sunny days the flowers diffuse a scent of heliotrope.

Suppliers

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Plants For A Future: Database Search Results

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Convolvulus erubescens

Common name:	Australian bindweed	Family:	Convolvulaceae
Author:	Sims.	Botanical references:	265
Synonyms:			
Known Hazards:	None known		
Range:	Australia - all areas except the extreme north.		
Habitat:	Loamy soils in grassland and open forest to the montane zone[152].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	erubescens = reddening; rubescens = reddish;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Perennial Climber growing to 2m. . It is in flower from June to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Astringent; Stomachic.

Used in the treatment of diarrhoea, indigestion and stomach pains[152].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how cold hardy it will be in British gardens. It is hardy to about -7°c in Australian gardens[154], though this cannot be applied directly to British gardens due to our cooler summers and longer, colder and wetter winters. It is likely that this species will only succeed outdoors in the milder areas of the country. The following notes are based on the general needs of the genus.

Prefers a lighter basic soil[17] of low to medium fertility[200].

Bindweed is a very deep-rooting plant with a vigorous root system that extends to a considerable distance and is very hard to eradicate from the soil. Even a small piece of the root will grow into a new plant if it is left in the ground. Once established this plant soon becomes a pernicious weed[1, 4]. It is a climbing plant that supports itself by twining around any support it can find and can soon swamp and strangle other plants[4].

The flowers close at night and also during rainy weather[4].

Some members of this genus harbour tobacco mosaic virus of the Solanaceae[13] and so should not be grown near potatoes, tomatoes and other members of that family.

Propagation

Seed - best sown in situ as soon as it is ripe, it germinates in the autumn[164]. This species can become a real pest in the garden so it is unwise to encourage it.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[152] **Lassak. E. V. and McCarthy. T.** *Australian Medicinal Plants.*
A very good and readable guide to the subject.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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Readers Comments

Morning Glory Website

Rich Tue Oct 24 09:27:47 2000

An interesting page from a Convolvulaceae enthusiast which features many pictures of the plants and a seed swap area. The page is at http://www.exoticplants.org.uk/.

Cross references: *Plants: Calystegia japonica. Genera: Calystegia , Ipomoea , Convolvulus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Convolvulus erubescens

Common name:	Australian bindweed	Family:	Convolvulaceae
Author:	Sims.	Botanical references:	265
Synonyms:			
Known Hazards:	None known		
Range:	Australia - all areas except the extreme north.		
Habitat:	Loamy soils in grassland and open forest to the montane zone[152].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	erubescens = reddening; rubescens = reddish;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Perennial Climber growing to 2m. . It is in flower from June to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Astringent; Stomachic.

Used in the treatment of diarrhoea, indigestion and stomach pains[152].

Other Uses

None known

Cultivation details

We have very little information on this species and do not know how cold hardy it will be in British gardens. It is hardy to about -7°c in Australian gardens[154], though this cannot be applied directly to British gardens due to our cooler summers and longer, colder and wetter winters. It is likely that this species will only succeed outdoors in the milder areas of the country. The following notes are based on the general needs of the genus.

Prefers a lighter basic soil[17] of low to medium fertility[200].

Bindweed is a very deep-rooting plant with a vigorous root system that extends to a considerable distance and is very hard to eradicate from the soil. Even a small piece of the root will grow into a new plant if it is left in the ground. Once established this plant soon becomes a pernicious weed[1, 4]. It is a climbing plant that supports itself by twining around any support it can find and can soon swamp and strangle other plants[4].

The flowers close at night and also during rainy weather[4].

Some members of this genus harbour tobacco mosaic virus of the Solanaceae[13] and so should not be grown near potatoes, tomatoes and other members of that family.

Propagation

Seed - best sown in situ as soon as it is ripe, it germinates in the autumn[164]. This species can become a real pest in the garden so it is unwise to encourage it.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[152] **Lassak. E. V. and McCarthy. T.** *Australian Medicinal Plants.*
A very good and readable guide to the subject.

[154] **Ewart. A. J.** *Flora of Victoria.*
A flora of eastern Australia, it is rather short on information that is useful to the plant project.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[265] **Carolin. R. & Tindale. M.** *Flora of the Sydney Region* Reed. Australia. 1993 ISBN 0730104001
Concise flora with little beyond an extensive key, species descriptions, very brief habitat description.

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The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Edible Uses

None known

Medicinal Uses

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Convolvulus erubescens*

Subject:

Convolvulus erubescens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Convolvulus erubescens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Convolvulus scammonia

Common name:	Scammony	Family:	Convolvulaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean, to W. Asia.		
Habitat:	Scrub and forest margins[50].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Heleblab [E], Jalap [H], Mahmude [E], Scammony [S,P,E,H], Squmania [E], Syrian Bindweed [H],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Germany; Iraq; Syria; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Utah.

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 7. It is in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cathartic; Hydrogogue.

A resin is obtained from the root. The earth is cleared away from the top of the root, the top is then cut off obliquely about 5cm below the point where the stalks spring forth. The exuding juice is collected, which gradually hardens[4]. This resin is a drastic cathartic and hydrogogue and should be used with great caution[4, 46, 61]. The roots contain about 8% resin[240].

Other Uses

None known

Cultivation details

Prefers a light basic sharply drained soil of low to medium fertility[4, 200]. Prefers a sunny sheltered position. Thrives in dry soils[4] and succeeds in ordinary garden soils.

The root can be up to 1.2 metres long, so for best results a deep soil is required[4].

Propagation

Seed - sow spring in a greenhouse[164]. Germination can be slow and erratic, a period of cold stratification might help reduce the germination period. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Division in spring.

Cuttings of young shoots, August in a frame in sand[1].

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

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Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Heleblab [E], Jalap [H], Mahmude [E], Scammony [S,P,E,H], Squmania [E], Syrian Bindweed [H],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Germany; Iraq; Syria; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Utah.

Physical Characteristics

Perennial growing to 0.75m. It is hardy to zone 7. It is in flower in July, and the seeds ripen in September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

None known

Medicinal Uses

Disclaimer

Cathartic; Hydrogogue.

A resin is obtained from the root. The earth is cleared away from the top of the root, the top is then cut off obliquely about 5cm below the point where the stalks spring forth. The exuding juice is collected, which gradually hardens[4]. This resin is a drastic cathartic and hydrogogue and should be used with great caution[4, 46, 61]. The roots contain about 8% resin[240].

Other Uses

None known

Cultivation details

Prefers a light basic sharply drained soil of low to medium fertility[4, 200]. Prefers a sunny sheltered position. Thrives in dry soils[4] and succeeds in ordinary garden soils.

The root can be up to 1.2 metres long, so for best results a deep soil is required[4].

Propagation

Seed - sow spring in a greenhouse[164]. Germination can be slow and erratic, a period of cold stratification might help reduce the germination period. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out in late spring or early summer, after the last expected frosts.

Division in spring.

Cuttings of young shoots, August in a frame in sand[1].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Convolvulus+scammonia`
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Plants For A Future - Readers Comments

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Add a comment on: *Convolvulus scammonia*

Subject:

Convolvulus scammonia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Convolvulus scammonia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 04:58:49 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Convolvulus tricolor

Common name:	Dwarf morning glory	Family:	Convolvulaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Portugal, Spain and Sicily.		
Habitat:	Dry open habitats[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. minor[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dwarf Convolvulus [H], Morning Glory USA [H],
Epithets:	From a Dictionary of Botanical Epithets
	tricolor = 3 colored;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Annual/Perennial growing to 0.3m by 0.2m . It is hardy to zone 8. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sheltered position in a well-drained low to medium fertility soil and a very sunny position[200].

This plant is generally hardy to zone 8 (tolerating temperatures down to about -5°) but some forms are much hardier and can tolerate temperatures down to about -20°c[200].

An annual to short-lived perennial species, it is usually grown as an annual in Britain[200].

This plant is a very good attractant for hoverflies[200]. Hoverflies, and especially their larvae, are quite good predators on aphids.

Propagation

Seed - sow February/March in situ and again in May to ensure a succession of flowers[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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PayPal PayPal DONATE

Readers Comments

Morning Glory Website

Rich Tue Oct 24 09:27:47 2000

An interesting page from a Convolvulaceae enthusiast which features many pictures of the plants and a seed swap area. The page is at http://www.exoticplants.org.uk/.

Cross references: *Plants: Calystegia japonica. Genera: Calystegia , Ipomoea , Convolvulus*.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Convolvulus tricolor

Common name:	Dwarf morning glory	Family:	Convolvulaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Portugal, Spain and Sicily.		
Habitat:	Dry open habitats[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. minor[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Dwarf Convolvulus [H], Morning Glory USA [H],
Epithets:	From a Dictionary of Botanical Epithets
	tricolor = 3 colored;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Annual/Perennial growing to 0.3m by 0.2m . It is hardy to zone 8. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sheltered position in a well-drained low to medium fertility soil and a very sunny position[200].

This plant is generally hardy to zone 8 (tolerating temperatures down to about -5°) but some forms are much hardier and can tolerate temperatures down to about -20°c[200].

An annual to short-lived perennial species, it is usually grown as an annual in Britain[200].

This plant is a very good attractant for hoverflies[200]. Hoverflies, and especially their larvae, are quite good predators on aphids.

Propagation

Seed - sow February/March in situ and again in May to ensure a succession of flowers[164].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

Morning Glory Website

Rich Tue Oct 24 09:27:47 2000

An interesting page from a Convolvulaceae enthusiast which features many pictures of the plants and a seed swap area. The page is at http://www.exoticplants.org.uk/.

Cross references: *Plants:* *Calystegia japonica*. *Genera:* *Calystegia* , *Ipomoea* , *Convolvulus*.

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Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe - Portugal, Spain and Sicily.		
Habitat:	Dry open habitats[50].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. minor[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	tricolor = 3 colored;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family

Physical Characteristics

Annual/Perennial growing to 0.3m by 0.2m . It is hardy to zone 8. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

None known

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a sheltered position in a well-drained low to medium fertility soil and a very sunny position[200].

This plant is generally hardy to zone 8 (tolerating temperatures down to about -5°) but some forms are much hardier and can tolerate temperatures down to about -20°c[200].

An annual to short-lived perennial species, it is usually grown as an annual in Britain[200].

This plant is a very good attractant for hoverflies[200]. Hoverflies, and especially their larvae, are quite good predators on aphids.

Propagation

Seed - sow February/March in situ and again in May to ensure a succession of flowers[164].

Suppliers

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Add a comment on: *Convolvulus tricolor*

Subject:

Convolvulus tricolor

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Convolvulus tricolor

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Fagopyrum dibotrys

Common name:	Perennial buckwheat	Family:	Polygonaceae
Author:	(D. Don.) Hara.	Botanical references:	51
Synonyms:	Polygonum dibotrys (D.Don.), Polygonum chinense (Misapplied), Fagopyrum cymosum ((Trevir.)Meissn.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Forests and cultivated areas from Pakistan to S.W. China, 1500 - 3400 metres[51]. Found alongside ditches on shady damp and fertile soils in China[147].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pleuropteus convolvulus[H] Pleuropteus cordatus[H] Polygonum multiflorum[E,G,H,HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ih Ti Li [E], Chinese Knotweed [B,P], Ho Chou Wu [E], Ho Shou Wu [E], Pokok Semuloh [E], Shan Ch'Iao Mai [E], She Chien Ts'Ao [E], Turu-Dokudami [E],
Epithets:	From a Dictionary of Botanical Epithets
	botrys = grape;
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database

	China; India; Japan; Java; Malaya

Physical Characteristics

Perennial growing to 1m by 2m at a fast rate. It is frost tender. It is in flower in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees and flies. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Leaves; Rutin; Seed.

Leaves - raw or cooked[105, 160]. Boiled or steamed and used like spinach[183]. Of excellent quality according to one report[2], but we have been less than impressed by the flavour, which has a distinct bitterness especially when eaten raw[K]. The leaves are rich in rutin (see below for details of its uses) and so they do make a healthy addition to the diet[K].

Seed - it can be sprouted and eaten raw, or cooked and used as a cereal[4]. Dried and ground into a powder, it can serve as a thickening agent in soups etc. The seed is rich in vitamin B6. Unfortunately, it is not freely produced in Britain[2].

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Antiinflammatory; Antiphlogistic; Antispasmodic; Cancer; Carminative; Depurative; Febrifuge; Hypotensive.

The whole plant is anodyne, anthelmintic, antiphlogistic, carminative, depurative and febrifuge. It stimulates blood circulation[147]. A decoction is used in the treatment of traumatic injuries, lumbago, menstrual irregularities, purulent infections, snake and insect bites[147].

A decoction of the roots is used in the treatment of insect bites, dysmenorrhoea, inflammation, lumbago, snakebite and traumatic injuries[218].

The leaves are rich in rutin which is a capillary tonic, antioedemic, anti-inflammatory, antispasmodic and hypotensive[218]. Rutin also inhibits carcinogenesis and protects against radiation[218].

Other Uses

None known

Cultivation details

A very tolerant and easily grown plant, it prefers dry sandy soils but succeeds in most conditions including poor, heavy or acid soils and even sub-soils. Prefers a good soil in partial shade[187], growing very well in woodland conditions[K].

The dormant plant is hardy to about -20°c[187], though the growing plant is frost tender[K]. It is often excited into growth quite early in the year if the weather is mild, and will then be cut back by the first frost. It usually regrows quickly from the base[K].

Perennial buckwheat is occasionally cultivated for its edible seed, though this is not produced as abundantly as in the annual members of this genus[K]. Our plants flower in late summer and early autumn, and have not as yet produced any seed. Since all our plants come originally from one seedling, it is quite possible that the plant is self-sterile[K].

There is at least one named variety, selected for its ornamental value. 'Variegata' has variegated leaves[200].

Propagation

Seed - sow spring in a greenhouse. Prick out the seedlings when they are large enough to handle and plant them out into their permanent positions in the summer.

Division is very easy at almost any time in the growing season, though it is best avoided in early spring because the young growth can be damaged by late frosts. The divisions can be planted out direct into their permanent positions.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Fagopyrum dibotrys* (perennial buckwheat)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- The Urban Garden
- Why Perennials
- Woodland Garden Plants
- PFAF Plant Catalogue (F)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Fagopyrum cymosum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Polygonum chinense* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Polygonum multiflorum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Polygonaceae.

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Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Plants For A Future: Database Search Results

Fagopyrum dibotrys

Common name:	Perennial buckwheat	Family:	Polygonaceae
Author:	(D. Don.) Hara.	Botanical references:	51
Synonyms:	Polygonum dibotrys (D.Don.), Polygonum chinense (Misapplied), Fagopyrum cymosum ((Trevir.)Meissn.)		
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Forests and cultivated areas from Pakistan to S.W. China, 1500 - 3400 metres[51]. Found alongside ditches on shady damp and fertile soils in China[147].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pleuropteus convolvulus[H] Pleuropteus cordatus[H] Polygonum multiflorum[E,G,H,HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ch'Ih Ti Li [E], Chinese Knotweed [B,P], Ho Chou Wu [E], Ho Shou Wu [E], Pokok Semuloh [E], Shan Ch'Iao Mai [E], She Chien Ts'Ao [E], Turu-Dokudami [E],
Epithets:	From a Dictionary of Botanical Epithets
	botrys = grape;
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database
	China; India; Japan; Java; Malaya

Physical Characteristics

Perennial growing to 1m by 2m at a fast rate. It is frost tender. It is in flower in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees and flies. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Leaves; Rutin; Seed.

Leaves - raw or cooked[105, 160]. Boiled or steamed and used like spinach[183]. Of excellent quality according to one report[2], but we have been less than impressed by the flavour, which has a distinct bitterness especially when eaten raw[K]. The leaves are rich in rutin (see below for details of its uses) and so they do make a healthy addition to the diet[K].

Seed - it can be sprouted and eaten raw, or cooked and used as a cereal[4]. Dried and ground into a powder, it can serve as a thickening agent in soups etc. The seed is rich in vitamin B6. Unfortunately, it is not freely produced in Britain[2].

Medicinal Uses

Disclaimer

Anodyne; Anthelmintic; Antiinflammatory; Antiphlogistic; Antispasmodic; Cancer; Carminative; Depurative; Febrifuge; Hypotensive.

The whole plant is anodyne, anthelmintic, antiphlogistic, carminative, depurative and febrifuge. It stimulates blood circulation[147]. A decoction is used in the treatment of traumatic injuries, lumbago, menstrual irregularities, purulent infections, snake and insect bites[147].

A decoction of the roots is used in the treatment of insect bites, dysmenorrhoea, inflammation, lumbago, snakebite and traumatic injuries[218].

The leaves are rich in rutin which is a capillary tonic, antioedemic, anti-inflammatory, antispasmodic and hypotensive[218]. Rutin also inhibits carcinogenesis and protects against radiation[218].

Other Uses

None known

Cultivation details

A very tolerant and easily grown plant, it prefers dry sandy soils but succeeds in most conditions including poor, heavy or acid soils and even sub-soils. Prefers a good soil in partial shade[187], growing very well in woodland conditions[K].

The dormant plant is hardy to about -20°c[187], though the growing plant is frost tender[K]. It is often excited into growth quite early in the year if the weather is mild, and will then be cut back by the first frost. It usually regrows quickly from the base[K].

Perennial buckwheat is occasionally cultivated for its edible seed, though this is not produced as abundantly as in the annual members of this genus[K]. Our plants flower in late summer and early autumn, and have not as yet produced any seed. Since all our plants come originally from one seedling, it is quite possible that the plant is self-sterile[K].

There is at least one named variety, selected for its ornamental value. 'Variegata' has variegated leaves[200].

Propagation

Seed - sow spring in a greenhouse. Prick out the seedlings when they are large enough to handle and plant them out into their permanent positions in the summer.

Division is very easy at almost any time in the growing season, though it is best avoided in early spring because the young growth can be damaged by late frosts. The divisions can be planted out direct into their permanent positions.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Fagopyrum dibotrys* (perennial buckwheat)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- The Urban Garden
- Why Perennials
- Woodland Garden Plants
- PFAF Plant Catalogue (F)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Fagopyrum cymosum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Polygonum chinense* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Polygonum multiflorum* (a possible synonym).

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References

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Readers Comments

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Plants For A Future: Database Search Results

Fagopyrum dibotrys

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Synonyms:	Polygonum dibotrys (D.Don.), Polygonum chinense (Misapplied), Fagopyrum cymosum ((Trevir.)Meissn.)		
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Range:	E. Asia - China, Japan, Himalayas.		
Habitat:	Forests and cultivated areas from Pakistan to S.W. China, 1500 - 3400 metres[51]. Found alongside ditches on shady damp and fertile soils in China[147].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	botrys = grape;
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database
	China; India; Japan; Java; Malaya

Physical Characteristics

Perennial growing to 1m by 2m at a fast rate. It is frost tender. It is in flower in September. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and are pollinated by Bees and flies. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Leaves; Rutin; Seed.

Leaves - raw or cooked[105, 160]. Boiled or steamed and used like spinach[183]. Of excellent quality according to one report[2], but we have been less than impressed by the flavour, which has a distinct bitterness especially when eaten raw[K]. The leaves are rich in rutin (see below for details of its uses) and so they do make a healthy addition to the diet[K].

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Disclaimer

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The leaves are rich in rutin which is a capillary tonic, antioedemic, anti-inflammatory, antispasmodic and hypotensive[218]. Rutin also inhibits carcinogenesis and protects against radiation[218].

Other Uses

None known

Cultivation details

A very tolerant and easily grown plant, it prefers dry sandy soils but succeeds in most conditions including poor, heavy or acid soils and even sub-soils. Prefers a good soil in partial shade[187], growing very well in woodland conditions[K].

The dormant plant is hardy to about -20°c[187], though the growing plant is frost tender[K]. It is often excited into growth quite early in the year if the weather is mild, and will then be cut back by the first frost. It usually regrows quickly from the base[K].

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There is at least one named variety, selected for its ornamental value. 'Variegata' has variegated leaves[200].

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Cultivars

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lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324

Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Fagopyrum dibotrys* (perennial buckwheat)

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Fagopyrum dibotrys*

Subject:

Fagopyrum dibotrys

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fagopyrum dibotrys

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 05:00:19 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Ipomoea alba

Common name:	Moonflower	Family:	Convolvulaceae
Author:	L.	Botanical references:	200, 266
Synonyms:	Calonyction album ((L.)House.), Calonyction aculeatum ((L.)House.)		
Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Wet forests, watercourses and disturbed areas in China[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus aculeatus[G] Convolvulus maximus[G] I. bona-nox[G,P] I. maxima[G] I. noctiflora[G] I. noctiora[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Giant Moonflower [H], Liseron [E], Moonvine [H], Tropical White Morning-glory [B], Tropical White Morningglory [P],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database

	Guiana; Hawaii; Samoa; Wi
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

An evergreen perennial Climber growing to 10m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Young leaves and fleshy calyces - cooked. Steamed and eaten as a vegetable or used in curries, soups, stews etc[183]. They can also be dried for later use[183].

Seed - eaten when young[183].

Medicinal Uses

Disclaimer

The whole herb is used in treating snakebite[266].

Other Uses

None known

Cultivation details

Requires a fertile well-drained loam in a warm sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Another report says that plants need a minimum temperature of 5°c if they are to overwinter successfully[260].

A short-lived perennial or biennial species[187]. A fast-growing climbing plant, it is best grown as a temporary screen in the garden or along the boundary edge[200]. Plants need a long period of growth to reach flowering size and so are not very suitable for growing in pots in a greenhouse[260].

A climbing plant, supporting itself by twining around the branches of other plants[219].

The plant forms tubercles (baby tubers) on the stems and can be propagated by them[260].

The aromatic flowers open of a night time[188].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on in the greenhouse for at least their first winter then plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of side shoots in a peaty soil.

Layering.

Plants form tubercles on their stems[260]. These can be stored overwinter in a slightly moist medium such as sand or leafmould, keeping them in a cool but frost-free place. Pot them up in early spring.

Scent

Flowers: Fresh

> The aromatic flowers open of a night time.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
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[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Plants For A Future: Database Search Results

Ipomoea alba

Common name:	Moonflower	Family:	Convolvulaceae
Author:	L.	Botanical references:	200, 266
Synonyms:	Calonyction album ((L.)House.), Calonyction aculeatum ((L.)House.)		
Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Wet forests, watercourses and disturbed areas in China[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus aculeatus[G] Convolvulus maximus[G] I. bona-nox[G,P] I. maxima[G] I. noctiflora[G] I. noctiora[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Giant Moonflower [H], Liseron [E], Moonvine [H], Tropical White Morning-glory [B], Tropical White Morningglory [P],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Guiana; Hawaii; Samoa; Wi
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

An evergreen perennial Climber growing to 10m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Young leaves and fleshy calyces - cooked. Steamed and eaten as a vegetable or used in curries, soups, stews etc[183]. They can also be dried for later use[183].

Seed - eaten when young[183].

Medicinal Uses

Disclaimer

The whole herb is used in treating snakebite[266].

Other Uses

None known

Cultivation details

Requires a fertile well-drained loam in a warm sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Another report says that plants need a minimum temperature of 5°c if they are to overwinter successfully[260].

A short-lived perennial or biennial species[187]. A fast-growing climbing plant, it is best grown as a temporary screen in the garden or along the boundary edge[200]. Plants need a long period of growth to reach flowering size and so are not very suitable for growing in pots in a greenhouse[260].

A climbing plant, supporting itself by twining around the branches of other plants[219].

The plant forms tubercles (baby tubers) on the stems and can be propagated by them[260].

The aromatic flowers open of a night time[188].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on in the greenhouse for at least their first winter then plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of side shoots in a peaty soil.

Layering.

Plants form tubercles on their stems[260]. These can be stored overwinter in a slightly moist medium such as sand or leafmould, keeping them in a cool but frost-free place. Pot them up in early spring.

Scent

Flowers: Fresh

> The aromatic flowers open of a night time.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Calonyction aculeatum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
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Readers Comments

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Plants For A Future: Database Search Results

Ipomoea alba

Common name:	Moonflower	Family:	Convolvulaceae
Author:	L.	Botanical references:	200, 266
Synonyms:	Calonyction album ((L.)House.), Calonyction aculeatum ((L.)House.)		
Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Wet forests, watercourses and disturbed areas in China[266].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus aculeatus[G] Convolvulus maximus[G] I. bona-nox[G,P] I. maxima[G] I. noctiflora[G] I. noctiora[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Giant Moonflower [H], Liseron [E], Moonvine [H], Tropical White Morning-glory [B], Tropical White Morningglory [P],
Epithets:	From a Dictionary of Botanical Epithets
	alba = white;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Guiana; Hawaii; Samoa; Wi
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

An evergreen perennial Climber growing to 10m at a fast rate. It is hardy to zone 8. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Leaves; Seed.

Young leaves and fleshy calyces - cooked. Steamed and eaten as a vegetable or used in curries, soups, stews etc[183]. They can also be dried for later use[183].

Seed - eaten when young[183].

Medicinal Uses

Disclaimer

The whole herb is used in treating snakebite[266].

Other Uses

None known

Cultivation details

Requires a fertile well-drained loam in a warm sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Another report says that plants need a minimum temperature of 5°c if they are to overwinter successfully[260].

A short-lived perennial or biennial species[187]. A fast-growing climbing plant, it is best grown as a temporary screen in the garden or along the boundary edge[200]. Plants need a long period of growth to reach flowering size and so are not very suitable for growing in pots in a greenhouse[260].

A climbing plant, supporting itself by twining around the branches of other plants[219].

The plant forms tubercles (baby tubers) on the stems and can be propagated by them[260].

The aromatic flowers open of a night time[188].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on in the greenhouse for at least their first winter then plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of side shoots in a peaty soil.

Layering.

Plants form tubercles on their stems[260]. These can be stored overwinter in a slightly moist medium such as sand or leafmould, keeping them in a cool but frost-free place. Pot them up in early spring.

Scent

Flowers: Fresh

> The aromatic flowers open of a night time.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Ipomoea alba

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Plant Information

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Ipomoea jalapa

Common name:	Jalap	Family:	Convolvulaceae
Author:	(L.)Pursh.	Botanical references:	
Synonyms:	Ipomoea purga ((Wender.) Hayne.)		
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Woodland on the eastern slopes of the Mexican Andes.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus jalapa[G,H] Convolvulus purga[G] Exogonium purga[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calapa [E], Jalap [P,H], Jalap Bindweed [H], Scammony [H],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Mexico; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

An evergreen climber growing to 3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

The tuber is a resinous acrid herb with an unpleasant taste that is often used as a purgative[238]. It is taken internally in the treatment of constipation, colic and intestinal parasites[238]. The root is harvested in the autumn and dried for later use[238].

Other Uses

None known

Cultivation details

Requires a well-drained humus-rich soil in a sunny position[238].

This species is not very frost tolerant[238], though it might be possible to grow it outdoors in a very sheltered position in the mildest areas of Britain.

Either cut the plant back or thin out the shoots in the spring[238].

218245

Propagation

Seed - sow spring in a greenhouse.

Semi-ripe cuttings in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
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References for *Convolvulus jalapa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Ipomoea purga* (a possible synonym).

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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
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Add a longer comment

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Author:	(L.)Pursh.	Botanical references:	
Synonyms:	Ipomoea purga ((Wender.) Hayne.)		
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Woodland on the eastern slopes of the Mexican Andes.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
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Physical Characteristics

An evergreen climber growing to 3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

The tuber is a resinous acrid herb with an unpleasant taste that is often used as a purgative[238]. It is taken internally in the treatment of constipation, colic and intestinal parasites[238]. The root is harvested in the autumn and dried for later use[238].

Other Uses

None known

Cultivation details

Requires a well-drained humus-rich soil in a sunny position[238].

This species is not very frost tolerant[238], though it might be possible to grow it outdoors in a very sheltered position in the mildest areas of Britain.

Either cut the plant back or thin out the shoots in the spring[238].

218245

Propagation

Seed - sow spring in a greenhouse.

Semi-ripe cuttings in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Ipomoea jalapa

Common name:	Jalap	Family:	Convolvulaceae
Author:	(L.)Pursh.	Botanical references:	
Synonyms:	Ipomoea purga ((Wender.) Hayne.)		
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Woodland on the eastern slopes of the Mexican Andes.		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus jalapa[G,H] Convolvulus purga[G] Exogonium purga[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Calapa [E], Jalap [P,H], Jalap Bindweed [H], Scammony [H],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Mexico; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

An evergreen climber growing to 3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

The tuber is a resinous acrid herb with an unpleasant taste that is often used as a purgative[238]. It is taken internally in the treatment of constipation, colic and intestinal parasites[238]. The root is harvested in the autumn and dried for later use[238].

Other Uses

None known

Cultivation details

Requires a well-drained humus-rich soil in a sunny position[238].

This species is not very frost tolerant[238], though it might be possible to grow it outdoors in a very sheltered position in the mildest areas of Britain.

Either cut the plant back or thin out the shoots in the spring[238].

218245

Propagation

Seed - sow spring in a greenhouse.

Semi-ripe cuttings in the summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

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Add a comment on: *Ipomoea jalapa*

Subject:

Ipomoea jalapa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ipomoea jalapa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Ipomoea nil

Common name:	Japanese morning glory	Family:	Convolvulaceae
Author:	(L.) Roth.	Botanical references:	200, 266
Synonyms:	Pharbitis nil ((L.)Choisy.)		
Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Thickets on mountain slopes, waysides, fields and hedges from sea level to 1600 metres in China[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus hederaceus[B,P] Convolvulus nil[B,G,P] I. hederacea[B] I. nil var. limbata[G] Pharbitis limbata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Teleng [E], White-edge Morning-glory [B], Whiteedge Morningglory [P],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	China; India; Japan; Java
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Arizona.

Physical Characteristics

Annual growing to 5m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Diuretic; Hallucinogenic; Laxative.

The seed is anthelmintic, diuretic and laxative[176]. It is used in the treatment of oedema, oliguria, ascariasis and constipation[176].

The seed contains small quantities of the hallucinogen LSD[200, 219]. This has been used medicinally in the treatment of various mental disorders.

Other Uses

None known

Cultivation details

Requires a fertile well-drained loam in a sunny position[200].

The plant is not frost hardy, but can be grown outdoors as a tender annual in temperate zones[200].

A very ornamental plant, there are several named varieties[200].

Closely related to I. purpurea[260].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on fast in the greenhouse and plant them out into their permanent positions after the last expected frosts. Consider giving them some protection such as a cloche until they are growing away actively.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Pharbitis nil* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
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[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Ipomoea nil

Common name:	Japanese morning glory	Family:	Convolvulaceae
Author:	(L.) Roth.	Botanical references:	200, 266
Synonyms:	Pharbitis nil ((L.)Choisy.)		
Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Thickets on mountain slopes, waysides, fields and hedges from sea level to 1600 metres in China[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus hederaceus[B,P] Convolvulus nil[B,G,P] I. hederacea[B] I. nil var. limbata[G] Pharbitis limbata[G]
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	China; India; Japan; Java
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

Annual growing to 5m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Diuretic; Hallucinogenic; Laxative.

The seed is anthelmintic, diuretic and laxative[176]. It is used in the treatment of oedema, oliguria, ascariasis and constipation[176].

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Other Uses

None known

Cultivation details

Requires a fertile well-drained loam in a sunny position[200].

The plant is not frost hardy, but can be grown outdoors as a tender annual in temperate zones[200].

A very ornamental plant, there are several named varieties[200].

Closely related to I. purpurea[260].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on fast in the greenhouse and plant them out into their permanent positions after the last expected frosts. Consider giving them some protection such as a cloche until they are growing away actively.

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Author:	(L.) Roth.	Botanical references:	200, 266
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Known Hazards:	None known		
Range:	Pantropical.		
Habitat:	Thickets on mountain slopes, waysides, fields and hedges from sea level to 1600 metres in China[266].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	China; India; Japan; Java
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

Annual growing to 5m at a fast rate. It is hardy to zone 9 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

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Other Uses

None known

Cultivation details

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The plant is not frost hardy, but can be grown outdoors as a tender annual in temperate zones[200].

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Closely related to I. purpurea[260].

Propagation

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Subject:

Ipomoea nil

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ipomoea nil

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Ipomoea pandurata

Common name:	Wild potato vine	Family:	Convolvulaceae
Author:	(L.) G. F. W. Mey.	Botanical references:	43, 200
Synonyms:	Convolvulus panduratus, Convolvulus candicans		
Known Hazards:	None known		
Range:	Eastern N. America - Connecticut to Florida, west to Texas, Kansas and Michigan.		
Habitat:	Fields, hedgerows and roadsides in dry open or partially shaded areas[43, 62].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. I. pandurata var. rubescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Man Of The Earth [P], Man-of-the-Earth [L], Man-of-the-earth [B], Potato,Wild [E], Wild Potato [H], Wild Potato-Vine [L],
Epithets:	From a Dictionary of Botanical Epithets pandurata = fiddle shaped;
Systematics:	From a UDSA Plants Database Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database

	Us(Amerindian)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

Perennial Climber growing to 3.5m at a fast rate. It is hardy to zone 7. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root.

Root - cooked[85]. The young ones are best[62], they become very acrid as they get old[4]. The roots can be up to 75cm long and 12cm in diameter[4, 207] and can weigh 7 kilos[207]. They are best if given a long roasting[95]. Roasted roots taste like sweet potato but with some bitterness[207].

Medicinal Uses

Disclaimer

Cathartic; Diuretic; Expectorant.

A poultice of the root is applied to aching joints in the treatment of rheumatism[222, 257].

A tea made from the dried root is diuretic, expectorant and laxative[4, 222, 257]. It has been used in the treatment of strangury and calculus diseases, abdominal pains etc[257]. It also slightly influences the lungs, liver and kidneys without excessive diuresis or catharsis[4, 257]. Caution should be employed because the plant can be strongly laxative[21].

Other Uses

Repellent.

An infusion of the plant has been used for soaking sweet potatoes in order to keep away bugs and moles[257].

Cultivation details

Requires a rich well-drained loam in a warm sunny position[200].

The hardiest member of the genus, it tolerates frozen soil and should survive winter temperatures down to at least -10°c[260].

A climbing plant, supporting itself by twining around the branches of other plants[219].

A very ornamental plant[1]. This species has become a troublesome weed in many warm countries and is difficult to eradicate because of its deep root[219].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on in the greenhouse for at least their first winter then plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of side shoots in a peaty soil.

Layering.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Convolvulus panduratus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

0-333-47494-5
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[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
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Plants For A Future: Database Search Results

Ipomoea pandurata

Common name:	Wild potato vine	Family:	Convolvulaceae
Author:	(L.) G. F. W. Mey.	Botanical references:	43, 200
Synonyms:	Convolvulus panduratus, Convolvulus candicans		
Known Hazards:	None known		
Range:	Eastern N. America - Connecticut to Florida, west to Texas, Kansas and Michigan.		
Habitat:	Fields, hedgerows and roadsides in dry open or partially shaded areas[43, 62].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. pandurata var. rubescens[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Man Of The Earth [P], Man-of-the-Earth [L], Man-of-the-earth [B], Potato,Wild [E], Wild Potato [H], Wild Potato-Vine [L],
Epithets:	From a Dictionary of Botanical Epithets
	pandurata = fiddle shaped;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

Perennial Climber growing to 3.5m at a fast rate. It is hardy to zone 7. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root.

Root - cooked[85]. The young ones are best[62], they become very acrid as they get old[4]. The roots can be up to 75cm long and 12cm in diameter[4, 207] and can weigh 7 kilos[207]. They are best if given a long roasting[95]. Roasted roots taste like sweet potato but with some bitterness[207].

Medicinal Uses

Disclaimer

Cathartic; Diuretic; Expectorant.

A poultice of the root is applied to aching joints in the treatment of rheumatism[222, 257].

A tea made from the dried root is diuretic, expectorant and laxative[4, 222, 257]. It has been used in the treatment of strangury and calculus diseases, abdominal pains etc[257]. It also slightly influences the lungs, liver and kidneys without excessive diuresis or catharsis[4, 257]. Caution should be employed because the plant can be strongly laxative[21].

Other Uses

Repellent.

An infusion of the plant has been used for soaking sweet potatoes in order to keep away bugs and moles[257].

Cultivation details

Requires a rich well-drained loam in a warm sunny position[200].

The hardiest member of the genus, it tolerates frozen soil and should survive winter temperatures down to at least -10°c[260].

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Cuttings of side shoots in a peaty soil.

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Suppliers

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Synonyms:	Convolvulus panduratus, Convolvulus candicans		
Known Hazards:	None known		
Range:	Eastern N. America - Connecticut to Florida, west to Texas, Kansas and Michigan.		
Habitat:	Fields, hedgerows and roadsides in dry open or partially shaded areas[43, 62].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Us(Amerindian)
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona.

Physical Characteristics

Perennial Climber growing to 3.5m at a fast rate. It is hardy to zone 7. It is in flower from June to August. The flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Root.

Root - cooked[85]. The young ones are best[62], they become very acrid as they get old[4]. The roots can be up to 75cm long and 12cm in diameter[4, 207] and can weigh 7 kilos[207]. They are best if given a long roasting[95]. Roasted roots taste like sweet potato but with some bitterness[207].

Medicinal Uses

Disclaimer

Cathartic; Diuretic; Expectorant.

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Other Uses

Repellent.

An infusion of the plant has been used for soaking sweet potatoes in order to keep away bugs and moles[257].

Cultivation details

Requires a rich well-drained loam in a warm sunny position[200].

The hardiest member of the genus, it tolerates frozen soil and should survive winter temperatures down to at least -10°c[260].

A climbing plant, supporting itself by twining around the branches of other plants[219].

A very ornamental plant[1]. This species has become a troublesome weed in many warm countries and is difficult to eradicate because of its deep root[219].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on in the greenhouse for at least their first winter then plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of side shoots in a peaty soil.

Layering.

Suppliers

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Details of Location and growing conditions:

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Ipomoea purpurea

Common name:	Common morning glory	Family:	Convolvulaceae
Author:	(L.) Roth.	Botanical references:	200
Synonyms:	Pharbitis purpurea ((L.)Choisy.)		
Known Hazards:	None known		
Range:	Central America - Mexico to the West Indies.		
Habitat:	Scrub and waste places[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus duartinus[H] Convolvulus purpureus[B,G,P] I. hirsutula[B,G,P] I. purpurea var. diversifolia[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Morning Glory [L], Common Morning-glory [B], Ipomoea [H], Morning Glory [H], Tall Morningglory [P,L], Vona-nox [H],
Epithets:	From a Dictionary of Botanical Epithets
	purpurea = purple;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Africa(Zulu); Us

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona, Utah, Western Australia.

Physical Characteristics

Annual Climber growing to 2.5m at a fast rate. It is hardy to zone 7 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Diuretic; Hallucinogenic; Laxative.

The seed is anthelmintic, diuretic and laxative[176]. It is used in the treatment of oedema, oliguria, ascariasis and constipation[176].

The seed contains small quantities of the hallucinogen LSD[200, 219]. This has been used medicinally in the treatment of various mental disorders.

Other Uses

None known

Cultivation details

Requires a fertile well-drained loam in a sunny position[200].

The plant is not very frost hardy, but it can be grown outdoors as a tender annual in temperate zones[200].

A very ornamental plant, there are several named varieties[200]. The flowers are blue, but they turn more pink later in the day[260].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on fast in the greenhouse and plant them out into their permanent positions after the last expected frosts. Consider giving them some protection such as a cloche until they are growing away actively.

Cultivars

"

> There are some named forms, selected for their ornamental value. Since we know of no forms that have been selected for their useful properties, we have not listed any cultivars here and in general, unless you require the specific ornamental properties of a cultivar, we recommend you grow the species rather than any cultivars

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Convolvulus duartinus* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

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References

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Ipomoea+purpurea`
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Plants For A Future: Database Search Results

Ipomoea purpurea

Common name:	Common morning glory	Family:	Convolvulaceae
Author:	(L.) Roth.	Botanical references:	200
Synonyms:	Pharbitis purpurea ((L.)Choisy.)		
Known Hazards:	None known		
Range:	Central America - Mexico to the West Indies.		
Habitat:	Scrub and waste places[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus duartinus[H] Convolvulus purpureus[B,G,P] I. hirsutula[B,G,P] I. purpurea var. diversifolia[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Morning Glory [L], Common Morning-glory [B], Ipomoea [H], Morning Glory [H], Tall Morningglory [P,L], Vona-nox [H],
Epithets:	From a Dictionary of Botanical Epithets
	purpurea = purple;
Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
Other Range Info:	From the Ethnobotany Database
	Africa(Zulu); Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Arizona, Utah, Western Australia.

Physical Characteristics

Annual Climber growing to 2.5m at a fast rate. It is hardy to zone 7 and is frost tender. It is in flower from July to September. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

Anthelmintic; Diuretic; Hallucinogenic; Laxative.

The seed is anthelmintic, diuretic and laxative[176]. It is used in the treatment of oedema, oliguria, ascariasis and constipation[176].

The seed contains small quantities of the hallucinogen LSD[200, 219]. This has been used medicinally in the treatment of various mental disorders.

Other Uses

None known

Cultivation details

Requires a fertile well-drained loam in a sunny position[200].

The plant is not very frost hardy, but it can be grown outdoors as a tender annual in temperate zones[200].

A very ornamental plant, there are several named varieties[200]. The flowers are blue, but they turn more pink later in the day[260].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on fast in the greenhouse and plant them out into their permanent positions after the last expected frosts. Consider giving them some protection such as a cloche until they are growing away actively.

Cultivars

"

> There are some named forms, selected for their ornamental value. Since we know of no forms that have been selected for their useful properties, we have not listed any cultivars here and in general, unless you require the specific ornamental properties of a cultivar, we recommend you grow the species rather than any cultivars

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Latin and Worldwide Common Names From Multilingual Multiscript Plant Name Database by M. H. Porcher et. al. 1995 - 2000 Landcare Systems Research Laboratory, Department of Crop Production,Institute of Land and Food Resources, The University of Melbourne, Australia.
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *Convolvulus duartinus* (a possible synonym).

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References for the family Convolvulaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
A nice little book about plants for growing against walls and a small section on plants that can grow in walls.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

Readers Comments

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Plants For A Future: Database Search Results

Ipomoea purpurea

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Author:	(L.) Roth.	Botanical references:	200
Synonyms:	Pharbitis purpurea ((L.)Choisy.)		
Known Hazards:	None known		
Range:	Central America - Mexico to the West Indies.		
Habitat:	Scrub and waste places[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Convolvulus duartinus[H] Convolvulus purpureus[B,G,P] I. hirsutula[B,G,P] I. purpurea var. diversifolia[B,G,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common Morning Glory [L], Common Morning-glory [B], Ipomoea [H], Morning Glory [H], Tall Morningglory [P,L], Vona-nox [H],
Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Solanales . Morning-glory family
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Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Edible Uses

None known

Medicinal Uses

Disclaimer

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The seed contains small quantities of the hallucinogen LSD[200, 219]. This has been used medicinally in the treatment of various mental disorders.

Other Uses

None known

Cultivation details

Requires a fertile well-drained loam in a sunny position[200].

The plant is not very frost hardy, but it can be grown outdoors as a tender annual in temperate zones[200].

A very ornamental plant, there are several named varieties[200]. The flowers are blue, but they turn more pink later in the day[260].

Propagation

Pre-soak the seed for 12 hours in warm water, or scarify the seed, and sow in individual pots in a greenhouse in early spring. The seed usually germinates in 1 - 3 weeks at 22°c. Plants are extremely resentful of root disturbance, even when they are quite small, and should be potted up almost as soon as they germinate[219]. Grow them on fast in the greenhouse and plant them out into their permanent positions after the last expected frosts. Consider giving them some protection such as a cloche until they are growing away actively.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ipomoea purpurea*

Subject:

Ipomoea purpurea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ipomoea purpurea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Date: Sun May 16 05:04:14 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Polygonum convolvulus

Common name:	Black bindweed	Family:	Polygonaceae
Author:	L.	Botanical references:	17
Synonyms:	Tiniria convolvulus ((L.)Webb.&Moq.), Fallopia convolvulus ((L.)A.Löve.)		
Known Hazards:	Although no specific mention has been made for this species, there have been reports that some members of this genus can cause photosensitivity in susceptible people. Many species also contain oxalic acid (the distinctive lemony flavour of sorrel) - whilst not toxic this substance can bind up other minerals making them unavailable to the body and leading to mineral deficiency. Having said that, a number of common foods such as sorrel and rhubarb contain oxalic acid and the leaves of most members of this genus are nutritious and beneficial to eat in moderate quantities. Cooking the leaves will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Britain.		
Habitat:	Waste places, arable land and gardens[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Bilderdykia convolvulus[B,P] P. convolvulus var. convolvulus[B,P] Reynoutria convolvulus[B,P] Tiniaria convolvulus[B,P]

Other Common Names:	From various places around the Web, may not be correct. See below. Bearbind [H], Bindweed,Black [E], Black Bindweed [H,P], Black-bindweed [B,L], Climbing Buckwheat [H], Cornbind [H], Zwaluwtong [D],
Systematics:	From a UDSA Plants Database Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database Europe
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Annual growing to 1.2m. . It is in flower from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed - ground into a powder and used as a gruel or mixed with cereals[207]. The seed coat should be removed before use, this has caused mechanical injury to the digestive systems of animals who have eaten the seed[4]. The seed is rather small and fiddly to utilize.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil[1] but prefers a moisture retentive not too fertile soil in sun or part shade[200].

A scrambling climbing plant[207], it is often a troublesome weed of agricultural fields[4].

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - sow spring in situ.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Fallopia convolvulus* (a possible synonym).

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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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- [HP] PhotoFrom Henriette's plant pictures
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References for the family Polygonaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Range:	Britain.		
Habitat:	Waste places, arable land and gardens[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database

	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database
	Europe
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Annual growing to 1.2m. . It is in flower from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

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Seed - ground into a powder and used as a gruel or mixed with cereals[207]. The seed coat should be removed before use, this has caused mechanical injury to the digestive systems of animals who have eaten the seed[4]. The seed is rather small and fiddly to utilize.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Propagation

Seed - sow spring in situ.

Suppliers

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

Readers Comments

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.

Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Polygonum+convolvulus`
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Plants For A Future: Database Search Results

Polygonum convolvulus

Common name:	Black bindweed	Family:	Polygonaceae
Author:	L.	Botanical references:	17
Synonyms:	Tiniria convolvulus ((L.)Webb.&Moq.), Fallopia convolvulus ((L.)A.Löve.)		
Known Hazards:	Although no specific mention has been made for this species, there have been reports that some members of this genus can cause photosensitivity in susceptible people. Many species also contain oxalic acid (the distinctive lemony flavour of sorrel) - whilst not toxic this substance can bind up other minerals making them unavailable to the body and leading to mineral deficiency. Having said that, a number of common foods such as sorrel and rhubarb contain oxalic acid and the leaves of most members of this genus are nutritious and beneficial to eat in moderate quantities. Cooking the leaves will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	Britain.		
Habitat:	Waste places, arable land and gardens[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Bilderdykia convolvulus[B,P] P. convolvulus var. convolvulus[B,P] Reynoutria convolvulus[B,P] Tiniaria convolvulus[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bearbind [H], Bindweed,Black [E], Black Bindweed [H,P], Black-bindweed [B,L], Climbing Buckwheat [H], Cornbind [H], Zwaluwtong [D],
Systematics:	From a UDSA Plants Database

	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database
	Europe
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Minnesota.

Physical Characteristics

Annual growing to 1.2m. . It is in flower from July to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Seed.

Seed - ground into a powder and used as a gruel or mixed with cereals[207]. The seed coat should be removed before use, this has caused mechanical injury to the digestive systems of animals who have eaten the seed[4]. The seed is rather small and fiddly to utilize.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil[1] but prefers a moisture retentive not too fertile soil in sun or part shade[200].

A scrambling climbing plant[207], it is often a troublesome weed of agricultural fields[4].

Plants seem to be immune to the predations of rabbits[233].

Propagation

Seed - sow spring in situ.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our [Mailing List] or email [webmaster@pfaf.org] (note we don't have the time to answer individual plant related queries).

Add a comment on: *Polygonum convolvulus*

Subject:

Polygonum convolvulus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Polygonum convolvulus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Your Name:

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Date: Sun May 16 05:04:58 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Polygonum multiflorum

Common name:	He Shou Wu	Family:	Polygonaceae
Author:	Thunb.	Botanical references:	74
Synonyms:	Fallopia multiflora		
Known Hazards:	Although no specific mention has been made for this species, there have been reports that some members of this genus can cause photosensitivity in susceptible people. Many species also contain oxalic acid (the distinctive lemony flavour of sorrel) - whilst not toxic this substance can bind up other minerals making them unavailable to the body and leading to mineral deficiency. Having said that, a number of common foods such as sorrel and rhubarb contain oxalic acid and the leaves of most members of this genus are nutritious and beneficial to eat in moderate quantities. Cooking the leaves will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	E. Asia - China.		
Habitat:	Woods, north to latitude 42° 30' north[74]. Along the banks of streams and in valley shrub thickets[147].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	P. chinense[H] P. miltiflorum[E] P. multiflorus[E] Pleuropteus convolvulus[H] Pleuropteus cordatus[H]
	From various places around the Web, may not be correct. See below.

Other Common Names:	Ho Chou Wu [E], Ho Shou Wu [E], She Chien Ts'Ao [E], Turu-Dokudami [E],
Epithets:	From a Dictionary of Botanical Epithets
	florum = flowered; multiflorum = many flowered;
Systematics:	From a UDSA Plants Database
	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Malaya

Physical Characteristics

Perennial Climber growing to 4.5m. It is hardy to zone 7. It is in flower from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Flowers; Leaves; Root; Seed.

Leaves - raw or cooked.

Seed - raw or cooked. It is rather small and fiddly to utilize[105].

Flowers[179]. No more details are given.

Root - cooked[2, 177]. It should be washed several times in order to leech out the bitterness[179]. This process will also remove many of the vitamins and minerals from the roots[K]. A famine food, it is only used when all else fails[105].

Medicinal Uses

Disclaimer

Antibacterial; Anticholesterolemic; Antipyretic; Antispasmodic; Antitumor; Astringent; Cardiotonic; Demulcent; Deobstruent; Hypoglycaemic; Laxative; Sedative; Tonic.

He Shou Wu is considered to be one of the most important of the Chinese herbal tonics and is widely used in that country[218]. It is said to restore vitality and virility[174], working especially on the liver and the reproductive, urinary and circulatory systems[238]. Some care should be exercised, however, since excessive doses can cause skin rash and numbness of the extremities[238].

The roots and stems are antibacterial, anticholesterolemic, antispasmodic, astringent, cardiotonic, demulcent, depurative, hypoglycaemic, laxative, sedative, tonic[116, 147, 174, 176, 238]. The roots are taken internally in the treatment of menstrual and menopausal complaints, constipation in the elderly, swollen lymph glands and high cholesterol levels[238]. They are very effective in reducing high cholesterol levels in the blood and increase blood sugar levels[254]. Externally, they are used to treat ringworm, bleeding wounds and sores[238]. The roots are harvested in the autumn, preferably from plants 3 - 4 years old, and are dried for later use[238].

The leaves and roots tonify the liver and kidneys, fortify the blood, strengthen the muscles and prevent premature greying of the hair[218].

The stem is deobstruent and sedative[218]. It is taken internally in the treatment of insomnia and neurasthenia whilst it is applied externally to ringworm[176, 238]. The stems are harvested in late summer or early autumn and are dried for later use[238].

Extracts of the plant have shown antipyretic, antitumour, hypoglycaemic and sedative activity[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil[1] but prefers a moisture retentive not too fertile soil in sun or part shade[200]. Repays generous treatment[1].

This species is hardy to at least -15°c[238].

Plants seem to be immune to the predations of rabbits[233].

There is a suggestion that this plant might be dioecious[178], in which case male and female plants will need to be grown if seed is required.

Propagation

Seed - sow spring in a cold frame. Germination is usually free and easy. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer if they have reached sufficient size. If not, overwinter them in a cold frame and plant them out the following spring after the last expected frosts.

Division in spring or autumn. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Polygonum miltiflorum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Polygonum multiflorus* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Polygonaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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If you know of another site which has good information about this plant fill in the following the details here.

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Polygonum multiflorum

Common name:	He Shou Wu	Family:	Polygonaceae
Author:	Thunb.	Botanical references:	74
Synonyms:	Fallopia multiflora		
Known Hazards:	Although no specific mention has been made for this species, there have been reports that some members of this genus can cause photosensitivity in susceptible people. Many species also contain oxalic acid (the distinctive lemony flavour of sorrel) - whilst not toxic this substance can bind up other minerals making them unavailable to the body and leading to mineral deficiency. Having said that, a number of common foods such as sorrel and rhubarb contain oxalic acid and the leaves of most members of this genus are nutritious and beneficial to eat in moderate quantities. Cooking the leaves will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	E. Asia - China.		
Habitat:	Woods, north to latitude 42° 30' north[74]. Along the banks of streams and in valley shrub thickets[147].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	florum = flowered; multiflorum = many flowered;
	From a UDSA Plants Database

Systematics:	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Malaya

Physical Characteristics

Perennial Climber growing to 4.5m. It is hardy to zone 7. It is in flower from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Flowers; Leaves; Root; Seed.

Leaves - raw or cooked.

Seed - raw or cooked. It is rather small and fiddly to utilize[105].

Flowers[179]. No more details are given.

Root - cooked[2, 177]. It should be washed several times in order to leech out the bitterness[179]. This process will also remove many of the vitamins and minerals from the roots[K]. A famine food, it is only used when all else fails[105].

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Disclaimer

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Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil[1] but prefers a moisture retentive not too fertile soil in sun or part shade[200]. Repays generous treatment[1].

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Plants seem to be immune to the predations of rabbits[233].

There is a suggestion that this plant might be dioecious[178], in which case male and female plants will need to be grown if seed is required.

Propagation

Seed - sow spring in a cold frame. Germination is usually free and easy. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer if they have reached sufficient size. If not, overwinter them in a cold frame and plant them out the following spring after the last expected frosts.

Division in spring or autumn. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Polygonum miltiflorum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Polygonum multiflorus* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Polygonaceae.

See the PFAF Links Pages for other sources

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References

[K] **Ken Fern**
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0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Polygonum+multiflorum`
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Plants For A Future: Database Search Results

Polygonum multiflorum

Common name:	He Shou Wu	Family:	Polygonaceae
Author:	Thunb.	Botanical references:	74
Synonyms:	Fallopia multiflora		
Known Hazards:	Although no specific mention has been made for this species, there have been reports that some members of this genus can cause photosensitivity in susceptible people. Many species also contain oxalic acid (the distinctive lemony flavour of sorrel) - whilst not toxic this substance can bind up other minerals making them unavailable to the body and leading to mineral deficiency. Having said that, a number of common foods such as sorrel and rhubarb contain oxalic acid and the leaves of most members of this genus are nutritious and beneficial to eat in moderate quantities. Cooking the leaves will reduce their content of oxalic acid. People with a tendency to rheumatism, arthritis, gout, kidney stones or hyperacidity should take especial caution if including this plant in their diet since it can aggravate their condition[238].		
Range:	E. Asia - China.		
Habitat:	Woods, north to latitude 42° 30' north[74]. Along the banks of streams and in valley shrub thickets[147].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	P. chinense[H] P. miltiflorum[E] P. multiflorus[E] Pleuropteus convolvulus[H] Pleuropteus cordatus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ho Chou Wu [E], Ho Shou Wu [E], She Chien Ts'Ao [E], Turu-Dokudami [E],
Epithets:	From a Dictionary of Botanical Epithets
	florum = flowered; multiflorum = many flowered;
	From a UDSA Plants Database

Systematics:	Order: Polygonales . Buckwheat family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Malaya

Physical Characteristics

Perennial Climber growing to 4.5m. It is hardy to zone 7. It is in flower from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Flowers; Leaves; Root; Seed.

Leaves - raw or cooked.

Seed - raw or cooked. It is rather small and fiddly to utilize[105].

Flowers[179]. No more details are given.

Root - cooked[2, 177]. It should be washed several times in order to leech out the bitterness[179]. This process will also remove many of the vitamins and minerals from the roots[K]. A famine food, it is only used when all else fails[105].

Medicinal Uses

Disclaimer

Antibacterial; Anticholesterolemic; Antipyretic; Antispasmodic; Antitumor; Astringent; Cardiotonic; Demulcent; Deobstruent; Hypoglycaemic; Laxative; Sedative; Tonic.

He Shou Wu is considered to be one of the most important of the Chinese herbal tonics and is widely used in that country[218]. It is said to restore vitality and virility[174], working especially on the liver and the reproductive, urinary and circulatory systems[238]. Some care should be exercised, however, since excessive doses can cause skin rash and numbness of the extremities[238].

The roots and stems are antibacterial, anticholesterolemic, antispasmodic, astringent, cardiotonic, demulcent, depurative, hypoglycaemic, laxative, sedative, tonic[116, 147, 174, 176, 238]. The roots are taken internally in the treatment of menstrual and menopausal complaints, constipation in the elderly, swollen lymph glands and high cholesterol levels[238]. They are very effective in reducing high cholesterol levels in the blood and increase blood sugar levels[254]. Externally, they are used to treat ringworm, bleeding wounds and sores[238]. The roots are harvested in the autumn, preferably from plants 3 - 4 years old, and are dried for later use[238].

The leaves and roots tonify the liver and kidneys, fortify the blood, strengthen the muscles and prevent premature greying of the hair[218].

The stem is deobstruent and sedative[218]. It is taken internally in the treatment of insomnia and neurasthenia whilst it is applied externally to ringworm[176, 238]. The stems are harvested in late summer or early autumn and are dried for later use[238].

Extracts of the plant have shown antipyretic, antitumour, hypoglycaemic and sedative activity[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil[1] but prefers a moisture retentive not too fertile soil in sun or part shade[200]. Repays generous treatment[1].

This species is hardy to at least -15°c[238].

Plants seem to be immune to the predations of rabbits[233].

There is a suggestion that this plant might be dioecious[178], in which case male and female plants will need to be grown if seed is required.

Propagation

Seed - sow spring in a cold frame. Germination is usually free and easy. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer if they have reached sufficient size. If not, overwinter them in a cold frame and plant them out the following spring after the last expected frosts.

Division in spring or autumn. Very easy, larger divisions can be planted out direct into their permanent positions. We have found that it is better to pot up the smaller divisions and grow them on in light shade in a cold frame until they are well established before planting them out in late spring or early summer.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Polygonum multiflorum*

Subject:

Polygonum multiflorum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Polygonum multiflorum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

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Add a comment on: *Convolvulus arvensis*

Subject:

Convolvulus arvensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Convolvulus arvensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Conyza canadensis

Common name:	Canada fleabane	Family:	Compositae
Author:	(L.) Crong.	Botanical references:	200
Synonyms:	Erigeron canadensis (L.)		
Known Hazards:	Skin contact with the plant can cause dermatitis in some people[222].		
Range:	N. America. Naturalized in Britain[17].		
Habitat:	Light soils on waste and cultivated land, also on walls, avoiding acid soils in Britain[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. canadense[Sn1,Sn4] C. canadensis var. canadensis[B,P] Erigeron cascadensis[B,P] Leptilon canadense[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Butter-weed [L], Canada Fleabane [E], Canadese Fijnstraal [D], Canadian Fleabane [H,S,L], Canadian Horseweed [B,P], Cascade Fleabane [B,P], Coltstail [H], Fleawort [H], Horse-weed [L], Kanaryaotu [E], Mawi Pire Otu [E], Prideweed [H], Thwail Ath Theeb [E],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database

	Africa; Iraq; Lesotho; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

Annual growing to 1m by 0.5m . It is hardy to zone 7. It is in flower from June to October, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Condiment; Leaves.

Young leaves and seedlings - cooked[105, 177]. Boiled, cooked in rice or dried for later use[183]. A nutritional analysis of the leaves is available[218].

The source of an essential oil that is used commercially for flavouring sweets, condiments and soft drinks[183]. The fresh leaves contain 0.2 - 0.66% essential oil[218].

Composition

Leaves (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Protein: 14.9 Fat: 1.8 Carbohydrate: 75.1 Fibre: 26.1 Ash: 8.2
> In milligrammes per 100g weight of food:
> Calcium: 1010 Phosphorus: 280 Potassium: 2610

Medicinal Uses

Disclaimer

Astringent; Diuretic; Emmenagogue; Homeopathy; Hypoglycaemic; Styptic; Tonic; VD; Vermifuge.

In traditional North American herbal medicine, Canada fleabane was boiled to make steam for sweat lodges, taken as a snuff to stimulate sneezing during the course of a cold and burned to create a smoke that warded off insects[254]. Nowadays it is valued most for its astringency, being used in the treatment of gastro-intestinal problems such as diarrhoea and dysentery[254]. It is said to be a very effective treatment for bleeding haemorrhoids[254].

The whole plant is antirheumatic, astringent, balsamic, diuretic, emmenagogue, styptic, tonic and vermifuge[4, 7, 9, 21, 222]. It can be harvested at any time that it is in flower and is best used when fresh[4, 207, 238]. The dried herb should not be stored for more than a year[238]. The seeds can also be used[4].

An infusion of the plant has been used to treat diarrhoea and internal haemorrhages[213] or applied externally to treat gonorrhoea[213] and bleeding piles[7]. The leaves are experimentally hypoglycaemic[218].

The essential oil found in the leaves is used in the treatment of diarrhoea, dysentery and internal haemorrhages[4, 207, 218]. It is a uterine stimulant[213] and is also said to be valuable in the treatment of inflamed tonsils plus ulceration and inflammation of the throat[4].

A tea of the boiled roots is used to treat menstrual irregularities[213].

A homeopathic remedy is made from the plant[9]. It is used in the treatment of haemorrhoids and painful menstruation[9].

Other Uses

Essential.

The plant contains small quantities of essential oil[7]. Since the plant is readily obtainable, extraction of the oil is feasible - it has a special quality that would make it suitable in the making of perfumes with unusual nuances[7, 240].

Cultivation details

Prefers a well-drained light or medium neutral to alkaline soil in a sunny position, though it tolerates most conditions[238].

Originally from N. America, Canada fleabane has become naturalized in many areas of the world and is considered to be a nuisance weed in many areas[268]. The plant is very adaptable to differing conditions and can vary dramatically in height, from only a few centimetres in poor soils to as much as 3 metres tall in rich soils[213].

The plant is used commercially as a food flavouring[183].

A good bee plant[200] but unfortunately it also harbours various insect pests such as the tarnished plant bug[1].

Propagation

Seed - we have no information on this species but suggest sowing the seed in spring in situ. An autumn sowing in situ might also be worthwhile.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Conyza canadense* (a possible synonym).

- [S]
- [S] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Erigeron canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Erigeron cascadensis* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *conyza canadensis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London.

1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future Rating (1-5):	1		

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Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Africa; Iraq; Lesotho; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

Annual growing to 1m by 0.5m . It is hardy to zone 7. It is in flower from June to October, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Condiment; Leaves.

Young leaves and seedlings - cooked[105, 177]. Boiled, cooked in rice or dried for later use[183]. A nutritional analysis of the leaves is available[218].

The source of an essential oil that is used commercially for flavouring sweets, condiments and soft drinks[183]. The fresh leaves contain 0.2 - 0.66% essential oil[218].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 14.9 Fat: 1.8 Carbohydrate: 75.1 Fibre: 26.1 Ash: 8.2
In milligrammes per 100g weight of food:
Calcium: 1010 Phosphorus: 280 Potassium: 2610

Medicinal Uses

Disclaimer

Astringent; Diuretic; Emmenagogue; Homeopathy; Hypoglycaemic; Styptic; Tonic; VD; Vermifuge.

In traditional North American herbal medicine, Canada fleabane was boiled to make steam for sweat lodges, taken as a snuff to stimulate sneezing during the course of a cold and burned to create a smoke that warded off insects[254]. Nowadays it is valued most for its astringency, being used in the treatment of gastro-intestinal problems such as diarrhoea and dysentery[254]. It is said to be a very effective treatment for bleeding haemorrhoids[254].

The whole plant is antirheumatic, astringent, balsamic, diuretic, emmenagogue, styptic, tonic and vermifuge[4, 7, 9, 21, 222]. It can be harvested at any time that it is in flower and is best used when fresh[4, 207, 238]. The dried herb should not be stored for more than a year[238]. The seeds can also be used[4].

An infusion of the plant has been used to treat diarrhoea and internal haemorrhages[213] or applied externally to treat gonorrhoea[213] and bleeding piles[7]. The leaves are experimentally hypoglycaemic[218].

The essential oil found in the leaves is used in the treatment of diarrhoea, dysentery and internal haemorrhages[4, 207, 218]. It is a uterine stimulant[213] and is also said to be valuable in the treatment of inflamed tonsils plus ulceration and inflammation of the throat[4].

A tea of the boiled roots is used to treat menstrual irregularities[213].

A homeopathic remedy is made from the plant[9]. It is used in the treatment of haemorrhoids and painful menstruation[9].

Other Uses

Essential.

The plant contains small quantities of essential oil[7]. Since the plant is readily obtainable, extraction of the oil is feasible - it has a special quality that would make it suitable in the making of perfumes with unusual nuances[7, 240].

Cultivation details

Prefers a well-drained light or medium neutral to alkaline soil in a sunny position, though it tolerates most conditions[238].

Originally from N. America, Canada fleabane has become naturalized in many areas of the world and is considered to be a nuisance weed in many areas[268]. The plant is very adaptable to differing conditions and can vary dramatically in height, from only a few centimetres in poor soils to as much as 3 metres tall in rich soils[213].

The plant is used commercially as a food flavouring[183].

A good bee plant[200] but unfortunately it also harbours various insect pests such as the tarnished plant bug[1].

Propagation

Seed - we have no information on this species but suggest sowing the seed in spring in situ. An autumn sowing in situ might also be worthwhile.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Conyza canadense* (a possible synonym).

- [S]
- [S] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Erigeron canadensis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Erigeron cascadensis* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *conyza canadensis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Conyza canadensis

Common name:	Canada fleabane	Family:	Compositae
Author:	(L.) Crong.	Botanical references:	200
Synonyms:	Erigeron canadensis (L.)		
Known Hazards:	Skin contact with the plant can cause dermatitis in some people[222].		
Range:	N. America. Naturalized in Britain[17].		
Habitat:	Light soils on waste and cultivated land, also on walls, avoiding acid soils in Britain[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. canadense[Sn1,Sn4] C. canadensis var. canadensis[B,P] Erigeron cascadensis[B,P] Leptilon canadense[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Butter-weed [L], Canada Fleabane [E], Canadese Fijnstraal [D], Canadian Fleabane [H,S,L], Canadian Horseweed [B,P], Cascade Fleabane [B,P], Coltstail [H], Fleawort [H], Horse-weed [L], Kanaryaotu [E], Mawi Pire Otu [E], Prideweed [H], Thwail Ath Theeb [E],
Epithets:	From a Dictionary of Botanical Epithets
	canadensis = northeastern America; cana = grayed due to hairs;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Africa; Iraq; Lesotho; Turkey; Us; Us(Amerindian); Us(Appalachia); Us(Blackfoot)

Physical Characteristics

Annual growing to 1m by 0.5m . It is hardy to zone 7. It is in flower from June to October, and the seeds ripen from July to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Condiment; Leaves.

Young leaves and seedlings - cooked[105, 177]. Boiled, cooked in rice or dried for later use[183]. A nutritional analysis of the leaves is available[218].

The source of an essential oil that is used commercially for flavouring sweets, condiments and soft drinks[183]. The fresh leaves contain 0.2 - 0.66% essential oil[218].

Composition

Leaves (Dry weight)

In grammes per 100g weight of food:
Water: 0 Protein: 14.9 Fat: 1.8 Carbohydrate: 75.1 Fibre: 26.1 Ash: 8.2
In milligrammes per 100g weight of food:
Calcium: 1010 Phosphorus: 280 Potassium: 2610

Medicinal Uses

Disclaimer

Astringent; Diuretic; Emmenagogue; Homeopathy; Hypoglycaemic; Styptic; Tonic; VD; Vermifuge.

In traditional North American herbal medicine, Canada fleabane was boiled to make steam for sweat lodges, taken as a snuff to stimulate sneezing during the course of a cold and burned to create a smoke that warded off insects[254]. Nowadays it is valued most for its astringency, being used in the treatment of gastro-intestinal problems such as diarrhoea and dysentery[254]. It is said to be a very effective treatment for bleeding haemorrhoids[254].

The whole plant is antirheumatic, astringent, balsamic, diuretic, emmenagogue, styptic, tonic and vermifuge[4, 7, 9, 21, 222]. It can be harvested at any time that it is in flower and is best used when fresh[4, 207, 238]. The dried herb should not be stored for more than a year[238]. The seeds can also be used[4].

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A tea of the boiled roots is used to treat menstrual irregularities[213].

A homeopathic remedy is made from the plant[9]. It is used in the treatment of haemorrhoids and painful menstruation[9].

Other Uses

Essential.

The plant contains small quantities of essential oil[7]. Since the plant is readily obtainable, extraction of the oil is feasible - it has a special quality that would make it suitable in the making of perfumes with unusual nuances[7, 240].

Cultivation details

Prefers a well-drained light or medium neutral to alkaline soil in a sunny position, though it tolerates most conditions[238].

Originally from N. America, Canada fleabane has become naturalized in many areas of the world and is considered to be a nuisance weed in many areas[268]. The plant is very adaptable to differing conditions and can vary dramatically in height, from only a few centimetres in poor soils to as much as 3 metres tall in rich soils[213].

The plant is used commercially as a food flavouring[183].

A good bee plant[200] but unfortunately it also harbours various insect pests such as the tarnished plant bug[1].

Propagation

Seed - we have no information on this species but suggest sowing the seed in spring in situ. An autumn sowing in situ might also be worthwhile.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Conyza canadensis*

Subject:

Conyza canadensis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Conyza canadensis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

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Coptis trifolia

Common name:	Goldthread	Family:	Ranunculaceae
Author:	(L.) Salisb.	Botanical references:	58, 200
Synonyms:	Coptis groenlandica ((Oeder.)Fernald.)		
Known Hazards:	Although no specific mention of toxicity has been found for this species, it belongs to a family that contains many species that are mildly toxic and so it is wise to treat this plant with some caution.		
Range:	N. America, E. Asia - Japan.		
Habitat:	Coniferous woods and sphagnum moors[58]. Dark swamps and dense forests in N. America[213].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anemone groenlandica[G,H] C. trifolia ssp. groenlandica[B,P] C. trifolia subsp. groenlandica[G] C. trifolia var. groenlandica[B,G,P] Chrusa borealis[H] Helleborus pumilus[H] Helleborus trifolius[H] Helleborus trilobus[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Canker-root [H], Coptide [H], Coptis [H], Gold Thread [H,S], Goldthread [H,FEIS], Mouthroot [H], Three-leaf Goldthread [B], Threeleaf Goldthread [P], Vegetable Gold [H],
Epithets:	From a Dictionary of Botanical Epithets
	trifolia = 3 leaves;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family

Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)

Physical Characteristics

An evergreen perennial growing to 0.15m by 0.5m . It is hardy to zone 2. It is in leaf all year, in flower in May. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Leaves.

The whole plant is said to be eaten[105, 177], or it can be mixed with sassafras-root bark and Irish moss and brewed into a kind of herbal root beer[183]. This plant contributes a bitter flavour and a yellow colour to the beverage[183]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Antibacterial; Antiinflammatory; Antiphlogistic; Astringent; Sedative; Skin; Stomachic; Tonic.

Goldenthread is a very bitter tasting herb that was formerly highly valued and widely used in North America by the native Indians and white settlers alike, though it is little used in modern herbalism[254]. It was employed mainly to treat any soreness in the mouth[254].

The dried roots, stems and leaves are antiphlogistic, highly astringent, sedative, stomachic, tonic[4, 21, 46, 61, 207, 222]. The plant is valued as a local application in the treatment of thrush in children[4]. It is also used in the treatment of ulcerated mouths and as a gargle for sore throats or mouths[21, 46, 61, 207, 213]. It is said to be useful in the treatment of dyspepsia and helpful in combating the drink habit[4].

The plant contains the alkaloid 'berberine', which is a mild sedative[213], anti-inflammatory and antibacterial[222]. The root is collected in the autumn and dried for later use[213].

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the leaves and stems[207].

Can be grown as a ground cover plant in the peat garden[200].

Cultivation details

Requires a light moist humus-rich slightly acidic soil with a northerly aspect or light shade[1, 200].

A very ornamental plant[1].

The sub-species C. trifolia groenlandica (Syn C. groenlandica) is the form used medicinally in N. America[222].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in an ericaceous compost[164]. Seal the pot in a polythene bag until germination takes place, which is usually within 1 - 6 months at 10°c[164]. Stored seed should be sown as early in the year as possible. Four weeks cold stratification may be beneficial[164]. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a shady part of the greenhouse for at least their first winter. Plant them out in mid-autumn or in spring.

Division in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for *Coptis groenlandica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Coptis trifolia ssp. groenlandica* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ranunculaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965

The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
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[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Coptis trifolia

Common name:	Goldthread	Family:	Ranunculaceae
Author:	(L.) Salisb.	Botanical references:	58, 200
Synonyms:	Coptis groenlandica ((Oeder.)Fernald.)		
Known Hazards:	Although no specific mention of toxicity has been found for this species, it belongs to a family that contains many species that are mildly toxic and so it is wise to treat this plant with some caution.		
Range:	N. America, E. Asia - Japan.		
Habitat:	Coniferous woods and sphagnum moors[58]. Dark swamps and dense forests in N. America[213].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Anemone groenlandica[G,H] C. trifolia ssp. groenlandica[B,P] C. trifolia subsp. groenlandica[G] C. trifolia var. groenlandica[B,G,P] Chrusa borealis[H] Helleborus pumilus[H] Helleborus trifolius[H] Helleborus trilobus[H]
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	Canker-root [H], Coptide [H], Coptis [H], Gold Thread [H,S], Goldthread [H,FEIS], Mouthroot [H], Three-leaf Goldthread [B], Threeleaf Goldthread [P], Vegetable Gold [H],
Epithets:	From a Dictionary of Botanical Epithets
	trifolia = 3 leaves;
Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Amerindian)

Physical Characteristics

An evergreen perennial growing to 0.15m by 0.5m . It is hardy to zone 2. It is in leaf all year, in flower in May. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Leaves.

The whole plant is said to be eaten[105, 177], or it can be mixed with sassafras-root bark and Irish moss and brewed into a kind of herbal root beer[183]. This plant contributes a bitter flavour and a yellow colour to the beverage[183]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

Antibacterial; Antiinflammatory; Antiphlogistic; Astringent; Sedative; Skin; Stomachic; Tonic.

Goldenthread is a very bitter tasting herb that was formerly highly valued and widely used in North America by the native Indians and white settlers alike, though it is little used in modern herbalism[254]. It was employed mainly to treat any soreness in the mouth[254].

The dried roots, stems and leaves are antiphlogistic, highly astringent, sedative, stomachic, tonic[4, 21, 46, 61, 207, 222]. The plant is valued as a local application in the treatment of thrush in children[4]. It is also used in the treatment of ulcerated mouths and as a gargle for sore throats or mouths[21, 46, 61, 207, 213]. It is said to be useful in the treatment of dyspepsia and helpful in combating the drink habit[4].

The plant contains the alkaloid 'berberine', which is a mild sedative[213], anti-inflammatory and antibacterial[222]. The root is collected in the autumn and dried for later use[213].

Other Uses

Dye; Ground cover.

A yellow dye is obtained from the leaves and stems[207].

Can be grown as a ground cover plant in the peat garden[200].

Cultivation details

Requires a light moist humus-rich slightly acidic soil with a northerly aspect or light shade[1, 200].

A very ornamental plant[1].

The sub-species C. trifolia groenlandica (Syn C. groenlandica) is the form used medicinally in N. America[222].

Propagation

Seed - best sown in a greenhouse as soon as it is ripe in an ericaceous compost[164]. Seal the pot in a polythene bag until germination takes place, which is usually within 1 - 6 months at 10°c[164]. Stored seed should be sown as early in the year as possible. Four weeks cold stratification may be beneficial[164]. Prick out the seedlings into individual pots when they are large enough to handle and grow on in a shady part of the greenhouse for at least their first winter. Plant them out in mid-autumn or in spring.

Division in spring[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: C
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Coptis groenlandica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Coptis trifolia ssp. groenlandica* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ranunculaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965

The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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Readers Comments

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Range:	N. America, E. Asia - Japan.		
Habitat:	Coniferous woods and sphagnum moors[58]. Dark swamps and dense forests in N. America[213].		
Plants For A Future Rating (1-5):	2		

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Systematics:	From a UDSA Plants Database
	Order: Ranunculales . Buttercup family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

An evergreen perennial growing to 0.15m by 0.5m . It is hardy to zone 2. It is in leaf all year, in flower in May. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

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Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Leaves.

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Division in spring[200].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coptis trifolia*

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Coptis trifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coptis trifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Coriandrum sativum

Common name:	Coriander	Family:	Umbelliferae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant can have a narcotic effect if it is eaten in very large quantities[201].		
Range:	S. Europe. Naturalized in Britain[17].		
Habitat:	Waste places and arable land, often by the sides of rivers[4, 9].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Parsley [P,H], Chinese-parsley [B], Cilantrico [E], Cilantro [H,E], Coriander [H,E,L], Coriandrum [E], Culantrico [E], Culantro [E], Dhanya [E], Hsiang Sui [E], Hu Sui [E], Katumber [E], Ketumbar [E], Kisnis [E], Koendoro [E], Koriander [D], Kozahla [E], Kuzbarah [E], Misima-Saiko [E], Penjilang [E], Yuan Sui [E],
Epithets:	From a Dictionary of Botanical Epithets
	sativum = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Egypt; Europe; India; India(Santal); Iraq; Japan; Kurdistan; Malaya; Mexico; Spain; Turkey

Physical Characteristics

Annual growing to 0.45m by 0.25m . It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves - raw or cooked. They are used as a flavouring in salads, soups etc[2, 4, 21, 37, 61] and the fresh leaves are probably the most widely used flavouring herb in the world[268]. The leaves have an aromatic flavour[183]. It is foetid according to another report[4], whilst another says that the fresh leaves have a strong bedbug-like smell[244].. The leaves should not be eaten in large quantities[132]. The fresh leaves contain about 0.012% oxalic acid and 0.172% calcium[240].

Seed - cooked. It is used as a flavouring in many dishes including cakes, bread and curries, it is also widely used to flavour certain alcoholic liquors[2, 4, 5, 21, 27, 37]. The fresh seed has a disagreeable and nauseous smell, but when dried it becomes fragrant, the longer it is kept the more fragrant it becomes[4, 132]. Plants yield about 1¾ tonnes per acre of seed[4].

The root is powdered and used as a condiment[161].

An essential oil from the seed is used as a food flavouring[21, 46, 61, 105]

Medicinal Uses

Disclaimer

Antihalitosis; Aromatherapy; Aromatic; Carminative; Expectorant; Narcotic; Stimulant; Stomachic.

Coriander is a commonly used domestic remedy, valued especially for its effect on the digestive system, treating flatulence, diarrhoea and colic[9, 244]. It settles spasms in the gut and counters the effects of nervous tension[254].

The seed is aromatic, carminative, expectorant, narcotic, stimulant and stomachic[4, 9, 21, 46, 147, 178, 201, 238]. It is most often used with active purgatives in order to disguise their flavour and combat their tendency to cause gripe[4, 244]. The raw seed is chewed to stimulate the flow of gastric juices and to cure foul breath[240, 268] and will sweeten the breath after garlic has been eaten[254]. Some caution is advised, however, because if used too freely the seeds become narcotic[4]. Externally the seeds have been used as a lotion or have been bruised and used as a poultice to treat rheumatic pains[254, 268].

The essential oil is used in aromatherapy. Its keyword is 'Appetite stimulant'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Fuel; Fungicide; Insecticide; Oil; Repellent.

An essential oil from the seed is used as a food flavouring, in perfumery, soap making etc[21, 46, 61, 74, 105]. It is also fungicidal and bactericidal[238].

The growing plant repels aphids[14, 20, 201]. A spray made by boiling of one part coriander leaves and one part anise seeds in two parts of water is very effective against red spider mites and woolly aphids[201].

An oil from the seed is used for making soap[74]. The report does not make it clear if the essential oil or the fixed oil is used[K].

The seed contains about 20% fixed oil[240], this has potential for industrial use in Britain, it could become an alternative to oilseed rape though the oil content is a bit on the low side at present (1995). The oil can be split into two basic types, one is used in making soaps etc, whilst the other can be used in making plastics[234].

The dried stems are used as a fuel[74].

Cultivation details

Prefers a warm dry light soil[4, 27, 37]. Plants grown mainly for their seeds do well in partial shade, but when growing for the seed or essential oil a sunny position is preferred[238]. The plants dislike constant moisture[14] or too much nitrogen[200]. Another report says that coriander grows best when a cool damp spring is followed by a hot dry summer[238]. Coriander tends to run quickly to seed if the plants are too dry at the seedling stage[238]. Plants tolerate a pH in the range

4.9 to 8.3.

Coriander is often cultivated, both on a garden scale and commercially, for its edible seed[4, 142], there are some named varieties[183]. The plant is fast-growing, ripening its seed without difficulty in Britain and it seems to be free of pests and diseases[234].

The seeds have been used medicinally and as a food flavouring since ancient times, and were introduced into Britain by the Romans[244]. In the Middle Ages they were added to love potions because of their reputation as aphrodisiacs[244].

The plants flowers are very attractive to pollinating insects[14, 18, 201].

Coriander is in general a good companion plant in the garden, helping to repel aphis and carrot root fly[238]. It grows well with anise, improving the germination rate when the two species are sown together[14, 18, 20, 238], but it grows badly with fennel, where it acts to reduce the seed yield of the fennel[14, 18, 20, 201, 238]. Coriander also grows particularly well with dill and chervil[201].

Propagation

Seed - sow April in situ[1, 37]. The seed is slow to germinate and so on a garden scale it can also be sown in March in a cold frame. Sow a few seeds in each pot and then plant them out when they are growing away strongly in May[4].

The seed can also be sown in situ in the autumn[1]. Autumn sown plants will grow bigger and produce more seed.

Scent

Plant: Fresh Crushed Dried

> The entire plant has a foetid smell somewhat like bugs. The seeds however, when dried, give off a very pleasant scent of oranges.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Species Database Bibliography

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *coriandrum sativum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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An article on the potential of Coriandrum sativum as an oil crop.

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[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Coriandrum sativum

Common name:	Coriander	Family:	Umbelliferae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant can have a narcotic effect if it is eaten in very large quantities[201].		
Range:	S. Europe. Naturalized in Britain[17].		
Habitat:	Waste places and arable land, often by the sides of rivers[4, 9].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Chinese Parsley [P,H], Chinese-parsley [B], Cilantrico [E], Cilantro [H,E], Coriander [H,E,L], Coriandrum [E], Culantrico [E], Culantro [E], Dhanya [E], Hsiang Sui [E], Hu Sui [E], Katumber [E], Ketumbar [E], Kisnis [E], Koendoro [E], Koriander [D], Kozahla [E], Kuzbarah [E], Misima-Saiko [E], Penjilang [E], Yuan Sui [E],
Epithets:	From a Dictionary of Botanical Epithets
	sativum = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Egypt; Europe; India; India(Santal); Iraq; Japan; Kurdistan; Malaya; Mexico; Spain; Turkey

Physical Characteristics

Annual growing to 0.45m by 0.25m . It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves - raw or cooked. They are used as a flavouring in salads, soups etc[2, 4, 21, 37, 61] and the fresh leaves are probably the most widely used flavouring herb in the world[268]. The leaves have an aromatic flavour[183]. It is foetid according to another report[4], whilst another says that the fresh leaves have a strong bedbug-like smell[244].. The leaves should not be eaten in large quantities[132]. The fresh leaves contain about 0.012% oxalic acid and 0.172% calcium[240].

Seed - cooked. It is used as a flavouring in many dishes including cakes, bread and curries, it is also widely used to flavour certain alcoholic liquors[2, 4, 5, 21, 27, 37]. The fresh seed has a disagreeable and nauseous smell, but when dried it becomes fragrant, the longer it is kept the more fragrant it becomes[4, 132]. Plants yield about 1¾ tonnes per acre of seed[4].

The root is powdered and used as a condiment[161].

An essential oil from the seed is used as a food flavouring[21, 46, 61, 105]

Medicinal Uses

Disclaimer

Antihalitosis; Aromatherapy; Aromatic; Carminative; Expectorant; Narcotic; Stimulant; Stomachic.

Coriander is a commonly used domestic remedy, valued especially for its effect on the digestive system, treating flatulence, diarrhoea and colic[9, 244]. It settles spasms in the gut and counters the effects of nervous tension[254].

The seed is aromatic, carminative, expectorant, narcotic, stimulant and stomachic[4, 9, 21, 46, 147, 178, 201, 238]. It is most often used with active purgatives in order to disguise their flavour and combat their tendency to cause gripe[4, 244]. The raw seed is chewed to stimulate the flow of gastric juices and to cure foul breath[240, 268] and will sweeten the breath after garlic has been eaten[254]. Some caution is advised, however, because if used too freely the seeds become narcotic[4]. Externally the seeds have been used as a lotion or have been bruised and used as a poultice to treat rheumatic pains[254, 268].

The essential oil is used in aromatherapy. Its keyword is 'Appetite stimulant'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Fuel; Fungicide; Insecticide; Oil; Repellent.

An essential oil from the seed is used as a food flavouring, in perfumery, soap making etc[21, 46, 61, 74, 105]. It is also fungicidal and bactericidal[238].

The growing plant repels aphids[14, 20, 201]. A spray made by boiling of one part coriander leaves and one part anise seeds in two parts of water is very effective against red spider mites and woolly aphids[201].

An oil from the seed is used for making soap[74]. The report does not make it clear if the essential oil or the fixed oil is used[K].

The seed contains about 20% fixed oil[240], this has potential for industrial use in Britain, it could become an alternative to oilseed rape though the oil content is a bit on the low side at present (1995). The oil can be split into two basic types, one is used in making soaps etc, whilst the other can be used in making plastics[234].

The dried stems are used as a fuel[74].

Cultivation details

Prefers a warm dry light soil[4, 27, 37]. Plants grown mainly for their seeds do well in partial shade, but when growing for the seed or essential oil a sunny position is preferred[238]. The plants dislike constant moisture[14] or too much nitrogen[200]. Another report says that coriander grows best when a cool damp spring is followed by a hot dry summer[238]. Coriander tends to run quickly to seed if the plants are too dry at the seedling stage[238]. Plants tolerate a pH in the range 4.9 to 8.3.

Coriander is often cultivated, both on a garden scale and commercially, for its edible seed[4, 142], there are some named varieties[183]. The plant is fast-growing, ripening its seed without difficulty in Britain and it seems to be free of pests and diseases[234].

The seeds have been used medicinally and as a food flavouring since ancient times, and were introduced into Britain by the Romans[244]. In the Middle Ages they were added to love potions because of their reputation as aphrodisiacs[244].

The plants flowers are very attractive to pollinating insects[14, 18, 201].

Coriander is in general a good companion plant in the garden, helping to repel aphis and carrot root fly[238]. It grows well with anise, improving the germination rate when the two species are sown together[14, 18, 20, 238], but it grows badly with fennel, where it acts to reduce the seed yield of the fennel[14, 18, 20, 201, 238]. Coriander also grows particularly well with dill and chervil[201].

Propagation

Seed - sow April in situ[1, 37]. The seed is slow to germinate and so on a garden scale it can also be sown in March in a cold frame. Sow a few seeds in each pot and then plant them out when they are growing away strongly in May[4].

The seed can also be sown in situ in the autumn[1]. Autumn sown plants will grow bigger and produce more seed.

Scent

Plant: Fresh Crushed Dried

> The entire plant has a foetid smell somewhat like bugs. The seeds however, when dried, give off a very pleasant scent of oranges.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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Plants For A Future: Database Search Results

Coriandrum sativum

Common name:	Coriander	Family:	Umbelliferae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	The plant can have a narcotic effect if it is eaten in very large quantities[201].		
Range:	S. Europe. Naturalized in Britain[17].		
Habitat:	Waste places and arable land, often by the sides of rivers[4, 9].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	sativum = cultivated;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Dominican Republic; Egypt; Europe; India; India(Santal); Iraq; Japan; Kurdistan; Malaya; Mexico; Spain; Turkey

Physical Characteristics

Annual growing to 0.45m by 0.25m . It is hardy to zone 5 and is not frost tender. It is in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Leaves - raw or cooked. They are used as a flavouring in salads, soups etc[2, 4, 21, 37, 61] and the fresh leaves are probably the most widely used flavouring herb in the world[268]. The leaves have an aromatic flavour[183]. It is foetid according to another report[4], whilst another says that the fresh leaves have a strong bedbug-like smell[244].. The leaves should not be eaten in large quantities[132]. The fresh leaves contain about 0.012% oxalic acid and 0.172% calcium[240].

Seed - cooked. It is used as a flavouring in many dishes including cakes, bread and curries, it is also widely used to flavour certain alcoholic liquors[2, 4, 5, 21, 27, 37]. The fresh seed has a disagreeable and nauseous smell, but when dried it becomes fragrant, the longer it is kept the more fragrant it becomes[4, 132]. Plants yield about 1¾ tonnes per acre of seed[4].

The root is powdered and used as a condiment[161].

An essential oil from the seed is used as a food flavouring[21, 46, 61, 105]

Medicinal Uses

Disclaimer

Antihalitosis; Aromatherapy; Aromatic; Carminative; Expectorant; Narcotic; Stimulant; Stomachic.

Coriander is a commonly used domestic remedy, valued especially for its effect on the digestive system, treating flatulence, diarrhoea and colic[9, 244]. It settles spasms in the gut and counters the effects of nervous tension[254].

The seed is aromatic, carminative, expectorant, narcotic, stimulant and stomachic[4, 9, 21, 46, 147, 178, 201, 238]. It is most often used with active purgatives in order to disguise their flavour and combat their tendency to cause gripe[4, 244]. The raw seed is chewed to stimulate the flow of gastric juices and to cure foul breath[240, 268] and will sweeten the breath after garlic has been eaten[254]. Some caution is advised, however, because if used too freely the seeds become narcotic[4]. Externally the seeds have been used as a lotion or have been bruised and used as a poultice to treat rheumatic pains[254, 268].

The essential oil is used in aromatherapy. Its keyword is 'Appetite stimulant'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Fuel; Fungicide; Insecticide; Oil; Repellent.

An essential oil from the seed is used as a food flavouring, in perfumery, soap making etc[21, 46, 61, 74, 105]. It is also fungicidal and bactericidal[238].

The growing plant repels aphids[14, 20, 201]. A spray made by boiling of one part coriander leaves and one part anise seeds in two parts of water is very effective against red spider mites and woolly aphids[201].

An oil from the seed is used for making soap[74]. The report does not make it clear if the essential oil or the fixed oil is used[K].

The seed contains about 20% fixed oil[240], this has potential for industrial use in Britain, it could become an alternative to oilseed rape though the oil content is a bit on the low side at present (1995). The oil can be split into two basic types, one is used in making soaps etc, whilst the other can be used in making plastics[234].

The dried stems are used as a fuel[74].

Cultivation details

Prefers a warm dry light soil[4, 27, 37]. Plants grown mainly for their seeds do well in partial shade, but when growing for the seed or essential oil a sunny position is preferred[238]. The plants dislike constant moisture[14] or too much nitrogen[200]. Another report says that coriander grows best when a cool damp spring is followed by a hot dry summer[238]. Coriander tends to run quickly to seed if the plants are too dry at the seedling stage[238]. Plants tolerate a pH in the range 4.9 to 8.3.

Coriander is often cultivated, both on a garden scale and commercially, for its edible seed[4, 142], there are some named varieties[183]. The plant is fast-growing, ripening its seed without difficulty in Britain and it seems to be free of pests and diseases[234].

The seeds have been used medicinally and as a food flavouring since ancient times, and were introduced into Britain by the Romans[244]. In the Middle Ages they were added to love potions because of their reputation as aphrodisiacs[244].

The plants flowers are very attractive to pollinating insects[14, 18, 201].

Coriander is in general a good companion plant in the garden, helping to repel aphis and carrot root fly[238]. It grows well with anise, improving the germination rate when the two species are sown together[14, 18, 20, 238], but it grows badly with fennel, where it acts to reduce the seed yield of the fennel[14, 18, 20, 201, 238]. Coriander also grows particularly well with dill and chervil[201].

Propagation

Seed - sow April in situ[1, 37]. The seed is slow to germinate and so on a garden scale it can also be sown in March in a cold frame. Sow a few seeds in each pot and then plant them out when they are growing away strongly in May[4].

The seed can also be sown in situ in the autumn[1]. Autumn sown plants will grow bigger and produce more seed.

Scent

Plant: Fresh Crushed Dried

> The entire plant has a foetid smell somewhat like bugs. The seeds however, when dried, give off a very pleasant scent of oranges.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Coriandrum sativum*

Subject:

Coriandrum sativum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Coriandrum sativum

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Crambe orientalis

Common name:		Family:	Cruciferae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - E. Mediterranean to W. Asia - Iran.		
Habitat:	Fields, hills, dry slopes, rocky places and clay soils[74].		
Plants For A Future Rating (1-5):	3		

Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Perennial growing to 1.2m by 1.2m . It is hardy to zone 7 and is not frost tender. It is in flower in June, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay and nutritionally poor soils. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Stem.

Leaves - cooked.

Immature flowering stems - raw or cooked and used like broccoli[2, 74, 105, 183].

Root - cooked. It is very thick and can be used as a horseradish substitute[2, 105, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

An easily grown species, succeeding in a good loam and an open sunny position[1]. Prefers a slightly alkaline soil in a position sheltered from strong winds[200]. Tolerates poor soil and some shade[200]. Dislikes acid soils[1]. Prefers a rather dry soil[187].

Plants are hardy to about -20°c[187].

A deep-rooted plant[233], it dislikes root disturbance[164].

Propagation

Seed - sow March/April in a seedbed outdoors and either thin the plants out or move them to their permanent positions when about 10cm tall[111]. The young plants are very attractive to slugs so some protection will often be needed.

Germination can be slow so it is best to sow the seed in pots in a cold frame[164]. Germination usually takes place in 3 - 26 weeks at 15°c[164]. Prick out the seedlings into individual pots as soon as they are large enough to handle and plant out into their permanent positions when they are at least 10cm tall.

Division in spring or autumn[1, 111]. Dig up the root clump and cut off as many sections as you require, making sure they all have at least one growing point. The larger of these divisions can be planted out straight into their permanent positions, though small ones are best potted up and grown on in a cold frame until they are established.

Root cuttings, 3 - 10 cm long, in spring[104]. These can be planted straight into the open ground or you can pot them up in the greenhouse and plant them out once they are growing strongly.

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Web References

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URL for Site:	http://
Details:	

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Habitat:	Fields, hills, dry slopes, rocky places and clay soils[74].		
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Epithets:	From a Dictionary of Botanical Epithets
	orientalis = eastern;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

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Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Stem.

Leaves - cooked.

Immature flowering stems - raw or cooked and used like broccoli[2, 74, 105, 183].

Root - cooked. It is very thick and can be used as a horseradish substitute[2, 105, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

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Subject:

Crambe orientalis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

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Plant names you would like this comment to be added to:

Crambe orientalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Cryptotaenia japonica

Common name:	Mitsuba	Family:	Umbelliferae
Author:	Hassk.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Woodland in hills and mountains[52, 58].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Honewort [P], Japanese Parsley [H], Mitsuba [H],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

An evergreen perennial growing to 1m by 0.6m . It is hardy to zone 5. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves; Root; Stem.

Leaves and stems - raw or cooked[2, 52, 116]. Used as a flavouring with a parsley-like flavour if you let your imagination run away with you[K]. Seedlings and young leaves can be used in salads[206]. When cooking, the leaves should not be cooked for more than a couple of minutes or the flavour is destroyed[206]. The leaves contain about 2.3% protein, 0.23% fat, 4.4% carbohydrate, 2.1% ash[179].

Root - raw or cooked[2, 52, 116, 183].

Blanched stem - a celery substitute[2, 116].

The seed is used as a seasoning.

Medicinal Uses

Disclaimer

Febrifuge; Women's complaints.

Women's complaints. Used in the treatment of haemorrhages, colds, fevers etc[178].

Other Uses

None known

Cultivation details

Succeeds in most soils, preferring a moist shady position under trees where it often self-sows[52]. The leaves tend to turn yellow when plants are grown in full sun[206].

This species is not winter-hardy in all areas of Britain, though plants can tolerate short periods at temperatures down to -10°c[206].

Mitsuba is commonly cultivated as a vegetable in Japan, there are some named varieties[183]. It is usually grown as an annual[206]. It is closely allied to C. canadensis, and is considered to be no more than a synonym of that species by some botanists[200].

This plant is adored by slugs and snails and must be protected when small or when new growth is emerging in the spring[K].

Propagation

Seed - sow April in a greenhouse. Germination is usually rapid, prick out the seedlings into individual pots when they are large enough to handle and plant them out in early summer. The ideal temperature for sowing is about 25°c, though seed does germinate at higher and lower temperatures[206]. Seed can also be sown in early autumn[206].

Division in spring or autumn.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Why Perennials
- Woodland Garden Plants

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[116] **Brooklyn Botanic Garden** *Oriental Herbs and Vegetables, Vol 39 No. 2.* Brooklyn Botanic Garden 1986
A small booklet packed with information.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[179] **Reid. B. E.** *Famine Foods of the Chiu-Huang Pen-ts'ao.* Taipei. Southern Materials Centre 1977
A translation of an ancient Chinese book on edible wild foods. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[206] **Larkcom J.** *Oriental Vegetables* John Murray 1991 ISBN 0-7195-4781-4
Well written and very informative.

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Readers Comments

Cryptotaenia japonica

Chris Brown Fri, 14 May 1999 13:44:48

I recently obtained a *Cryptotaenia japonica* plant from a local plant sale (Eugene, Oregon); the grower said it was an edible, so that made it a very appealing addition to my garden. As it was not in any of my horticultural reference books, I decided to do an internet search to see what kind of conditons it would flourish in. To my surprise, the North Carolina State University declared it a poisonous plant!

I then discovered your page, which confirmed my original information, which lists it as an edible plant. I don't know which source is correct, yours or the University's, but I don't think I will be eating it anytime soon!

Cross references: *Web-pages:*

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Plants For A Future: Database Search Results

Cryptotaenia japonica

Common name:	Mitsuba	Family:	Umbelliferae
Author:	Hassk.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Woodland in hills and mountains[52, 58].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Honewort [P], Japanese Parsley [H], Mitsuba [H],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

An evergreen perennial growing to 1m by 0.6m . It is hardy to zone 5. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves; Root; Stem.

Leaves and stems - raw or cooked[2, 52, 116]. Used as a flavouring with a parsley-like flavour if you let your imagination run away with you[K]. Seedlings and young leaves can be used in salads[206]. When cooking, the leaves should not be cooked for more than a couple of minutes or the flavour is destroyed[206]. The leaves contain about 2.3% protein, 0.23% fat, 4.4% carbohydrate, 2.1% ash[179].

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Blanched stem - a celery substitute[2, 116].

The seed is used as a seasoning.

Medicinal Uses

Disclaimer

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Women's complaints. Used in the treatment of haemorrhages, colds, fevers etc[178].

Other Uses

None known

Cultivation details

Succeeds in most soils, preferring a moist shady position under trees where it often self-sows[52]. The leaves tend to turn yellow when plants are grown in full sun[206].

This species is not winter-hardy in all areas of Britain, though plants can tolerate short periods at temperatures down to -10°c[206].

Mitsuba is commonly cultivated as a vegetable in Japan, there are some named varieties[183]. It is usually grown as an annual[206]. It is closely allied to C. canadensis, and is considered to be no more than a synonym of that species by some botanists[200].

This plant is adored by slugs and snails and must be protected when small or when new growth is emerging in the spring[K].

Propagation

Seed - sow April in a greenhouse. Germination is usually rapid, prick out the seedlings into individual pots when they are large enough to handle and plant them out in early summer. The ideal temperature for sowing is about 25°c, though seed does germinate at higher and lower temperatures[206]. Seed can also be sown in early autumn[206].

Division in spring or autumn.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future: Database Search Results

Cryptotaenia japonica

Common name:	Mitsuba	Family:	Umbelliferae
Author:	Hassk.	Botanical references:	58
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan.		
Habitat:	Woodland in hills and mountains[52, 58].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Japanese Honewort [P], Japanese Parsley [H], Mitsuba [H],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

An evergreen perennial growing to 1m by 0.6m . It is hardy to zone 5. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves; Root; Stem.

Leaves and stems - raw or cooked[2, 52, 116]. Used as a flavouring with a parsley-like flavour if you let your imagination run away with you[K]. Seedlings and young leaves can be used in salads[206]. When cooking, the leaves should not be cooked for more than a couple of minutes or the flavour is destroyed[206]. The leaves contain about 2.3% protein, 0.23% fat, 4.4% carbohydrate, 2.1% ash[179].

Root - raw or cooked[2, 52, 116, 183].

Blanched stem - a celery substitute[2, 116].

The seed is used as a seasoning.

Medicinal Uses

Disclaimer

Febrifuge; Women's complaints.

Women's complaints. Used in the treatment of haemorrhages, colds, fevers etc[178].

Other Uses

None known

Cultivation details

Succeeds in most soils, preferring a moist shady position under trees where it often self-sows[52]. The leaves tend to turn yellow when plants are grown in full sun[206].

This species is not winter-hardy in all areas of Britain, though plants can tolerate short periods at temperatures down to -10°c[206].

Mitsuba is commonly cultivated as a vegetable in Japan, there are some named varieties[183]. It is usually grown as an annual[206]. It is closely allied to C. canadensis, and is considered to be no more than a synonym of that species by some botanists[200].

This plant is adored by slugs and snails and must be protected when small or when new growth is emerging in the spring[K].

Propagation

Seed - sow April in a greenhouse. Germination is usually rapid, prick out the seedlings into individual pots when they are large enough to handle and plant them out in early summer. The ideal temperature for sowing is about 25°c, though seed does germinate at higher and lower temperatures[206]. Seed can also be sown in early autumn[206].

Division in spring or autumn.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

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Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

Cuminum cyminum

Common name:	Cumin	Family:	Umbelliferae
Author:	L.	Botanical references:	200
Synonyms:	Cuminum odorum (Salisb.)		
Known Hazards:	None known		
Range:	Europe to N. Africa and S.W.Asia? Original habitat is obscure.		
Habitat:	Not known in a truly wild condition.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ajaji [E], Comino [H,E], Cumin [H,B,P,E], Cummin [E], Jintan Puteh [E], Jinten Puteh [E], Kammun [E], Kimyon [E], Komijn [D],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Europe; India; Iraq; Malaya; Spain; Turkey

Physical Characteristics

Annual growing to 0.3m by 0.2m . It is hardy to zone 8 and is frost tender. It is in leaf from May to October, in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Seed.

Seed - cooked as a flavouring. Cumin seed was once widely used as a food flavouring in Europe, the Romans ground it into a powder and used it like pepper[268]. It is little used at present in Western cooking, though it is much employed in India[268]. A hot and aromatic flavour, it is an important ingredient in curries, and is also often used as a flavouring in biscuits, cakes and bread where it also helps in improving the digestion[1, 4, 14, 21, 27, 46, 132, 171, 244]. The seed is harvested when fully ripe and is then dried and stored in airtight jars[244].

An essential oil from the seed is used as a food flavouring[46, 61, 171].

Medicinal Uses

Disclaimer

Antibacterial; Antispasmodic; Aphrodisiac; Carminative; Galactogogue; Poultice; Stimulant; Stomachic.

Cumin is an aromatic, astringent herb that benefits the digestive system and acts as a stimulant to the sexual organs[238]. It has been used in the treatment of minor digestive complaints, chest conditions and coughs, as a pain killer and to treat rotten teeth[238, 254]. Cumin is seldom used in Western herbal medicine, having been superseded by caraway which has similar properties but a more pleasant flavour[4]. It is still widely used in India, however[4] where it is said to promote the assimilation of other herbs and to improve liver function[238].

The seed is antispasmodic, carminative, galactogogue, stimulant and stomachic[4, 46, 240, 254]. A general tonic to the whole digestive system, it is used in the treatment of flatulence and bloating, reducing intestinal gas and relaxing the gut as a whole[254]. In India it is also used in the treatment of insomnia, colds and fevers and to improve milk production in nursing mothers[254]. Ground into a powder and mixed into a paste with onion juice, it has been applied to scorpion stings[254].

The herb has been used externally as a poultice to relieve stitch and pains in the side[244].

The essential oil obtained from the seed is antibacterial and larvicidal[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal

factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Insecticide.

The seed contains about 2.5% essential oil[240]. It is used in perfumery[46, 61, 177].

Cultivation details

Tolerant of most well-drained soils[268], though it prefers a warm fertile well-drained sandy loam in a sheltered sunny position[14, 200].

A frost-tender annual plant, cumin has been cultivated for over 2,000 years in warm temperate and tropical zones for its edible seed. This is used mainly as a flavouring in curries etc, though it has also been employed medicinally[4, 46, 132]. The plant only succeeds outdoors in Britain in warm summers, taking 3 - 4 months to ripen its seed[200]. Another report says that the plant can ripen its seeds as far north as Norway[268].

When bruised, the plant has a pungent aroma[245].

Propagation

Seed - sow early spring in individual pots in a greenhouse. Grow the plants on fast, and plant them out after the last expected frosts[200]. Give the plants some temporary protection such as a cloche for their first few weeks in the open ground to make sure that they keep on growing in the cooler weather of early summer[K].

Scent

Plant: Crushed

When bruised, the plant has a pungent aroma.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cuminum odorum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7

A good herbal.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Cuminum cyminum

Common name:	Cumin	Family:	Umbelliferae
Author:	L.	Botanical references:	200
Synonyms:	Cuminum odorum (Salisb.)		
Known Hazards:	None known		
Range:	Europe to N. Africa and S.W.Asia? Original habitat is obscure.		
Habitat:	Not known in a truly wild condition.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ajaji [E], Comino [H,E], Cumin [H,B,P,E], Cummin [E], Jintan Puteh [E], Jinten Puteh [E], Kammun [E], Kimyon [E], Komijn [D],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Europe; India; Iraq; Malaya; Spain; Turkey

Physical Characteristics

Annual growing to 0.3m by 0.2m . It is hardy to zone 8 and is frost tender. It is in leaf from May to October, in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Seed.

Seed - cooked as a flavouring. Cumin seed was once widely used as a food flavouring in Europe, the Romans ground it into a powder and used it like pepper[268]. It is little used at present in Western cooking, though it is much employed in India[268]. A hot and aromatic flavour, it is an important ingredient in curries, and is also often used as a flavouring in biscuits, cakes and bread where it also helps in improving the digestion[1, 4, 14, 21, 27, 46, 132, 171, 244]. The seed is harvested when fully ripe and is then dried and stored in airtight jars[244].

An essential oil from the seed is used as a food flavouring[46, 61, 171].

Medicinal Uses

Disclaimer

Antibacterial; Antispasmodic; Aphrodisiac; Carminative; Galactogogue; Poultice; Stimulant; Stomachic.

Cumin is an aromatic, astringent herb that benefits the digestive system and acts as a stimulant to the sexual organs[238]. It has been used in the treatment of minor digestive complaints, chest conditions and coughs, as a pain killer and to treat rotten teeth[238, 254]. Cumin is seldom used in Western herbal medicine, having been superseded by caraway which has similar properties but a more pleasant flavour[4]. It is still widely used in India, however[4] where it is said to promote the assimilation of other herbs and to improve liver function[238].

The seed is antispasmodic, carminative, galactogogue, stimulant and stomachic[4, 46, 240, 254]. A general tonic to the whole digestive system, it is used in the treatment of flatulence and bloating, reducing intestinal gas and relaxing the gut as a whole[254]. In India it is also used in the treatment of insomnia, colds and fevers and to improve milk production in nursing mothers[254]. Ground into a powder and mixed into a paste with onion juice, it has been applied to scorpion stings[254].

The herb has been used externally as a poultice to relieve stitch and pains in the side[244].

The essential oil obtained from the seed is antibacterial and larvicidal[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

make a credit card donation with PayPal

Other Uses

Essential; Insecticide.

The seed contains about 2.5% essential oil[240]. It is used in perfumery[46, 61, 177].

Cultivation details

Tolerant of most well-drained soils[268], though it prefers a warm fertile well-drained sandy loam in a sheltered sunny position[14, 200].

A frost-tender annual plant, cumin has been cultivated for over 2,000 years in warm temperate and tropical zones for its edible seed. This is used mainly as a flavouring in curries etc, though it has also been employed medicinally[4, 46, 132]. The plant only succeeds outdoors in Britain in warm summers, taking 3 - 4 months to ripen its seed[200]. Another report says that the plant can ripen its seeds as far north as Norway[268].

When bruised, the plant has a pungent aroma[245].

Propagation

Seed - sow early spring in individual pots in a greenhouse. Grow the plants on fast, and plant them out after the last expected frosts[200]. Give the plants some temporary protection such as a cloche for their first few weeks in the open ground to make sure that they keep on growing in the cooler weather of early summer[K].

Scent

Plant: Crushed

> When bruised, the plant has a pungent aroma.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Cuminum odorum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7

A good herbal.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8

An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Cuminum cyminum

Common name:	Cumin	Family:	Umbelliferae
Author:	L.	Botanical references:	200
Synonyms:	Cuminum odorum (Salisb.)		
Known Hazards:	None known		
Range:	Europe to N. Africa and S.W.Asia? Original habitat is obscure.		
Habitat:	Not known in a truly wild condition.		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Ajaji [E], Comino [H,E], Cumin [H,B,P,E], Cummin [E], Jintan Puteh [E], Jinten Puteh [E], Kammun [E], Kimyon [E], Komijn [D],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Britain(Wales); Europe; India; Iraq; Malaya; Spain; Turkey

Physical Characteristics

Annual growing to 0.3m by 0.2m . It is hardy to zone 8 and is frost tender. It is in leaf from May to October, in flower from June to July, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Seed.

Seed - cooked as a flavouring. Cumin seed was once widely used as a food flavouring in Europe, the Romans ground it into a powder and used it like pepper[268]. It is little used at present in Western cooking, though it is much employed in India[268]. A hot and aromatic flavour, it is an important ingredient in curries, and is also often used as a flavouring in biscuits, cakes and bread where it also helps in improving the digestion[1, 4, 14, 21, 27, 46, 132, 171, 244]. The seed is harvested when fully ripe and is then dried and stored in airtight jars[244].

An essential oil from the seed is used as a food flavouring[46, 61, 171].

Medicinal Uses

Disclaimer

Antibacterial; Antispasmodic; Aphrodisiac; Carminative; Galactogogue; Poultice; Stimulant; Stomachic.

Cumin is an aromatic, astringent herb that benefits the digestive system and acts as a stimulant to the sexual organs[238]. It has been used in the treatment of minor digestive complaints, chest conditions and coughs, as a pain killer and to treat rotten teeth[238, 254]. Cumin is seldom used in Western herbal medicine, having been superseded by caraway which has similar properties but a more pleasant flavour[4]. It is still widely used in India, however[4] where it is said to promote the assimilation of other herbs and to improve liver function[238].

The seed is antispasmodic, carminative, galactogogue, stimulant and stomachic[4, 46, 240, 254]. A general tonic to the whole digestive system, it is used in the treatment of flatulence and bloating, reducing intestinal gas and relaxing the gut as a whole[254]. In India it is also used in the treatment of insomnia, colds and fevers and to improve milk production in nursing mothers[254]. Ground into a powder and mixed into a paste with onion juice, it has been applied to scorpion stings[254].

The herb has been used externally as a poultice to relieve stitch and pains in the side[244].

The essential oil obtained from the seed is antibacterial and larvicidal[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

make a credit card donation with PayPal

Other Uses

Essential; Insecticide.

The seed contains about 2.5% essential oil[240]. It is used in perfumery[46, 61, 177].

Cultivation details

Tolerant of most well-drained soils[268], though it prefers a warm fertile well-drained sandy loam in a sheltered sunny position[14, 200].

A frost-tender annual plant, cumin has been cultivated for over 2,000 years in warm temperate and tropical zones for its edible seed. This is used mainly as a flavouring in curries etc, though it has also been employed medicinally[4, 46, 132]. The plant only succeeds outdoors in Britain in warm summers, taking 3 - 4 months to ripen its seed[200]. Another report says that the plant can ripen its seeds as far north as Norway[268].

When bruised, the plant has a pungent aroma[245].

Propagation

Seed - sow early spring in individual pots in a greenhouse. Grow the plants on fast, and plant them out after the last expected frosts[200]. Give the plants some temporary protection such as a cloche for their first few weeks in the open ground to make sure that they keep on growing in the cooler weather of early summer[K].

Scent

Plant: Crushed

> When bruised, the plant has a pungent aroma.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Cuminum cyminum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cuminum cyminum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Cymopterus bulbosus

Common name:	Bulbous springparsley	Family:	Umbelliferae
Author:	A. Nels.	Botanical references:	
Synonyms:	Phellopterus bulbosus ((A.Nels.)Coult.&Rose.)		
Known Hazards:	None known		
Range:	South-western N. America - Wyoming to Texas and New Mexico.		
Habitat:	Dry hills and plains at elevations of 1200 - 2100 metres.		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bulbous Spring-parsley [B], Bulbous Springparsley [P],
Epithets:	From a Dictionary of Botanical Epithets
	bulbosus = bulbous;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root.

The root can be eaten raw, cooked or dried for later use[257].

The dried leaves are used as a flavouring[61, 105, 177]. A celery flavouring[257].

Leaves - cooked[105, 161].

Medicinal Uses

Disclaimer

The plant has been eaten as a stomach medicine[257].

Other Uses

None known

Cultivation details

We have almost no information on the needs of this species and do not know if it is hardy in Britain. We suggest growing it in a sunny position in a well-drained light or medium soil[K].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Sow stored seed as early in the year as possible in a greenhouse. As soon as they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring or autumn might be possible.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Cymopterus bulbosus

Common name:	Bulbous springparsley	Family:	Umbelliferae
Author:	A. Nels.	Botanical references:	
Synonyms:	Phellopterus bulbosus ((A.Nels.)Coult.&Rose.)		
Known Hazards:	None known		
Range:	South-western N. America - Wyoming to Texas and New Mexico.		
Habitat:	Dry hills and plains at elevations of 1200 - 2100 metres.		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bulbous Spring-parsley [B], Bulbous Springparsley [P],
Epithets:	From a Dictionary of Botanical Epithets
	bulbosus = bulbous;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root.

The root can be eaten raw, cooked or dried for later use[257].

The dried leaves are used as a flavouring[61, 105, 177]. A celery flavouring[257].

Leaves - cooked[105, 161].

Medicinal Uses

Disclaimer

The plant has been eaten as a stomach medicine[257].

Other Uses

None known

Cultivation details

We have almost no information on the needs of this species and do not know if it is hardy in Britain. We suggest growing it in a sunny position in a well-drained light or medium soil[K].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Sow stored seed as early in the year as possible in a greenhouse. As soon as they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Suppliers

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Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Cymopterus bulbosus

Common name:	Bulbous springparsley	Family:	Umbelliferae
Author:	A. Nels.	Botanical references:	
Synonyms:	Phellopterus bulbosus ((A.Nels.)Coult.&Rose.)		
Known Hazards:	None known		
Range:	South-western N. America - Wyoming to Texas and New Mexico.		
Habitat:	Dry hills and plains at elevations of 1200 - 2100 metres.		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bulbous Spring-parsley [B], Bulbous Springparsley [P],
Epithets:	From a Dictionary of Botanical Epithets
	bulbosus = bulbous;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root.

The root can be eaten raw, cooked or dried for later use[257].

The dried leaves are used as a flavouring[61, 105, 177]. A celery flavouring[257].

Leaves - cooked[105, 161].

Medicinal Uses

Disclaimer

The plant has been eaten as a stomach medicine[257].

Other Uses

None known

Cultivation details

We have almost no information on the needs of this species and do not know if it is hardy in Britain. We suggest growing it in a sunny position in a well-drained light or medium soil[K].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Sow stored seed as early in the year as possible in a greenhouse. As soon as they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in spring or autumn might be possible.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cymopterus bulbosus*

Subject:

Cymopterus bulbosus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cymopterus bulbosus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Cymopterus fendleri

Common name:	Fendler's springparsley	Family:	Umbelliferae
Author:	A. Gray.	Botanical references:	
Synonyms:	Cymopterus acaulis fendleri ((Gray.)Goodrich.)		
Known Hazards:	None known		
Range:	South-western N. America - Arizona.		
Habitat:	Found at an altitude of 1500 - 1800 metres in Arizona.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	C. acaulis var. fendleri[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chimaj&aacute; [S], Chimaja [S], Fendler's Springparsley [P],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves - cooked[46, 61, 105, 161]. The plant has a particularly strong and pleasant odour, it is used as a flavouring in soups and stews[2, 257].

Root - raw or cooked[257]. Used as a flavouring[46, 61, 105]. An aromatic flavour[161].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have almost no information on the needs of this species and do not know if it is hardy in Britain. We suggest growing it in a sunny position in a well-drained light or medium soil[K].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Sow stored seed as early in the year as possible in a greenhouse. As soon as they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Suppliers

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Web References

- [S]
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References

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Cymopterus fendleri

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Habitats and Possible Locations

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Root - raw or cooked[257]. Used as a flavouring[46, 61, 105]. An aromatic flavour[161].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Propagation

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Physical Characteristics

Perennial. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

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Root - raw or cooked[257]. Used as a flavouring[46, 61, 105]. An aromatic flavour[161].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

We have almost no information on the needs of this species and do not know if it is hardy in Britain. We suggest growing it in a sunny position in a well-drained light or medium soil[K].

Propagation

Seed - we have no information on this species but suggest sowing the seed in a cold frame as soon as it is ripe if this is possible. Sow stored seed as early in the year as possible in a greenhouse. As soon as they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Add a comment on: *Cymopterus fendleri*

Subject:

Cymopterus fendleri

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

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Plant names you would like this comment to be added to:

Cymopterus fendleri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 05:11:52 2004

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Add Comment Reset

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Cyperus longus

Common name:	Galingale	Family:	Cyperaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	By water in ditches and marshy places[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cyperus [E], Engish Galingale [H], English Galingale [H], Sweet Cyperus [H],
Epithets:	From a Dictionary of Botanical Epithets
	longus = long;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Sedge family
Other Range Info:	From the Ethnobotany Database
	Egypt; Europe

Physical Characteristics

An evergreen perennial growing to 1.2m by 2m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Root.

Tuber - used as a spice in soups, pies and sweets[5, 183].

Medicinal Uses

Disclaimer

Aromatic; Tonic.

The root is an aromatic tonic[4]. It was at one time considered to be a good stomachic and useful in the first stages of dropsy, but it has now fallen into disuse[4, 238].

Other Uses

Basketry; Essential; Paper; Weaving.

The leaves are used in basketry and for weaving hats, matting etc[100].

The root and stem have the scent of violets and are used in perfumery[4, 46, 61, 245]. The aroma becomes more pronounced when the root has been dried and left to age[245].

A fibre obtained from the plant is used in paper making[100].

Cultivation details

Prefers a moist sandy loam[95, 117]. Succeeds in any good garden soil so long as it does not dry out[162], it also grows well in up to 30cm of water[200].

Plants are hardy to about -15°c[200].

A very ornamental plant[1], though it can spread freely at the roots when well-suited[233].

Galingale was one of the favourite spices of the medieval kitchen and was an ingredient of 'pokerounce', a kind of medieval cinnamon toast[183]. It is rarely used at present. Both the root and the stem have a sweet moss-like perfume, resembling that of the violet but not so pure. The aroma becomes more fragrant with age[245].

Propagation

Seed - surface sow in the spring and keep the compost moist[164]. The seed usually germinates in 2 - 6 weeks at 18°c[164]. Prick out the seedlings into individual pots as soon as they are large enough to handle. Grow on for their first winter in a greenhouse and plant them out in late spring after the last expected frosts.

Division in spring or autumn. Division is simple at almost any time of the year, so long as the roots are not allowed to become dry. Plant them out straight into their permanent positions.

Scent

Stem: Crushed Dried

> The stem has a sweet moss-like perfume, resembling that of the violet but not so pure. The aroma becomes more fragrant with age.

Root: Crushed Dried

> The root has a sweet moss-like perfume, resembling that of the violet but not so pure. The aroma becomes more fragrant with age.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- The Edible Pond and Bog Garden

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cyperaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[95] **Saunders. C. F.** *Edible and Useful Wild Plants of the United States and Canada.* Dover Publications 1976 ISBN 0-486-23310-3
Useful wild plants of America. A pocket guide.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[117] **Rosengarten. jnr. F.** *The Book of Edible Nuts.* Walker & Co. 1984 ISBN 0802707699
A very readable and comprehensive guide. Well illustrated.

[162] **Grounds. R.** *Ornamental Grasses.* Christopher Helm 1989 ISBN 0-7470-1219-9
Cultivation details of many of the grasses and bamboos. Well illustrated.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on

Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Back to: Plant For A Future home page, Main Search Page Help Bibliography

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Cyperus+longus`
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Plants For A Future: Database Search Results

Cyperus longus

Common name:	Galingale	Family:	Cyperaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	By water in ditches and marshy places[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cyperus [E], Engish Galingale [H], English Galingale [H], Sweet Cyperus [H],
Epithets:	From a Dictionary of Botanical Epithets
	longus = long;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Sedge family
Other Range Info:	From the Ethnobotany Database
	Egypt; Europe

Physical Characteristics

An evergreen perennial growing to 1.2m by 2m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Root.

Tuber - used as a spice in soups, pies and sweets[5, 183].

Medicinal Uses

Disclaimer

Aromatic; Tonic.

The root is an aromatic tonic[4]. It was at one time considered to be a good stomachic and useful in the first stages of dropsy, but it has now fallen into disuse[4, 238].

Other Uses

Basketry; Essential; Paper; Weaving.

The leaves are used in basketry and for weaving hats, matting etc[100].

The root and stem have the scent of violets and are used in perfumery[4, 46, 61, 245]. The aroma becomes more pronounced when the root has been dried and left to age[245].

A fibre obtained from the plant is used in paper making[100].

Cultivation details

Prefers a moist sandy loam[95, 117]. Succeeds in any good garden soil so long as it does not dry out[162], it also grows well in up to 30cm of water[200].

Plants are hardy to about -15°c[200].

A very ornamental plant[1], though it can spread freely at the roots when well-suited[233].

Galingale was one of the favourite spices of the medieval kitchen and was an ingredient of 'pokerounce', a kind of medieval cinnamon toast[183]. It is rarely used at present. Both the root and the stem have a sweet moss-like perfume, resembling that of the violet but not so pure. The aroma becomes more fragrant with age[245].

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Division in spring or autumn. Division is simple at almost any time of the year, so long as the roots are not allowed to become dry. Plant them out straight into their permanent positions.

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Stem: Crushed Dried

> The stem has a sweet moss-like perfume, resembling that of the violet but not so pure. The aroma becomes more fragrant with age.

Root: Crushed Dried

> The root has a sweet moss-like perfume, resembling that of the violet but not so pure. The aroma becomes more fragrant with age.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- The Edible Pond and Bog Garden

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cyperaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
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Readers Comments

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Plants For A Future: Database Search Results

Cyperus longus

Common name:	Galingale	Family:	Cyperaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	By water in ditches and marshy places[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cyperus [E], Engish Galingale [H], English Galingale [H], Sweet Cyperus [H],
Epithets:	From a Dictionary of Botanical Epithets
	longus = long;
Systematics:	From a UDSA Plants Database
	Order: Cyperales . Sedge family
Other Range Info:	From the Ethnobotany Database
	Egypt; Europe

Physical Characteristics

An evergreen perennial growing to 1.2m by 2m at a fast rate. It is hardy to zone 7. It is in leaf all year, in flower from August to September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist or wet soil and can grow in water.

Habitats and Possible Locations

Pond, Bog Garden.

Edible Uses

Condiment; Root.

Tuber - used as a spice in soups, pies and sweets[5, 183].

Medicinal Uses

Disclaimer

Aromatic; Tonic.

The root is an aromatic tonic[4]. It was at one time considered to be a good stomachic and useful in the first stages of dropsy, but it has now fallen into disuse[4, 238].

Other Uses

Basketry; Essential; Paper; Weaving.

The leaves are used in basketry and for weaving hats, matting etc[100].

The root and stem have the scent of violets and are used in perfumery[4, 46, 61, 245]. The aroma becomes more pronounced when the root has been dried and left to age[245].

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Cultivation details

Prefers a moist sandy loam[95, 117]. Succeeds in any good garden soil so long as it does not dry out[162], it also grows well in up to 30cm of water[200].

Plants are hardy to about -15°c[200].

A very ornamental plant[1], though it can spread freely at the roots when well-suited[233].

Galingale was one of the favourite spices of the medieval kitchen and was an ingredient of 'pokerounce', a kind of medieval cinnamon toast[183]. It is rarely used at present. Both the root and the stem have a sweet moss-like perfume, resembling that of the violet but not so pure. The aroma becomes more fragrant with age[245].

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Scent

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Cyperus longus*

Subject:

Cyperus longus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Cyperus longus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Dahlia pinnata

Common name:	Dahlia	Family:	Compositae
Author:	Cav.	Botanical references:	200
Synonyms:	Dahlia variabilis ((Willd.)Desf.)		
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Rich damp oak and pine woods at elevations around 1,800 metres[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. rosea[B,P] Dalea pinnata[B,P] Georgina variabilis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chichicpatli [E], Garden Dahlia [B], Georgina [H], Pinnate Dahlia [P], Summer Farewell [P], Summer-farewell [B],
Epithets:	From a Dictionary of Botanical Epithets
	pinnata = pinnate;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 9 and is frost tender. It is in flower from June to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Root; Sweetener.

The flower petals are used in salads[177].

Root - cooked and used as a vegetable[183]. A bitter flavour[200]. A sweet extract of the tuber, called 'dacopa', is used as a beverage or as a flavouring. It is mixed with hot or cold water and sprinkled on ice cream. Its naturally sweet mellow taste is said to combine the characteristics of coffee, tea and chocolate[183]. The root is rich in the starch inulin. Whilst not absorbed by the body, this starch can be converted into fructose, a sweetening substance suitable for diabetics to use[141, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

An orange dye is obtained from the flowers and seed heads[168, 169].

Cultivation details

An easily grown plant so long as the soil does not dry out[260]. It requires a deep rich soil and a sunny position[164], disliking shade[200].

The growing plant is very frost-tender, though the tubers are somewhat hardier tolerating temperatures down to about -5°c[260]. However, these tubers are not reliably hardy if left in the ground over winter in Britain[200]. They are best harvested after the foliage is killed off by frost and then stored in a cool but frost-free place over the winter, planting out in April/May[200].

Propagation

Seed - sow late winter to mid spring in a greenhouse. The seed usually germinates in 1 - 3 weeks at 20°c[164]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of young shoots in early spring. The tubers are usually brought into the greenhouse in late winter in order to encourage early growth and young basal shoots are removed as soon as they are large enough[200].

Division. The roots are usually harvested in the autumn. These can be divided into individual tubers when planting out in the spring. Each portion should have a growing point[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Dahlia variabilis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Dalea pinnata* (a possible synonym).

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References

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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URL for Site:	http://
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Plants For A Future: Database Search Results

Dahlia pinnata

Common name:	Dahlia	Family:	Compositae
Author:	Cav.	Botanical references:	200
Synonyms:	Dahlia variabilis ((Willd.)Desf.)		
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Rich damp oak and pine woods at elevations around 1,800 metres[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. rosea[B,P] Dalea pinnata[B,P] Georgina variabilis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chichicpatli [E], Garden Dahlia [B], Georgina [H], Pinnate Dahlia [P], Summer Farewell [P], Summer-farewell [B],
Epithets:	From a Dictionary of Botanical Epithets
	pinnata = pinnate;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 9 and is frost tender. It is in flower from June to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Root; Sweetener.

The flower petals are used in salads[177].

Root - cooked and used as a vegetable[183]. A bitter flavour[200]. A sweet extract of the tuber, called 'dacopa', is used as a beverage or as a flavouring. It is mixed with hot or cold water and sprinkled on ice cream. Its naturally sweet mellow taste is said to combine the characteristics of coffee, tea and chocolate[183]. The root is rich in the starch inulin. Whilst not absorbed by the body, this starch can be converted into fructose, a sweetening substance suitable for diabetics to use[141, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

An orange dye is obtained from the flowers and seed heads[168, 169].

Cultivation details

An easily grown plant so long as the soil does not dry out[260]. It requires a deep rich soil and a sunny position[164], disliking shade[200].

The growing plant is very frost-tender, though the tubers are somewhat hardier tolerating temperatures down to about -5°c[260]. However, these tubers are not reliably hardy if left in the ground over winter in Britain[200]. They are best harvested after the foliage is killed off by frost and then stored in a cool but frost-free place over the winter, planting out in April/May[200].

Propagation

Seed - sow late winter to mid spring in a greenhouse. The seed usually germinates in 1 - 3 weeks at 20°c[164]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of young shoots in early spring. The tubers are usually brought into the greenhouse in late winter in order to encourage early growth and young basal shoots are removed as soon as they are large enough[200].

Division. The roots are usually harvested in the autumn. These can be divided into individual tubers when planting out in the spring. Each portion should have a growing point[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Dahlia variabilis* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Dalea pinnata* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

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[169] **Buchanan. R.** *A Weavers Garden.*
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Plants For A Future: Database Search Results

Dahlia pinnata

Common name:	Dahlia	Family:	Compositae
Author:	Cav.	Botanical references:	200
Synonyms:	Dahlia variabilis ((Willd.)Desf.)		
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Rich damp oak and pine woods at elevations around 1,800 metres[260].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. rosea[B,P] Dalea pinnata[B,P] Georgina variabilis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chichicpatli [E], Garden Dahlia [B], Georgina [H], Pinnate Dahlia [P], Summer Farewell [P], Summer-farewell [B],
Epithets:	From a Dictionary of Botanical Epithets
	pinnata = pinnate;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 9 and is frost tender. It is in flower from June to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Root; Sweetener.

The flower petals are used in salads[177].

Root - cooked and used as a vegetable[183]. A bitter flavour[200]. A sweet extract of the tuber, called 'dacopa', is used as a beverage or as a flavouring. It is mixed with hot or cold water and sprinkled on ice cream. Its naturally sweet mellow taste is said to combine the characteristics of coffee, tea and chocolate[183]. The root is rich in the starch inulin. Whilst not absorbed by the body, this starch can be converted into fructose, a sweetening substance suitable for diabetics to use[141, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye.

An orange dye is obtained from the flowers and seed heads[168, 169].

Cultivation details

An easily grown plant so long as the soil does not dry out[260]. It requires a deep rich soil and a sunny position[164], disliking shade[200].

The growing plant is very frost-tender, though the tubers are somewhat hardier tolerating temperatures down to about -5°c[260]. However, these tubers are not reliably hardy if left in the ground over winter in Britain[200]. They are best harvested after the foliage is killed off by frost and then stored in a cool but frost-free place over the winter, planting out in April/May[200].

Propagation

Seed - sow late winter to mid spring in a greenhouse. The seed usually germinates in 1 - 3 weeks at 20°c[164]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of young shoots in early spring. The tubers are usually brought into the greenhouse in late winter in order to encourage early growth and young basal shoots are removed as soon as they are large enough[200].

Division. The roots are usually harvested in the autumn. These can be divided into individual tubers when planting out in the spring. Each portion should have a growing point[200].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Dahlia pinnata*

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Dahlia pinnata

Group:
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Enter your comment about this plant here.

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Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dahlia pinnata

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Dahlia rosea

Common name:	Dahlia	Family:	Compositae
Author:	Cav.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Pine-oak forests and sandy meadows to 1500 metres[4, 181].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. pinnata[B,G,HORTIPLEX,P] D. sp.[G] D. variabilis[G] Georgina variabilis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Garden Dahlia [B], Pinnate Dahlia [P],
Epithets:	From a Dictionary of Botanical Epithets
	rosea = rose colored;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 9 and is frost tender. It is in flower from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Root; Sweetener.

The flower petals are used in salads[2].

Root - cooked and used as a vegetable[61, 105]. A bitter flavour[200]. Inedible according to another report[2]. A sweet extract of the tuber, called 'dacopa', is used as a beverage or as a flavouring. It is mixed with hot or cold water and sprinkled on ice cream. Its naturally sweet mellow taste is said to combine the characteristics of coffee, tea and chocolate[183]. The root is rich in the starch inulin. Whilst not absorbed by the body, this starch can be converted into fructose, a sweetening substance suitable for diabetics to use[4, 61].

Medicinal Uses

Disclaimer

Miscellany.

A valuable and much needed drug was extracted from dahlia roots during the first world war[4]. No more information was given in the report[K].

Other Uses

Dye.

Yellow and gold dyes are obtained from the flowers and seed heads[169].

Cultivation details

Requires a deep rich soil and a sunny position[1], disliking shade[200].

The growing plant is very frost-tender, though the tubers are somewhat hardier. However, these tubers are not reliably hardy if left in the ground over winter in Britain[200]. They are best harvested after the foliage is killed off by frost and then stored in a cool but frost-free place over the winter, planting out in April/May[200].

A parent of the cultivated garden dahlia[1]. There is some confusion over this name, this entry might refer to D. hortensis or D. pinnata[200].

Propagation

Seed - sow late winter to mid spring in a greenhouse. The seed usually germinates in 1 - 3 weeks at 20°c[164]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of young shoots in early spring. The tubers are usually brought into the greenhouse in late winter in order to encourage early growth and young basal shoots are removed as soon as they are large enough[200].

Division. The roots are usually harvested in the autumn. These can be divided into individual tubers when planting out in the spring. Each portion should have a growing point[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Dahlia pinnata* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Dahlia sp.* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[181] **Pesman. M. W.** *Meet Flora Mexicana.* Dale S. King. Arizona. 1962
Very readable flora but rather lacking botanically. A few notes on useful plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Dahlia rosea

Common name:	Dahlia	Family:	Compositae
Author:	Cav.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Pine-oak forests and sandy meadows to 1500 metres[4, 181].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. pinnata[B,G,HORTIPLEX,P] D. sp.[G] D. variabilis[G] Georgina variabilis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Garden Dahlia [B], Pinnate Dahlia [P],
Epithets:	From a Dictionary of Botanical Epithets
	rosea = rose colored;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 9 and is frost tender. It is in flower from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Root; Sweetener.

The flower petals are used in salads[2].

Root - cooked and used as a vegetable[61, 105]. A bitter flavour[200]. Inedible according to another report[2]. A sweet extract of the tuber, called 'dacopa', is used as a beverage or as a flavouring. It is mixed with hot or cold water and sprinkled on ice cream. Its naturally sweet mellow taste is said to combine the characteristics of coffee, tea and chocolate[183]. The root is rich in the starch inulin. Whilst not absorbed by the body, this starch can be converted into fructose, a sweetening substance suitable for diabetics to use[4, 61].

Medicinal Uses

Disclaimer

Miscellany.

A valuable and much needed drug was extracted from dahlia roots during the first world war[4]. No more information was given in the report[K].

Other Uses

Dye.

Yellow and gold dyes are obtained from the flowers and seed heads[169].

Cultivation details

Requires a deep rich soil and a sunny position[1], disliking shade[200].

The growing plant is very frost-tender, though the tubers are somewhat hardier. However, these tubers are not reliably hardy if left in the ground over winter in Britain[200]. They are best harvested after the foliage is killed off by frost and then stored in a cool but frost-free place over the winter, planting out in April/May[200].

A parent of the cultivated garden dahlia[1]. There is some confusion over this name, this entry might refer to D. hortensis or D. pinnata[200].

Propagation

Seed - sow late winter to mid spring in a greenhouse. The seed usually germinates in 1 - 3 weeks at 20°c[164]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of young shoots in early spring. The tubers are usually brought into the greenhouse in late winter in order to encourage early growth and young basal shoots are removed as soon as they are large enough[200].

Division. The roots are usually harvested in the autumn. These can be divided into individual tubers when planting out in the spring. Each portion should have a growing point[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Dahlia pinnata* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Dahlia sp.* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[164] **Bird. R. (Editor)** *Growing from Seed. Volume 4.* Thompson and Morgan. 1990
Very readable magazine with lots of information on propagation. A good article on Yuccas, one on Sagebrush (Artemesia spp) and another on Chaerophyllum bulbosum.

[169] **Buchanan. R.** *A Weavers Garden.*
Covers all aspects of growing your own clothes, from fibre plants to dyes.

[181] **Pesman. M. W.** *Meet Flora Mexicana.* Dale S. King. Arizona. 1962
Very readable flora but rather lacking botanically. A few notes on useful plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Plants For A Future: Database Search Results

Dahlia rosea

Common name:	Dahlia	Family:	Compositae
Author:	Cav.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Southern N. America - Mexico.		
Habitat:	Pine-oak forests and sandy meadows to 1500 metres[4, 181].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. pinnata[B,G,HORTIPLEX,P] D. sp.[G] D. variabilis[G] Georgina variabilis[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Garden Dahlia [B], Pinnate Dahlia [P],
Epithets:	From a Dictionary of Botanical Epithets
	rosea = rose colored;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 9 and is frost tender. It is in flower from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Flowers; Root; Sweetener.

The flower petals are used in salads[2].

Root - cooked and used as a vegetable[61, 105]. A bitter flavour[200]. Inedible according to another report[2]. A sweet extract of the tuber, called 'dacopa', is used as a beverage or as a flavouring. It is mixed with hot or cold water and sprinkled on ice cream. Its naturally sweet mellow taste is said to combine the characteristics of coffee, tea and chocolate[183]. The root is rich in the starch inulin. Whilst not absorbed by the body, this starch can be converted into fructose, a sweetening substance suitable for diabetics to use[4, 61].

Medicinal Uses

Disclaimer

Miscellany.

A valuable and much needed drug was extracted from dahlia roots during the first world war[4]. No more information was given in the report[K].

Other Uses

Dye.

Yellow and gold dyes are obtained from the flowers and seed heads[169].

Cultivation details

Requires a deep rich soil and a sunny position[1], disliking shade[200].

The growing plant is very frost-tender, though the tubers are somewhat hardier. However, these tubers are not reliably hardy if left in the ground over winter in Britain[200]. They are best harvested after the foliage is killed off by frost and then stored in a cool but frost-free place over the winter, planting out in April/May[200].

A parent of the cultivated garden dahlia[1]. There is some confusion over this name, this entry might refer to D. hortensis or D. pinnata[200].

Propagation

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Division. The roots are usually harvested in the autumn. These can be divided into individual tubers when planting out in the spring. Each portion should have a growing point[200].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Dahlia rosea*

Subject:

Dahlia rosea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dahlia rosea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 05:14:14 2004

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Plants For A Future: Database Search Results

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Descurainia pinnata

Common name:	Tansy mustard	Family:	Cruciferae
Author:	(Walt.) Britt.	Botanical references:	60
Synonyms:	Sophia pinnata ((Walter.) T.J. Howell.), Sophia halictorum (Cockerell.), Sisymbrium canescens (Walter.)		
Known Hazards:	None known		
Range:	Western N. America.		
Habitat:	Most areas and situations[60], usually in dry soils[94].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. brachycarpa[B,P] D. halictorum var. andrenarium[P] D. pinnata ssp. brachycarpa[B,P] D. pinnata ssp. glabra[B,C,CAL,P] D. pinnata ssp. halictorum[B,P] D. pinnata ssp. pinnata[P] D. pinnata var. brachycarpa[B,P] D. pinnata var. glabra[B,P] D. pinnata var. halictorum[P] D. pinnata var. osmiarium[P] D. pinnata var. osmiarum[P] Erysimum pinnatum[P] Sisymbrium brachycarpum[B,P] Sisymbrium pinnatum[P] Sophia andrenarium[P] Sophia andrenarium var. osmiarium[P] Sophia andrenarium var. osmiarum[P] Sophia brachycarpa[B,P] Sophia glabra[B,P] Sophia millefolia[P] Sophia multifida[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pinnate Tansymustard [FEIS,L], Western Tansy-mustard [B], Western Tansymustard [P],
Epithets:	From a Dictionary of Botanical Epithets
	pinnata = pinnate;

Systematics:	From a UDSA Plants Database Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database Tansy Mustard

Physical Characteristics

Annual growing to 0.6m. . It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed; Seedpod.

Young leaves - cooked[46, 61, 85, 94, 183]. A bitter flavour[85]. Eaten as greens in the spring, they are said to have a salty flavour[216, 257].

The seedpods make an interesting mustard-flavoured nibble[183].

Seed - raw or cooked. Used as a piñole[257]. The seed has a mustard flavour and can be used to flavour soups or as a condiment with corn[92, 257]. The seed can also ground into a powder, mixed with cornmeal and used to make bread, or as a thickening for soups etc[85, 92, 94, 183]. In Mexico the seeds are made into a refreshing drink with lime juice, claret and syrup[61, 183].

Medicinal Uses

Disclaimer

Diuretic; Expectorant; Odontalgic; Poultice; Stomachic.

Diuretic, expectorant, poultice[94].

The ground up seeds have been used in the treatment of stomach complaints[257].

A poultice of the plant has been used to ease the pain of toothache[257]. An infusion of the leaves has been used as a wash on sores[257].

Other Uses

None known

Cultivation details

We have almost no information on this species but judging by its native range it should succeed in most parts of Britain and is probably not too fussy about soil or situation. We suggest growing it in a dry to moist soil in a sunny position.

Propagation

Seed - sow spring in situ.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Descurainia pinnata ssp. brachycarpa* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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References for *Descurainia pinnata ssp. glabra* (a possible synonym).

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- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Descurainia pinnata ssp. halictorum* (a possible synonym).

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Synonyms:	Sophia pinnata ((Walter.) T.J. Howell.), Sophia halictorum (Cockerell.), Sisymbrium canescens (Walter.)		
Known Hazards:	None known		
Range:	Western N. America.		
Habitat:	Most areas and situations[60], usually in dry soils[94].		
Plants For A Future Rating (1-5):	2		

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	pinnata = pinnate;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Tansy Mustard

Physical Characteristics

Annual growing to 0.6m. . It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

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Cultivated Beds.

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Condiment; Leaves; Seed; Seedpod.

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The ground up seeds have been used in the treatment of stomach complaints[257].

A poultice of the plant has been used to ease the pain of toothache[257]. An infusion of the leaves has been used as a wash on sores[257].

Other Uses

None known

Cultivation details

We have almost no information on this species but judging by its native range it should succeed in most parts of Britain and is probably not too fussy about soil or situation. We suggest growing it in a dry to moist soil in a sunny position.

Propagation

Seed - sow spring in situ.

Suppliers

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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Descurainia pinnata ssp. halictorum* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Descurainia pinnata ssp. pinnata* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[92] **Balls. E. K.** *Early Uses of Californian Plants.* University of California Press 1975 ISBN 0-520-00072-2
A nice readable book.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[216] **Whiting. A. F.** *Ethnobotany of the Hopi* North Arizona Society of Science and Art 1939
A very good guide the the plant uses of the N. American Hopi Indians.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Descurainia pinnata

Common name:	Tansy mustard	Family:	Cruciferae
Author:	(Walt.) Britt.	Botanical references:	60
Synonyms:	Sophia pinnata ((Walter.) T.J. Howell.), Sophia halictorum (Cockerell.), Sisymbrium canescens (Walter.)		
Known Hazards:	None known		
Range:	Western N. America.		
Habitat:	Most areas and situations[60], usually in dry soils[94].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. brachycarpa[B,P] D. halictorum var. andrenarium[P] D. pinnata ssp. brachycarpa[B,P] D. pinnata ssp. glabra[B,C,CAL,P] D. pinnata ssp. halictorum[B,P] D. pinnata ssp. pinnata[P] D. pinnata var. brachycarpa[B,P] D. pinnata var. glabra[B,P] D. pinnata var. halictorum[P] D. pinnata var. osmiarium[P] D. pinnata var. osmiarum[P] Erysimum pinnatum[P] Sisymbrium brachycarpum[B,P] Sisymbrium pinnatum[P] Sophia andrenarium[P] Sophia andrenarium var. osmiarium[P] Sophia andrenarium var. osmiarum[P] Sophia brachycarpa[B,P] Sophia glabra[B,P] Sophia millefolia[P] Sophia multifida[P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Pinnate Tansymustard [FEIS,L], Western Tansy-mustard [B], Western Tansymustard [P],
Epithets:	From a Dictionary of Botanical Epithets
	pinnata = pinnate;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Tansy Mustard

Physical Characteristics

Annual growing to 0.6m. . It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed; Seedpod.

Young leaves - cooked[46, 61, 85, 94, 183]. A bitter flavour[85]. Eaten as greens in the spring, they are said to have a salty flavour[216, 257].

The seedpods make an interesting mustard-flavoured nibble[183].

Seed - raw or cooked. Used as a piñole[257]. The seed has a mustard flavour and can be used to flavour soups or as a condiment with corn[92, 257]. The seed can also ground into a powder, mixed with cornmeal and used to make bread, or as a thickening for soups etc[85, 92, 94, 183]. In Mexico the seeds are made into a refreshing drink with lime juice, claret and syrup[61, 183].

Medicinal Uses

Disclaimer

Diuretic; Expectorant; Odontalgic; Poultice; Stomachic.

Diuretic, expectorant, poultice[94].

The ground up seeds have been used in the treatment of stomach complaints[257].

A poultice of the plant has been used to ease the pain of toothache[257]. An infusion of the leaves has been used as a wash on sores[257].

Other Uses

None known

Cultivation details

We have almost no information on this species but judging by its native range it should succeed in most parts of Britain and is probably not too fussy about soil or situation. We suggest growing it in a dry to moist soil in a sunny position.

Propagation

Seed - sow spring in situ.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Descurainia pinnata*

Subject:

Descurainia pinnata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Descurainia pinnata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Descurainia sophia

Common name:	Flixweed	Family:	Cruciferae
Author:	(L.) Webb.	Botanical references:	17, 60
Synonyms:	Sisymbrium sophia (L.)		
Known Hazards:	None known		
Range:	Europe to Asia. Possibly native to Britain[17].		
Habitat:	Waste ground and roadsides[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Sisymbrium sofia[H] Sophia chirugorum[H] Sophia sophia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Besen Rauke [E], Fejjailah [E], Flix Weed [E], Flixweed [H,L], Flixweed Tansymustard [FEIS], Herb Sophia [P], Herb-sophia [B], Hierba De Los Cirujanos [E], Sofia [E], Sofiekruid [E,D], T'Ing Li [E], Toore [E], Velar Sagesse [E],
Systematics:	From a UDSA Plants Database Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database Britain; China; France; Germany; Iraq; Kurdistan; Netherlands; Spain

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado, Minnesota.

Physical Characteristics

Annual/Biennial growing to 0.9m. . It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Young leaves - cooked[105]. A bitter flavour[85]. Used as a potherb[183, 257].

Seed - raw or cooked[46]. A pungent taste, it is used as a mustard substitute[61, 74, 105, 183]. The seed can be ground into a powder, mixed with cornmeal and used to make bread, or as a thickening for soups etc[61, 85, 183]. It can also be sprouted and added to salads etc[183]. A nourishing and cooling beverage can be made by mixing the ground up seeds with water to make a thin batter[257]. The seed contains 25.5 - 29.9% protein, 26.9 - 39.7% fat and 3.6 - 3.9% ash on a zero moisture basis[218].

Composition

Seed (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Protein: 27.5 Fat: 33 Ash: 3.7
> Source: [218]
> Notes: The figures given here are median figures of a range that was given in the report.

Medicinal Uses

Disclaimer

Antiasthmatic; Antiscorbutic; Antitussive; Astringent; Cardiotonic; Demulcent; Diuretic; Febrifuge; Laxative; Poultice; Vermifuge.

A poultice of the plant has been used to ease the pain of toothache[257].

The juice of the plant has been used in the treatment of chronic coughs, hoarseness and ulcerated sore throats[4]. A strong decoction of the plant has proved excellent in the treatment of asthma[4].

The flowers and the leaves are antiscorbutic and astringent[218, 240].

The seed is considered to be cardiotonic, demulcent, diuretic, expectorant, febrifuge, laxative, restorative and tonic[218, 240]. It is used in the treatment of asthma, fevers, bronchitis, oedema and dysentery[176, 240]. It is also used in the treatment of worms and calculus complaints[240]. It is decocted with other herbs for treating various ailments[218]. The seeds have formed a special remedy for sciatica[4].

A poultice of the ground up seeds has been used on burns and sores[257].

Other Uses

Preservative.

A semi-drying oil is obtained from the seed[240]. Yields are not given[K].

The leaves have been stored with corn to prevent it from going bad[257].

Cultivation details

We have very little information on the needs of this species but, judging by its habitat it should succeed in most soils in a fairly sunny position.

Propagation

Seed - sow spring in situ.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [H] Details of Scandanavian and European Common names in Henriette's names database

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[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Author:	(L.) Webb.	Botanical references:	17, 60
Synonyms:	Sisymbrium sophia (L.)		
Known Hazards:	None known		
Range:	Europe to Asia. Possibly native to Britain[17].		
Habitat:	Waste ground and roadsides[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Sisymbrium sofia[H] Sophia chirugorum[H] Sophia sophia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Besen Rauke [E], Fejjailah [E], Flix Weed [E], Flixweed [H,L], Flixweed Tansymustard [FEIS], Herb Sophia [P], Herb-sophia [B], Hierba De Los Cirujanos [E], Sofia [E], Sofiekruid [E,D], T'Ing Li [E], Toore [E], Velar Sagesse [E],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Britain; China; France; Germany; Iraq; Kurdistan; Netherlands; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado, Minnesota.

Physical Characteristics

Annual/Biennial growing to 0.9m. . It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Young leaves - cooked[105]. A bitter flavour[85]. Used as a potherb[183, 257].

Seed - raw or cooked[46]. A pungent taste, it is used as a mustard substitute[61, 74, 105, 183]. The seed can be ground into a powder, mixed with cornmeal and used to make bread, or as a thickening for soups etc[61, 85, 183]. It can also be sprouted and added to salads etc[183]. A nourishing and cooling beverage can be made by mixing the ground up seeds with water to make a thin batter[257]. The seed contains 25.5 - 29.9% protein, 26.9 - 39.7% fat and 3.6 - 3.9% ash on a zero moisture basis[218].

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> In grammes per 100g weight of food:
> Water: 0 Protein: 27.5 Fat: 33 Ash: 3.7
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Antiasthmatic; Antiscorbutic; Antitussive; Astringent; Cardiotonic; Demulcent; Diuretic; Febrifuge; Laxative; Poultice; Vermifuge.

A poultice of the plant has been used to ease the pain of toothache[257].

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A poultice of the ground up seeds has been used on burns and sores[257].

Other Uses

Preservative.

A semi-drying oil is obtained from the seed[240]. Yields are not given[K].

The leaves have been stored with corn to prevent it from going bad[257].

Cultivation details

We have very little information on the needs of this species but, judging by its habitat it should succeed in most soils in a fairly sunny position.

Propagation

Seed - sow spring in situ.

Suppliers

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- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Sisymbrium sophia* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Descurainia sophia

Common name:	Flixweed	Family:	Cruciferae
Author:	(L.) Webb.	Botanical references:	17, 60
Synonyms:	Sisymbrium sophia (L.)		
Known Hazards:	None known		
Range:	Europe to Asia. Possibly native to Britain[17].		
Habitat:	Waste ground and roadsides[17].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Sisymbrium sofia[H] Sophia chirugorum[H] Sophia sophia[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Besen Rauke [E], Fejjailah [E], Flix Weed [E], Flixweed [H,L], Flixweed Tansymustard [FEIS], Herb Sophia [P], Herb-sophia [B], Hierba De Los Cirujanos [E], Sofia [E], Sofiekruid [E,D], T'Ing Li [E], Toore [E], Velar Sagesse [E],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Britain; China; France; Germany; Iraq; Kurdistan; Netherlands; Spain
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Colorado, Minnesota.

Physical Characteristics

Annual/Biennial growing to 0.9m. . It is in flower from June to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Seed.

Young leaves - cooked[105]. A bitter flavour[85]. Used as a potherb[183, 257].

Seed - raw or cooked[46]. A pungent taste, it is used as a mustard substitute[61, 74, 105, 183]. The seed can be ground into a powder, mixed with cornmeal and used to make bread, or as a thickening for soups etc[61, 85, 183]. It can also be sprouted and added to salads etc[183]. A nourishing and cooling beverage can be made by mixing the ground up seeds with water to make a thin batter[257]. The seed contains 25.5 - 29.9% protein, 26.9 - 39.7% fat and 3.6 - 3.9% ash on a zero moisture basis[218].

Composition

Seed (Dry weight)

> In grammes per 100g weight of food:
> Water: 0 Protein: 27.5 Fat: 33 Ash: 3.7
> Source: [218]
> Notes: The figures given here are median figures of a range that was given in the report.

Medicinal Uses

Disclaimer

Antiasthmatic; Antiscorbutic; Antitussive; Astringent; Cardiotonic; Demulcent; Diuretic; Febrifuge; Laxative; Poultice; Vermifuge.

A poultice of the plant has been used to ease the pain of toothache[257].

The juice of the plant has been used in the treatment of chronic coughs, hoarseness and ulcerated sore throats[4]. A strong decoction of the plant has proved excellent in the treatment of asthma[4].

The flowers and the leaves are antiscorbutic and astringent[218, 240].

The seed is considered to be cardiotonic, demulcent, diuretic, expectorant, febrifuge, laxative, restorative and tonic[218, 240]. It is used in the treatment of asthma, fevers, bronchitis, oedema and dysentery[176, 240]. It is also used in the treatment of worms and calculus complaints[240]. It is decocted with other herbs for treating various ailments[218]. The seeds have formed a special remedy for sciatica[4].

A poultice of the ground up seeds has been used on burns and sores[257].

Other Uses

Preservative.

A semi-drying oil is obtained from the seed[240]. Yields are not given[K].

The leaves have been stored with corn to prevent it from going bad[257].

Cultivation details

We have very little information on the needs of this species but, judging by its habitat it should succeed in most soils in a fairly sunny position.

Propagation

Seed - sow spring in situ.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Descurainia sophia*

Subject:

Descurainia sophia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Descurainia sophia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 05:15:52 2004

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Plants For A Future: Database Search Results

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Dianthus caryophyllus

Common name:	Carnation	Family:	Caryophyllaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - W. and S. France. Occasionally naturalized in Britain[17].		
Habitat:	A plant of limestone soils, it is often found on old walls in Britain[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Carnation [P,H], Clavel [E], Clove Pink [H], Mekhak [E], Qanafer [E], Qinifil [E], Qronfel [E],
Epithets:	From a Dictionary of Botanical Epithets
	caryophyllus = pink colored (t. clove pink [Dianthus caryophyllus], t. clove, t. smell of walnut leaves);
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pink family
Other Range Info:	From the Ethnobotany Database
	China; Iraq; Kurdistan; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 8 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Flowers.

The flower petals have a strong smell of cloves and are candied, used as a garnish in salads, for flavouring fruit, fruit salads etc. They can also be used as a substitute for rose petals in making a syrup[183, 238]. The petals should be removed from the calyx and their bitter white base should be removed[183].

Medicinal Uses

Disclaimer

Antispasmodic; Cardiotonic; Diaphoretic; Febrifuge; Nervine; Stimulant.

Carnation flowers are an aromatic, stimulant herb that has been used in tonic cordials in the past to treat fevers, though this use is now obsolete[238]. It is traditionally prescribed in European herbal medicine to treat coronary and nervous disorders[254]. The flowers are considered to be alexiteric, antispasmodic, cardiotonic, diaphoretic and nervine[240].

The plant has been used as a vermifuge in China[240].

Other Uses

Essential; Soap.

An essential oil is obtained from the flowers[46, 171]. It is used in perfumery. 500kg of flowers produce 100g of oil[61]. The flowers are harvested when they are fully open in the morning, preferably after 3 hours exposure to sunlight[238].

The flower heads are dried and used in pot-pourri, scented sachets and cosmetic products[238, 268].

The plant is quite rich in saponins. The leaves can be simmered in water and this water can then be used as a soap for cleaning the skin, clothes etc[201].

Cultivation details

Succeeds in a sunny position in most good soils[111, 200] tolerating a pH range from 6 to 8 but disliking acid soils[200]. A very tolerant plant, succeeding in the salt laden air and strong winds of the coast as well as in the sulphur polluted air of cities[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

A very ornamental plant[1], the carnation is widely cultivated in the flower garden and is grown commercially in France for its essential oil[46]. There are many named varieties[200]. The flowers of the species have a rich clove-like perfume, though almost no scent is present in the orange and yellow-flowering cultivars[245].

The flowers are very attractive to butterflies and moths[17].

Plants are prone to mildew or leaf spot in humid climates[201].

Propagation

Seed - sow spring in slight heat in a greenhouse[1]. The seed usually germinates in 2 - 3 weeks at 15°c. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in July[1].

Cuttings of non-flowering basal shoots, June/July in a frame[200]. Harvest the shoots when they are about 10cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the

summer.

Scent

Flowers: Fresh

> The flowers have a rich clove-like perfume.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

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Web References

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caryophyllaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Plants For A Future: Database Search Results

Dianthus caryophyllus

Common name:	Carnation	Family:	Caryophyllaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - W. and S. France. Occasionally naturalized in Britain[17].		
Habitat:	A plant of limestone soils, it is often found on old walls in Britain[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pink family
Other Range Info:	From the Ethnobotany Database
	China; Iraq; Kurdistan; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 8 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Flowers.

The flower petals have a strong smell of cloves and are candied, used as a garnish in salads, for flavouring fruit, fruit salads etc. They can also be used as a substitute for rose petals in making a syrup[183, 238]. The petals should be removed from the calyx and their bitter white base should be removed[183].

Medicinal Uses

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The plant is quite rich in saponins. The leaves can be simmered in water and this water can then be used as a soap for cleaning the skin, clothes etc[201].

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This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

A very ornamental plant[1], the carnation is widely cultivated in the flower garden and is grown commercially in France for its essential oil[46]. There are many named varieties[200]. The flowers of the species have a rich clove-like perfume, though almost no scent is present in the orange and yellow-flowering cultivars[245].

The flowers are very attractive to butterflies and moths[17].

Plants are prone to mildew or leaf spot in humid climates[201].

Propagation

Seed - sow spring in slight heat in a greenhouse[1]. The seed usually germinates in 2 - 3 weeks at 15°c. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in July[1].

Cuttings of non-flowering basal shoots, June/July in a frame[200]. Harvest the shoots when they are about 10cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Scent

Flowers: Fresh

> The flowers have a rich clove-like perfume.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Caryophyllaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London.

1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Dianthus caryophyllus

Common name:	Carnation	Family:	Caryophyllaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - W. and S. France. Occasionally naturalized in Britain[17].		
Habitat:	A plant of limestone soils, it is often found on old walls in Britain[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Carnation [P,H], Clavel [E], Clove Pink [H], Mekhak [E], Qanafer [E], Qinifil [E], Qronfel [E],
Epithets:	From a Dictionary of Botanical Epithets
	caryophyllus = pink colored (t. clove pink [Dianthus caryophyllus], t. clove, t. smell of walnut leaves);
Systematics:	From a UDSA Plants Database
	Order: Caryophyllales . Pink family
Other Range Info:	From the Ethnobotany Database
	China; Iraq; Kurdistan; Spain; Turkey
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 0.5m . It is hardy to zone 8 and is not frost tender. It is in flower from July to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Lepidoptera (Moths & Butterflies). The plant is self-fertile. It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Flowers.

The flower petals have a strong smell of cloves and are candied, used as a garnish in salads, for flavouring fruit, fruit salads etc. They can also be used as a substitute for rose petals in making a syrup[183, 238]. The petals should be removed from the calyx and their bitter white base should be removed[183].

Medicinal Uses

Disclaimer

Antispasmodic; Cardiotonic; Diaphoretic; Febrifuge; Nervine; Stimulant.

Carnation flowers are an aromatic, stimulant herb that has been used in tonic cordials in the past to treat fevers, though this use is now obsolete[238]. It is traditionally prescribed in European herbal medicine to treat coronary and nervous disorders[254]. The flowers are considered to be alexiteric, antispasmodic, cardiotonic, diaphoretic and nervine[240].

The plant has been used as a vermifuge in China[240].

Other Uses

Essential; Soap.

An essential oil is obtained from the flowers[46, 171]. It is used in perfumery. 500kg of flowers produce 100g of oil[61]. The flowers are harvested when they are fully open in the morning, preferably after 3 hours exposure to sunlight[238].

The flower heads are dried and used in pot-pourri, scented sachets and cosmetic products[238, 268].

The plant is quite rich in saponins. The leaves can be simmered in water and this water can then be used as a soap for cleaning the skin, clothes etc[201].

Cultivation details

Succeeds in a sunny position in most good soils[111, 200] tolerating a pH range from 6 to 8 but disliking acid soils[200]. A very tolerant plant, succeeding in the salt laden air and strong winds of the coast as well as in the sulphur polluted air of cities[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

A very ornamental plant[1], the carnation is widely cultivated in the flower garden and is grown commercially in France for its essential oil[46]. There are many named varieties[200]. The flowers of the species have a rich clove-like perfume, though almost no scent is present in the orange and yellow-flowering cultivars[245].

The flowers are very attractive to butterflies and moths[17].

Plants are prone to mildew or leaf spot in humid climates[201].

Propagation

Seed - sow spring in slight heat in a greenhouse[1]. The seed usually germinates in 2 - 3 weeks at 15°c. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Layering in July[1].

Cuttings of non-flowering basal shoots, June/July in a frame[200]. Harvest the shoots when they are about 10cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Plant them out in the summer.

Scent

Flowers: Fresh

> The flowers have a rich clove-like perfume.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Dianthus caryophyllus

Group:
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Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dianthus caryophyllus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Diplotaxis muralis

Common name:	Wall rocket	Family:	Cruciferae
Author:	(L.) DC.	Botanical references:	17
Synonyms:	Sisymbrium murale (L.), Brassica muralis ((L.)Huds.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean. Naturalized in S. Britain[17].		
Habitat:	Limestone rocks, walls and as a weed of arable ground in England[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Annual Wall-rocket [L], Annual Wallrocket [P,B], Klein Zandkool [D], Sand Rocket [L],
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Annual/Perennial growing to 0.6m. It is not frost tender. It is in flower from June to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Leaves.

Leaves - raw[52]. They can be finely chopped and added sparingly to salads or used as a flavouring for cooked dishes[183]. A piquant flavour, somewhat resembling rocket, Eruca sativa, but with a sharp aftertaste[132, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers dry soils and dislikes shade[175].

Very resistant to heat, this plant could be used as a perennial substitute for Eruca vesicaria sativa, the annual rocket, in hot summer areas[183].

Propagation

Seed - best sown in situ as soon as it is ripe, though it can also be sown in situ in the spring. The seed usually germinates in the autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

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A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

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Lovely pictures, a very readable book.

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Very readable magazine with lots of information on propagation. A good article on Corydalis spp.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Habitat:	Limestone rocks, walls and as a weed of arable ground in England[17].		
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Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Physical Characteristics

Annual/Perennial growing to 0.6m. It is not frost tender. It is in flower from June to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and flies. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

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Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Leaves.

Leaves - raw[52]. They can be finely chopped and added sparingly to salads or used as a flavouring for cooked dishes[183]. A piquant flavour, somewhat resembling rocket, Eruca sativa, but with a sharp aftertaste[132, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers dry soils and dislikes shade[175].

Very resistant to heat, this plant could be used as a perennial substitute for Eruca vesicaria sativa, the annual rocket, in hot summer areas[183].

Propagation

Seed - best sown in situ as soon as it is ripe, though it can also be sown in situ in the spring. The seed usually germinates in the autumn.

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Disclaimer

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Add a comment on: *Diplotaxis muralis*

Subject:

Diplotaxis muralis

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Plant Information

Comment:

Enter your comment about this plant here.

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Diplotaxis muralis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Dodonaea viscosa

Common name:	Native hops	Family:	Sapindaceae
Author:	(L.) Jacq.	Botanical references:	154, 200
Synonyms:	Dodonaea attenuata (A.Cunn.)		
Known Hazards:	The leaves are slightly cyanogenic[152]. They are also said to contain saponins[181]. Although quite toxic, saponins are poorly absorbed by the body and most pass straight through without any problems. Saponins can be found in a number of common foods such as some types of beans. Saponins are much more toxic to some creatures, such as fish, and hunting tribes have traditionally put large quantities of them in streams, lakes etc in order to stupefy or kill the fish[K].		
Range:	Australia, New Zealand and N. America.		
Habitat:	Rocky, stony or sandy soils in the montane zone of Victoria[154].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.

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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Sapindales . Soapberry family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

An evergreen shrub growing to 3m by 1.5m . It is hardy to zone 9 and is frost tender. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Condiment; Seed.

Seed[177, 183]. No further details are given.

The bitter fruits are a substitute for hops and yeast in making beer[177, 181, 183].

The chewed leaves are said to be stimulating[177, 183] but they contain saponins[181] and are also said to be slightly cyanogenic[152] so their use is not very advisable.

Medicinal Uses

Disclaimer

Anodyne; Diaphoretic; Febrifuge; Odontalgic; Vulnerary.

The leaves are anodyne, astringent, diaphoretic, febrifuge (the var. angustissima is normally used[152]), odontalgic and vulnerary[152, 238]. They are applied internally in the treatment of fevers[238]. Externally, they are used to treat toothache, sore throats, wounds, skin rashes and stings[238, 257].

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The bark is employed in astringent baths and poultices[240].

Other Uses

Hedge; Tannin; Wood.

The leaves contain up to 18% tannin[238].

Plants are very tolerant of pruning and make a good hedging plant for windy sites[188, 240].

Wood - heavy, tough, resistant. Used for wedges, hammers, turnery, inlay, cabinets etc[154].

Cultivation details

Requires a light well-drained soil in a sunny position[200]. Succeeds in almost any fertile soil and in a hot dry position. Resists drought, salt winds and (atmospheric?) pollution[200].

Plants are very wind hardy but are not resistant to frost[166]. They tolerate temperatures down to about -7°c in Australian gardens[157], but are damaged at about 3°c in British gardens[200]. One report says that they succeed outdoors in the mildest gardens in Britain[182]. Plants are growing very well in pots in a polyhouse on our trial grounds in south Cornwall, but they have not survived in the open ground[K]. Our seed source was from Australia, other provenances might be more hardy[K].

Plants are difficult to transplant when they are more than 60 centimetres tall[200].

Polymorphic, there are a number of sub-species[154, 157].

Dioecious. Male and female plants must be grown if seed is required.

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Seed - sow spring in a greenhouse[K]. The seed is slow to germinate according to one report[200], but it germinated in 3 weeks in a cold greenhouse with us[K]. Prick out the seedlings into individual pots once they are large enough to handle and grow them on in a fairly sunny part of the greenhouse for at least their first winter. If trying them outdoors, then plant them out in early summer of their second or third year's growth after the last expected frosts and give them some protection from the cold for their next winter or two[K].

Cuttings of half-ripe wood, July/August in a frame[188].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Sapindaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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Plants For A Future: Database Search Results

Dodonaea viscosa

Common name:	Native hops	Family:	Sapindaceae
Author:	(L.) Jacq.	Botanical references:	154, 200
Synonyms:	Dodonaea attenuata (A.Cunn.)		
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Habitat:	Rocky, stony or sandy soils in the montane zone of Victoria[154].		
Plants For A Future Rating (1-5):	2		

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Medicinal Uses

Disclaimer

Anodyne; Diaphoretic; Febrifuge; Odontalgic; Vulnerary.

The leaves are anodyne, astringent, diaphoretic, febrifuge (the var. angustissima is normally used[152]), odontalgic and vulnerary[152, 238]. They are applied internally in the treatment of fevers[238]. Externally, they are used to treat toothache, sore throats, wounds, skin rashes and stings[238, 257].

The leaves are apparently effective in the treatment of toothache if they are chewed without swallowing the juice[238].

The bark is employed in astringent baths and poultices[240].

Other Uses

Hedge; Tannin; Wood.

The leaves contain up to 18% tannin[238].

Plants are very tolerant of pruning and make a good hedging plant for windy sites[188, 240].

Wood - heavy, tough, resistant. Used for wedges, hammers, turnery, inlay, cabinets etc[154].

Cultivation details

Requires a light well-drained soil in a sunny position[200]. Succeeds in almost any fertile soil and in a hot dry position. Resists drought, salt winds and (atmospheric?) pollution[200].

Plants are very wind hardy but are not resistant to frost[166]. They tolerate temperatures down to about -7°c in Australian gardens[157], but are damaged at about 3°c in British gardens[200]. One report says that they succeed outdoors in the mildest gardens in Britain[182]. Plants are growing very well in pots in a polyhouse on our trial grounds in south Cornwall, but they have not survived in the open ground[K]. Our seed source was from Australia, other provenances might be more hardy[K].

Plants are difficult to transplant when they are more than 60 centimetres tall[200].

Polymorphic, there are a number of sub-species[154, 157].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - sow spring in a greenhouse[K]. The seed is slow to germinate according to one report[200], but it germinated in 3 weeks in a cold greenhouse with us[K]. Prick out the seedlings into individual pots once they are large enough to handle and grow them on in a fairly sunny part of the greenhouse for at least their first winter. If trying them outdoors, then plant them out in early summer of their second or third year's growth after the last expected frosts and give them some protection from the cold for their next winter or two[K].

Cuttings of half-ripe wood, July/August in a frame[188].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Dodonaea viscosa*

Subject:

Dodonaea viscosa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Dodonaea viscosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Dracocephalum parviflorum

Common name:	American dragonhead	Family:	Labiatae
Author:	Nutt.	Botanical references:	43, 200, 235
Synonyms:	Moldavica parviflora ((Nutt.)Britton.)		
Known Hazards:	None known		
Range:	N. America - Quebec and Ontario to Alaska, New York, Iowa, Missouri and Arizona.		
Habitat:	Dry, rocky or gravelly calcareous soils, often in recent clearings[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Dragonhead [P,B,FEIS,L],
Epithets:	From a Dictionary of Botanical Epithets
	draco = dragon; florum = flowered; parviflorum = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Annual/Biennial growing to 1m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade

(light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Seed.

Seed[105, 161, 177, 257]. No more details.

The leaves have been used as a flavouring[257].

Medicinal Uses

Disclaimer

Febrifuge; Ophthalmic.

The plant has been used to treat diarrhoea in children[257].

The leaves are febrifuge and ophthalmic[257]. A cold compound infusion has been used in the treatment of fevers and headaches[257]. Externally, it has been used as an eyewash[257].

Other Uses

None known

Cultivation details

Succeeds in a sunny position in a fertile well-drained soil[200].

The plant is very fragrant[200]. It is useful for filling gaps in the summer border[200].

Propagation

Seed - sow early spring in situ. Pinch back the shoot tips in May in order to encourage bushy growth[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[235] **Britton. N. L. Brown. A.** *An Illustrated Flora of the Northern United States and Canada*

Dover Publications. New York. 1970 ISBN 0-486-22642-5
Reprint of a 1913 Flora, but still a very useful book.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Enter your details here:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Dracocephalum parviflorum

Common name:	American dragonhead	Family:	Labiatae
Author:	Nutt.	Botanical references:	43, 200, 235
Synonyms:	Moldavica parviflora ((Nutt.)Britton.)		
Known Hazards:	None known		
Range:	N. America - Quebec and Ontario to Alaska, New York, Iowa, Missouri and Arizona.		
Habitat:	Dry, rocky or gravelly calcareous soils, often in recent clearings[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	draco = dragon; florum = flowered; parviflorum = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Annual/Biennial growing to 1m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Seed.

Seed[105, 161, 177, 257]. No more details.

The leaves have been used as a flavouring[257].

Medicinal Uses

Disclaimer

Febrifuge; Ophthalmic.

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Other Uses

None known

Cultivation details

Succeeds in a sunny position in a fertile well-drained soil[200].

The plant is very fragrant[200]. It is useful for filling gaps in the summer border[200].

Propagation

Seed - sow early spring in situ. Pinch back the shoot tips in May in order to encourage bushy growth[200].

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Author:	Nutt.	Botanical references:	43, 200, 235
Synonyms:	Moldavica parviflora ((Nutt.)Britton.)		
Known Hazards:	None known		
Range:	N. America - Quebec and Ontario to Alaska, New York, Iowa, Missouri and Arizona.		
Habitat:	Dry, rocky or gravelly calcareous soils, often in recent clearings[43].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	American Dragonhead [P,B,FEIS,L],
Epithets:	From a Dictionary of Botanical Epithets
	draco = dragon; florum = flowered; parviflorum = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

Annual/Biennial growing to 1m. It is hardy to zone 7. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Seed.

Seed[105, 161, 177, 257]. No more details.

The leaves have been used as a flavouring[257].

Medicinal Uses

Disclaimer

Febrifuge; Ophthalmic.

The plant has been used to treat diarrhoea in children[257].

The leaves are febrifuge and ophthalmic[257]. A cold compound infusion has been used in the treatment of fevers and headaches[257]. Externally, it has been used as an eyewash[257].

Other Uses

None known

Cultivation details

Succeeds in a sunny position in a fertile well-drained soil[200].

The plant is very fragrant[200]. It is useful for filling gaps in the summer border[200].

Propagation

Seed - sow early spring in situ. Pinch back the shoot tips in May in order to encourage bushy growth[200].

Suppliers

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Add a comment on: *Dracocephalum parviflorum*

Subject:

Dracocephalum parviflorum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Plant names you would like this comment to be added to:

Dracocephalum parviflorum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Add Comment Reset

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Drimys lanceolata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mountain pepper	Family:	Winteraceae
Author:	(Poir.) Baill.	Botanical references:	11, 200
Synonyms:	Winterania lanceolata (Poir.), Tasmannia lanceolata ((Poir.)A.C.Sm.), Tasmannia aromatica (R.Br.), Drimys aromatica ((R.Br.)Muell. non Murray.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania and Victoria.		
Habitat:	Moist places in mountain forests and also in alpine zones to 1500 metres[152].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Winterana lanceolata[G]
Epithets:	From a Dictionary of Botanical Epithets
	lanceolata = lance shaped;
Systematics:	From a UDSA Plants Database
	Order: Magnoliales . Wintera family

Physical Characteristics

An evergreen shrub growing to 4.5m by 2.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from April to May, and the seeds ripen from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The fruit and seed are used as a pepper and allspice substitute[1, 2, 11, 46, 61, 105, 183]. A pungent flavour[183, 193]. The aromatic berries are edible according to one report[238], whilst another says that they taste somewhat like cinnamon.

Medicinal Uses

Disclaimer

Antiscorbutic; Stomachic.

Antiscorbutic, stomachic[152].

Other Uses

Hedge; Wood.

This species makes an excellent windbreak in woodland, it is widely grown as a hedge in mild temperate regions[238].

Wood - soft, only moderate strength[154].

Cultivation details

Requires a light lime-free soil in semi-shade[200]. Prefers a fertile moist but well-drained soil[188].

A fairly hardy species, surviving very cold winters in various parts of the country so long as it is in a suitable position[120]. It tolerates temperatures down to about -15°c[184], but plants are liable to be damaged in cold winters. This species is hardier than D. winteri according to one report[120] whilst another says that it is less hardy than D. winteri[200].

All parts of the plant are very aromatic and pungent[182, 184].

Plants in this genus are notably resistant to honey fungus[200].

Plants are usually dioecious though monoecious and hermaphrodite forms are known. Male and female plants must usually be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 10 - 15 cm with a heel, July/August in a frame. Approximately 60% take[78].

Layering in March/April. Takes 12 months[78].

Cuttings of mature wood of the current year's growth with a heel of older wood, November in a cold frame[78].

Scent

Plant: Crushed Dried

All parts of the plant are very aromatic and pungent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.

- Checklist of plants suitable for hedging and windbreaks: D-F
- PFAF Plant Catalogue (D-E)
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Drimys aromatica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Tasmannia lanceolata* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

Drimys lanceolata

peter coxhead Fri Nov 1 22:39:20 2002

Hi The information above is incorrect about this plant in regards to flowering time , seed ripening time and propogation The flowers occur in the natural state....Oct/Nov The seeds ripen in the natural state......Apr/May This may have occurred because it is naturally found in the southern hemisphere....your info above is correct for the northern hemisphere where it is not naturally found As for propogation....it is difficult to germinate because it normally needs to go through the digestive tract of a bird You can soak for a day or two in either vinegar or urine before sowing or better still use cuttings to strike....the cuttings may form a ball at the base but still not form roots ....if this occurs then gently scratch this ball and replant....roots will then strike from your scratch You could also try feeding some seeds to a duck and collect the seeds fro her droppings

---

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Plants For A Future: Database Search Results

Drimys lanceolata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mountain pepper	Family:	Winteraceae
Author:	(Poir.) Baill.	Botanical references:	11, 200
Synonyms:	Winterania lanceolata (Poir.), Tasmannia lanceolata ((Poir.)A.C.Sm.), Tasmannia aromatica (R.Br.), Drimys aromatica ((R.Br.)Muell. non Murray.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania and Victoria.		
Habitat:	Moist places in mountain forests and also in alpine zones to 1500 metres[152].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Winterana lanceolata[G]
Epithets:	From a Dictionary of Botanical Epithets
	lanceolata = lance shaped;
Systematics:	From a UDSA Plants Database
	Order: Magnoliales . Wintera family

Physical Characteristics

An evergreen shrub growing to 4.5m by 2.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from April to May, and the seeds ripen from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The fruit and seed are used as a pepper and allspice substitute[1, 2, 11, 46, 61, 105, 183]. A pungent flavour[183, 193]. The aromatic berries are edible according to one report[238], whilst another says that they taste somewhat like cinnamon.

Medicinal Uses

Disclaimer

Antiscorbutic; Stomachic.

Antiscorbutic, stomachic[152].

Other Uses

Hedge; Wood.

This species makes an excellent windbreak in woodland, it is widely grown as a hedge in mild temperate regions[238].

Wood - soft, only moderate strength[154].

Cultivation details

Requires a light lime-free soil in semi-shade[200]. Prefers a fertile moist but well-drained soil[188].

A fairly hardy species, surviving very cold winters in various parts of the country so long as it is in a suitable position[120]. It tolerates temperatures down to about -15°c[184], but plants are liable to be damaged in cold winters. This species is hardier than D. winteri according to one report[120] whilst another says that it is less hardy than D. winteri[200].

All parts of the plant are very aromatic and pungent[182, 184].

Plants in this genus are notably resistant to honey fungus[200].

Plants are usually dioecious though monoecious and hermaphrodite forms are known. Male and female plants must usually be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 10 - 15 cm with a heel, July/August in a frame. Approximately 60% take[78].

Layering in March/April. Takes 12 months[78].

Cuttings of mature wood of the current year's growth with a heel of older wood, November in a cold frame[78].

Scent

Plant: Crushed Dried

All parts of the plant are very aromatic and pungent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: D-F
- PFAF Plant Catalogue (D-E)
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Drimys aromatica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Tasmannia lanceolata* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Plants For A Future: Database Search Results

Drimys lanceolata

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Mountain pepper	Family:	Winteraceae
Author:	(Poir.) Baill.	Botanical references:	11, 200
Synonyms:	Winterania lanceolata (Poir.), Tasmannia lanceolata ((Poir.)A.C.Sm.), Tasmannia aromatica (R.Br.), Drimys aromatica ((R.Br.)Muell. non Murray.)		
Known Hazards:	None known		
Range:	Australia - New South Wales, Tasmania and Victoria.		
Habitat:	Moist places in mountain forests and also in alpine zones to 1500 metres[152].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Winterana lanceolata[G]
Epithets:	From a Dictionary of Botanical Epithets
	lanceolata = lance shaped;
Systematics:	From a UDSA Plants Database
	Order: Magnoliales . Wintera family

Physical Characteristics

An evergreen shrub growing to 4.5m by 2.5m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from April to May, and the seeds ripen from September to October. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The fruit and seed are used as a pepper and allspice substitute[1, 2, 11, 46, 61, 105, 183]. A pungent flavour[183, 193]. The aromatic berries are edible according to one report[238], whilst another says that they taste somewhat like cinnamon.

Medicinal Uses

Disclaimer

Antiscorbutic; Stomachic.

Antiscorbutic, stomachic[152].

Other Uses

Hedge; Wood.

This species makes an excellent windbreak in woodland, it is widely grown as a hedge in mild temperate regions[238].

Wood - soft, only moderate strength[154].

Cultivation details

Requires a light lime-free soil in semi-shade[200]. Prefers a fertile moist but well-drained soil[188].

A fairly hardy species, surviving very cold winters in various parts of the country so long as it is in a suitable position[120]. It tolerates temperatures down to about -15°c[184], but plants are liable to be damaged in cold winters. This species is hardier than D. winteri according to one report[120] whilst another says that it is less hardy than D. winteri[200].

All parts of the plant are very aromatic and pungent[182, 184].

Plants in this genus are notably resistant to honey fungus[200].

Plants are usually dioecious though monoecious and hermaphrodite forms are known. Male and female plants must usually be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a greenhouse[200]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 10 - 15 cm with a heel, July/August in a frame. Approximately 60% take[78].

Layering in March/April. Takes 12 months[78].

Cuttings of mature wood of the current year's growth with a heel of older wood, November in a cold frame[78].

Scent

Plant: Crushed Dried

All parts of the plant are very aromatic and pungent.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

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Drimys lanceolata

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Plant names you would like this comment to be added to:

Drimys lanceolata

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Plant Genera you would like this comment to be added to:

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Drimys winteri

Common name:	Winter's bark	Family:	Winteraceae
Author:	Forst. & Forst. f.	Botanical references:	11, 69, 200
Synonyms:	Wintera aromatica (Murray. non (R.Br.)Muell.), Drimys aromatica (Murray. non (R.Br.)Muell.)		
Known Hazards:	The sap of this plant can cause serious inflammation if it comes into contact with the eyes[139].		
Range:	Southern S. America - Chile, Argentina.		
Habitat:	The dominant tree in moister lowland sites to Tierra Del Fuego[69]. Boggy sites by streams etc in rich soils[139].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. chilensis[G] D. lanceolata[G] D. winteri var. chilensis[G] D. winterii[R] Tasmannia aromatica[G] Tasmannia lanceolata[G] Winterana lanceolata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aktarcin [E], Canelo [E], Winter'Sbark [E], Winter's Bark [H,P],
Systematics:	From a UDSA Plants Database
	Order: Magnoliales . Wintera family
Other Range Info:	From the Ethnobotany Database
	Brazil; Chile; Mexico; Turkey; Venezuela

Physical Characteristics

An evergreen shrub growing to 7.5m by 6m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower from January to June. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The aromatic pungent bark is powdered and used as a pepper substitute in Brazil, Chile and Argentina[2, 46, 69, 183]. It is rich in vitamin C[22].

Medicinal Uses

Disclaimer

Antidandruff; Antiscorbutic; Aromatic; Febrifuge; Parasiticide; Skin; Stimulant; Stomachic.

The bark is a pungent bitter tonic herb that relieves indigestion[238]. It is antiscorbutic, aromatic, febrifuge, skin, stimulant and stomachic. An infusion of the bark is used in the treatment of indigestion, colic, dandruff and scurvy[4, 46, 69, 139, 238]. It is also used as a parasiticide[4, 46, 69, 139]. The bark is harvested in the autumn and winter and is dried for later use[238].

Other Uses

Essential; Wood.

The powerfully aromatic bark contains resinous matter and 0.64% of aromatic essential oil[245].

Wood - not durable, heavy (it sinks in water) - interior of houses, boxes etc. It burns badly with a smell[46, 61, 69, 139].

Cultivation details

Requires a light lime-free soil in semi-shade[202]. Tolerates chalk in the soil[11]. Requires a deep moist soil[11]. Dislikes dry conditions[139]. Prefers a warm sandy loam with some shelter[1]. Fairly wind resistant[49, 166]. Another report says that the plant resents severe wind-chill[202].

Succeeds against a wall at Kew[K] and it thrives in an open position in S.W. England[11, 49, 59]. Tolerates temperatures down to about -10°c[184]. This species is less hardy than D. lanceolata but it usually recovers from damage[120]. Another report says that it is hardier than D. lanceolata[200].

A very ornamental plant[11]. The sub-species D. winteri andina. Reiche. is a slow growing dwarf form seldom exceeding 1 metre in height[182]. It usually commences flowering when about 30cm tall[238].

A polymorphic species[139].

The flowers have a delicate fragrance of jasmine, whilst the bark has a powerful aromatic smell[245].

This plant was a symbol of peace to the indigenous Indian tribes of S. America in much the same way as an olive branch was used in Greece[139].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a greenhouse[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow on the plants for at least their first winter in a cold frame. Plant them out in late spring or early summer, after the last expected frosts.

Layering in March/April. Takes 12 months[78].

Cuttings of half-ripe wood, 10 - 15 cm with a heel, July/August in a frame. Approximately 60% take[78].

Cuttings of mature wood of the current year's growth with a heel of older wood, November in a cold frame[78].

Scent

Flowers: Fresh

The flowers have a delicate fragrance of jasmine.

Stem: Crushed Dried

The bark has a powerful aromatic smell.

Cultivars

"

There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Drimys Lanceolata
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Drimys aromatica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Drimys winterii* (a possible synonym).

- [R] Rainforest medicinal Data (common names, medicinal uses, images) from the Rain-Tree.

References for *Tasmannia lanceolata* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Wintera aromatica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a

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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Drimys+winteri`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Drimys+winteri`

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Plants For A Future: Database Search Results

Drimys winteri

Common name:	Winter's bark	Family:	Winteraceae
Author:	Forst. & Forst. f.	Botanical references:	11, 69, 200
Synonyms:	Wintera aromatica (Murray. non (R.Br.)Muell.), Drimys aromatica (Murray. non (R.Br.)Muell.)		
Known Hazards:	The sap of this plant can cause serious inflammation if it comes into contact with the eyes[139].		
Range:	Southern S. America - Chile, Argentina.		
Habitat:	The dominant tree in moister lowland sites to Tierra Del Fuego[69]. Boggy sites by streams etc in rich soils[139].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. chilensis[G] D. lanceolata[G] D. winteri var. chilensis[G] D. winterii[R] Tasmannia aromatica[G] Tasmannia lanceolata[G] Winterana lanceolata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aktarcin [E], Canelo [E], Winter'Sbark [E], Winter's Bark [H,P],
Systematics:	From a UDSA Plants Database
	Order: Magnoliales . Wintera family
Other Range Info:	From the Ethnobotany Database
	Brazil; Chile; Mexico; Turkey; Venezuela

Physical Characteristics

An evergreen shrub growing to 7.5m by 6m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower from January to June. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The aromatic pungent bark is powdered and used as a pepper substitute in Brazil, Chile and Argentina[2, 46, 69, 183]. It is rich in vitamin C[22].

Medicinal Uses

Disclaimer

Antidandruff; Antiscorbutic; Aromatic; Febrifuge; Parasiticide; Skin; Stimulant; Stomachic.

The bark is a pungent bitter tonic herb that relieves indigestion[238]. It is antiscorbutic, aromatic, febrifuge, skin, stimulant and stomachic. An infusion of the bark is used in the treatment of indigestion, colic, dandruff and scurvy[4, 46, 69, 139, 238]. It is also used as a parasiticide[4, 46, 69, 139]. The bark is harvested in the autumn and winter and is dried for later use[238].

Other Uses

Essential; Wood.

The powerfully aromatic bark contains resinous matter and 0.64% of aromatic essential oil[245].

Wood - not durable, heavy (it sinks in water) - interior of houses, boxes etc. It burns badly with a smell[46, 61, 69, 139].

Cultivation details

Requires a light lime-free soil in semi-shade[202]. Tolerates chalk in the soil[11]. Requires a deep moist soil[11]. Dislikes dry conditions[139]. Prefers a warm sandy loam with some shelter[1]. Fairly wind resistant[49, 166]. Another report says that the plant resents severe wind-chill[202].

Succeeds against a wall at Kew[K] and it thrives in an open position in S.W. England[11, 49, 59]. Tolerates temperatures down to about -10°c[184]. This species is less hardy than D. lanceolata but it usually recovers from damage[120]. Another report says that it is hardier than D. lanceolata[200].

A very ornamental plant[11]. The sub-species D. winteri andina. Reiche. is a slow growing dwarf form seldom exceeding 1 metre in height[182]. It usually commences flowering when about 30cm tall[238].

A polymorphic species[139].

The flowers have a delicate fragrance of jasmine, whilst the bark has a powerful aromatic smell[245].

This plant was a symbol of peace to the indigenous Indian tribes of S. America in much the same way as an olive branch was used in Greece[139].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a greenhouse[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow on the plants for at least their first winter in a cold frame. Plant them out in late spring or early summer, after the last expected frosts.

Layering in March/April. Takes 12 months[78].

Cuttings of half-ripe wood, 10 - 15 cm with a heel, July/August in a frame. Approximately 60% take[78].

Cuttings of mature wood of the current year's growth with a heel of older wood, November in a cold frame[78].

Scent

Flowers: Fresh

> The flowers have a delicate fragrance of jasmine.

Stem: Crushed Dried

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Cultivars

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> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this

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PFAF Web Pages

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- PFAF: Drimys Lanceolata
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
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Readers Comments

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Drimys winteri

Common name:	Winter's bark	Family:	Winteraceae
Author:	Forst. & Forst. f.	Botanical references:	11, 69, 200
Synonyms:	Wintera aromatica (Murray. non (R.Br.)Muell.), Drimys aromatica (Murray. non (R.Br.)Muell.)		
Known Hazards:	The sap of this plant can cause serious inflammation if it comes into contact with the eyes[139].		
Range:	Southern S. America - Chile, Argentina.		
Habitat:	The dominant tree in moister lowland sites to Tierra Del Fuego[69]. Boggy sites by streams etc in rich soils[139].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	D. chilensis[G] D. lanceolata[G] D. winteri var. chilensis[G] D. winterii[R] Tasmannia aromatica[G] Tasmannia lanceolata[G] Winterana lanceolata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Aktarcin [E], Canelo [E], Winter'Sbark [E], Winter's Bark [H,P],
Systematics:	From a UDSA Plants Database
	Order: Magnoliales . Wintera family
Other Range Info:	From the Ethnobotany Database
	Brazil; Chile; Mexico; Turkey; Venezuela

Physical Characteristics

An evergreen shrub growing to 7.5m by 6m at a medium rate. It is hardy to zone 8. It is in leaf all year, in flower from January to June. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland). It requires moist soil.

The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment.

The aromatic pungent bark is powdered and used as a pepper substitute in Brazil, Chile and Argentina[2, 46, 69, 183]. It is rich in vitamin C[22].

Medicinal Uses

Disclaimer

Antidandruff; Antiscorbutic; Aromatic; Febrifuge; Parasiticide; Skin; Stimulant; Stomachic.

The bark is a pungent bitter tonic herb that relieves indigestion[238]. It is antiscorbutic, aromatic, febrifuge, skin, stimulant and stomachic. An infusion of the bark is used in the treatment of indigestion, colic, dandruff and scurvy[4, 46, 69, 139, 238]. It is also used as a parasiticide[4, 46, 69, 139]. The bark is harvested in the autumn and winter and is dried for later use[238].

Other Uses

Essential; Wood.

The powerfully aromatic bark contains resinous matter and 0.64% of aromatic essential oil[245].

Wood - not durable, heavy (it sinks in water) - interior of houses, boxes etc. It burns badly with a smell[46, 61, 69, 139].

Cultivation details

Requires a light lime-free soil in semi-shade[202]. Tolerates chalk in the soil[11]. Requires a deep moist soil[11]. Dislikes dry conditions[139]. Prefers a warm sandy loam with some shelter[1]. Fairly wind resistant[49, 166]. Another report says that the plant resents severe wind-chill[202].

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A very ornamental plant[11]. The sub-species D. winteri andina. Reiche. is a slow growing dwarf form seldom exceeding 1 metre in height[182]. It usually commences flowering when about 30cm tall[238].

A polymorphic species[139].

The flowers have a delicate fragrance of jasmine, whilst the bark has a powerful aromatic smell[245].

This plant was a symbol of peace to the indigenous Indian tribes of S. America in much the same way as an olive branch was used in Greece[139].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a greenhouse[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow on the plants for at least their first winter in a cold frame. Plant them out in late spring or early summer, after the last expected frosts.

Layering in March/April. Takes 12 months[78].

Cuttings of half-ripe wood, 10 - 15 cm with a heel, July/August in a frame. Approximately 60% take[78].

Cuttings of mature wood of the current year's growth with a heel of older wood, November in a cold frame[78].

Scent

Flowers: Fresh

> The flowers have a delicate fragrance of jasmine.

Stem: Crushed Dried

> The bark has a powerful aromatic smell.

Cultivars

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> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this

database[K].

Suppliers

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Drimys+winteri`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Drimys+winteri`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Drimys winteri*

Subject:

Drimys winteri

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Drimys winteri

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Eleutherococcus divaricatus

Common name:		Family:	Araliaceae
Author:	(Sieb. & Zucc.) S. Y. Hu.	Botanical references:	11, 58, 200
Synonyms:	Acanthopanax divaricatus ((Siebold.&Zucc.)Seem.)		
Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Kalopanax divaricatus[G] Panax divaricatus[G]
Epithets:	From a Dictionary of Botanical Epithets
	divaricatus = spreading;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Ginseng family

Physical Characteristics

A decidious shrub growing to 3.5m. It is hardy to zone 6. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Tea.

Leaves - cooked[105, 177]. They are parboiled, then dried and used as a winter vegetable[183].

The leaves are used as a condiment[183].

The dried leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an open loamy soil[1], preferring a well-drained humus-rich soil in full sun[200]. Tolerates poor soils and atmospheric pollution[200].

Plants are hardy to at least -10 to -15°c if they are sheltered from cold winds[200].

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame[200]. It can be slow to germinate. Stored seed requires 6 months warm followed by 3 months cold stratification[113] and can be very slow to germinate[133]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in light shade in a cold frame or greenhouse for at least the first winter. Plant out in late spring or early summer.

Cuttings of half-ripe wood, July/August in a frame[113, 200].

Cuttings of ripe wood of the current season's growth, 15 - 30cm long in a cold frame[238].

Root cuttings in late winter[200].

Division of suckers in the dormant season[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Araliaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
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An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

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[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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Known Hazards:	None known		
Range:	E. Asia - Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Kalopanax divaricatus[G] Panax divaricatus[G]
Epithets:	From a Dictionary of Botanical Epithets
	divaricatus = spreading;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Ginseng family

Physical Characteristics

A decidious shrub growing to 3.5m. It is hardy to zone 6. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Leaves; Tea.

Leaves - cooked[105, 177]. They are parboiled, then dried and used as a winter vegetable[183].

The leaves are used as a condiment[183].

The dried leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an open loamy soil[1], preferring a well-drained humus-rich soil in full sun[200]. Tolerates poor soils and atmospheric pollution[200].

Plants are hardy to at least -10 to -15°c if they are sheltered from cold winds[200].

Propagation

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Division of suckers in the dormant season[200].

Suppliers

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This plant is mentioned in the following web pages

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- PFAF: Edible Trees and Shrubs Hardy in Britain: D-E
- PFAF: Edible Trees and Shrubs Hardy in Britain

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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Readers Comments

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Plants For A Future: Database Search Results

Eleutherococcus divaricatus

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Range:	E. Asia - Japan.		
Habitat:	Mountains all over Japan[58].		
Plants For A Future Rating (1-5):	2		

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Epithets:	From a Dictionary of Botanical Epithets
	divaricatus = spreading;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Ginseng family

Physical Characteristics

A decidious shrub growing to 3.5m. It is hardy to zone 6. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

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Edible Uses

Condiment; Leaves; Tea.

Leaves - cooked[105, 177]. They are parboiled, then dried and used as a winter vegetable[183].

The leaves are used as a condiment[183].

The dried leaves are a tea substitute[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an open loamy soil[1], preferring a well-drained humus-rich soil in full sun[200]. Tolerates poor soils and atmospheric pollution[200].

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Root cuttings in late winter[200].

Division of suckers in the dormant season[200].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Eleutherococcus divaricatus*

Subject:

Eleutherococcus divaricatus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Eleutherococcus divaricatus

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Elsholtzia ciliata

Common name:		Family:	Labiatae
Author:	(Thunb.) Hyland.	Botanical references:	43, 50
Synonyms:	Elsholtzia patrinii ((Lepech.)Garcke.), Elsholtzia cristata (Willd.)		
Known Hazards:	None known		
Range:	N. Europe. N. America. N. Asia.		
Habitat:	Roadsides, old fields etc in Eastern N. America[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Sideritis ciliata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Crested Late-summer-mint [B], Crested Latesummer Mint [P], Elsholtzia [H], Hsiang Ju [E],
Epithets:	From a Dictionary of Botanical Epithets
	ciliata = fringed with hairs;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China; Japan(Ainu)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 5. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Young leaves - raw or cooked[105, 177]. Finely cut then added to salads or used as a potherb[183].

The leaves can be used as an aromatic condiment for vegetable dishes[183].

Medicinal Uses

Disclaimer

Antibacterial; Antipyretic; Antiviral; Astringent; Carminative; Depurative; Diaphoretic; Diuretic; Stomachic.

The plant is antibacterial, antipyretic, antiviral, astringent, carminative, diaphoretic, diuretic and stomachic[61, 176, 178]. Its use is said to relieve the effects of excess alcohol[61, 178]. It is used in the treatment of common colds, oedema and oliguria[176]. The plant has a broad-spectrum antibacterial action[176].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils.

Cultivated for ornament in N. and E. Europe[50].

Propagation

Seed - sow late spring in situ[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elsholtzia cristata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *elsholtzia ciliata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
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[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Elsholtzia+ciliata`

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Plants For A Future: Database Search Results

Elsholtzia ciliata

Common name:		Family:	Labiatae
Author:	(Thunb.) Hyland.	Botanical references:	43, 50
Synonyms:	Elsholtzia patrinii ((Lepech.)Garcke.), Elsholtzia cristata (Willd.)		
Known Hazards:	None known		
Range:	N. Europe. N. America. N. Asia.		
Habitat:	Roadsides, old fields etc in Eastern N. America[43].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Sideritis ciliata[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Crested Late-summer-mint [B], Crested Latesummer Mint [P], Elsholtzia [H], Hsiang Ju [E],
Epithets:	From a Dictionary of Botanical Epithets
	ciliata = fringed with hairs;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	China; Japan(Ainu)

Physical Characteristics

Annual growing to 0.6m. It is hardy to zone 5. It is in flower from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Young leaves - raw or cooked[105, 177]. Finely cut then added to salads or used as a potherb[183].

The leaves can be used as an aromatic condiment for vegetable dishes[183].

Medicinal Uses

Disclaimer

Antibacterial; Antipyretic; Antiviral; Astringent; Carminative; Depurative; Diaphoretic; Diuretic; Stomachic.

The plant is antibacterial, antipyretic, antiviral, astringent, carminative, diaphoretic, diuretic and stomachic[61, 176, 178]. Its use is said to relieve the effects of excess alcohol[61, 178]. It is used in the treatment of common colds, oedema and oliguria[176]. The plant has a broad-spectrum antibacterial action[176].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils.

Cultivated for ornament in N. and E. Europe[50].

Propagation

Seed - sow late spring in situ[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Elsholtzia cristata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *elsholtzia ciliata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[43] **Fernald. M. L.** *Gray's Manual of Botany.* American Book Co. 1950
A bit dated but good and concise flora of the eastern part of N. America.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976

The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Habitat:	Roadsides, old fields etc in Eastern N. America[43].		
Plants For A Future Rating (1-5):	2		

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Young leaves - raw or cooked[105, 177]. Finely cut then added to salads or used as a potherb[183].

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Other Uses

None known

Cultivation details

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Cultivated for ornament in N. and E. Europe[50].

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Elsholtzia ciliata*

Subject:

Elsholtzia ciliata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Elsholtzia ciliata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Eriodictyon californicum

Common name:	Yerba santa	Family:	Hydrophyllaceae
Author:	(Hook. & Arn.) Torr.	Botanical references:	200
Synonyms:	Eriodictyon glutinosum		
Known Hazards:	None known		
Range:	South-western N. America - Oregon to California.		
Habitat:	Dry mountain slopes at altitudes up to 1,200n metres[254].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. californica[E,Sdg,Smap] E. glutinosa[Smk]
Other Common Names:	From various places around the Web, may not be correct. See below.
	California Yerba-santa [B], California Yerbasanta [P], Herbe De Santa [E], Santakraut [E], Yerba Santa [H,FEIS,S,E], Yerba Santa, Sticky [S],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Waterleaf family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Us; Us(Amerindian)

Physical Characteristics

An evergreen shrub growing to 2.25m by 2m . It is hardy to zone 8. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Tea.

The fresh leaves are chewed for their refreshing taste and to relieve thirst[183].

An aromatic sweet tea is made from the fresh or dried leaves[183].

An extract of the leaves is used as a flavouring in baked goods, sweets, ice cream and soft drinks[183].

Medicinal Uses

Disclaimer

Antiasthmatic; Expectorant; Pectoral; Tonic.

Yerba Santa (the name means Holy weed) is a famous domestic remedy from south-western N. America where it is considered to be especially useful as an expectorant[238]. It is an ingredient of many patent cough medicines[238].

The leaves are an aromatic pleasant tasting tonic herb that reduces spasms, expels phlegm and lowers fevers[238, 254]. They are especially recommended for treating diseases of the chest and respiratory system, including asthma, and are also used in the treatment of hay fever[4, 200, 238]. A bitter tea made from the leaves has been much used as a bitter tonic and a stimulating balsamic expectorant[207, 213].

A steam bath made from the branches and leaves has been used in the treatment of rheumatism[257].

A decoction of the leaves has been used as a wash for sore areas and painful fatigued limbs[257].

A natural mouthwash is prepared by rolling the leaves into balls and allowing them to dry in the sun[213]. These are then chewed and at first have a bitter flavour but this is soon replaced by a sweetness if a drink of water is taken[213].

The leaves are harvested in the summer and dried for later use[238].

The plant has been smoked as a remedy for asthma[213].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Weaving.

The leaves have been woven into skirts and aprons[257].

Cultivation details

Requires a position in full sun in a well-drained sandy soil[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -5°c[200]. It is probably best grown against a sunny wall.

If the plant needs pruning to keep it within bounds, then this is best carried out in spring or early summer. Do not cut back to wood more than 2 years old[238].

This plant is remarkable for the coating of varnish-like resin that covers the upper leaf surface[200]. The foliage is very aromatic[200].

Propagation

Seed - sow spring in a greenhouse[200]. Prick out the seedlings into individual pots when they are large enough to handle. Grow on the young plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give some protection from the cold for at least their first couple of winters outdoors.

Scent

Leaves: Crushed

> The foliage is very aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Eriodictyon californica* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S]
- [S]
- [S] Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Hydrophyllaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Habitat:	Dry mountain slopes at altitudes up to 1,200n metres[254].		
Plants For A Future Rating (1-5):	3		

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References for *Eriodictyon californica* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S]
- [S]
- [S] Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Hydrophyllaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[207] **Coffey. T.** *The History and Folklore of North American Wild Flowers.* Facts on File. 1993 ISBN 0-8160-2624-6
A nice read, lots of information on plant uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Eriodictyon californicum

Common name:	Yerba santa	Family:	Hydrophyllaceae
Author:	(Hook. & Arn.) Torr.	Botanical references:	200
Synonyms:	Eriodictyon glutinosum		
Known Hazards:	None known		
Range:	South-western N. America - Oregon to California.		
Habitat:	Dry mountain slopes at altitudes up to 1,200n metres[254].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. californica[E,Sdg,Smap] E. glutinosa[Smk]
Other Common Names:	From various places around the Web, may not be correct. See below.
	California Yerba-santa [B], California Yerbasanta [P], Herbe De Santa [E], Santakraut [E], Yerba Santa [H,FEIS,S,E], Yerba Santa, Sticky [S],
Systematics:	From a UDSA Plants Database
	Order: Solanales . Waterleaf family
Other Range Info:	From the Ethnobotany Database
	France; Germany; Us; Us(Amerindian)

Physical Characteristics

An evergreen shrub growing to 2.25m by 2m . It is hardy to zone 8. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

By Walls, By South Wall, By West Wall.

Edible Uses

Condiment; Leaves; Tea.

The fresh leaves are chewed for their refreshing taste and to relieve thirst[183].

An aromatic sweet tea is made from the fresh or dried leaves[183].

An extract of the leaves is used as a flavouring in baked goods, sweets, ice cream and soft drinks[183].

Medicinal Uses

Disclaimer

Antiasthmatic; Expectorant; Pectoral; Tonic.

Yerba Santa (the name means Holy weed) is a famous domestic remedy from south-western N. America where it is considered to be especially useful as an expectorant[238]. It is an ingredient of many patent cough medicines[238].

The leaves are an aromatic pleasant tasting tonic herb that reduces spasms, expels phlegm and lowers fevers[238, 254]. They are especially recommended for treating diseases of the chest and respiratory system, including asthma, and are also used in the treatment of hay fever[4, 200, 238]. A bitter tea made from the leaves has been much used as a bitter tonic and a stimulating balsamic expectorant[207, 213].

A steam bath made from the branches and leaves has been used in the treatment of rheumatism[257].

A decoction of the leaves has been used as a wash for sore areas and painful fatigued limbs[257].

A natural mouthwash is prepared by rolling the leaves into balls and allowing them to dry in the sun[213]. These are then chewed and at first have a bitter flavour but this is soon replaced by a sweetness if a drink of water is taken[213].

The leaves are harvested in the summer and dried for later use[238].

The plant has been smoked as a remedy for asthma[213].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal

factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Weaving.

The leaves have been woven into skirts and aprons[257].

Cultivation details

Requires a position in full sun in a well-drained sandy soil[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -5°c[200]. It is probably best grown against a sunny wall.

If the plant needs pruning to keep it within bounds, then this is best carried out in spring or early summer. Do not cut back to wood more than 2 years old[238].

This plant is remarkable for the coating of varnish-like resin that covers the upper leaf surface[200]. The foliage is very aromatic[200].

Propagation

Seed - sow spring in a greenhouse[200]. Prick out the seedlings into individual pots when they are large enough to handle. Grow on the young plants for at least their first winter in a greenhouse and plant out in late spring or early summer. Give some protection from the cold for at least their first couple of winters outdoors.

Scent

Leaves: Crushed

> The foliage is very aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Eriodictyon californicum*

Subject:

Eriodictyon californicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Eriodictyon californicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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Your Name:

Your Email Address:

Date: Sun May 16 05:23:25 2004

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Add Comment Reset

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Eruca vesicaria sativa

Common name:	Rocket	Family:	Cruciferae
Author:	(Mill.) Thell.	Botanical references:	17, 200
Synonyms:	Eruca vesicaria ((L.)Cav.), Eruca sativa (Mill.), Brassica eruca (L.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean. A frequent casual in Britain, occasionally becoming established for a while.		
Habitat:	Waste ground, fields, olive groves, stony hills, tracksides etc[89].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Brassica erucoides[G] Brassica vesicaria[G] E. eruca[B,P] E. vesicaria ssp. sativa[B,C,P] E. vesicaria subsp. sativa[G,H] Raphanus eruca[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arugula [H], Garden Rocket [L], Oruga [E], Rocket [E,H], Rocket Sallad [H], Rocket-salad [B], Rocketsalad [P], Roquette [H], Zwaardherik [D],
Epithets:	From a Dictionary of Botanical Epithets
	sativa = cultivated; vesicaria = bladder like;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family

Other Range Info:	From the Ethnobotany Database	
	Spain; Us	
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds	
	Listed as noxious/invasive for: Washington.	

Physical Characteristics

Annual growing to 0.6m by 0.25m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from May to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Young leaves - raw or cooked[2, 27, 33, 34, 74]. A distinct strongly spicy flavour[183], the taste is best from fast, well-grown plants[200]. A few leaves added to a salad are acceptable though the flavour is too strong for many tastes[K]. Some people really like these leaves though most are not very keen[K]. Older leaves that have become too hot to eat on their own can be pureed and added to soups etc[183]. In the milder areas of Britain it is possible to produce edible leaves all year round from successional sowings, especially if the winter crop is given some protection[K].

Flowers - raw[52}. A similar taste to the leaves, they make a nice garnish on the salad bowl[183].

The seed yields a semi-drying oil[1, 2, 74] which is edible if stored 6 months[61, 114] and is a substitute for rapeseed oil[34]. It contains 32% fat, 27% protein[114]. It is known as 'jamba oil'[183].

A mustard is obtained from the seed[46, 74, 183], the strong flavour comes from an essential oil that is contained within the oil of the seed[114]. The pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238].

Medicinal Uses

Disclaimer

Antibacterial; Antiscorbutic; Aphrodisiac; Diuretic; Rubefacient; Stimulant; Stomachic.

Rocket was at one time used medicinally, though it is now used only as a salad herb[238]. The leaves are antiscorbutic, diuretic, stimulant and stomachic[4, 46].

The seed is rubefacient and stimulant[4, 46]. The powdered seed possesses antibacterial activity, but no alkaloids have been isolated[240].

The oil from the seed is said to have aphrodisiac properties[264].

Other Uses

Oil.

The seed yields a semi-drying oil which is a substitute for rapeseed oil[46]. It can also be used for lighting, burning with very little soot[114].

Cultivation details

A very easily grown and fast-maturing plant, it succeeds in most soils and conditions, though it prefers some shade in summer[52]. Once established, plants are quite drought resistant[160].

Rocket is occasionally cultivated for its edible leaves and flowers, it can be ready for harvest within 40 days of sowing the seed[1, 46, 89, 264], there are some named varieties. 'Rocket Improved' is less prone to bolting, though it still grows best in cooler weather[183].

Plants usually self-sow freely if the ground is disturbed in some way, such as by hoeing[K].

This species is normally untroubled by pests or diseases[160].

Propagation

Seed - sow outdoors in spring in situ. Germination is usually very quick and free. In order to obtain a continuous supply of edible leaves, successional sowings can be made every few weeks until mid August[33]. A late summer/early autumn sowing can provide leaves in winter, though the plants might require some protection in very cold winters[200].

Cultivars

'Rocket Improved'

A spicy, improved cultivar, it is less prone to bolting than the standard type, though it still grows best in cooler weather[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Brassica eruca* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Eruca sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Eruca vesicaria* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Eruca vesicaria ssp. sativa* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Eruca vesicaria subsp. sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *eruca sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968

An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

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Details:	

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Plants For A Future: Database Search Results

Eruca vesicaria sativa

Common name:	Rocket	Family:	Cruciferae
Author:	(Mill.) Thell.	Botanical references:	17, 200
Synonyms:	Eruca vesicaria ((L.)Cav.), Eruca sativa (Mill.), Brassica eruca (L.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean. A frequent casual in Britain, occasionally becoming established for a while.		
Habitat:	Waste ground, fields, olive groves, stony hills, tracksides etc[89].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
	Arugula [H], Garden Rocket [L], Oruga [E], Rocket [E,H], Rocket Sallad [H], Rocket-salad [B], Rocketsalad [P], Roquette [H], Zwaardherik [D],
Epithets:	From a Dictionary of Botanical Epithets
	sativa = cultivated; vesicaria = bladder like;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Spain; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Washington.

Physical Characteristics

Annual growing to 0.6m by 0.25m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from May to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Young leaves - raw or cooked[2, 27, 33, 34, 74]. A distinct strongly spicy flavour[183], the taste is best from fast, well-grown plants[200]. A few leaves added to a salad are acceptable though the flavour is too strong for many tastes[K]. Some people really like these leaves though most are not very keen[K]. Older leaves that have become too hot to eat on their own can be pureed and added to soups etc[183]. In the milder areas of Britain it is possible to produce edible leaves all year round from successional sowings, especially if the winter crop is given some protection[K].

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Medicinal Uses

Disclaimer

Antibacterial; Antiscorbutic; Aphrodisiac; Diuretic; Rubefacient; Stimulant; Stomachic.

Rocket was at one time used medicinally, though it is now used only as a salad herb[238]. The leaves are antiscorbutic, diuretic, stimulant and stomachic[4, 46].

The seed is rubefacient and stimulant[4, 46]. The powdered seed possesses antibacterial activity, but no alkaloids have been isolated[240].

The oil from the seed is said to have aphrodisiac properties[264].

Other Uses

Oil.

The seed yields a semi-drying oil which is a substitute for rapeseed oil[46]. It can also be used for lighting, burning with very little soot[114].

Cultivation details

A very easily grown and fast-maturing plant, it succeeds in most soils and conditions, though it prefers some shade in summer[52]. Once established, plants are quite drought resistant[160].

Rocket is occasionally cultivated for its edible leaves and flowers, it can be ready for harvest within 40 days of sowing the seed[1, 46, 89, 264], there are some named varieties. 'Rocket Improved' is less prone to bolting, though it still grows best in cooler weather[183].

Plants usually self-sow freely if the ground is disturbed in some way, such as by hoeing[K].

This species is normally untroubled by pests or diseases[160].

Propagation

Seed - sow outdoors in spring in situ. Germination is usually very quick and free. In order to obtain a continuous supply of edible leaves, successional sowings can be made every few weeks until mid August[33]. A late summer/early autumn sowing can provide leaves in winter, though the plants might require some protection in very cold winters[200].

Cultivars

'Rocket Improved'

A spicy, improved cultivar, it is less prone to bolting than the standard type, though it still grows best in cooler weather[183].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Brassica eruca* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Eruca sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Eruca vesicaria* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Eruca vesicaria ssp. sativa* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Eruca vesicaria subsp. sativa* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *eruca sativa* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures

- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[33] **Organ. J.** *Rare Vegetables for Garden and Table.* Faber 1960
Unusual vegetables that can be grown outdoors in Britain. A good guide.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968

An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[160] **Natural Food Institute,** *Wonder Crops. 1987.*
Fascinating reading, this is an annual publication. Some reports do seem somewhat exaggerated though.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[264] **Phillips. R. & Rix. M.** *Vegetables* Macmillan Reference Books, London. 1995 ISBN 0 333 62640 0
Excellent and easily read book with good information and an excellent collection of photos of vegetables from around the world, including many unusual species.

Readers Comments

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Plants For A Future: Database Search Results

Eruca vesicaria sativa

Common name:	Rocket	Family:	Cruciferae
Author:	(Mill.) Thell.	Botanical references:	17, 200
Synonyms:	Eruca vesicaria ((L.)Cav.), Eruca sativa (Mill.), Brassica eruca (L.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean. A frequent casual in Britain, occasionally becoming established for a while.		
Habitat:	Waste ground, fields, olive groves, stony hills, tracksides etc[89].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Brassica erucoides[G] Brassica vesicaria[G] E. eruca[B,P] E. vesicaria ssp. sativa[B,C,P] E. vesicaria subsp. sativa[G,H] Raphanus eruca[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Arugula [H], Garden Rocket [L], Oruga [E], Rocket [E,H], Rocket Sallad [H], Rocket-salad [B], Rocketsalad [P], Roquette [H], Zwaardherik [D],
Epithets:	From a Dictionary of Botanical Epithets
	sativa = cultivated; vesicaria = bladder like;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Spain; Us
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Washington.

Physical Characteristics

Annual growing to 0.6m by 0.25m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in leaf all year, in flower from May to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge.

Edible Uses

Condiment; Flowers; Leaves; Oil.

Young leaves - raw or cooked[2, 27, 33, 34, 74]. A distinct strongly spicy flavour[183], the taste is best from fast, well-grown plants[200]. A few leaves added to a salad are acceptable though the flavour is too strong for many tastes[K]. Some people really like these leaves though most are not very keen[K]. Older leaves that have become too hot to eat on their own can be pureed and added to soups etc[183]. In the milder areas of Britain it is possible to produce edible leaves all year round from successional sowings, especially if the winter crop is given some protection[K].

Flowers - raw[52}. A similar taste to the leaves, they make a nice garnish on the salad bowl[183].

The seed yields a semi-drying oil[1, 2, 74] which is edible if stored 6 months[61, 114] and is a substitute for rapeseed oil[34]. It contains 32% fat, 27% protein[114]. It is known as 'jamba oil'[183].

A mustard is obtained from the seed[46, 74, 183], the strong flavour comes from an essential oil that is contained within the oil of the seed[114]. The pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238].

Medicinal Uses

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Cultivars

'Rocket Improved'

> A spicy, improved cultivar, it is less prone to bolting than the standard type, though it still grows best in cooler weather[183].

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Eruca vesicaria sativa*

Subject:

Eruca vesicaria sativa

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Eruca vesicaria sativa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Eucalyptus globulus

Common name:	Tasmanian blue gum	Family:	Myrtaceae
Author:	Labill.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	Citronellal, an essential oil found in most Eucalyptus species is reported to be mutagenic when used in isolation[269]. In large doses, oil of eucalyptus, like so many essential oils has caused fatalities from intestinal irritation[269]. Death is reported from ingestion of 4 - 24 ml of essential oils, but recoveries are also reported for the same amount[269]. Symptoms include gastroenteric burning and irritation, nausea, vomiting, diarrhoea, oxygen deficiency, ,weakness, dizziness, stupor, difficult respiration, delirium, paralysis, convulsions, and death, usually due to respiratory failure[269]. The plant is reported to cause contact dermatitis. Sensitive persons may develop urticaria from handling the foliage and other parts of the plant[269].		
Range:	Australia - Tasmania, Victoria.		
Habitat:	Damp marshy areas on moist loams and clays[77]. Found in hilly country or moist valleys in deep rich soils[167].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Gum Tree [H], Bluegum Eucalyptus [FEIS], Compact Blue Bum Eucalypt [H], Eucalipto [E], Eucalypt [E], Eucalyptus [H,E], Okaliptus [E], Stringy Bark Tree [H], Tasmanian Blue Gum [B,H], Tasmanian Bluegum [P],
	From a Dictionary of Botanical Epithets

Epithets:	globulus = like a small globe;
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family
Other Range Info:	From the Ethnobotany Database
	Australia(Aborigine); China; Mexico; Nc; Spain; Turkey; Us(Ca); Venezuela

Physical Characteristics

An evergreen tree growing to 55m by 15m at a fast rate. It is hardy to zone 9. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

An essential oil from the fresh or dried leaves is used as a flavouring in sweets, baked goods, ice cream etc[177, 183].

Medicinal Uses

Disclaimer

Antibacterial; Antiperiodic; Antiseptic; Antispasmodic; Aromatherapy; Aromatic; Deodorant; Expectorant; Febrifuge; Hypoglycaemic; Stimulant.

Eucalyptus leaves are a traditional Aboriginal herbal remedy. The essential oil found in the leaves is a powerful antiseptic and is used all over the world for relieving coughs and colds, sore throats and other infections[254]. The essential oil is a common ingredient in many over-the-counter cold remedies[254].

The adult leaves, without their petioles, are antiperiodic, antiseptic, aromatic, deodorant, expectorant, febrifuge, hypoglycaemic and stimulant[4, 7, 21, 46].

The leaves, and the essential oil they contain, are antiseptic, antispasmodic, expectorant, febrifuge and stimulant[218]. Extracts of the leaves have antibacterial activity[218]. The essential oil obtained from various species of eucalyptus is a very powerful antiseptic, especially when it is old, because ozone is formed in it on exposure to air. It has a decided disinfectant action, destroying the lower forms of life[4]. The oil can be used externally, applied to cuts, skin infections etc, it can also be inhaled for treating blocked nasal passages, it can be gargled for sore throat and can also be taken internally for a wide range of complaints[4]. Some caution is advised, however, because like all essential oils, it can have a deleterious effect on the body in larger doses[4]. The oil from this species has a somewhat disagreeable odour and so it is no longer used so frequently for medicinal purposes, other members of the genus being used instead[4].

An oleo- resin is exuded from the tree[238]. It can also be obtained from the tree by making incisions in the trunk[4, 152]. This resin contains tannin and is powerfully astringent, it is used internally in the treatment of diarrhoea and bladder inflammation[4, 152, 238], externally it is applied to cuts etc[4, 152].

The essential oil is used in aromatherapy. Its keyword is 'Respiratory system'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cleanser; Dye; Essential; Fuel; Repellent; Wood.

The leaves and the essential oil in them are used as an insect repellent[14, 152, 174, 240]. The trees can also be planted in wet areas where mosquitoes abound. The ground will be dried out by the trees, making it unsuitable for the mosquitoes to breed[238]. A decoction of the leaves is used for repelling insects and vermin[269]. Africans use finely powdered bark as an insect dust[269].

An essential oil is obtained from the leaves[46, 61, 156]. It is used in perfumery and in medicines[100]. The yield is about 0.9% by steam distillation[154]. The essential oil is also in spot removers for cleaning off oil and grease[238]. Yields of 40 to 45 kilos of oil per hectare have been reported[269].

A yellow/brown dye is obtained from the young leaves. It does not require a mordant[168].

Grey and green dyes are obtained from the young shoots[168].

A dark green dye is obtained from the young bark[168].

Wood - heavy[46, 61], (or light according to another report[167]), durable, fire resistant[155]. An important timber species, it is used for various purposes such as carpentry, construction, fences, piles, platforms, plywood, poles, sheds, tool handles and veneer[238, 269]. The oil-rich wood is resistant to termites[269]. This is one of the best eucalypts for pulp production for making paper[152, 269].

Cultivation details

Prefers a sunny position in a moderately fertile well-drained moisture retentive circum-neutral soil[200]. Succeeds in most soils[167], tolerating poor and dry soils, especially those low in mineral elements[200]. Established plants are drought tolerant[200]. Plants should not be grown in frost pockets or windy sites[107]. Requires a sheltered position, disliking cold, dry or desiccating winds[154]. Plants are reported to tolerate an annual precipitation of 80 to 160cm and an annual temperature range of ca 16 to 20°C[269].

This species is not very hardy in Britain, tolerating temperatures down to about -5°c[200] and often succumbing to heavy frosts[11, 107, 155]. There is a tree 35 metres tall on the Isle of Man, there are several taller trees in S. Ireland and a tree on the Isle of Wight was 20 metres tall when it was 9 years old from seed[11].

Eucalyptus species have not adopted a deciduous habit and continue to grow until it is too cold for them to do so. This makes them more susceptible to damage from sudden cold snaps. If temperature fluctuations are more gradual, as in a woodland for example, the plants have the opportunity to stop growing and become dormant, thus making them more cold resistant. A deep mulch around the roots to prevent the soil from freezing also helps the trees to survive cold conditions[200]. The members of this genus are remarkably adaptable however, there can be a dramatic increase in the hardiness of subsequent generations from the seed of survivors growing in temperate zones[200].

The Tasmanian blue gum is the most extensively planted eucalypt species in the world with a total of 800,000 ha in dozens of countries[269]. This species is commonly planted in S. Europe, especially in Italy, Spain and Portugal, for timber, soil stabilization and the essential oil in its leaves[50, 61]. Trees have also been planted in marshy areas where they have the ability to reduce the wetness of the land (because they transpire so much water) thus getting rid of mosquitoes that were breeding there[4]. Eucalyptus monocultures are an environmental disaster, they are voracious, allelopathic and encourage the worst possible attitudes to land use and conservation[200].

A very fast growing tree, new growth can be up to 2.5 metres per year[11, 49, 107]. Trees are gross feeders and can severely stunt the growth of nearby plants[14]. Trees are very amenable to coppicing[49].

Plants are shallow-rooting and, especially in windy areas, should be planted out into their permanent positions when small to ensure that they do not suffer from wind-rock[245]. They strongly resent root disturbance and should be container grown before planting out into their permanent position[11].

The flowers are rich in nectar and are a good bee crop[168, 200]. The bruised leaves emit a powerful balsamic smell[245].

This species is the national emblem of Tasmania[156, 167].

Propagation

Seed - surface sow February/March in a sunny position in a greenhouse[11, 78, 134]. Species that come from high altitudes appreciate 6 - 8 weeks cold stratification at 2°c[200]. Pot up the seedlings into individual pots as soon as the second set of seed leaves has developed, if left longer than this they might not move well. Plant out into their permanent positions in early summer and give them some protection from the cold in their first winter. The seed can also be sown in June, the young trees being planted in their final positions in late spring of the following year. The seed has a long viability[200].

Scent

Leaves: Crushed

> The bruised leaves emit a powerful balsamic smell.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Myrtaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[49] **Arnold-Forster.** *Shrubs for the Milder Counties.*
Trees and shrubs that grow well in Cornwall and other mild areas of Britain. Fairly good, a standard reference book.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[77] **Kelly. S.** *Eucalypts. (2 volumes.)* Nelson, Melbourne 1969

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[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Plants For A Future: Database Search Results

Eucalyptus globulus

Common name:	Tasmanian blue gum	Family:	Myrtaceae
Author:	Labill.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	Citronellal, an essential oil found in most Eucalyptus species is reported to be mutagenic when used in isolation[269]. In large doses, oil of eucalyptus, like so many essential oils has caused fatalities from intestinal irritation[269]. Death is reported from ingestion of 4 - 24 ml of essential oils, but recoveries are also reported for the same amount[269]. Symptoms include gastroenteric burning and irritation, nausea, vomiting, diarrhoea, oxygen deficiency, ,weakness, dizziness, stupor, difficult respiration, delirium, paralysis, convulsions, and death, usually due to respiratory failure[269]. The plant is reported to cause contact dermatitis. Sensitive persons may develop urticaria from handling the foliage and other parts of the plant[269].		
Range:	Australia - Tasmania, Victoria.		
Habitat:	Damp marshy areas on moist loams and clays[77]. Found in hilly country or moist valleys in deep rich soils[167].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Blue Gum Tree [H], Bluegum Eucalyptus [FEIS], Compact Blue Bum Eucalypt [H], Eucalipto [E], Eucalypt [E], Eucalyptus [H,E], Okaliptus [E], Stringy Bark Tree [H], Tasmanian Blue Gum [B,H], Tasmanian Bluegum [P],
Epithets:	From a Dictionary of Botanical Epithets
	globulus = like a small globe;
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family
Other Range Info:	From the Ethnobotany Database

	Australia(Aborigine); China; Mexico; Nc; Spain; Turkey; Us(Ca); Venezuela

Physical Characteristics

An evergreen tree growing to 55m by 15m at a fast rate. It is hardy to zone 9. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

An essential oil from the fresh or dried leaves is used as a flavouring in sweets, baked goods, ice cream etc[177, 183].

Medicinal Uses

Disclaimer

Antibacterial; Antiperiodic; Antiseptic; Antispasmodic; Aromatherapy; Aromatic; Deodorant; Expectorant; Febrifuge; Hypoglycaemic; Stimulant.

Eucalyptus leaves are a traditional Aboriginal herbal remedy. The essential oil found in the leaves is a powerful antiseptic and is used all over the world for relieving coughs and colds, sore throats and other infections[254]. The essential oil is a common ingredient in many over-the-counter cold remedies[254].

The adult leaves, without their petioles, are antiperiodic, antiseptic, aromatic, deodorant, expectorant, febrifuge, hypoglycaemic and stimulant[4, 7, 21, 46].

The leaves, and the essential oil they contain, are antiseptic, antispasmodic, expectorant, febrifuge and stimulant[218]. Extracts of the leaves have antibacterial activity[218]. The essential oil obtained from various species of eucalyptus is a very powerful antiseptic, especially when it is old, because ozone is formed in it on exposure to air. It has a decided disinfectant action, destroying the lower forms of life[4]. The oil can be used externally, applied to cuts, skin infections etc, it can also be inhaled for treating blocked nasal passages, it can be gargled for sore throat and can also be taken internally for a wide range of complaints[4]. Some caution is advised, however, because like all essential oils, it can have a deleterious effect on the body in larger doses[4]. The oil from this species has a somewhat disagreeable odour and so it is no longer used so frequently for medicinal purposes, other members of the genus being used instead[4].

An oleo- resin is exuded from the tree[238]. It can also be obtained from the tree by making incisions in the trunk[4, 152]. This resin contains tannin and is powerfully astringent, it is used internally in the treatment of diarrhoea and bladder inflammation[4, 152, 238], externally it is applied to cuts etc[4, 152].

The essential oil is used in aromatherapy. Its keyword is 'Respiratory system'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cleanser; Dye; Essential; Fuel; Repellent; Wood.

The leaves and the essential oil in them are used as an insect repellent[14, 152, 174, 240]. The trees can also be planted in wet areas where mosquitoes abound. The ground will be dried out by the trees, making it unsuitable for the mosquitoes to breed[238]. A decoction of the leaves is used for repelling insects and vermin[269]. Africans use finely powdered bark as an insect dust[269].

An essential oil is obtained from the leaves[46, 61, 156]. It is used in perfumery and in medicines[100]. The yield is about 0.9% by steam distillation[154]. The essential oil is also in spot removers for cleaning off oil and grease[238]. Yields of 40 to 45 kilos of oil per hectare have been reported[269].

A yellow/brown dye is obtained from the young leaves. It does not require a mordant[168].

Grey and green dyes are obtained from the young shoots[168].

A dark green dye is obtained from the young bark[168].

Wood - heavy[46, 61], (or light according to another report[167]), durable, fire resistant[155]. An important timber species, it is used for various purposes such as carpentry, construction, fences, piles, platforms, plywood, poles, sheds, tool handles and veneer[238, 269]. The oil-rich wood is resistant to termites[269]. This is one of the best eucalypts for pulp production for making paper[152, 269].

Cultivation details

Prefers a sunny position in a moderately fertile well-drained moisture retentive circum-neutral soil[200]. Succeeds in most soils[167], tolerating poor and dry soils, especially those low in mineral elements[200]. Established plants are drought tolerant[200]. Plants should not be grown in frost pockets or windy sites[107]. Requires a sheltered position, disliking cold, dry or desiccating winds[154]. Plants are reported to tolerate an annual precipitation of 80 to 160cm and an annual temperature range of ca 16 to 20°C[269].

This species is not very hardy in Britain, tolerating temperatures down to about -5°c[200] and often succumbing to heavy frosts[11, 107, 155]. There is a tree 35 metres tall on the Isle of Man, there are several taller trees in S. Ireland and a tree on the Isle of Wight was 20 metres tall when it was 9 years old from seed[11].

Eucalyptus species have not adopted a deciduous habit and continue to grow until it is too cold for them to do so. This makes them more susceptible to damage from sudden cold snaps. If temperature fluctuations are more gradual, as in a woodland for example, the plants have the opportunity to stop growing and become dormant, thus making them more cold resistant. A deep mulch around the roots to prevent the soil from freezing also helps the trees to survive cold conditions[200]. The members of this genus are remarkably adaptable however, there can be a dramatic increase in the hardiness of subsequent generations from the seed of survivors growing in temperate zones[200].

The Tasmanian blue gum is the most extensively planted eucalypt species in the world with a total of 800,000 ha in dozens of countries[269]. This species is commonly planted in S. Europe, especially in Italy, Spain and Portugal, for timber, soil stabilization and the essential oil in its leaves[50, 61]. Trees have also been planted in marshy areas where they have the ability to reduce the wetness of the land (because they transpire so much water) thus getting rid of mosquitoes that were breeding there[4]. Eucalyptus monocultures are an environmental disaster, they are voracious, allelopathic and encourage the worst possible attitudes to land use and conservation[200].

A very fast growing tree, new growth can be up to 2.5 metres per year[11, 49, 107]. Trees are gross feeders and can severely stunt the growth of nearby plants[14]. Trees are very amenable to coppicing[49].

Plants are shallow-rooting and, especially in windy areas, should be planted out into their permanent positions when small to ensure that they do not suffer from wind-rock[245]. They strongly resent root disturbance and should be container grown before planting out into their permanent position[11].

The flowers are rich in nectar and are a good bee crop[168, 200]. The bruised leaves emit a powerful balsamic smell[245].

This species is the national emblem of Tasmania[156, 167].

Propagation

Seed - surface sow February/March in a sunny position in a greenhouse[11, 78, 134]. Species that come from high altitudes appreciate 6 - 8 weeks cold stratification at 2°c[200]. Pot up the seedlings into individual pots as soon as the second set of seed leaves has developed, if left longer than this they might not move well. Plant out into their permanent positions in early summer and give them some protection from the cold in their first winter. The seed can also be sown in June, the young trees being planted in their final positions in late spring of the following year. The seed has a long viability[200].

Scent

Leaves: Crushed

> The bruised leaves emit a powerful balsamic smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for the family Myrtaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

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Eucalyptus globulus

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Author:	Labill.	Botanical references:	11, 200
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Plants For A Future Rating (1-5):	1		

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Eucalyptus leaves are a traditional Aboriginal herbal remedy. The essential oil found in the leaves is a powerful antiseptic and is used all over the world for relieving coughs and colds, sore throats and other infections[254]. The essential oil is a common ingredient in many over-the-counter cold remedies[254].

The adult leaves, without their petioles, are antiperiodic, antiseptic, aromatic, deodorant, expectorant, febrifuge, hypoglycaemic and stimulant[4, 7, 21, 46].

The leaves, and the essential oil they contain, are antiseptic, antispasmodic, expectorant, febrifuge and stimulant[218]. Extracts of the leaves have antibacterial activity[218]. The essential oil obtained from various species of eucalyptus is a very powerful antiseptic, especially when it is old, because ozone is formed in it on exposure to air. It has a decided disinfectant action, destroying the lower forms of life[4]. The oil can be used externally, applied to cuts, skin infections etc, it can also be inhaled for treating blocked nasal passages, it can be gargled for sore throat and can also be taken internally for a wide range of complaints[4]. Some caution is advised, however, because like all essential oils, it can have a deleterious effect on the body in larger doses[4]. The oil from this species has a somewhat disagreeable odour and so it is no longer used so frequently for medicinal purposes, other members of the genus being used instead[4].

An oleo- resin is exuded from the tree[238]. It can also be obtained from the tree by making incisions in the trunk[4, 152]. This resin contains tannin and is powerfully astringent, it is used internally in the treatment of diarrhoea and bladder inflammation[4, 152, 238], externally it is applied to cuts etc[4, 152].

The essential oil is used in aromatherapy. Its keyword is 'Respiratory system'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Cleanser; Dye; Essential; Fuel; Repellent; Wood.

The leaves and the essential oil in them are used as an insect repellent[14, 152, 174, 240]. The trees can also be planted in wet areas where mosquitoes abound. The ground will be dried out by the trees, making it unsuitable for the mosquitoes to breed[238]. A decoction of the leaves is used for repelling insects and vermin[269]. Africans use finely powdered bark as an insect dust[269].

An essential oil is obtained from the leaves[46, 61, 156]. It is used in perfumery and in medicines[100]. The yield is about 0.9% by steam distillation[154]. The essential oil is also in spot removers for cleaning off oil and grease[238]. Yields of 40 to 45 kilos of oil per hectare have been reported[269].

A yellow/brown dye is obtained from the young leaves. It does not require a mordant[168].

Grey and green dyes are obtained from the young shoots[168].

A dark green dye is obtained from the young bark[168].

Wood - heavy[46, 61], (or light according to another report[167]), durable, fire resistant[155]. An important timber species, it is used for various purposes such as carpentry, construction, fences, piles, platforms, plywood, poles, sheds, tool handles and veneer[238, 269]. The oil-rich wood is resistant to termites[269]. This is one of the best eucalypts for pulp production for making paper[152, 269].

Cultivation details

Prefers a sunny position in a moderately fertile well-drained moisture retentive circum-neutral soil[200]. Succeeds in most soils[167], tolerating poor and dry soils, especially those low in mineral elements[200]. Established plants are drought tolerant[200]. Plants should not be grown in frost pockets or windy sites[107]. Requires a sheltered position, disliking cold, dry or desiccating winds[154]. Plants are reported to tolerate an annual precipitation of 80 to 160cm and an annual temperature range of ca 16 to 20°C[269].

This species is not very hardy in Britain, tolerating temperatures down to about -5°c[200] and often succumbing to heavy frosts[11, 107, 155]. There is a tree 35 metres tall on the Isle of Man, there are several taller trees in S. Ireland and a tree on the Isle of Wight was 20 metres tall when it was 9 years old from seed[11].

Eucalyptus species have not adopted a deciduous habit and continue to grow until it is too cold for them to do so. This makes them more susceptible to damage from sudden cold snaps. If temperature fluctuations are more gradual, as in a woodland for example, the plants have the opportunity to stop growing and become dormant, thus making them more cold resistant. A deep mulch around the roots to prevent the soil from freezing also helps the trees to survive cold conditions[200]. The members of this genus are remarkably adaptable however, there can be a dramatic increase in the hardiness of subsequent generations from the seed of survivors growing in temperate zones[200].

The Tasmanian blue gum is the most extensively planted eucalypt species in the world with a total of 800,000 ha in dozens of countries[269]. This species is commonly planted in S. Europe, especially in Italy, Spain and Portugal, for timber, soil stabilization and the essential oil in its leaves[50, 61]. Trees have also been planted in marshy areas where they have the ability to reduce the wetness of the land (because they transpire so much water) thus getting rid of mosquitoes that were breeding there[4]. Eucalyptus monocultures are an environmental disaster, they are voracious, allelopathic and encourage the worst possible attitudes to land use and conservation[200].

A very fast growing tree, new growth can be up to 2.5 metres per year[11, 49, 107]. Trees are gross feeders and can severely stunt the growth of nearby plants[14]. Trees are very amenable to coppicing[49].

Plants are shallow-rooting and, especially in windy areas, should be planted out into their permanent positions when small to ensure that they do not suffer from wind-rock[245]. They strongly resent root disturbance and should be container grown before planting out into their permanent position[11].

The flowers are rich in nectar and are a good bee crop[168, 200]. The bruised leaves emit a powerful balsamic smell[245].

This species is the national emblem of Tasmania[156, 167].

Propagation

Seed - surface sow February/March in a sunny position in a greenhouse[11, 78, 134]. Species that come from high altitudes appreciate 6 - 8 weeks cold stratification at 2°c[200]. Pot up the seedlings into individual pots as soon as the second set of seed leaves has developed, if left longer than this they might not move well. Plant out into their permanent positions in early summer and give them some protection from the cold in their first winter. The seed can also be sown in June, the young trees being planted in their final positions in late spring of the following year. The seed has a long viability[200].

Scent

Leaves: Crushed

The bruised leaves emit a powerful balsamic smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Eucalyptus globulus*

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Eucalyptus globulus

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Eucalyptus globulus

Please use the exact Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Eucalyptus leucoxylon

Common name:	Yellow gum	Family:	Myrtaceae
Author:	F. Muell.	Botanical references:	200
Synonyms:			
Known Hazards:	Citronellal, an essential oil found in most Eucalyptus species is reported to be mutagenic when used in isolation[269]. In large doses, oil of eucalyptus, like so many essential oils has caused fatalities from intestinal irritation[269]. Death is reported from ingestion of 4 - 24 ml of essential oils, but recoveries are also reported for the same amount[269]. Symptoms include gastroenteric burning and irritation, nausea, vomiting, diarrhoea, oxygen deficiency, ,weakness, dizziness, stupor, difficult respiration, delirium, paralysis, convulsions, and death, usually due to respiratory failure[269].		
Range:	Australia - South Australia, Victoria.		
Habitat:	Open woodland in areas with cool often frosty winters and hot summers[167].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	E. leucoxylon var. rosea[G] E. leucoxylon var. rubra[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	White Ironbark [H],
Epithets:	From a Dictionary of Botanical Epithets
	leucoxylon = white wood;

Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family

Physical Characteristics

An evergreen tree growing to 15m at a fast rate. It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

An essential oil from the leaves is used as a food flavouring in baked goods, ice cream and sweets[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Wood.

An orange dye is obtained from the leaves and green seedpods. It does not require a mordant[168].

Wood - pale, tough, strong and durable[167].

Cultivation details

Prefers a sunny position in a moderately fertile well-drained moisture retentive circum-neutral soil[200]. Prefers heavy clay soils but succeeds in most soils, including limestone[167]. Tolerates poor soils, especially those low in mineral elements[200]. Tolerates dry soils and also drought once it is established[200]. Plants grow well in dry-summer climates[260].

This species is not very hardy in Britain though it experiences frosts in the wild[167]. Another report says that it can tolerate temperatures down to about -8°c[260]. It might be worthwhile trying it outdoors in the mildest areas of the country.

Eucalyptus species have not adopted a deciduous habit and continue to grow until it is too cold for them to do so. This makes them more susceptible to damage from sudden cold snaps. If temperature fluctuations are more gradual, as in a woodland for example, the plants have the opportunity to stop growing and become dormant, thus making them more cold resistant. A deep mulch around the roots to prevent the soil from freezing also helps the trees to survive cold conditions[200]. The members of this genus are remarkably adaptable however, there can be a dramatic increase in the hardiness of subsequent generations from the seed of survivors growing in temperate zones[200].

Eucalyptus monocultures are an environmental disaster, they are voracious, allelopathic and encourage the worst possible attitudes to land use and conservation[200].

Plants are shallow-rooting and, especially in windy areas, should be planted out into their permanent positions when small to ensure that they do not suffer from wind-rock[245]. They strongly resent root disturbance and should be container grown before planting out into their permanent position[11].

The flowers are rich in nectar and are a good bee crop[200].

Propagation

Seed - surface sow February/March in a sunny position in a greenhouse[11, 78, 134]. Species that come from high altitudes appreciate 6 - 8 weeks cold stratification at 2°c[200]. Pot up the seedlings into individual pots as soon as the second set of seed leaves has developed, if left longer than this they might not move well. Plant out into their permanent positions in early summer and give them some protection from the cold in their first winter. The seed can also be sown in June, the young trees being planted in their final positions in late spring of the following year. The seed has a long viability[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Myrtaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990
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Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Plants For A Future: Database Search Results

Eucalyptus leucoxylon

Common name:	Yellow gum	Family:	Myrtaceae
Author:	F. Muell.	Botanical references:	200
Synonyms:			
Known Hazards:	Citronellal, an essential oil found in most Eucalyptus species is reported to be mutagenic when used in isolation[269]. In large doses, oil of eucalyptus, like so many essential oils has caused fatalities from intestinal irritation[269]. Death is reported from ingestion of 4 - 24 ml of essential oils, but recoveries are also reported for the same amount[269]. Symptoms include gastroenteric burning and irritation, nausea, vomiting, diarrhoea, oxygen deficiency, ,weakness, dizziness, stupor, difficult respiration, delirium, paralysis, convulsions, and death, usually due to respiratory failure[269].		
Range:	Australia - South Australia, Victoria.		
Habitat:	Open woodland in areas with cool often frosty winters and hot summers[167].		
Plants For A Future Rating (1-5):	1		

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Epithets:	From a Dictionary of Botanical Epithets
	leucoxylon = white wood;
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family

Physical Characteristics

An evergreen tree growing to 15m at a fast rate. It is hardy to zone 9. It is in leaf all year. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay and nutritionally poor soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

An essential oil from the leaves is used as a food flavouring in baked goods, ice cream and sweets[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Wood.

An orange dye is obtained from the leaves and green seedpods. It does not require a mordant[168].

Wood - pale, tough, strong and durable[167].

Cultivation details

Prefers a sunny position in a moderately fertile well-drained moisture retentive circum-neutral soil[200]. Prefers heavy clay soils but succeeds in most soils, including limestone[167]. Tolerates poor soils, especially those low in mineral elements[200]. Tolerates dry soils and also drought once it is established[200]. Plants grow well in dry-summer climates[260].

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Plants For A Future: Database Search Results

Eucalyptus leucoxylon

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Author:	F. Muell.	Botanical references:	200
Synonyms:			
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Range:	Australia - South Australia, Victoria.		
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Plants For A Future Rating (1-5):	1		

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Systematics:	From a UDSA Plants Database
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Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

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Medicinal Uses

Disclaimer

None known

Other Uses

Dye; Wood.

An orange dye is obtained from the leaves and green seedpods. It does not require a mordant[168].

Wood - pale, tough, strong and durable[167].

Cultivation details

Prefers a sunny position in a moderately fertile well-drained moisture retentive circum-neutral soil[200]. Prefers heavy clay soils but succeeds in most soils, including limestone[167]. Tolerates poor soils, especially those low in mineral elements[200]. Tolerates dry soils and also drought once it is established[200]. Plants grow well in dry-summer climates[260].

This species is not very hardy in Britain though it experiences frosts in the wild[167]. Another report says that it can tolerate temperatures down to about -8°c[260]. It might be worthwhile trying it outdoors in the mildest areas of the country.

Eucalyptus species have not adopted a deciduous habit and continue to grow until it is too cold for them to do so. This makes them more susceptible to damage from sudden cold snaps. If temperature fluctuations are more gradual, as in a woodland for example, the plants have the opportunity to stop growing and become dormant, thus making them more cold resistant. A deep mulch around the roots to prevent the soil from freezing also helps the trees to survive cold conditions[200]. The members of this genus are remarkably adaptable however, there can be a dramatic increase in the hardiness of subsequent generations from the seed of survivors growing in temperate zones[200].

Eucalyptus monocultures are an environmental disaster, they are voracious, allelopathic and encourage the worst possible attitudes to land use and conservation[200].

Plants are shallow-rooting and, especially in windy areas, should be planted out into their permanent positions when small to ensure that they do not suffer from wind-rock[245]. They strongly resent root disturbance and should be container grown before planting out into their permanent position[11].

The flowers are rich in nectar and are a good bee crop[200].

Propagation

Seed - surface sow February/March in a sunny position in a greenhouse[11, 78, 134]. Species that come from high altitudes appreciate 6 - 8 weeks cold stratification at 2°c[200]. Pot up the seedlings into individual pots as soon as the second set of seed leaves has developed, if left longer than this they might not move well. Plant out into their permanent positions in early summer and give them some protection from the cold in their first winter. The seed can also be sown in June, the young trees being planted in their final positions in late spring of the following year. The seed has a long viability[200].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Eucalyptus leucoxylon*

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Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Please use the exact Latin Names of the plants as specified in this database, one per line.

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Eucalyptus polybractea

Common name:	Blue mallee	Family:	Myrtaceae
Author:	R.T.Baker.	Botanical references:	152, 154
Synonyms:			
Known Hazards:	Citronellal, an essential oil found in most Eucalyptus species is reported to be mutagenic when used in isolation[269]. In large doses, oil of eucalyptus, like so many essential oils has caused fatalities from intestinal irritation[269]. Death is reported from ingestion of 4 - 24 ml of essential oils, but recoveries are also reported for the same amount[269]. Symptoms include gastroenteric burning and irritation, nausea, vomiting, diarrhoea, oxygen deficiency, ,weakness, dizziness, stupor, difficult respiration, delirium, paralysis, convulsions, and death, usually due to respiratory failure[269].		
Range:	Australia - New South Wales, Victoria.		
Habitat:	Poor clayey and sandy soils in the semi-arid interior[152]		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Silver Malee Scrub [H],
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family

Physical Characteristics

An evergreen tree growing to 6m at a fast rate. . It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

An essential oil from the leaves is used as a food flavouring in baked goods, ice cream and sweets[183].

Medicinal Uses

Disclaimer

Antirheumatic; Expectorant.

Eucalyptus leaves are a traditional Aboriginal herbal remedy. The essential oil found in the leaves is a powerful antiseptic and is used all over the world for relieving coughs and colds, sore throats and other infections[254]. The essential oil is a common ingredient in many over-the-counter cold remedies[254].

The essential oil obtained from the leaves is antirheumatic, antiseptic and expectorant[4, 152, 154]. This is one of the main species used for its medicinal oils, which contain up to 85% eucalyptol[4]. The essential oil obtained from various species of eucalyptus is a very powerful antiseptic, especially when it is old, because ozone is formed in it on exposure to air. It has a decided disinfectant action, destroying the lower forms of life[4]. The oil can be used externally, applied to cuts, skin infections etc, it can also be inhaled for treating blocked nasal passages, it can be gargled for sore throat and can also be taken internally for a wide range of complaints[4]. Some caution is advised, however, because like all essential oils, it can have a deleterious effect on the body in larger doses[4].

Other Uses

Essential; Fuel.

The leaves yield up to 1.3% of an essential oil. It is used medicinally and as a food flavouring[152, 154].

The wood is used as a fuel[154].

Cultivation details

Prefers a sunny position in a moderately fertile well-drained moisture retentive circum-neutral soil[200]. Tolerates poor and dry soils, especially those low in mineral elements[200]. Established plants are drought tolerant[200].

This species is cultivated in Australia for its essential oils[4]. It is of very doubtful hardiness in Britain, though it might succeed outdoors in the mildest areas of the country[200].

Eucalyptus species have not adopted a deciduous habit and continue to grow until it is too cold for them to do so. This makes them more susceptible to damage from sudden cold snaps. If temperature fluctuations are more gradual, as in a woodland for example, the plants have the opportunity to stop growing and become dormant, thus making them more cold resistant. A deep mulch around the roots to prevent the soil from freezing also helps the trees to survive cold conditions[200]. The members of this genus are remarkably adaptable however, there can be a dramatic increase in the hardiness of subsequent generations from the seed of survivors growing in temperate zones[200].

Eucalyptus monocultures are an environmental disaster, they are voracious, allelopathic and encourage the worst possible attitudes to land use and conservation[200].

Plants are shallow-rooting and, especially in windy areas, should be planted out into their permanent positions when small to ensure that they do not suffer from wind-rock[245]. They strongly resent root disturbance and should be container grown before planting out into their permanent position[11].

Plants respond well to coppicing[154].

The flowers are rich in nectar and are a good bee crop[200].

Propagation

Seed - surface sow February/March in a sunny position in a greenhouse[11, 78, 134]. Species that come from high altitudes appreciate 6 - 8 weeks cold stratification at 2°c[200]. Pot up the seedlings into individual pots as soon as the second set of seed leaves has developed, if left longer than this they might not move well. Plant out into their permanent positions in early summer and give them some protection from the cold in their first winter. The seed can also be sown in June, the young trees being planted in their final positions in late spring of the following year. The seed has a long viability[200].

Scent

Leaves:

No details on scent.

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Myrtaceae.

See the PFAF Links Pages for other sources

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References

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Plants For A Future: Database Search Results

Eucalyptus polybractea

Common name:	Blue mallee	Family:	Myrtaceae
Author:	R.T.Baker.	Botanical references:	152, 154
Synonyms:			
Known Hazards:	Citronellal, an essential oil found in most Eucalyptus species is reported to be mutagenic when used in isolation[269]. In large doses, oil of eucalyptus, like so many essential oils has caused fatalities from intestinal irritation[269]. Death is reported from ingestion of 4 - 24 ml of essential oils, but recoveries are also reported for the same amount[269]. Symptoms include gastroenteric burning and irritation, nausea, vomiting, diarrhoea, oxygen deficiency, ,weakness, dizziness, stupor, difficult respiration, delirium, paralysis, convulsions, and death, usually due to respiratory failure[269].		
Range:	Australia - New South Wales, Victoria.		
Habitat:	Poor clayey and sandy soils in the semi-arid interior[152]		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Silver Malee Scrub [H],
Systematics:	From a UDSA Plants Database
	Order: Myrtales . Myrtle family

Physical Characteristics

An evergreen tree growing to 6m at a fast rate. . It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry moist or wet soil and can tolerate drought.

Habitats and Possible Locations

Bog Garden, Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

An essential oil from the leaves is used as a food flavouring in baked goods, ice cream and sweets[183].

Medicinal Uses

Disclaimer

Antirheumatic; Expectorant.

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Other Uses

Essential; Fuel.

The leaves yield up to 1.3% of an essential oil. It is used medicinally and as a food flavouring[152, 154].

The wood is used as a fuel[154].

Cultivation details

Prefers a sunny position in a moderately fertile well-drained moisture retentive circum-neutral soil[200]. Tolerates poor and dry soils, especially those low in mineral elements[200]. Established plants are drought tolerant[200].

This species is cultivated in Australia for its essential oils[4]. It is of very doubtful hardiness in Britain, though it might succeed outdoors in the mildest areas of the country[200].

Eucalyptus species have not adopted a deciduous habit and continue to grow until it is too cold for them to do so. This makes them more susceptible to damage from sudden cold snaps. If temperature fluctuations are more gradual, as in a woodland for example, the plants have the opportunity to stop growing and become dormant, thus making them more cold resistant. A deep mulch around the roots to prevent the soil from freezing also helps the trees to survive cold conditions[200]. The members of this genus are remarkably adaptable however, there can be a dramatic increase in the hardiness of subsequent generations from the seed of survivors growing in temperate zones[200].

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Scent

Leaves:

No details on scent.

Suppliers

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Leaves:

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Eucalyptus+polybractea`
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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Eucalyptus polybractea*

Subject:

Eucalyptus polybractea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Eucalyptus polybractea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

Date: Sun May 16 05:27:04 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Eupatorium chinense

Common name:		Family:	Compositae
Author:	L.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Mountains all over Japan.		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 1.8m. It is hardy to zone 7. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The young leaves are used as a flavouring[177].

Medicinal Uses

Disclaimer

Anodyne; Carminative; Diuretic; Nervine; Vermifuge; Women's complaints.

The leaves are anodyne, carminative, diuretic, nervine and vermifuge[218]. An infusion is used in the treatment of colds, diphtheria and rheumatoid arthritis[238]. The leaves and stems are harvested in the summer before the flower buds open, and are dried for later use[238].

The seed is prescribed in China for the '36 diseases of women'[218].

The root is considered to be beneficial to the circulation and a restorative to women after parturition[218]. The roots are harvested in the autumn and dried for later use[238].

Other Uses

None known

Cultivation details

Succeeds in ordinary well-drained but moisture retentive garden soil in sun or part shade[200].

Plants seem to be immune to the predations of rabbits[233].

A polymorphic species[58].

Propagation

Seed - sow spring in a cold frame and only just cover the seed. Prick out the seedlings into individual pots when they are large enough to handle and plant them out into their permanent positions in the summer.

Division in spring or autumn[111]. Very easy, the clumps can be replanted direct into their permanent positions.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[111] **Sanders. T. W.** *Popular Hardy Perennials.* Collingridge 1926
A fairly wide range of perennial plants that can be grown in Britain and how to grow them.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Eupatorium chinense

Common name:		Family:	Compositae
Author:	L.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Mountains all over Japan.		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 1.8m. It is hardy to zone 7. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The young leaves are used as a flavouring[177].

Medicinal Uses

Disclaimer

Anodyne; Carminative; Diuretic; Nervine; Vermifuge; Women's complaints.

The leaves are anodyne, carminative, diuretic, nervine and vermifuge[218]. An infusion is used in the treatment of colds, diphtheria and rheumatoid arthritis[238]. The leaves and stems are harvested in the summer before the flower buds open, and are dried for later use[238].

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The root is considered to be beneficial to the circulation and a restorative to women after parturition[218]. The roots are harvested in the autumn and dried for later use[238].

Other Uses

None known

Cultivation details

Succeeds in ordinary well-drained but moisture retentive garden soil in sun or part shade[200].

Plants seem to be immune to the predations of rabbits[233].

A polymorphic species[58].

Propagation

Seed - sow spring in a cold frame and only just cover the seed. Prick out the seedlings into individual pots when they are large enough to handle and plant them out into their permanent positions in the summer.

Division in spring or autumn[111]. Very easy, the clumps can be replanted direct into their permanent positions.

Suppliers

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Web References

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Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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Readers Comments

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Plants For A Future: Database Search Results

Eupatorium chinense

Common name:		Family:	Compositae
Author:	L.	Botanical references:	58, 200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - China, Japan, Korea.		
Habitat:	Mountains all over Japan.		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	China

Physical Characteristics

Perennial growing to 1.8m. It is hardy to zone 7. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The young leaves are used as a flavouring[177].

Medicinal Uses

Disclaimer

Anodyne; Carminative; Diuretic; Nervine; Vermifuge; Women's complaints.

The leaves are anodyne, carminative, diuretic, nervine and vermifuge[218]. An infusion is used in the treatment of colds, diphtheria and rheumatoid arthritis[238]. The leaves and stems are harvested in the summer before the flower buds open, and are dried for later use[238].

The seed is prescribed in China for the '36 diseases of women'[218].

The root is considered to be beneficial to the circulation and a restorative to women after parturition[218]. The roots are harvested in the autumn and dried for later use[238].

Other Uses

None known

Cultivation details

Succeeds in ordinary well-drained but moisture retentive garden soil in sun or part shade[200].

Plants seem to be immune to the predations of rabbits[233].

A polymorphic species[58].

Propagation

Seed - sow spring in a cold frame and only just cover the seed. Prick out the seedlings into individual pots when they are large enough to handle and plant them out into their permanent positions in the summer.

Division in spring or autumn[111]. Very easy, the clumps can be replanted direct into their permanent positions.

Suppliers

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Add a comment on: *Eupatorium chinense*

Subject:

Eupatorium chinense

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Eupatorium chinense

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Ferula assa-foetida

Common name:	Asafoetida	Family:	Umbelliferae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Afghanistan to Iran.		
Habitat:	Deserts[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. asafoetida[H,HPIC,HORTIPLEX] F. assafoetida[E,H] F. foetida[H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asafetida [P,H], Asafoetida [H], Devil's Dung [H], Food Of The Gods [H], Hing [H], Seytantersi [E], Silphion [E],
Epithets:	From a Dictionary of Botanical Epithets
	foetida = unpleasantly scented;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Greece; India; India(Santal); Turkey

Physical Characteristics

Perennial growing to 2m by 1.5m . It is hardy to zone 8. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root.

Leaves and young shoots - cooked as a vegetable[2, 4, 177, 183]. The plant has a foetid odour, but this disappears when it is boiled[2]. The cabbage-like folded heads are eaten raw as a delicacy[183].

Root - cooked[2, 4]. It needs to be steeped in order to remove a bitterness[74]. A starch extracted from the roots is used to make a porridge[74].

A gum-resin from the root is used as a food flavouring[171]. It is an essential ingredient of Worcester sauce, it is also used to flavour a wide range of dishes and drinks[183]. It is popular in natural food cuisine as a garlic substitute[183]. The resin obtained from this plant is probably the foulest-smelling of all herbs, with a sulphurous garlic-like odour[7, 238]. It is so nauseating to some people that it has been nicknamed 'dung of the devil'[7]. However, in judicious quantities it gives a surprisingly pleasant flavour to many foods[238].

Medicinal Uses

Disclaimer

Alterative; Antiperiodic; Antispasmodic; Cardiotonic; Carminative; Deobstruent; Deodorant; Expectorant; Laxative; Parasiticide; Sedative; Stimulant; Tonic.

Asafoetida is a very effective medicinal herb that acts mainly on the digestive system, cleansing and strengthening the gastro-intestinal tract[238]. It is much used in the Ayurvedic tradition[238]. The gum-resin contains a volatile oil that is as persistent in aroma as garlic. They leave the body via the respiratory system and aid the coughing up of congested mucous[254].

The pungently flavoured gum-resin that is obtained from the root is alterative, anthelmintic, antiperiodic, antispasmodic, carminative, deobstruent, deodorant, expectorant, laxative, sedative and stomachic[7, 21, 176, 218]. It is used in the treatment of simple digestive problems such as wind, bloating, indigestion and constipation, and also for respiratory problems such as bronchitis, bronchial asthma and whooping cough[254]. It is also used as a circulatory stimulant, lowering blood pressure and thinning the blood[7, 21, 165, 176, 254]. The resin has a synergistic effect on other herbal preparations such as camphor, valerian and nux-vomica[7]. It is used in tincture as a mild cardio-tonic[7]. See below under 'Uses notes' for details on harvesting the resin.

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Gum.

A gum-resin is obtained from incisions in the roots and rhizomes[114]. The stem is removed at the end of the growing season, the root uncovered and a thin slice removed[74]. Another report says that the stem is removed as the plant starts to flower[238]. The gum exudes and hardens and a fresh slice is then made[74]. The gum should be stored in an air-tight container to prevent its strong flavour contaminating nearby substances[238]. The gum is a source of an essential oil which has medicinal properties and is also used as a food flavouring and in perfumery[46, 57, 61].

Cultivation details

Succeeds in most soils[1]. Prefers a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Plants have a long taproot and are intolerant of root disturbance[200]. They should be planted into their final positions as soon as possible.

Monocarpic, the plant takes some years before it flowers and dies after flowering[74]. In Britain, the plants usually flower after about 5 years[238].

The whole plant, especially when bruised, has an unpleasant smell like stale fish[245].

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Plant: Crushed

The whole plant, especially when bruised, has an unpleasant smell like stale fish.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Ferula asafoetida* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References for *ferula asafoetida* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

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See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
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Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

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A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Ferula assa-foetida

Common name:	Asafoetida	Family:	Umbelliferae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Afghanistan to Iran.		
Habitat:	Deserts[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. asafoetida[H,HPIC,HORTIPLEX] F. assafoetida[E,H] F. foetida[H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asafetida [P,H], Asafoetida [H], Devil's Dung [H], Food Of The Gods [H], Hing [H], Seytantersi [E], Silphion [E],
Epithets:	From a Dictionary of Botanical Epithets
	foetida = unpleasantly scented;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Greece; India; India(Santal); Turkey

Physical Characteristics

Perennial growing to 2m by 1.5m . It is hardy to zone 8. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root.

Leaves and young shoots - cooked as a vegetable[2, 4, 177, 183]. The plant has a foetid odour, but this disappears when it is boiled[2]. The cabbage-like folded heads are eaten raw as a delicacy[183].

Root - cooked[2, 4]. It needs to be steeped in order to remove a bitterness[74]. A starch extracted from the roots is used to make a porridge[74].

A gum-resin from the root is used as a food flavouring[171]. It is an essential ingredient of Worcester sauce, it is also used to flavour a wide range of dishes and drinks[183]. It is popular in natural food cuisine as a garlic substitute[183]. The resin obtained from this plant is probably the foulest-smelling of all herbs, with a sulphurous garlic-like odour[7, 238]. It is so nauseating to some people that it has been nicknamed 'dung of the devil'[7]. However, in judicious quantities it gives a surprisingly pleasant flavour to many foods[238].

Medicinal Uses

Disclaimer

Alterative; Antiperiodic; Antispasmodic; Cardiotonic; Carminative; Deobstruent; Deodorant; Expectorant; Laxative; Parasiticide; Sedative; Stimulant; Tonic.

Asafoetida is a very effective medicinal herb that acts mainly on the digestive system, cleansing and strengthening the gastro-intestinal tract[238]. It is much used in the Ayurvedic tradition[238]. The gum-resin contains a volatile oil that is as persistent in aroma as garlic. They leave the body via the respiratory system and aid the coughing up of congested mucous[254].

The pungently flavoured gum-resin that is obtained from the root is alterative, anthelmintic, antiperiodic, antispasmodic, carminative, deobstruent, deodorant, expectorant, laxative, sedative and stomachic[7, 21, 176, 218]. It is used in the treatment of simple digestive problems such as wind, bloating, indigestion and constipation, and also for respiratory problems such as bronchitis, bronchial asthma and whooping cough[254]. It is also used as a circulatory stimulant, lowering blood pressure and thinning the blood[7, 21, 165, 176, 254]. The resin has a synergistic effect on other herbal preparations such as camphor, valerian and nux-vomica[7]. It is used in tincture as a mild cardio-tonic[7]. See below under 'Uses notes' for details on harvesting the resin.

We have a more details factsheet on the history and medicinal use of this plant.See medicinal

factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Gum.

A gum-resin is obtained from incisions in the roots and rhizomes[114]. The stem is removed at the end of the growing season, the root uncovered and a thin slice removed[74]. Another report says that the stem is removed as the plant starts to flower[238]. The gum exudes and hardens and a fresh slice is then made[74]. The gum should be stored in an air-tight container to prevent its strong flavour contaminating nearby substances[238]. The gum is a source of an essential oil which has medicinal properties and is also used as a food flavouring and in perfumery[46, 57, 61].

Cultivation details

Succeeds in most soils[1]. Prefers a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Plants have a long taproot and are intolerant of root disturbance[200]. They should be planted into their final positions as soon as possible.

Monocarpic, the plant takes some years before it flowers and dies after flowering[74]. In Britain, the plants usually flower after about 5 years[238].

The whole plant, especially when bruised, has an unpleasant smell like stale fish[245].

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Plant: Crushed

The whole plant, especially when bruised, has an unpleasant smell like stale fish.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Ferula asafoetida* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ferula assafoetida* (a possible synonym).

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References for *ferula asafoetida* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

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Plants For A Future: Database Search Results

Ferula assa-foetida

Common name:	Asafoetida	Family:	Umbelliferae
Author:	L.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Afghanistan to Iran.		
Habitat:	Deserts[74].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	foetida = unpleasantly scented;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Greece; India; India(Santal); Turkey

Physical Characteristics

Perennial growing to 2m by 1.5m . It is hardy to zone 8. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root.

Leaves and young shoots - cooked as a vegetable[2, 4, 177, 183]. The plant has a foetid odour, but this disappears when it is boiled[2]. The cabbage-like folded heads are eaten raw as a delicacy[183].

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Medicinal Uses

Disclaimer

Alterative; Antiperiodic; Antispasmodic; Cardiotonic; Carminative; Deobstruent; Deodorant; Expectorant; Laxative; Parasiticide; Sedative; Stimulant; Tonic.

Asafoetida is a very effective medicinal herb that acts mainly on the digestive system, cleansing and strengthening the gastro-intestinal tract[238]. It is much used in the Ayurvedic tradition[238]. The gum-resin contains a volatile oil that is as persistent in aroma as garlic. They leave the body via the respiratory system and aid the coughing up of congested mucous[254].

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We have a more details factsheet on the history and medicinal use of this plant.See medicinal

factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Gum.

A gum-resin is obtained from incisions in the roots and rhizomes[114]. The stem is removed at the end of the growing season, the root uncovered and a thin slice removed[74]. Another report says that the stem is removed as the plant starts to flower[238]. The gum exudes and hardens and a fresh slice is then made[74]. The gum should be stored in an air-tight container to prevent its strong flavour contaminating nearby substances[238]. The gum is a source of an essential oil which has medicinal properties and is also used as a food flavouring and in perfumery[46, 57, 61].

Cultivation details

Succeeds in most soils[1]. Prefers a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

Plants have a long taproot and are intolerant of root disturbance[200]. They should be planted into their final positions as soon as possible.

Monocarpic, the plant takes some years before it flowers and dies after flowering[74]. In Britain, the plants usually flower after about 5 years[238].

The whole plant, especially when bruised, has an unpleasant smell like stale fish[245].

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Plant: Crushed

The whole plant, especially when bruised, has an unpleasant smell like stale fish.

Suppliers

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Add a comment on: *Ferula assa-foetida*

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Ferula assa-foetida

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Plant Information

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Ferula assa-foetida

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Ferula foetida

Common name:	Asafoetida	Family:	Umbelliferae
Author:	(Bunge.) Reg.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Afghanistan, Iran, Turkestan.		
Habitat:	Sandy deserts[4, 74]. Rocky hillsides[268].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. assa-foetida[E,G,P] F. assafoetida[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	foetida = unpleasantly scented;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Europe; Greece; India(Santal); Indochina; Turkey

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from May to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves and young shoots - cooked as a vegetable[177, 183] or eaten raw[4].

A gum-resin from the root is used as a food flavouring. It is much used in India, despite having an offensive odour[4]. It is an essential ingredient of Worcester sauce, and is also used to flavour a wide range of dishes and drinks[183]. Popular in natural food cuisine as a garlic substitute[183].

Medicinal Uses

Disclaimer

Antiasthmatic; Antispasmodic; Carminative; Expectorant; Laxative; Sedative.

Asafoetida has long been used as a food flavouring and medicinal herb. It is still sometimes used in modern herbalism where it is especially valued in the treatment of hysteria, some nervous conditions, bronchitis, asthma and whooping cough[268]. It was at one time employed in the treatment of infantile pneumonia and flatulent colic[268].

The gum resin is antispasmodic, carminative, expectorant, laxative, sedative[4, 21]. The volatile oil in the gum is eliminated through the lungs, making this an excellent treatment for asthma[4]. The gum does have a vile taste and so it is usually taken as a pill or as a suppository[4].

Other Uses

Essential; Gum.

A gum-resin is obtained from incisions in the roots and rhizomes[64]. The stem is removed at the end of the growing season, the root uncovered and a thin slice removed[74]. The gum exudes and hardens and a fresh slice is then made[74]. The gum is a source of an essential oil which has medicinal properties and is also used as a food flavouring and in perfumery[46, 61, 64].

Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Plants have been grown successfully at Edinburgh Botanical Gardens[4].

Plants are intolerant of root disturbance due to their long taproot[200]. They should be planted into their final positions as soon as possible.

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ferula assa-foetida* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[64] **Howes. F. N.** *Vegetable Gums and Resins.* Faber
A very good book dealing with the subject in a readable way.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Plants For A Future: Database Search Results

Ferula foetida

Common name:	Asafoetida	Family:	Umbelliferae
Author:	(Bunge.) Reg.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Afghanistan, Iran, Turkestan.		
Habitat:	Sandy deserts[4, 74]. Rocky hillsides[268].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. assa-foetida[E,G,P] F. assafoetida[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asafetida [P], Asafoetida [S], Laserpitium [E], Seytantersi [E], Silphion [E],
Epithets:	From a Dictionary of Botanical Epithets
	foetida = unpleasantly scented;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Europe; Greece; India(Santal); Indochina; Turkey

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from May to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves and young shoots - cooked as a vegetable[177, 183] or eaten raw[4].

A gum-resin from the root is used as a food flavouring. It is much used in India, despite having an offensive odour[4]. It is an essential ingredient of Worcester sauce, and is also used to flavour a wide range of dishes and drinks[183]. Popular in natural food cuisine as a garlic substitute[183].

Medicinal Uses

Disclaimer

Antiasthmatic; Antispasmodic; Carminative; Expectorant; Laxative; Sedative.

Asafoetida has long been used as a food flavouring and medicinal herb. It is still sometimes used in modern herbalism where it is especially valued in the treatment of hysteria, some nervous conditions, bronchitis, asthma and whooping cough[268]. It was at one time employed in the treatment of infantile pneumonia and flatulent colic[268].

The gum resin is antispasmodic, carminative, expectorant, laxative, sedative[4, 21]. The volatile oil in the gum is eliminated through the lungs, making this an excellent treatment for asthma[4]. The gum does have a vile taste and so it is usually taken as a pill or as a suppository[4].

Other Uses

Essential; Gum.

A gum-resin is obtained from incisions in the roots and rhizomes[64]. The stem is removed at the end of the growing season, the root uncovered and a thin slice removed[74]. The gum exudes and hardens and a fresh slice is then made[74]. The gum is a source of an essential oil which has medicinal properties and is also used as a food flavouring and in perfumery[46, 61, 64].

Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Plants have been grown successfully at Edinburgh Botanical

Gardens[4].

Plants are intolerant of root disturbance due to their long taproot[200]. They should be planted into their final positions as soon as possible.

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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See the PFAF Links Pages for other sources

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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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cultivation details. There are no illustrations.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

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Plants For A Future: Database Search Results

Ferula foetida

Common name:	Asafoetida	Family:	Umbelliferae
Author:	(Bunge.) Reg.	Botanical references:	74, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia - Afghanistan, Iran, Turkestan.		
Habitat:	Sandy deserts[4, 74]. Rocky hillsides[268].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. assa-foetida[E,G,P] F. assafoetida[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Asafetida [P], Asafoetida [S], Laserpitium [E], Seytantersi [E], Silphion [E],
Epithets:	From a Dictionary of Botanical Epithets
	foetida = unpleasantly scented;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	China; Europe; Greece; India(Santal); Indochina; Turkey

Physical Characteristics

Perennial growing to 1m. It is hardy to zone 8. It is in flower from May to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves.

Leaves and young shoots - cooked as a vegetable[177, 183] or eaten raw[4].

A gum-resin from the root is used as a food flavouring. It is much used in India, despite having an offensive odour[4]. It is an essential ingredient of Worcester sauce, and is also used to flavour a wide range of dishes and drinks[183]. Popular in natural food cuisine as a garlic substitute[183].

Medicinal Uses

Disclaimer

Antiasthmatic; Antispasmodic; Carminative; Expectorant; Laxative; Sedative.

Asafoetida has long been used as a food flavouring and medicinal herb. It is still sometimes used in modern herbalism where it is especially valued in the treatment of hysteria, some nervous conditions, bronchitis, asthma and whooping cough[268]. It was at one time employed in the treatment of infantile pneumonia and flatulent colic[268].

The gum resin is antispasmodic, carminative, expectorant, laxative, sedative[4, 21]. The volatile oil in the gum is eliminated through the lungs, making this an excellent treatment for asthma[4]. The gum does have a vile taste and so it is usually taken as a pill or as a suppository[4].

Other Uses

Essential; Gum.

A gum-resin is obtained from incisions in the roots and rhizomes[64]. The stem is removed at the end of the growing season, the root uncovered and a thin slice removed[74]. The gum exudes and hardens and a fresh slice is then made[74]. The gum is a source of an essential oil which has medicinal properties and is also used as a food flavouring and in perfumery[46, 61, 64].

Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Plants have been grown successfully at Edinburgh Botanical

Gardens[4].

Plants are intolerant of root disturbance due to their long taproot[200]. They should be planted into their final positions as soon as possible.

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

No details on scent.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ferula foetida*

Subject:

Ferula foetida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site: ☐

URL for Site: http://

Details: ☐

Details of Location and growing conditions:

☐

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ferula foetida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

☐

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Ferula gummosa

Common name:	Galbanum	Family:	Umbelliferae
Author:	Boiss.	Botanical references:	74, 200
Synonyms:	Ferula galbaniflua (Boiss.&Buhse.)		
Known Hazards:	None known		
Range:	W. Asia - Central Iran, Turkey and southern Russia.		
Habitat:	Herbaceous slopes in steppes[74].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. gumosa[HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Galbanum [P,H,S,E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; India; Turkey

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 6. It is in flower from May to June, and the seeds ripen from June to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The gum resin obtained from the root is used as a celery-like food flavouring[177, 238].

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Expectorant; Stimulant.

The whole plant, but especially the root, contains the gum resin 'galbanum'[4]. This is antispasmodic, carminative, expectorant and stimulant[4, 46, 64, 238]. It is used internally in the treatment of chronic bronchitis, asthma and other chest complaints[4, 238]. It is a digestive stimulant and antispasmodic, reducing flatulence, griping pains and colic[254]. Externally it is used as a plaster for inflammatory swellings, ulcers, boils, wounds and skin complaints[4, 238].

Other Uses

The aromatic gum resin 'Galbanum' is obtained from wounds made in the stem[4]. It is collected by removing soil from around the top of the root and then cutting a slice off the root[64, 238] and can also be obtained from incisions made in the stem[238]. It is used medicinally and is also an ingredient of incense[1, 64, 171, 238]. It was an important ingredient of the incense used by the Israelites[268].

Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Another report says that it tolerates temperatures down to at least -15°c and should therefore succeed outdoors in most parts of the country[238].

Plants are intolerant of root disturbance due to their long taproot[200]. They should be planted into their final positions as soon as possible.

The flowers have an unpleasant smell[245].

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Flowers: Fresh

The flowers have an unpleasant smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
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References for *Ferula galbaniflua* (a possible synonym).

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
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[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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Readers Comments

Queries about plants

Karen Fletcher Fri Apr 27 16:19:51 2001

I am looking for galbanum resin. It is also known as ferula galbaniflus. Does anyone know where I may purchase this. I do not want oils. I need the resin.

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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Plants For A Future: Database Search Results

Ferula gummosa

Common name:	Galbanum	Family:	Umbelliferae
Author:	Boiss.	Botanical references:	74, 200
Synonyms:	Ferula galbaniflua (Boiss.&Buhse.)		
Known Hazards:	None known		
Range:	W. Asia - Central Iran, Turkey and southern Russia.		
Habitat:	Herbaceous slopes in steppes[74].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. gumosa[HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Galbanum [P,H,S,E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; India; Turkey

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 6. It is in flower from May to June, and the seeds ripen from June to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The gum resin obtained from the root is used as a celery-like food flavouring[177, 238].

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Expectorant; Stimulant.

The whole plant, but especially the root, contains the gum resin 'galbanum'[4]. This is antispasmodic, carminative, expectorant and stimulant[4, 46, 64, 238]. It is used internally in the treatment of chronic bronchitis, asthma and other chest complaints[4, 238]. It is a digestive stimulant and antispasmodic, reducing flatulence, griping pains and colic[254]. Externally it is used as a plaster for inflammatory swellings, ulcers, boils, wounds and skin complaints[4, 238].

Other Uses

The aromatic gum resin 'Galbanum' is obtained from wounds made in the stem[4]. It is collected by removing soil from around the top of the root and then cutting a slice off the root[64, 238] and can also be obtained from incisions made in the stem[238]. It is used medicinally and is also an ingredient of incense[1, 64, 171, 238]. It was an important ingredient of the incense used by the Israelites[268].

Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Another report says that it tolerates temperatures down to at least -15°c and should therefore succeed outdoors in most parts of the country[238].

Plants are intolerant of root disturbance due to their long taproot[200]. They should be planted into their final positions as soon as possible.

The flowers have an unpleasant smell[245].

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Flowers: Fresh

The flowers have an unpleasant smell.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Ferula galbaniflua* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [S] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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Ferula gummosa

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Author:	Boiss.	Botanical references:	74, 200
Synonyms:	Ferula galbaniflua (Boiss.&Buhse.)		
Known Hazards:	None known		
Range:	W. Asia - Central Iran, Turkey and southern Russia.		
Habitat:	Herbaceous slopes in steppes[74].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. gumosa[HORTIPLEX]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Galbanum [P,H,S,E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; India; Turkey

Physical Characteristics

Perennial growing to 1m by 1m . It is hardy to zone 6. It is in flower from May to June, and the seeds ripen from June to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The gum resin obtained from the root is used as a celery-like food flavouring[177, 238].

Medicinal Uses

Disclaimer

Antispasmodic; Carminative; Expectorant; Stimulant.

The whole plant, but especially the root, contains the gum resin 'galbanum'[4]. This is antispasmodic, carminative, expectorant and stimulant[4, 46, 64, 238]. It is used internally in the treatment of chronic bronchitis, asthma and other chest complaints[4, 238]. It is a digestive stimulant and antispasmodic, reducing flatulence, griping pains and colic[254]. Externally it is used as a plaster for inflammatory swellings, ulcers, boils, wounds and skin complaints[4, 238].

Other Uses

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Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200]. Another report says that it tolerates temperatures down to at least -15°c and should therefore succeed outdoors in most parts of the country[238].

Plants are intolerant of root disturbance due to their long taproot[200]. They should be planted into their final positions as soon as possible.

The flowers have an unpleasant smell[245].

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Flowers: Fresh

The flowers have an unpleasant smell.

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ferula gummosa*

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Ferula gummosa

Group:
Plant Information

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You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Name of Site:	
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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ferula gummosa

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

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Ferula narthex

Common name:		Family:	Umbelliferae
Author:	Boiss.	Botanical references:	200
Synonyms:	Ferula jaeschkeana (Vatke.)		
Known Hazards:	None known		
Range:	W. Asia - Afghanistan to Pakistan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. jaschkeana[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ferula [P],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	India; Kashmir

Physical Characteristics

Perennial growing to 2.5m. It is hardy to zone 8. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall.

Edible Uses

Condiment; Leaves.

Leaves and young shoots[105, 177]. Used as a pot-herb[2].

The gum obtained from the roots is used as a condiment[2, 46].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Carminative; Contraceptive; Diaphoretic; Expectorant; Nervine.

The gum resin obtained from the root is anthelmintic, antispasmodic, expectorant and nervine[240]. It is used in the treatment of asthma, whooping cough, flatulent colic, and in pneumonia and bronchitis in children[240].

The leaves are carminative and diaphoretic[240].

The plant has recently been investigated as a potential contraceptive[254].

Other Uses

Gum.

The root is a source of the gum 'asafoetida'[1, 2, 61], it is used as a condiment and as a medicine. It is obtained by incision of the roots[114].

Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of Britain, it tolerates temperatures down to between -5 and -10°c[200].

The whole plant is very strong-smelling[200].

Plants have a long taproot and are intolerant of root disturbance[200]. They should be planted into their final positions as soon as possible.

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Leaves: Crushed

The whole plant is very strong-smelling.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
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References for *Ferula jaeschkeana* (a possible synonym).

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	India; Kashmir

Physical Characteristics

Perennial growing to 2.5m. It is hardy to zone 8. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall.

Edible Uses

Condiment; Leaves.

Leaves and young shoots[105, 177]. Used as a pot-herb[2].

The gum obtained from the roots is used as a condiment[2, 46].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Carminative; Contraceptive; Diaphoretic; Expectorant; Nervine.

The gum resin obtained from the root is anthelmintic, antispasmodic, expectorant and nervine[240]. It is used in the treatment of asthma, whooping cough, flatulent colic, and in pneumonia and bronchitis in children[240].

The leaves are carminative and diaphoretic[240].

The plant has recently been investigated as a potential contraceptive[254].

Other Uses

Gum.

The root is a source of the gum 'asafoetida'[1, 2, 61], it is used as a condiment and as a medicine. It is obtained by incision of the roots[114].

Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of Britain, it tolerates temperatures down to between -5 and -10°c[200].

The whole plant is very strong-smelling[200].

Plants have a long taproot and are intolerant of root disturbance[200]. They should be planted into their final positions as soon as possible.

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Leaves: Crushed

The whole plant is very strong-smelling.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ferula jaeschkeana* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

References for *Ferula jaschkeana* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[114] **Chakravarty. H. L.** *The Plant Wealth of Iraq.*
It is surprising how many of these plants can be grown in Britain. A very readable book on the useful plants of Iraq.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future: Database Search Results

Ferula narthex

Common name:		Family:	Umbelliferae
Author:	Boiss.	Botanical references:	200
Synonyms:	Ferula jaeschkeana (Vatke.)		
Known Hazards:	None known		
Range:	W. Asia - Afghanistan to Pakistan.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. jaschkeana[E]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Ferula [P],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	India; Kashmir

Physical Characteristics

Perennial growing to 2.5m. It is hardy to zone 8. It is in flower in July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, By Walls, By South Wall, By East Wall.

Edible Uses

Condiment; Leaves.

Leaves and young shoots[105, 177]. Used as a pot-herb[2].

The gum obtained from the roots is used as a condiment[2, 46].

Medicinal Uses

Disclaimer

Anthelmintic; Antispasmodic; Carminative; Contraceptive; Diaphoretic; Expectorant; Nervine.

The gum resin obtained from the root is anthelmintic, antispasmodic, expectorant and nervine[240]. It is used in the treatment of asthma, whooping cough, flatulent colic, and in pneumonia and bronchitis in children[240].

The leaves are carminative and diaphoretic[240].

The plant has recently been investigated as a potential contraceptive[254].

Other Uses

Gum.

The root is a source of the gum 'asafoetida'[1, 2, 61], it is used as a condiment and as a medicine. It is obtained by incision of the roots[114].

Cultivation details

Succeeds in most soils[1]. Requires a deep fertile soil in a sunny position[200].

This species is not hardy in the colder areas of Britain, it tolerates temperatures down to between -5 and -10°c[200].

The whole plant is very strong-smelling[200].

Plants have a long taproot and are intolerant of root disturbance[200]. They should be planted into their final positions as soon as possible.

Propagation

Seed - best sown as soon as the seed is ripe in a greenhouse in autumn[1]. Otherwise sow in April in a greenhouse. Prick out the seedlings into individual pots as soon as they are large enough to handle. Plant them out into their permanent positions whilst still small because the plants dislike root disturbance[1]. Give the plants a protective mulch for at least their first winter outdoors.

Division in autumn. This may be inadvisable due to the plants dislike of root disturbance.

Scent

Leaves: Crushed

> The whole plant is very strong-smelling.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ferula narthex*

Subject:

Ferula narthex

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ferula narthex

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 05:31:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Filipendula ulmaria

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Meadowsweet	Family:	Rosaceae
Author:	(L.) Maxim.	Botanical references:	17, 200
Synonyms:	Ulmaria pentapetala (Gilib.), Spiraea ulmaria (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Wet ground in swamps, marshes, fens, wet woods and meadows, wet rock ledges and by rivers, but not on acid peats[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. ulmaria ssp. ulmaria[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bridewort [H], Ergecsakali [E], European Meadowsweet [H], Meadowsweet [E,H,L], Moerasspirea [D], Queen Of The Meadow [P,H], Queen-of-the-meadow [B,L], Ulmaria [E],
Epithets:	From a Dictionary of Botanical Epithets
	pendula = pendulous; ulmaria = Ulmus (elm) like;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Britain; Spain; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.4m . It is hardy to zone 2 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Meadow, Bog Garden, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Flowers; Leaves; Root; Tea.

Root - cooked[2, 141].

Young leaves - cooked as a flavouring in soups[177].

Young leaves, flowers and roots are brewed into a tea[183].

The dried leaves are used as a flavouring[12, 100], especially as a sweetener in herb teas[13, 183].

The flowers are used as a flavouring in various alcoholic beverages and in stewed fruits[183]. Adding them to wine or beer is said to make a very heady brew[244]. They are also made into a syrup which can be used in cooling drinks and fruit salads[183].

Medicinal Uses

Disclaimer

Alterative; Antiinflammatory; Antiseptic; Aromatic; Astringent; Diaphoretic; Diuretic; Homeopathy; Stomachic; Tonic.

Meadowsweet has a very long history of herbal use, it was one of the three most sacred herbs of the Druids[238]. The leaves and flowering stems are alterative, anti-inflammatory, antiseptic, aromatic, astringent, diaphoretic, diuretic, stomachic and tonic[4, 9, 21, 165]. The plant is harvested in July when it is in flower and can be dried for later use[4]. The flower head contains salicylic acid, from which the drug aspirin can be synthesised[200, 238]. Unlike the extracted aspirin, which can cause gastric ulceration at high doses, the combination of constituents in meadowsweet act to protect the inner lining of the stomach and intestines whilst still providing the anti-inflammatory benefits of aspirin[254]. The herb is a valuable medicine in the treatment of diarrhoea, indeed it is considered almost specific in the treatment of children's diarrhoea[4]. It is also considered to be a useful stomachic, being used to treat hyperacidity, heartburn, gastritis and peptic ulcers, for which it is one of the most effective plant remedies[4, 238]. It is also frequently used in the treatment of afflictions of the blood[4]. Meadowsweet is also effective against the organisms causing diphtheria, dysentery and pneumonia[238]. This remedy should not be given to people who are hypersensitive to aspirin[238].

A strong decoction of the boiled root is said to be effective, when used externally, in the treatment of sores and ulcers[244].

A homeopathic remedy is made from the fresh root[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Essential; Pot-pourri; Strewing.

A black dye is obtained from the roots. It is brown[141].

A yellow dye is obtained from the plant tops[106].

An essential oil obtained from the flower buds is used in perfumery[46, 61].

The whole plant, but especially the leaves[245], was formerly used as a strewing herb, imparting an almond-like fragrance[4, 66]. Strongly aromatic, its delightful perfume would completely fill the room[244].

Both flowers and leaves have been used in pot-pourri, retaining their scent for several months. The scent of the dried flowers becoming more and more pleasant with age[245].

Cultivation details

Requires a humus-rich moist soil in semi-shade[200]. Succeeds in full sun only if the soil is reliably moist throughout the growing season[200]. Dislikes dry or acid soils[1, 17]. Does well in marshy soils[24, 200]. Grows well in heavy clay soils.

The flowers have a strong sweet smell[4], which for many people is sickly[245]. The leaves are also aromatic[187], though the scent is very different from the flowers[4]. The leaves are pleasantly aromatic[245].

A good bee plant[24, 30].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - best sown in the autumn in a cold frame[1]. The seed can also be sown in a cold frame in spring, germinating best at a temperature of 10 - 13°c[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer if they have grown enough. If not, keep them in a cold frame for the winter and plant them out in late spring.

Division in autumn or winter[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Leaves: Crushed

The leaves are pleasantly aromatic when bruised.

Flowers: Fresh Dried

The flowers have a strong, sweet smell. For many people the scent is sickly. The scent improves the longer the flowers are dried[245].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Filipendula ulmaria* (meadowsweet)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Filipendula ulmaria ssp. ulmaria* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Spiraea ulmaria* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *filipendula ulmaria* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996

ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Name of Site:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Filipendula+ulmaria`
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Plants For A Future: Database Search Results

Filipendula ulmaria

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Meadowsweet	Family:	Rosaceae
Author:	(L.) Maxim.	Botanical references:	17, 200
Synonyms:	Ulmaria pentapetala (Gilib.), Spiraea ulmaria (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Wet ground in swamps, marshes, fens, wet woods and meadows, wet rock ledges and by rivers, but not on acid peats[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. ulmaria ssp. ulmaria[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bridewort [H], Ergecsakali [E], European Meadowsweet [H], Meadowsweet [E,H,L], Moerasspirea [D], Queen Of The Meadow [P,H], Queen-of-the-meadow [B,L], Ulmaria [E],
Epithets:	From a Dictionary of Botanical Epithets
	pendula = pendulous; ulmaria = Ulmus (elm) like;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Britain; Spain; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.4m . It is hardy to zone 2 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles.

The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Meadow, Bog Garden, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Flowers; Leaves; Root; Tea.

Root - cooked[2, 141].

Young leaves - cooked as a flavouring in soups[177].

Young leaves, flowers and roots are brewed into a tea[183].

The dried leaves are used as a flavouring[12, 100], especially as a sweetener in herb teas[13, 183].

The flowers are used as a flavouring in various alcoholic beverages and in stewed fruits[183]. Adding them to wine or beer is said to make a very heady brew[244]. They are also made into a syrup which can be used in cooling drinks and fruit salads[183].

Medicinal Uses

Disclaimer

Alterative; Antiinflammatory; Antiseptic; Aromatic; Astringent; Diaphoretic; Diuretic; Homeopathy; Stomachic; Tonic.

Meadowsweet has a very long history of herbal use, it was one of the three most sacred herbs of the Druids[238]. The leaves and flowering stems are alterative, anti-inflammatory, antiseptic, aromatic, astringent, diaphoretic, diuretic, stomachic and tonic[4, 9, 21, 165]. The plant is harvested in July when it is in flower and can be dried for later use[4]. The flower head contains salicylic acid, from which the drug aspirin can be synthesised[200, 238]. Unlike the extracted aspirin, which can cause gastric ulceration at high doses, the combination of constituents in meadowsweet act to protect the inner lining of the stomach and intestines whilst still providing the anti-inflammatory benefits of aspirin[254]. The herb is a valuable medicine in the treatment of diarrhoea, indeed it is considered almost specific in the treatment of children's diarrhoea[4]. It is also considered to be a useful stomachic, being used to treat hyperacidity, heartburn, gastritis and peptic ulcers, for which it is one of the most effective plant remedies[4, 238]. It is also frequently used in the treatment of afflictions of the blood[4]. Meadowsweet is also effective against the organisms causing diphtheria, dysentery and pneumonia[238]. This remedy should not be given to people who are hypersensitive to aspirin[238].

A strong decoction of the boiled root is said to be effective, when used externally, in the treatment of sores and ulcers[244].

A homeopathic remedy is made from the fresh root[9].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Essential; Pot-pourri; Strewing.

A black dye is obtained from the roots. It is brown[141].

A yellow dye is obtained from the plant tops[106].

An essential oil obtained from the flower buds is used in perfumery[46, 61].

The whole plant, but especially the leaves[245], was formerly used as a strewing herb, imparting an almond-like fragrance[4, 66]. Strongly aromatic, its delightful perfume would completely fill the room[244].

Both flowers and leaves have been used in pot-pourri, retaining their scent for several months. The scent of the dried flowers becoming more and more pleasant with age[245].

Cultivation details

Requires a humus-rich moist soil in semi-shade[200]. Succeeds in full sun only if the soil is reliably moist throughout the growing season[200]. Dislikes dry or acid soils[1, 17]. Does well in marshy soils[24, 200]. Grows well in heavy clay soils.

The flowers have a strong sweet smell[4], which for many people is sickly[245]. The leaves are also aromatic[187], though the scent is very different from the flowers[4]. The leaves are pleasantly aromatic[245].

A good bee plant[24, 30].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - best sown in the autumn in a cold frame[1]. The seed can also be sown in a cold frame in spring, germinating best at a temperature of 10 - 13°c[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer if they have grown enough. If not, keep them in a cold frame for the winter and plant them out in late spring.

Division in autumn or winter[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Leaves: Crushed

> The leaves are pleasantly aromatic when bruised.

Flowers: Fresh Dried

> The flowers have a strong, sweet smell. For many people the scent is sickly. The scent improves the longer the flowers are dried[245].

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

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lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Filipendula ulmaria* (meadowsweet)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Filipendula ulmaria ssp. ulmaria* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Spiraea ulmaria* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *filipendula ulmaria* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[12] **Loewenfeld. C. and Back. P.** *Britain's Wild Larder.* David and Charles ISBN 0-7153-7971-2
A handy pocket guide.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[106] **Coon. N.** *The Dictionary of Useful Plants.* Rodale Press 1975 ISBN 0-87857-090-x
Interesting reading but short on detail.

[141] **Carruthers. S. P. (Editor)** *Alternative Enterprises for Agriculture in the UK.* Centre for Agricultural Strategy, Univ. of Reading 1986 ISBN 0704909820
Some suggested alternative commercial crops for Britain. Readable. Produced by a University study group.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Filipendula ulmaria

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Meadowsweet	Family:	Rosaceae
Author:	(L.) Maxim.	Botanical references:	17, 200
Synonyms:	Ulmaria pentapetala (Gilib.), Spiraea ulmaria (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Wet ground in swamps, marshes, fens, wet woods and meadows, wet rock ledges and by rivers, but not on acid peats[17].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. ulmaria ssp. ulmaria[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Bridewort [H], Ergecsakali [E], European Meadowsweet [H], Meadowsweet [E,H,L], Moerasspirea [D], Queen Of The Meadow [P,H], Queen-of-the-meadow [B,L], Ulmaria [E],
Epithets:	From a Dictionary of Botanical Epithets
	pendula = pendulous; ulmaria = Ulmus (elm) like;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Britain; Spain; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.4m . It is hardy to zone 2 and is not frost tender. It is in flower from June to August, and the seeds ripen from August to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles.

The plant is self-fertile. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist or wet soil.

Habitats and Possible Locations

Meadow, Bog Garden, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Flowers; Leaves; Root; Tea.

Root - cooked[2, 141].

Young leaves - cooked as a flavouring in soups[177].

Young leaves, flowers and roots are brewed into a tea[183].

The dried leaves are used as a flavouring[12, 100], especially as a sweetener in herb teas[13, 183].

The flowers are used as a flavouring in various alcoholic beverages and in stewed fruits[183]. Adding them to wine or beer is said to make a very heady brew[244]. They are also made into a syrup which can be used in cooling drinks and fruit salads[183].

Medicinal Uses

Disclaimer

Alterative; Antiinflammatory; Antiseptic; Aromatic; Astringent; Diaphoretic; Diuretic; Homeopathy; Stomachic; Tonic.

Meadowsweet has a very long history of herbal use, it was one of the three most sacred herbs of the Druids[238]. The leaves and flowering stems are alterative, anti-inflammatory, antiseptic, aromatic, astringent, diaphoretic, diuretic, stomachic and tonic[4, 9, 21, 165]. The plant is harvested in July when it is in flower and can be dried for later use[4]. The flower head contains salicylic acid, from which the drug aspirin can be synthesised[200, 238]. Unlike the extracted aspirin, which can cause gastric ulceration at high doses, the combination of constituents in meadowsweet act to protect the inner lining of the stomach and intestines whilst still providing the anti-inflammatory benefits of aspirin[254]. The herb is a valuable medicine in the treatment of diarrhoea, indeed it is considered almost specific in the treatment of children's diarrhoea[4]. It is also considered to be a useful stomachic, being used to treat hyperacidity, heartburn, gastritis and peptic ulcers, for which it is one of the most effective plant remedies[4, 238]. It is also frequently used in the treatment of afflictions of the blood[4]. Meadowsweet is also effective against the organisms causing diphtheria, dysentery and pneumonia[238]. This remedy should not be given to people who are hypersensitive to aspirin[238].

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Other Uses

Dye; Essential; Pot-pourri; Strewing.

A black dye is obtained from the roots. It is brown[141].

A yellow dye is obtained from the plant tops[106].

An essential oil obtained from the flower buds is used in perfumery[46, 61].

The whole plant, but especially the leaves[245], was formerly used as a strewing herb, imparting an almond-like fragrance[4, 66]. Strongly aromatic, its delightful perfume would completely fill the room[244].

Both flowers and leaves have been used in pot-pourri, retaining their scent for several months. The scent of the dried flowers becoming more and more pleasant with age[245].

Cultivation details

Requires a humus-rich moist soil in semi-shade[200]. Succeeds in full sun only if the soil is reliably moist throughout the growing season[200]. Dislikes dry or acid soils[1, 17]. Does well in marshy soils[24, 200]. Grows well in heavy clay soils.

The flowers have a strong sweet smell[4], which for many people is sickly[245]. The leaves are also aromatic[187], though the scent is very different from the flowers[4]. The leaves are pleasantly aromatic[245].

A good bee plant[24, 30].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - best sown in the autumn in a cold frame[1]. The seed can also be sown in a cold frame in spring, germinating best at a temperature of 10 - 13°c[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer if they have grown enough. If not, keep them in a cold frame for the winter and plant them out in late spring.

Division in autumn or winter[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Leaves: Crushed

> The leaves are pleasantly aromatic when bruised.

Flowers: Fresh Dried

> The flowers have a strong, sweet smell. For many people the scent is sickly. The scent improves the longer the flowers are dried[245].

Suppliers

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lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Filipendula ulmaria* (meadowsweet)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Add a comment on: *Filipendula ulmaria*

Subject:

Filipendula ulmaria

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Filipendula ulmaria

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Foeniculum vulgare

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Fennel	Family:	Umbelliferae
Author:	Mill.	Botanical references:	17, 200
Synonyms:	Foeniculum officinale (All.)		
Known Hazards:	Skin contact with the sap or essential oil is said to cause photo-sensitivity and/or dermatitis in some people[218, 222]. Ingestion of the oil can cause vomiting, seizures and pulmonary oedema[222].		
Range:	S. Europe. Naturalized in Britain.		
Habitat:	Found most often in dry stony calcareous soils near the sea[1, 16, 190].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. F. capillaceum[H] F. foeniculum[B,P] F. vulgaris[H]
Other Common Names:	From various places around the Web, may not be correct. See below. Adas Landi [E], Adas Londa [E], Adas Pedas [E], Anis [E], Anis Vert [E], Comino [E], Fenkel [H], Fennel [L,H,E], Finocchio Forte [E], Hinojo [E], Hsiao Hui Hsiang [E], Hui Hsiang Chiu [E], Kaneer Razbana [E], L'Anis [E], La Nuit [E], Raziyane [E], Rezene [E], Shamar [E], Shbint [E], Shih Lo [E], Sweet Fennel [L,H,P,B], Tzu Mo [E], Tzu Mu Lo [E], Uikyo [E], Venkel [D], Wild Fennel [H],

Epithets:	From a Dictionary of Botanical Epithets vulgare = common;
Systematics:	From a UDSA Plants Database Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database Britain; China; Dominican Republic; Ethiopia; Europe; France; Haiti; Iraq; Italy; Japan; Kurdistan; Malaya; Mexico; Spain; Turkey; Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Victoria, Tasmaina.

Physical Characteristics

An evergreen perennial growing to 1.5m by 1m . It is hardy to zone 5 and is not frost tender. It is in leaf all year, in flower from August to October, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed; Stem.

Leaves - raw or cooked[2, 4, 5, 9, 27]. A delicious aniseed flavour[183], the young leaves are best since older ones soon become tough[K]. They are often used as a garnish on raw or cooked dishes and make a very pleasant addition to salads[183]. They help to improve digestion and so are particularly useful with oily foods[244]. The leaves are difficult to store dried[200], though this does not really matter since they can often be harvested all year round, especially if the plants are in a warm, sheltered position[K].

Leaf stalks and flower heads - raw or cooked[14, 37, 52, 183]. A similar aniseed flavour to the leaves[K].

The aromatic seeds are used as a flavouring in cakes, bread, stuffings etc[2, 4, 5, 21, 27, 183]. They have a similar flavour to the leaves[K] and also improve the digestion[244]. The sprouted seeds can be added to salads[183].

An essential oil from the fully ripened and dried seed is used as a food flavouring in similar ways to the whole seed[1, 46, 183, 245].

Root - cooked[53]. Somewhat parsnip-like.

The leaves or the seeds can be used to make a pleasant-tasting herbal tea[16, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiinflammatory; Antispasmodic; Aromatherapy; Aromatic; Carminative; Diuretic; Emmenagogue; Expectorant; Galactogogue; Hallucinogenic; Stimulant; Stomachic.

Fennel has a long history of herbal use and is a commonly used household remedy, being useful in the treatment of a variety of complaints, especially those of the digestive system[244]. The seeds, leaves and roots can be used, but the seeds are most active medicinally and are the part normally used[4]. An essential oil is often extracted from the fully ripened and dried seed for medicinal use, though it should not be given to pregnant women[4, 238].

The plant is analgesic, anti-inflammatory, antispasmodic, aromatic, carminative, diuretic, emmenagogue, expectorant, galactogogue, hallucinogenic, laxative, stimulant and stomachic[4, 7, 9, 21, 147, 165, 176, 192, 238]. An infusion is used in the treatment of indigestion, abdominal distension, stomach pains etc[254]. It helps in the treatment of kidney stones and, when combined with a urinary disinfectant like Arctostaphylos uva-ursi, makes an effective treatment for cystitis[254]. It can also be used as a gargle for sore throats and as an eyewash for sore eyes and conjunctivitis[254]. Fennel is often added to purgatives in order to allay their tendency to cause gripe, and also to improve the flavour[4]. An infusion of the seeds is a safe and effective cure for wind in babies[244].

An infusion of the root is used to treat urinary disorders[238].

An essential oil obtained from the seed is used in aromatherapy. Its keyword is 'Normalising'[210]. The essential oil is bactericidal, carminative and stimulant[218]. Some caution is advised, see notes above on toxicity[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can

make a credit card donation with PayPal

Other Uses

Dye; Essential; Repellent; Strewing.

The seed yields up to 5% of an essential oil[1, 4, 46]. This is used medicinally, as a food flavouring, in toothpastes, soaps, perfumery, air fresheners etc[1, 46, 238]. The flavour of fennel oil depends upon its two main constituents. 'Fenchone' is a bitter tasting element whilst 'anethole' has a sweet anise-like flavour[238]. The proportions of these two ingredients varies according to strain and region. Plants growing in the Mediterranean and southern Europe usually have a sweet oil whilst plants growing in central and northern Europe usually produce a more bitter oil[238]. The quality of the oil also depends upon how well the seed has been dried - the oil from fully ripened and dried seeds being much sweeter and more fragrant[245].

The dried plant is an insect repellent[14, 53], the crushed leaves are effective for keeping dogs free of fleas[201]. The plant was formerly used as a strewing herb[201].

Yellow and brown dyes are obtained from the flowers and leaves combined[168].

Cultivation details

An easily grown plant, it succeeds in most soils but prefers a sunny dry position[4, 16, 37, 200]. It grows well in sandy soils[188] and is drought tolerant once established[190]. Plants often self-sow freely in the garden[K]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233].

Although hardy in most parts of Britain, plants are liable to die out over the winter if the soil is not well-drained or the weather is persistently cold and wet[238].

Fennel is often cultivated in the herb garden for its edible and medicinal uses, there are some named varieties[183]. Especially in mild winters, the leaves can be available all year round[K]. It is best to cut a few plants back to ground level occasionally during the growing season, thus ensuring a constant supply of fresh young shoots[4]. In a dry summer make sure that you water the cut-down clump or it might not regrow that year[K]. Fennel is also grown commercially as a medicinal plant and for its essential oil[4, 238].

Fennel is in general a poor companion plant in the garden. It inhibits the growth of nearby plants, especially beans, tomatoes and kohl rabi[14, 18]. It is itself inhibited by wormwood and coriander[14, 18]. However, the flowering plant attracts beneficial insects such as bees, parasitic wasps, tachinid flies and hoverflies to the garden. The presence of these creatures will help to maintain a natural balance of insects in the garden and help prevent infestations by aphis etc[238].

It is best not to grow fennel and dill (Anethum graveolens) close to each other since hybridisation can occur and the resulting seedlings will be of indeterminate flavour[238].

Propagation

Seed - best sown in early spring in situ[1]. The seed can also be sown in situ in the autumn[4, 37]. In many gardens it self sows freely.

Division in March as the new growth appears[16, 200]. The plants are very tolerant of disturbance, we have found divisions to take well at any time of the year, though these divisions are never as good as seed-sown plants[K].

Scent

Seed: Dried

The dried seed is sweetly fragrant, although the fresh seed has a slightly unpleasant smell.

Leaves: Crushed

The crushed foliage has an aniseed-like fragrance.

Cultivars

'Purpurascens'

An attractive purple-leaved form, it has the same uses as the species[244].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Winter Salads
- PFAF Plant Catalogue (F)

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Foeniculum officinale* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Foeniculum vulgaris* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

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- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6

Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X

A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N.*

America. Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal PayPal DONATE

Readers Comments

Foeniculum vulgare

Klaus Dichtel (klausssss@web.de) Wed Jan 7 11:13:08 2004

f. vulgare is not evergreen on our side: Hardynesszone 6, 670mm rainfall, windy, quite sandy soil

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Your Name:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Foeniculum+vulgare`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Foeniculum+vulgare`

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Plants For A Future: Database Search Results

Foeniculum vulgare

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Fennel	Family:	Umbelliferae
Author:	Mill.	Botanical references:	17, 200
Synonyms:	Foeniculum officinale (All.)		
Known Hazards:	Skin contact with the sap or essential oil is said to cause photo-sensitivity and/or dermatitis in some people[218, 222]. Ingestion of the oil can cause vomiting, seizures and pulmonary oedema[222].		
Range:	S. Europe. Naturalized in Britain.		
Habitat:	Found most often in dry stony calcareous soils near the sea[1, 16, 190].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. capillaceum[H] F. foeniculum[B,P] F. vulgaris[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adas Landi [E], Adas Londa [E], Adas Pedas [E], Anis [E], Anis Vert [E], Comino [E], Fenkel [H], Fennel [L,H,E], Finocchio Forte [E], Hinojo [E], Hsiao Hui Hsiang [E], Hui Hsiang Chiu [E], Kaneer Razbana [E], L'Anis [E], La Nuit [E], Raziyane [E], Rezene [E], Shamar [E], Shbint [E], Shih Lo [E], Sweet Fennel [L,H,P,B], Tzu Mo [E], Tzu Mu Lo [E], Uikyo [E], Venkel [D], Wild Fennel [H],
Epithets:	From a Dictionary of Botanical Epithets
	vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database

	Britain; China; Dominican Republic; Ethiopia; Europe; France; Haiti; Iraq; Italy; Japan; Kurdistan; Malaya; Mexico; Spain; Turkey; Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Victoria, Tasmaina.

Physical Characteristics

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Meadow, Cultivated Beds.

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Cultivars

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An attractive purple-leaved form, it has the same uses as the species[244].

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Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951 Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6

Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X

A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N.*

America. Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Foeniculum vulgare

Klaus Dichtel (klaussss@web.de) Wed Jan 7 11:13:08 2004

f. vulgare is not evergreen on our side: Hardynesszone 6, 670mm rainfall, windy, quite sandy soil

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Foeniculum+vulgare`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Foeniculum+vulgare`

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Plants For A Future: Database Search Results

Foeniculum vulgare

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Fennel	Family:	Umbelliferae
Author:	Mill.	Botanical references:	17, 200
Synonyms:	Foeniculum officinale (All.)		
Known Hazards:	Skin contact with the sap or essential oil is said to cause photo-sensitivity and/or dermatitis in some people[218, 222]. Ingestion of the oil can cause vomiting, seizures and pulmonary oedema[222].		
Range:	S. Europe. Naturalized in Britain.		
Habitat:	Found most often in dry stony calcareous soils near the sea[1, 16, 190].		
Plants For A Future Rating (1-5):	5		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. capillaceum[H] F. foeniculum[B,P] F. vulgaris[H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Adas Landi [E], Adas Londa [E], Adas Pedas [E], Anis [E], Anis Vert [E], Comino [E], Fenkel [H], Fennel [L,H,E], Finocchio Forte [E], Hinojo [E], Hsiao Hui Hsiang [E], Hui Hsiang Chiu [E], Kaneer Razbana [E], L'Anis [E], La Nuit [E], Raziyane [E], Rezene [E], Shamar [E], Shbint [E], Shih Lo [E], Sweet Fennel [L,H,P,B], Tzu Mo [E], Tzu Mu Lo [E], Uikyo [E], Venkel [D], Wild Fennel [H],
Epithets:	From a Dictionary of Botanical Epithets
	vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database

	Britain; China; Dominican Republic; Ethiopia; Europe; France; Haiti; Iraq; Italy; Japan; Kurdistan; Malaya; Mexico; Spain; Turkey; Venezuela
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Victoria, Tasmaina.

Physical Characteristics

An evergreen perennial growing to 1.5m by 1m . It is hardy to zone 5 and is not frost tender. It is in leaf all year, in flower from August to October, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. It is noted for attracting wildlife. We rate it 5 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Meadow, Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed; Stem.

Leaves - raw or cooked[2, 4, 5, 9, 27]. A delicious aniseed flavour[183], the young leaves are best since older ones soon become tough[K]. They are often used as a garnish on raw or cooked dishes and make a very pleasant addition to salads[183]. They help to improve digestion and so are particularly useful with oily foods[244]. The leaves are difficult to store dried[200], though this does not really matter since they can often be harvested all year round, especially if the plants are in a warm, sheltered position[K].

Leaf stalks and flower heads - raw or cooked[14, 37, 52, 183]. A similar aniseed flavour to the leaves[K].

The aromatic seeds are used as a flavouring in cakes, bread, stuffings etc[2, 4, 5, 21, 27, 183]. They have a similar flavour to the leaves[K] and also improve the digestion[244]. The sprouted seeds can be added to salads[183].

An essential oil from the fully ripened and dried seed is used as a food flavouring in similar ways to the whole seed[1, 46, 183, 245].

Root - cooked[53]. Somewhat parsnip-like.

The leaves or the seeds can be used to make a pleasant-tasting herbal tea[16, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiinflammatory; Antispasmodic; Aromatherapy; Aromatic; Carminative; Diuretic; Emmenagogue; Expectorant; Galactogogue; Hallucinogenic; Stimulant; Stomachic.

Fennel has a long history of herbal use and is a commonly used household remedy, being useful in the treatment of a variety of complaints, especially those of the digestive system[244]. The seeds, leaves and roots can be used, but the seeds are most active medicinally and are the part normally used[4]. An essential oil is often extracted from the fully ripened and dried seed for medicinal use, though it should not be given to pregnant women[4, 238].

The plant is analgesic, anti-inflammatory, antispasmodic, aromatic, carminative, diuretic, emmenagogue, expectorant, galactogogue, hallucinogenic, laxative, stimulant and stomachic[4, 7, 9, 21, 147, 165, 176, 192, 238]. An infusion is used in the treatment of indigestion, abdominal distension, stomach pains etc[254]. It helps in the treatment of kidney stones and, when combined with a urinary disinfectant like Arctostaphylos uva-ursi, makes an effective treatment for cystitis[254]. It can also be used as a gargle for sore throats and as an eyewash for sore eyes and conjunctivitis[254]. Fennel is often added to purgatives in order to allay their tendency to cause gripe, and also to improve the flavour[4]. An infusion of the seeds is a safe and effective cure for wind in babies[244].

An infusion of the root is used to treat urinary disorders[238].

An essential oil obtained from the seed is used in aromatherapy. Its keyword is 'Normalising'[210]. The essential oil is bactericidal, carminative and stimulant[218]. Some caution is advised, see notes above on toxicity[222].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Essential; Repellent; Strewing.

The seed yields up to 5% of an essential oil[1, 4, 46]. This is used medicinally, as a food flavouring, in toothpastes, soaps, perfumery, air fresheners etc[1, 46, 238]. The flavour of fennel oil depends upon its two main constituents. 'Fenchone' is a bitter tasting element whilst 'anethole' has a sweet anise-like flavour[238]. The proportions of these two ingredients varies according to strain and region. Plants growing in the Mediterranean and southern Europe usually have a sweet oil whilst plants growing in central and northern Europe usually produce a more bitter oil[238]. The quality of the oil also depends upon how well the seed has been dried - the oil from fully ripened and dried seeds being much sweeter and more fragrant[245].

The dried plant is an insect repellent[14, 53], the crushed leaves are effective for keeping dogs free of fleas[201]. The plant was formerly used as a strewing herb[201].

Yellow and brown dyes are obtained from the flowers and leaves combined[168].

Cultivation details

An easily grown plant, it succeeds in most soils but prefers a sunny dry position[4, 16, 37, 200]. It grows well in sandy soils[188] and is drought tolerant once established[190]. Plants often self-sow freely in the garden[K]. Plants can be grown in quite coarse grass, which can be cut annually in the autumn[233].

Although hardy in most parts of Britain, plants are liable to die out over the winter if the soil is not well-drained or the weather is persistently cold and wet[238].

Fennel is often cultivated in the herb garden for its edible and medicinal uses, there are some named varieties[183]. Especially in mild winters, the leaves can be available all year round[K]. It is best to cut a few plants back to ground level occasionally during the growing season, thus ensuring a constant supply of fresh young shoots[4]. In a dry summer make sure that you water the cut-down clump or it might not regrow that year[K]. Fennel is also grown commercially as a medicinal plant and for its essential oil[4, 238].

Fennel is in general a poor companion plant in the garden. It inhibits the growth of nearby plants, especially beans, tomatoes and kohl rabi[14, 18]. It is itself inhibited by wormwood and coriander[14, 18]. However, the flowering plant attracts beneficial insects such as bees, parasitic wasps, tachinid flies and hoverflies to the garden. The presence of these creatures will help to maintain a natural balance of insects in the garden and help prevent infestations by aphis etc[238].

It is best not to grow fennel and dill (Anethum graveolens) close to each other since hybridisation can occur and the resulting seedlings will be of indeterminate flavour[238].

Propagation

Seed - best sown in early spring in situ[1]. The seed can also be sown in situ in the autumn[4, 37]. In many gardens it self sows freely.

Division in March as the new growth appears[16, 200]. The plants are very tolerant of disturbance, we have found divisions to take well at any time of the year, though these divisions are never as good as seed-sown plants[K].

Scent

Seed: Dried

The dried seed is sweetly fragrant, although the fresh seed has a slightly unpleasant smell.

Leaves: Crushed

The crushed foliage has an aniseed-like fragrance.

Cultivars

'Purpurascens'

An attractive purple-leaved form, it has the same uses as the species[244].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Foeniculum vulgare*

Subject:

Foeniculum vulgare

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Foeniculum vulgare

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Foeniculum vulgare azoricum

Common name:	Florence fennel	Family:	Umbelliferae
Author:	(Mill.) Thell.	Botanical references:	200
Synonyms:	Foeniculum azoricum (Mill.)		
Known Hazards:	Skin contact with the sap or essential oil is said to cause photo-sensitivity and/or dermatitis in some people[218, 222]. Ingestion of the oil can cause vomiting, seizures and pulmonary oedema[222].		
Range:	A cultivar of F. vulgare.		
Habitat:	Not found in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. vulgare var. azoricum[G,H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carosella [H], Finocchio [H], Florence Fennel [H],
Epithets:	From a Dictionary of Botanical Epithets
	azoricum = of the Azores; vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 7 and is not frost tender. It is in flower from August to October, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed; Stem.

Leaves - raw or cooked[52]. A delicious aniseed flavour, the young leaves are best since older ones become tough. They make a very nice addition to mixed salads[K].

Leaf stalks and stem base - raw, cooked or used as a flavouring in soups etc[50, 61, 183]. A strong, aniseed flavour[K]. They are often blanched before being eaten[183]. Very low in carbohydrates, proteins and fats[132].

Seeds raw or cooked. They have a delicious aniseed flavour and are used as a flavouring in cakes, bread etc[52, 183].

Root - cooked[53]. The flavour is somewhat parsnip-like[K].

A herb tea can be made from the seeds or the leaves[16, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiinflammatory; Antispasmodic; Aromatic; Carminative; Diuretic; Emmenagogue; Expectorant; Galactogogue; Hallucinogenic; Stimulant; Stomachic.

Fennel is a commonly used household remedy, being useful in the treatment of a variety of complaints, especially those of the digestive system. The seeds, leaves and roots can be used, but the seeds are most active medicinally and are the part normally used[4]. An essential oil is often extracted from the seed for medicinal use, though it should not be given to pregnant women[4, 238]. The plant is analgesic, anti-inflammatory, antispasmodic, aromatic, carminative, diuretic, emmenagogue, expectorant, galactogogue, hallucinogenic, laxative, stimulant and stomachic[4, 7, 9, 21, 147, 165, 176, 192, 238]. Fennel is often added to purgatives in order to allay their tendency to cause gripe, and also to improve the flavour[4].

An infusion of the root is used to treat urinary disorders[238].

An essential oil obtained from the seed is used in aromatherapy. Its keyword is 'Normalising'[210]. The essential oil is bactericidal, carminative and stimulant[218]. Some caution is advised, see notes above on toxicity[222].

Other Uses

Dye; Essential; Repellent; Strewing.

The seed yields up to 5% of an essential oil[1, 4, 46]. This is used medicinally, as a food flavouring, in toothpastes, soaps, perfumery, air fresheners etc[1, 46, 238]. The flavour of fennel oil depends upon its two main constituents. 'Fenchone' is a bitter tasting element whilst 'anethole' has a sweet anise-like flavour[238]. The proportions of these two ingredients varies according to strain and region. Plants growing in the Mediterranean and southern Europe usually have a sweet oil whilst plants growing in central and northern Europe usually produce a more bitter oil[238]. The quality of the oil also depends upon how well the seed has been dried - the oil from fully ripened and dried seeds being much sweeter and more fragrant[245].

The dried plant is an insect repellent[14, 53], the crushed leaves are effective for keeping dogs free of fleas[201]. The plant was formerly used as a strewing herb[201].

Yellow and brown dyes are obtained from the flowers and leaves combined[168].

Cultivation details

Succeeds in most soils[1] but prefers a sunny dry position[200].

A cultivated form of F. vulgare, grown for its edible swollen leaf bases, there are some named varieties[183]. This is the genuine Florence fennel[200].

Attracts bees and hoverflies[24].

Fennel is a poor companion plant in the garden, it inhibits the growth of nearby plants, especially beans, tomatoes and kohl rabi[14, 18]. It is itself inhibited by wormwood and coriander[14, 18].

Propagation

Seed - best sown in early spring in situ[1].

Division in March as the new growth appears[16, 200].

Scent

Leaves: Crushed

The crushed foliage has an aniseed-like fragrance.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Foeniculum vulgare var. azoricum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces

in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese

methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[176] **Yeung. Him-Che.** *Handbook of Chinese Herbs and Formulas.* Institute of Chinese Medicine, Los Angeles 1985
A very good Chinese herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[192] **Emboden. W.** *Narcotic Plants* Studio Vista 1979 ISBN 0-289-70864-8
A lot of details about the history, chemistry and use of narcotic plants, including hallucinogens, stimulants, inebriants and hypnotics.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both

the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Foeniculum vulgare azoricum

Common name:	Florence fennel	Family:	Umbelliferae
Author:	(Mill.) Thell.	Botanical references:	200
Synonyms:	Foeniculum azoricum (Mill.)		
Known Hazards:	Skin contact with the sap or essential oil is said to cause photo-sensitivity and/or dermatitis in some people[218, 222]. Ingestion of the oil can cause vomiting, seizures and pulmonary oedema[222].		
Range:	A cultivar of F. vulgare.		
Habitat:	Not found in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. vulgare var. azoricum[G,H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carosella [H], Finocchio [H], Florence Fennel [H],
Epithets:	From a Dictionary of Botanical Epithets
	azoricum = of the Azores; vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 7 and is not frost tender. It is in flower from August to October, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed; Stem.

Leaves - raw or cooked[52]. A delicious aniseed flavour, the young leaves are best since older ones become tough. They make a very nice addition to mixed salads[K].

Leaf stalks and stem base - raw, cooked or used as a flavouring in soups etc[50, 61, 183]. A strong, aniseed flavour[K]. They are often blanched before being eaten[183]. Very low in carbohydrates, proteins and fats[132].

Seeds raw or cooked. They have a delicious aniseed flavour and are used as a flavouring in cakes, bread etc[52, 183].

Root - cooked[53]. The flavour is somewhat parsnip-like[K].

A herb tea can be made from the seeds or the leaves[16, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiinflammatory; Antispasmodic; Aromatic; Carminative; Diuretic; Emmenagogue; Expectorant; Galactogogue; Hallucinogenic; Stimulant; Stomachic.

Fennel is a commonly used household remedy, being useful in the treatment of a variety of complaints, especially those of the digestive system. The seeds, leaves and roots can be used, but the seeds are most active medicinally and are the part normally used[4]. An essential oil is often extracted from the seed for medicinal use, though it should not be given to pregnant women[4, 238]. The plant is analgesic, anti-inflammatory, antispasmodic, aromatic, carminative, diuretic, emmenagogue, expectorant, galactogogue, hallucinogenic, laxative, stimulant and stomachic[4, 7, 9, 21, 147, 165, 176, 192, 238]. Fennel is often added to purgatives in order to allay their tendency to cause gripe, and also to improve the flavour[4].

An infusion of the root is used to treat urinary disorders[238].

An essential oil obtained from the seed is used in aromatherapy. Its keyword is 'Normalising'[210]. The essential oil is bactericidal, carminative and stimulant[218]. Some caution is advised, see notes above on toxicity[222].

Other Uses

Dye; Essential; Repellent; Strewing.

The seed yields up to 5% of an essential oil[1, 4, 46]. This is used medicinally, as a food flavouring, in toothpastes, soaps, perfumery, air fresheners etc[1, 46, 238]. The flavour of fennel oil depends upon its two main constituents. 'Fenchone' is a bitter tasting element whilst 'anethole' has a sweet anise-like flavour[238]. The proportions of these two ingredients varies according to strain and region. Plants growing in the Mediterranean and southern Europe usually have a sweet oil whilst plants growing in central and northern Europe usually produce a more bitter oil[238]. The quality of the oil also depends upon how well the seed has been dried - the oil from fully ripened and dried seeds being much sweeter and more fragrant[245].

The dried plant is an insect repellent[14, 53], the crushed leaves are effective for keeping dogs free of fleas[201]. The plant was formerly used as a strewing herb[201].

Yellow and brown dyes are obtained from the flowers and leaves combined[168].

Cultivation details

Succeeds in most soils[1] but prefers a sunny dry position[200].

A cultivated form of F. vulgare, grown for its edible swollen leaf bases, there are some named varieties[183]. This is the genuine Florence fennel[200].

Attracts bees and hoverflies[24].

Fennel is a poor companion plant in the garden, it inhibits the growth of nearby plants, especially beans, tomatoes and kohl rabi[14, 18]. It is itself inhibited by wormwood and coriander[14, 18].

Propagation

Seed - best sown in early spring in situ[1].

Division in March as the new growth appears[16, 200].

Scent

Leaves: Crushed

> The crushed foliage has an aniseed-like fragrance.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Foeniculum vulgare var. azoricum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7

A good herbal.

[16] **Simons.** *New Vegetable Growers Handbook.* Penguin 1977 ISBN 0-14-046-050-0
A good guide to growing vegetables in temperate areas, not entirely organic.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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Plants For A Future: Database Search Results

Foeniculum vulgare azoricum

Common name:	Florence fennel	Family:	Umbelliferae
Author:	(Mill.) Thell.	Botanical references:	200
Synonyms:	Foeniculum azoricum (Mill.)		
Known Hazards:	Skin contact with the sap or essential oil is said to cause photo-sensitivity and/or dermatitis in some people[218, 222]. Ingestion of the oil can cause vomiting, seizures and pulmonary oedema[222].		
Range:	A cultivar of F. vulgare.		
Habitat:	Not found in the wild.		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	F. vulgare var. azoricum[G,H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Carosella [H], Finocchio [H], Florence Fennel [H],
Epithets:	From a Dictionary of Botanical Epithets
	azoricum = of the Azores; vulgare = common;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Physical Characteristics

Perennial growing to 1.5m. It is hardy to zone 7 and is not frost tender. It is in flower from August to October, and the seeds ripen from September to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Leaves; Root; Seed; Stem.

Leaves - raw or cooked[52]. A delicious aniseed flavour, the young leaves are best since older ones become tough. They make a very nice addition to mixed salads[K].

Leaf stalks and stem base - raw, cooked or used as a flavouring in soups etc[50, 61, 183]. A strong, aniseed flavour[K]. They are often blanched before being eaten[183]. Very low in carbohydrates, proteins and fats[132].

Seeds raw or cooked. They have a delicious aniseed flavour and are used as a flavouring in cakes, bread etc[52, 183].

Root - cooked[53]. The flavour is somewhat parsnip-like[K].

A herb tea can be made from the seeds or the leaves[16, 183].

Medicinal Uses

Disclaimer

Analgesic; Antiinflammatory; Antispasmodic; Aromatic; Carminative; Diuretic; Emmenagogue; Expectorant; Galactogogue; Hallucinogenic; Stimulant; Stomachic.

Fennel is a commonly used household remedy, being useful in the treatment of a variety of complaints, especially those of the digestive system. The seeds, leaves and roots can be used, but the seeds are most active medicinally and are the part normally used[4]. An essential oil is often extracted from the seed for medicinal use, though it should not be given to pregnant women[4, 238]. The plant is analgesic, anti-inflammatory, antispasmodic, aromatic, carminative, diuretic, emmenagogue, expectorant, galactogogue, hallucinogenic, laxative, stimulant and stomachic[4, 7, 9, 21, 147, 165, 176, 192, 238]. Fennel is often added to purgatives in order to allay their tendency to cause gripe, and also to improve the flavour[4].

An infusion of the root is used to treat urinary disorders[238].

An essential oil obtained from the seed is used in aromatherapy. Its keyword is 'Normalising'[210]. The essential oil is bactericidal, carminative and stimulant[218]. Some caution is advised, see notes above on toxicity[222].

Other Uses

Dye; Essential; Repellent; Strewing.

The seed yields up to 5% of an essential oil[1, 4, 46]. This is used medicinally, as a food flavouring, in toothpastes, soaps, perfumery, air fresheners etc[1, 46, 238]. The flavour of fennel oil depends upon its two main constituents. 'Fenchone' is a bitter tasting element whilst 'anethole' has a sweet anise-like flavour[238]. The proportions of these two ingredients varies according to strain and region. Plants growing in the Mediterranean and southern Europe usually have a sweet oil whilst plants growing in central and northern Europe usually produce a more bitter oil[238]. The quality of the oil also depends upon how well the seed has been dried - the oil from fully ripened and dried seeds being much sweeter and more fragrant[245].

The dried plant is an insect repellent[14, 53], the crushed leaves are effective for keeping dogs free of fleas[201]. The plant was formerly used as a strewing herb[201].

Yellow and brown dyes are obtained from the flowers and leaves combined[168].

Cultivation details

Succeeds in most soils[1] but prefers a sunny dry position[200].

A cultivated form of F. vulgare, grown for its edible swollen leaf bases, there are some named varieties[183]. This is the genuine Florence fennel[200].

Attracts bees and hoverflies[24].

Fennel is a poor companion plant in the garden, it inhibits the growth of nearby plants, especially beans, tomatoes and kohl rabi[14, 18]. It is itself inhibited by wormwood and coriander[14, 18].

Propagation

Seed - best sown in early spring in situ[1].

Division in March as the new growth appears[16, 200].

Scent

Leaves: Crushed

> The crushed foliage has an aniseed-like fragrance.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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Fraxinus angustifolia

Common name:	Narrow-leaved ash	Family:	Oleaceae
Author:	Vahl.	Botanical references:	11, 93, 200
Synonyms:	Fraxinus veltheimii, Fraxinus rotundifolia (Mill.)		
Known Hazards:	None known		
Range:	S. Europe, N. Africa, W. Asia,		
Habitat:	Mostly dryish rocky places in macchie, deciduous scrub or in pine and mixed forest, 650 - 1700 metres in Turkey[93].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Narrowleaf ash [DEN2],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

A decidious tree growing to 25m by 12m . It is hardy to zone 6 and is frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment.

The fruit is used as a condiment[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a deep loamy soil, even if it is on the heavy side[1, 200]. Most members of this genus are gross feeders and require a rich soil[200]. Plants succeed when growing in exposed positions[200] and also in alkaline soils[11]. They tolerate atmospheric pollution[200].

Quite cold-hardy when dormant, the young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

This species is closely related to F. excelsior[11].

A very ornamental tree[1], there are several named forms, selected for their ornamental value[200].

This species might be dioecious, in which case male and female plants must be grown if seed is required.

Propagation

The seed is best harvested green - as soon as it is fully developed but before it has fully dried on the tree - and can then be sown immediately in a cold frame[80]. It usually germinates in the spring[80]. Stored seed requires a period of cold stratification and is best sown as soon as possible in a cold frame[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out into their permanent positions or a nursery bed in late spring or early summer of the following year.

If you have sufficient seed then it is possible to sow it directly into an outdoor seedbed, preferably in the autumn. Grow the seedlings on in the seedbed for 2 years before transplanting either to their permanent positions or to nursery beds.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[80] **McMillan-Browse. P.** *Hardy Woody Plants from Seed.* Grower Books 1985 ISBN 0-901361-21-6
Does not deal with many species but it is very comprehensive on those that it does cover. Not for casual reading.

[93] **Davis. P. H.** *Flora of Turkey.* Edinburgh University Press 1965
Not for the casual reader, this is an immense work in many volumes. Some details of plant uses and habitats.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site:	http://
Details:	

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Plants For A Future: Database Search Results

Fraxinus angustifolia

Common name:	Narrow-leaved ash	Family:	Oleaceae
Author:	Vahl.	Botanical references:	11, 93, 200
Synonyms:	Fraxinus veltheimii, Fraxinus rotundifolia (Mill.)		
Known Hazards:	None known		
Range:	S. Europe, N. Africa, W. Asia,		
Habitat:	Mostly dryish rocky places in macchie, deciduous scrub or in pine and mixed forest, 650 - 1700 metres in Turkey[93].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Narrowleaf ash [DEN2],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

A decidious tree growing to 25m by 12m . It is hardy to zone 6 and is frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment.

The fruit is used as a condiment[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a deep loamy soil, even if it is on the heavy side[1, 200]. Most members of this genus are gross feeders and require a rich soil[200]. Plants succeed when growing in exposed positions[200] and also in alkaline soils[11]. They tolerate atmospheric pollution[200].

Quite cold-hardy when dormant, the young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K].

This species is closely related to F. excelsior[11].

A very ornamental tree[1], there are several named forms, selected for their ornamental value[200].

This species might be dioecious, in which case male and female plants must be grown if seed is required.

Propagation

The seed is best harvested green - as soon as it is fully developed but before it has fully dried on the tree - and can then be sown immediately in a cold frame[80]. It usually germinates in the spring[80]. Stored seed requires a period of cold stratification and is best sown as soon as possible in a cold frame[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame for their first winter. Plant them out into their permanent positions or a nursery bed in late spring or early summer of the following year.

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Cultivars

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> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Plants For A Future: Database Search Results

Fraxinus angustifolia

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Range:	S. Europe, N. Africa, W. Asia,		
Habitat:	Mostly dryish rocky places in macchie, deciduous scrub or in pine and mixed forest, 650 - 1700 metres in Turkey[93].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

A decidious tree growing to 25m by 12m . It is hardy to zone 6 and is frost tender. It is in flower from April to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Wind. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Canopy.

Edible Uses

Condiment.

The fruit is used as a condiment[177, 183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Fraxinus angustifolia*

Subject:

Fraxinus angustifolia

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Fraxinus angustifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Galinsoga parviflora

Common name:	Gallant soldier	Family:	Compositae
Author:	Cav.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	S. America. Naturalized in S. Britain.		
Habitat:	Arable land, waste places, pavements in towns etc[9, 17], often in partial shade[85].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. parviflora var. semicalva[B,P] G. semicalva[B,P] G. semicalva var. percalva[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Gallant Soldier [L], Gallant-soldier [B], Gallantsoldier [P], Kaal Knopkruid [D], Small-flower Galingsoga [L],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; parviflora = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Malaysia

Physical Characteristics

Annual growing to 0.6m. . It is in flower from May to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Drink; Flowers; Leaves; Stem.

The leaves, stem and flowering shoots - raw or cooked and eaten as a potherb, or added to soups and stews[55, 62, 144, 183]. They can be dried and ground into a powder then used as a flavouring in soups etc[183]. A bland but very acceptable food[85, 144], it makes a fine salad either on its own or mixed with other leaves[9].

The fresh juice can be mixed and drunk with tomato or vegetable juices[183].

Medicinal Uses

Disclaimer

Stings.

When rubbed onto the body, the plant is useful in treating nettle stings[240].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils preferring well-drained conditions and full sun or partial shade.

Propagation

Seed - sow spring in situ[200]. Germination usually takes place within a month.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

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Readers Comments

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Synonyms:			
Known Hazards:	None known		
Range:	S. America. Naturalized in S. Britain.		
Habitat:	Arable land, waste places, pavements in towns etc[9, 17], often in partial shade[85].		
Plants For A Future Rating (1-5):	2		

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Edible Uses

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Medicinal Uses

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When rubbed onto the body, the plant is useful in treating nettle stings[240].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils preferring well-drained conditions and full sun or partial shade.

Propagation

Seed - sow spring in situ[200]. Germination usually takes place within a month.

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[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[144] **Cribb. A. B. and J. W.** *Wild Food in Australia.* Fontana 1976 ISBN 0-00-634436-4
A very good pocket guide.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

Readers Comments

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Galinsoga+parviflora`

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Plants For A Future: Database Search Results

Galinsoga parviflora

Common name:	Gallant soldier	Family:	Compositae
Author:	Cav.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	S. America. Naturalized in S. Britain.		
Habitat:	Arable land, waste places, pavements in towns etc[9, 17], often in partial shade[85].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. parviflora var. semicalva[B,P] G. semicalva[B,P] G. semicalva var. percalva[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Gallant Soldier [L], Gallant-soldier [B], Gallantsoldier [P], Kaal Knopkruid [D], Small-flower Galingsoga [L],
Epithets:	From a Dictionary of Botanical Epithets
	flora = flowered; parviflora = small flowered;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family
Other Range Info:	From the Ethnobotany Database
	Malaysia

Physical Characteristics

Annual growing to 0.6m. . It is in flower from May to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Drink; Flowers; Leaves; Stem.

The leaves, stem and flowering shoots - raw or cooked and eaten as a potherb, or added to soups and stews[55, 62, 144, 183]. They can be dried and ground into a powder then used as a flavouring in soups etc[183]. A bland but very acceptable food[85, 144], it makes a fine salad either on its own or mixed with other leaves[9].

The fresh juice can be mixed and drunk with tomato or vegetable juices[183].

Medicinal Uses

Disclaimer

Stings.

When rubbed onto the body, the plant is useful in treating nettle stings[240].

Other Uses

None known

Cultivation details

An easily grown plant, it succeeds in most soils preferring well-drained conditions and full sun or partial shade.

Propagation

Seed - sow spring in situ[200]. Germination usually takes place within a month.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Galinsoga parviflora*

Subject:

Galinsoga parviflora

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Galinsoga parviflora

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 05:35:45 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Galium odoratum

Common name:	Sweet woodruff	Family:	Rubiaceae
Author:	(L.) Scop.	Botanical references:	17, 200
Synonyms:	Asperula odorata (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woodland and shady areas[4, 14] on damp calcareous and base rich soils[17]. Often found in beech woods[268].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Asperula Olorosa [E], Hay Plant [H], Kokulu Belumotu [E], Lievevrouwbedstro [D], Star Grass [H], Sweet Grass [H], Sweet Woodruff [H,L], Sweet-scented Bedstraw [B], Sweetscented Bedstraw [P], Woodruff [E,H,L],
Epithets:	From a Dictionary of Botanical Epithets
	odoratum = scented; odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey; Us

Physical Characteristics

Perennial growing to 0.15m by 0.45m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from May to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Drink; Flowers; Leaves; Tea.

Leaves - raw or cooked[62]. The leaves are coumarin-scented (like freshly mown hay), they are used as a flavouring in cooling drinks[2, 9, 27] and are also added to fruit salads etc[183, 200]. The leaves are soaked in white wine to make 'Maitrank', an aromatic tonic drink that is made in Alsace[238].

A fragrant and delicious tea is made from the green-dried leaves and flowers[2, 183, 268]. Slightly wilted leaves are used, the tea has a fresh, grassy flavour[200].

The sweet-scented flowers are eaten or used as a garnish[183].

Medicinal Uses

Disclaimer

Antispasmodic; Cardiac; Diaphoretic; Diuretic; Homeopathy; Sedative.

Sweet woodruff was widely used in herbal medicine during the Middle Ages, gaining a reputation as an external application to wounds and cuts and also taken internally in the treatment of digestive and liver problems[4]. In current day herbalism it is valued mainly for its tonic, diuretic and anti-inflammatory affect[254].

The leaves are antispasmodic, cardiac, diaphoretic, diuretic, sedative[9, 13, 21, 200]. An infusion is used in the treatment of insomnia and nervous tension, varicose veins, biliary obstruction, hepatitis and jaundice[9, 238]. The plant is harvested just before or as it comes into flower and can be dried for later use[9]. One report says that it should be used with caution[21] whilst another says that it is entirely safe[9]. Excessive doses can produce dizziness and symptoms of poisoning[268].

The dried plant contains coumarins and these act to prevent the clotting of blood - though in excessive doses it can cause internal bleeding[254]. The plant is grown commercially as a source of coumarin, used to make an anticoagulant drug[268]. Do not use this remedy if you are taking conventional medicine for circulatory problems or if you are pregnant[254].

A number of species in this genus contain asperuloside, a substance that produces coumarin and gives the scent of new-mown hay as the plant dries[238]. Asperuloside can be converted into prostaglandins (hormone-like compounds that stimulate the uterus and affect blood vessels), making the genus of great interest to the pharmaceutical industry[238].

A homeopathic remedy made from the plant is used in the treatment of inflammation of the uterus[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Ground cover; Pot-pourri; Repellent; Strewing.

A red dye is obtained from the root[168].

Soft-tan and grey-green dyes are obtained from the stems and leaves[168].

A good ground-cover plant for growing on woodland edges or in the cool shade of shrubs[24, 200]. It spreads rapidly at the roots[28, 197, 208]. It is an ideal carpeting plant for bulbs to grow through[K].

Although the fresh plant has very little aroma, as it dries it becomes very aromatic with the scent of newly-mown grass and then retains this aroma for years[2, 200]. It is used in the linen cupboard to protect from moths etc.[4, 14] It was also formerly used as a strewing herb and is an ingredient of pot-pourri[238]. It was also hung up in bunches in the home in order to keep the rooms cool and fragrant during the summertime[245].

Cultivation details

Prefers a loose moist leafy soil in some shade[200]. Tolerates dry soils but the leaves quickly become scorched when growing in full sun[200]. This species does not thrive in a hot climate[200]. Prefers a moist calcareous soil[9, 13, 14]. Dislikes very acid soils[187]. Tolerates a pH in the range 4.3 to 8.3. This species is very tolerant of atmospheric pollution and grows well in towns[208].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

Sweet woodruff is occasionally cultivated in the herb garden for its medicinal and other uses. The dried foliage has the sweet scent of newly mown hay[245].

A very ornamental plant[1] but it spreads rapidly[28] and can be invasive[200]. However, this is rarely to the detriment of other plants since these are normally able to grow through it[200]. It does no harm to any plants more than 60cm tall[208].

Propagation

Seed - best sown in situ as soon as it is ripe in late summer[200]. The seed can also be sown in spring though it may be very slow to germinate[200]. A period of cold stratification helps reduce the germination time. Lots of leafmold in the soil and the shade of trees also improves germination rates.

Division in spring. The plant can also be successfully divided throughout the growing season if the divisions are kept moist until they are established[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cuttings of soft wood, after flowering, in a frame.

Scent

Leaves: Dried

> The dried foliage has the sweet scent of newly mown hay.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Galium odoratum* (woodruff)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Galium odoratum* (Woodruff)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: G
- PFAF Plant Catalogue (G-L)
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics

Working Group.

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asperula odorata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *galium odoratum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[28] **Knight. F. P.** *Plants for Shade.* Royal Horticultural Society. 1980 ISBN 0-900629-78-9
A small but informative booklet listing plants that can be grown in shady positions with a few cultivation details.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London. 1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

Your Name:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Galium odoratum

Common name:	Sweet woodruff	Family:	Rubiaceae
Author:	(L.) Scop.	Botanical references:	17, 200
Synonyms:	Asperula odorata (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woodland and shady areas[4, 14] on damp calcareous and base rich soils[17]. Often found in beech woods[268].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	odoratum = scented; odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey; Us

Physical Characteristics

Perennial growing to 0.15m by 0.45m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from May to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Drink; Flowers; Leaves; Tea.

Leaves - raw or cooked[62]. The leaves are coumarin-scented (like freshly mown hay), they are used as a flavouring in cooling drinks[2, 9, 27] and are also added to fruit salads etc[183, 200]. The leaves are soaked in white wine to make 'Maitrank', an aromatic tonic drink that is made in Alsace[238].

A fragrant and delicious tea is made from the green-dried leaves and flowers[2, 183, 268]. Slightly wilted leaves are used, the tea has a fresh, grassy flavour[200].

The sweet-scented flowers are eaten or used as a garnish[183].

Medicinal Uses

Disclaimer

Antispasmodic; Cardiac; Diaphoretic; Diuretic; Homeopathy; Sedative.

Sweet woodruff was widely used in herbal medicine during the Middle Ages, gaining a reputation as an external application to wounds and cuts and also taken internally in the treatment of digestive and liver problems[4]. In current day herbalism it is valued mainly for its tonic, diuretic and anti-inflammatory affect[254].

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A homeopathic remedy made from the plant is used in the treatment of inflammation of the uterus[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Ground cover; Pot-pourri; Repellent; Strewing.

A red dye is obtained from the root[168].

Soft-tan and grey-green dyes are obtained from the stems and leaves[168].

A good ground-cover plant for growing on woodland edges or in the cool shade of shrubs[24, 200]. It spreads rapidly at the roots[28, 197, 208]. It is an ideal carpeting plant for bulbs to grow through[K].

Although the fresh plant has very little aroma, as it dries it becomes very aromatic with the scent of newly-mown grass and then retains this aroma for years[2, 200]. It is used in the linen cupboard to protect from moths etc.[4, 14] It was also formerly used as a strewing herb and is an ingredient of pot-pourri[238]. It was also hung up in bunches in the home in order to keep the rooms cool and fragrant during the summertime[245].

Cultivation details

Prefers a loose moist leafy soil in some shade[200]. Tolerates dry soils but the leaves quickly become scorched when growing in full sun[200]. This species does not thrive in a hot climate[200]. Prefers a moist calcareous soil[9, 13, 14]. Dislikes very acid soils[187]. Tolerates a pH in the range 4.3 to 8.3. This species is very tolerant of atmospheric pollution and grows well in towns[208].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

Sweet woodruff is occasionally cultivated in the herb garden for its medicinal and other uses. The dried foliage has the sweet scent of newly mown hay[245].

A very ornamental plant[1] but it spreads rapidly[28] and can be invasive[200]. However, this is rarely to the detriment of other plants since these are normally able to grow through it[200]. It does no harm to any plants more than 60cm tall[208].

Propagation

Seed - best sown in situ as soon as it is ripe in late summer[200]. The seed can also be sown in spring though it may be very slow to germinate[200]. A period of cold stratification helps reduce the germination time. Lots of leafmold in the soil and the shade of trees also improves germination rates.

Division in spring. The plant can also be successfully divided throughout the growing season if the divisions are kept moist until they are established[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cuttings of soft wood, after flowering, in a frame.

Scent

Leaves: Dried

The dried foliage has the sweet scent of newly mown hay.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Galium odoratum* (woodruff)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Galium odoratum* (Woodruff)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: G
- PFAF Plant Catalogue (G-L)
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Asperula odorata* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *galium odoratum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Rubiaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[13] **Triska. Dr.** *Hamlyn Encyclopaedia of Plants.* Hamlyn 1975 ISBN 0-600-33545-3
Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that

informative though.

[28] **Knight. F. P.** *Plants for Shade.* Royal Horticultural Society. 1980 ISBN 0-900629-78-9
A small but informative booklet listing plants that can be grown in shady positions with a few cultivation details.

[62] **Elias. T. and Dykeman. P.** *A Field Guide to N. American Edible Wild Plants.* Van Nostrand Reinhold 1982 ISBN 0442222009
Very readable.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[268] **Stuart. M. (Editor)** *The Encyclopedia of Herbs and Herbalism* Orbis Publishing. London.

1979 ISBN 0-85613-067-2
Excellent herbal with good concise information on over 400 herbs.

Readers Comments

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Galium+odoratum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Galium+odoratum`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Galium odoratum

Common name:	Sweet woodruff	Family:	Rubiaceae
Author:	(L.) Scop.	Botanical references:	17, 200
Synonyms:	Asperula odorata (L.)		
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woodland and shady areas[4, 14] on damp calcareous and base rich soils[17]. Often found in beech woods[268].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Asperula Olorosa [E], Hay Plant [H], Kokulu Belumotu [E], Lievevrouwbedstro [D], Star Grass [H], Sweet Grass [H], Sweet Woodruff [H,L], Sweet-scented Bedstraw [B], Sweetscented Bedstraw [P], Woodruff [E,H,L],
Epithets:	From a Dictionary of Botanical Epithets
	odoratum = scented; odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Rubiales . Madder family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain; Turkey; Us

Physical Characteristics

Perennial growing to 0.15m by 0.45m at a medium rate. It is hardy to zone 5 and is not frost tender. It is in flower from May to July, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Flies and bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid and very alkaline soils. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil. It can tolerate atmospheric pollution.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Drink; Flowers; Leaves; Tea.

Leaves - raw or cooked[62]. The leaves are coumarin-scented (like freshly mown hay), they are used as a flavouring in cooling drinks[2, 9, 27] and are also added to fruit salads etc[183, 200]. The leaves are soaked in white wine to make 'Maitrank', an aromatic tonic drink that is made in Alsace[238].

A fragrant and delicious tea is made from the green-dried leaves and flowers[2, 183, 268]. Slightly wilted leaves are used, the tea has a fresh, grassy flavour[200].

The sweet-scented flowers are eaten or used as a garnish[183].

Medicinal Uses

Disclaimer

Antispasmodic; Cardiac; Diaphoretic; Diuretic; Homeopathy; Sedative.

Sweet woodruff was widely used in herbal medicine during the Middle Ages, gaining a reputation as an external application to wounds and cuts and also taken internally in the treatment of digestive and liver problems[4]. In current day herbalism it is valued mainly for its tonic, diuretic and anti-inflammatory affect[254].

The leaves are antispasmodic, cardiac, diaphoretic, diuretic, sedative[9, 13, 21, 200]. An infusion is used in the treatment of insomnia and nervous tension, varicose veins, biliary obstruction, hepatitis and jaundice[9, 238]. The plant is harvested just before or as it comes into flower and can be dried for later use[9]. One report says that it should be used with caution[21] whilst another says that it is entirely safe[9]. Excessive doses can produce dizziness and symptoms of poisoning[268].

The dried plant contains coumarins and these act to prevent the clotting of blood - though in excessive doses it can cause internal bleeding[254]. The plant is grown commercially as a source of coumarin, used to make an anticoagulant drug[268]. Do not use this remedy if you are taking conventional medicine for circulatory problems or if you are pregnant[254].

A number of species in this genus contain asperuloside, a substance that produces coumarin and gives the scent of new-mown hay as the plant dries[238]. Asperuloside can be converted into prostaglandins (hormone-like compounds that stimulate the uterus and affect blood vessels), making the genus of great interest to the pharmaceutical industry[238].

A homeopathic remedy made from the plant is used in the treatment of inflammation of the uterus[238].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Dye; Ground cover; Pot-pourri; Repellent; Strewing.

A red dye is obtained from the root[168].

Soft-tan and grey-green dyes are obtained from the stems and leaves[168].

A good ground-cover plant for growing on woodland edges or in the cool shade of shrubs[24, 200]. It spreads rapidly at the roots[28, 197, 208]. It is an ideal carpeting plant for bulbs to grow through[K].

Although the fresh plant has very little aroma, as it dries it becomes very aromatic with the scent of newly-mown grass and then retains this aroma for years[2, 200]. It is used in the linen cupboard to protect from moths etc.[4, 14] It was also formerly used as a strewing herb and is an ingredient of pot-pourri[238]. It was also hung up in bunches in the home in order to keep the rooms cool and fragrant during the summertime[245].

Cultivation details

Prefers a loose moist leafy soil in some shade[200]. Tolerates dry soils but the leaves quickly become scorched when growing in full sun[200]. This species does not thrive in a hot climate[200]. Prefers a moist calcareous soil[9, 13, 14]. Dislikes very acid soils[187]. Tolerates a pH in the range 4.3 to 8.3. This species is very tolerant of atmospheric pollution and grows well in towns[208].

A very cold-hardy plant, tolerating temperatures down to about -25°c[187].

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A very ornamental plant[1] but it spreads rapidly[28] and can be invasive[200]. However, this is rarely to the detriment of other plants since these are normally able to grow through it[200]. It does no harm to any plants more than 60cm tall[208].

Propagation

Seed - best sown in situ as soon as it is ripe in late summer[200]. The seed can also be sown in spring though it may be very slow to germinate[200]. A period of cold stratification helps reduce the germination time. Lots of leafmold in the soil and the shade of trees also improves germination rates.

Division in spring. The plant can also be successfully divided throughout the growing season if the divisions are kept moist until they are established[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Cuttings of soft wood, after flowering, in a frame.

Scent

Leaves: Dried

> The dried foliage has the sweet scent of newly mown hay.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Wildwood Nurseries

lorna@macace.co.uk Phone 01409 261324 Fax 01409 261324
Lower Manor Cottage
Thornbury
Holsworthy
Devon
EX22 7DD
Distribution: UK
How to order: Direct from Wildwood by email/phone
Last Updated: March 03
Item: *Galium odoratum* (woodruff)

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302

10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Galium odoratum* (Woodruff)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Galium+odoratum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Galium+odoratum`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Galium odoratum*

Subject:

Galium odoratum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Galium odoratum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Gaultheria fragrantissima

Common name:		Family:	Ericaceae
Author:	Wallich.	Botanical references:	11, 51, 200
Synonyms:	Gaultheria ovalifolia (Wall.)		
Known Hazards:	None known		
Range:	E. Asia - N. India to Sri Lanka and Malaya.		
Habitat:	Forests and shrubberies[51], usually on dry slopes[146], at elevations of 1200 - 2700 metres in the Himalayas.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. fragantissima[E] G. ovatifolia[B,C,CAL,,G,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Western Teaberry [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	fragrantissima = most fragrant;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	India; Java; Nepal

Physical Characteristics

An evergreen shrub growing to 1m. It is hardy to zone 9. It is in leaf all year, in flower from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Fruit; Leaves; Tea.

Fruit - raw or cooked[105, 146, 183]. The fruit is about 8mm in diameter[200].

Leaves - raw. Chewed[105] (to relieve thirst?).

An essential oil obtained from the leaves is used as a flavouring[240, 243].

A tea is made from the leaves[177, 183].

Medicinal Uses

Disclaimer

Antiseptic; Aromatic; Carminative; Stimulant; Vermifuge.

The essential oil obtained from the leaves is antiseptic, aromatic, carminative and stimulant[240, 243]. It is used in the treatment of rheumatism and neuralgia[240, 243]. It is also taken internally in the treatment of hook worms[243].

Other Uses

Essential.

The leaves yield around 1.25% of an essential oil, this is a wintergreen substitute and it is used in perfumery, as a hair oil and medicinally[46, 51, 61, 146, 240].

Cultivation details

Prefers a moist but not boggy humus rich soil in shade or semi-shade[11, 182]. A peat and moisture loving species, it requires a lime-free soil[11, 182].

This species is not very hardy in Britain, it only succeeds outdoors in the milder areas of the country[200]. It grows well in Cornwall[11].

Plants in this genus are notably resistant to honey fungus[200].

The bruised leaves have a powerful camphor-like scent[245]. The flowers are scented like lily of the valley (Convallaria majalis)[245].

Propagation

The seed requires a period of cold stratification. Pre-chill for 4 - 10 weeks and then surface sow in a lime-free compost in a shady part of the greenhouse and keep the compost moist[78]. The seed usually germinates well, usually within 1 - 2 months at 20°c, but the seedlings are liable to damp off. It is important to water them with care and to ensure that they get plenty of ventilation. Watering them with a garlic infusion can also help to prevent damping of[K]. Prick out the seedlings into individual pots when they are about 25mm tall and grow them on in light shade in the greenhouse for at least their first winter[K]. Plant them out in late spring or early summer. The seedlings are susceptible to spring frosts so might need some protection for their first few years outdoors. The leaves remain very small for the first few years[11].

Cuttings of half-ripe wood 3 - 6cm long, July/August in a frame in a shady position. They form roots in late summer or spring[78]. A good percentage usually take.

Division in spring just before new growth begins[200]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Layering.

Scent

Flowers: Fresh

The flowers are scented like lily of the valley (Convallaria majalis).

Leaves: Crushed

The bruised leaves have a powerful camphor-like scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Gaultheria fragantissima* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Gaultheria ovatifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN

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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Gaultheria fragrantissima

Common name:		Family:	Ericaceae
Author:	Wallich.	Botanical references:	11, 51, 200
Synonyms:	Gaultheria ovalifolia (Wall.)		
Known Hazards:	None known		
Range:	E. Asia - N. India to Sri Lanka and Malaya.		
Habitat:	Forests and shrubberies[51], usually on dry slopes[146], at elevations of 1200 - 2700 metres in the Himalayas.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. fragantissima[E] G. ovatifolia[B,C,CAL,,G,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Western Teaberry [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	fragrantissima = most fragrant;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	India; Java; Nepal

Physical Characteristics

An evergreen shrub growing to 1m. It is hardy to zone 9. It is in leaf all year, in flower from April to May. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Fruit; Leaves; Tea.

Fruit - raw or cooked[105, 146, 183]. The fruit is about 8mm in diameter[200].

Leaves - raw. Chewed[105] (to relieve thirst?).

An essential oil obtained from the leaves is used as a flavouring[240, 243].

A tea is made from the leaves[177, 183].

Medicinal Uses

Disclaimer

Antiseptic; Aromatic; Carminative; Stimulant; Vermifuge.

The essential oil obtained from the leaves is antiseptic, aromatic, carminative and stimulant[240, 243]. It is used in the treatment of rheumatism and neuralgia[240, 243]. It is also taken internally in the treatment of hook worms[243].

Other Uses

Essential.

The leaves yield around 1.25% of an essential oil, this is a wintergreen substitute and it is used in perfumery, as a hair oil and medicinally[46, 51, 61, 146, 240].

Cultivation details

Prefers a moist but not boggy humus rich soil in shade or semi-shade[11, 182]. A peat and moisture loving species, it requires a lime-free soil[11, 182].

This species is not very hardy in Britain, it only succeeds outdoors in the milder areas of the country[200]. It grows well in Cornwall[11].

Plants in this genus are notably resistant to honey fungus[200].

The bruised leaves have a powerful camphor-like scent[245]. The flowers are scented like lily of the valley (Convallaria majalis)[245].

Propagation

The seed requires a period of cold stratification. Pre-chill for 4 - 10 weeks and then surface sow in a lime-free compost in a shady part of the greenhouse and keep the compost moist[78]. The seed usually germinates well, usually within 1 - 2 months at 20°c, but the seedlings are liable to damp off. It is important to water them with care and to ensure that they get plenty of ventilation. Watering them with a garlic infusion can also help to prevent damping of[K]. Prick out the seedlings into individual pots when they are about 25mm tall and grow them on in light shade in the greenhouse for at least their first winter[K]. Plant them out in late spring or early summer. The seedlings are susceptible to spring frosts so might need some protection for their first few years outdoors. The leaves remain very small for the first few years[11].

Cuttings of half-ripe wood 3 - 6cm long, July/August in a frame in a shady position. They form roots in late summer or spring[78]. A good percentage usually take.

Division in spring just before new growth begins[200]. Larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Layering.

Scent

Flowers: Fresh

> The flowers are scented like lily of the valley (Convallaria majalis).

Leaves: Crushed

> The bruised leaves have a powerful camphor-like scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: F-G

- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Gaultheria fragantissima* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Gaultheria ovatifolia* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
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Plants For A Future Rating (1-5):	2		

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Plants in this genus are notably resistant to honey fungus[200].

The bruised leaves have a powerful camphor-like scent[245]. The flowers are scented like lily of the valley (Convallaria majalis)[245].

Propagation

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Layering.

Scent

Flowers: Fresh

The flowers are scented like lily of the valley (Convallaria majalis).

Leaves: Crushed

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Suppliers

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Gaultheria procumbens

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Checkerberry	Family:	Ericaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Gaultheria repens (Raf.)		
Known Hazards:	The pure distilled essential oil is toxic in large doses[222].		
Range:	Eastern N. America. Introduced and established on one site in Britain, in Scotland.		
Habitat:	Sterile woods (poor acid soils) and clearings[43, 62]. Especially found beneath evergreen trees[213].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Checkerberry [H], Creeping Wintergreen [H], Eastern Teaberry [P,B], Kanadacayi [E], Mountain Tea [H], Teaberry [H,DEN1], Wintergreen [H,S,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	procumbens = prostrate;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

An evergreen shrub growing to 0.15m by 1m at a medium rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 14, 95, 101]. Pleasant but insipid[11]. The fruit is not at all insipid, it has a very strong spicy taste of germolene, just like being in a hospital waiting room[K]. Best after a frost, the fruit hangs onto the plant until spring if it is not eaten by birds etc[62, K]. The fruits can also be used in pies, or made into jams etc[183]. The fruit is up to 15mm in diameter[200].

Young leaves - raw[62, 102, 106]. A pleasant wayside nibble if used when very young[183]. Dry and powdery according to our taste buds[K].

A very agreeable tea is made from the fresh leaves[3, 95, 183]. A stronger tea can be made by first fermenting the bright red leaves[183].

'Oil of wintergreen' can be distilled from this plant. It is used to flavour beer, sweets, chewing gum etc[183].

Medicinal Uses

Disclaimer

Analgesic; Antiinflammatory; Aromatic; Astringent; Carminative; Diuretic; Emmenagogue; Stimulant; Tonic.

Checkerberry leaves were widely used by the native North American Indians in the treatment of aches and pains and to help breathing whilst hunting or carrying heavy loads[238]. An essential oil (known as 'oil of wintergreen') obtained from the leaves contains methyl salicylate, which is closely related to aspirin and is an effective anti-inflammatory[213]. This species was at one time a major source of methyl salicylate, though this is now mainly synthesized[238].

The leaves, and the oil, are analgesic, anti-inflammatory, aromatic, astringent, carminative, diuretic, emmenagogue, stimulant and tonic[4, 21, 165]. An infusion of the leaves is used to relieve flatulence and colic[254]. The plant, especially in the form of the essential oil, is most useful when applied externally in the treatment of acute cases of rheumatism, sciatica, myalgia, sprains, neuralgia and catarrh[4, 238]. The oil is sometimes used in the treatment of cellulitis, a bacterial infection that causes the skin to become inflamed[254]. Some caution is advised, especially if the oil is used internally, since essential oil is toxic in excess, causing liver and kidney damage[4, 238]. It should not be prescribed for patients who are hypersensitive to salicylates (aspirin)[238].

The leaves can be gathered at any time from spring to early autumn, they are dried for use in infusions or distilled to produce the oil[238].

Other Uses

Essential; Ground cover.

An essential oil is obtained from the leaves by steam distillation[2, 14, 57, 213]. In order to obtain the oil, the leaves need to be steeped for 12 - 24 hours in water[4]. The essential oil is used as a food flavouring, medicinally (the original source of Wintergreen oil used as a liniment for aching muscles) and in perfumery and toothpastes. In large doses it can be toxic[165, 244].

A good ground-cover plant for shady positions though it requires weeding for the first year or so[28, 31, 197]. Forming a dense tuft-like carpet, it roots as it spreads and should be spaced about 45cm apart each way[208].

Cultivation details

Prefers a moist but not boggy humus rich soil in shade or semi-shade[11, 182]. A peat and moisture loving species, it requires a lime-free soil[11, 182]. Succeeds in dry soils once it is well established and tolerates considerable drought[208]. Grows well under the thin shade of deciduous shrubs or evergreens[4, 11].

A very cold-hardy plant, tolerating temperatures down to about -35°c[160].

Plants can become invasive when growing in good conditions[182].

Some named forms have been developed for their ornamental value, 'Dart's Red Giant' has specially large berries[182].

All parts of the plant are aromatic, the bruised leaves having the scent of wintergreen[245].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

The seed requires a period of cold stratification. Pre-chill for 4 - 10 weeks and then surface sow in a lime-free compost in a shady part of the greenhouse and keep the compost moist[78]. The seed usually germinates well, usually within 1 - 2 months at 20°c, but the seedlings are liable to damp off. It is important to water them with care and to ensure that they get plenty of ventilation. Watering them with a garlic infusion can also help to prevent damping of[K]. Prick out the seedlings into individual pots when they are about 25mm tall and grow them on in light shade in the greenhouse for at least their first winter[K]. Plant them out in late spring or early summer. The seedlings are susceptible to spring frosts so might need some protection for their first few years outdoors. The leaves remain very small for the first few years[11].

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Scent

Plant: Crushed

> All parts of the plant are aromatic, the bruised leaves having the scent of wintergreen.

Cultivars

'Dart's Red Giant'

> This form has specially large berries[182].

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Plants For A Future: Database Search Results

Gaultheria procumbens

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Checkerberry	Family:	Ericaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Gaultheria repens (Raf.)		
Known Hazards:	The pure distilled essential oil is toxic in large doses[222].		
Range:	Eastern N. America. Introduced and established on one site in Britain, in Scotland.		
Habitat:	Sterile woods (poor acid soils) and clearings[43, 62]. Especially found beneath evergreen trees[213].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Checkerberry [H], Creeping Wintergreen [H], Eastern Teaberry [P,B], Kanadacayi [E], Mountain Tea [H], Teaberry [H,DEN1], Wintergreen [H,S,FEIS],
Epithets:	From a Dictionary of Botanical Epithets
	procumbens = prostrate;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

An evergreen shrub growing to 0.15m by 1m at a medium rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 14, 95, 101]. Pleasant but insipid[11]. The fruit is not at all insipid, it has a very strong spicy taste of germolene, just like being in a hospital waiting room[K]. Best after a frost, the fruit hangs onto the plant until spring if it is not eaten by birds etc[62, K]. The fruits can also be used in pies, or made into jams etc[183]. The fruit is up to 15mm in diameter[200].

Young leaves - raw[62, 102, 106]. A pleasant wayside nibble if used when very young[183]. Dry and powdery according to our taste buds[K].

A very agreeable tea is made from the fresh leaves[3, 95, 183]. A stronger tea can be made by first fermenting the bright red leaves[183].

'Oil of wintergreen' can be distilled from this plant. It is used to flavour beer, sweets, chewing gum etc[183].

Medicinal Uses

Disclaimer

Analgesic; Antiinflammatory; Aromatic; Astringent; Carminative; Diuretic; Emmenagogue; Stimulant; Tonic.

Checkerberry leaves were widely used by the native North American Indians in the treatment of aches and pains and to help breathing whilst hunting or carrying heavy loads[238]. An essential oil (known as 'oil of wintergreen') obtained from the leaves contains methyl salicylate, which is closely related to aspirin and is an effective anti-inflammatory[213]. This species was at one time a major source of methyl salicylate, though this is now mainly synthesized[238].

The leaves, and the oil, are analgesic, anti-inflammatory, aromatic, astringent, carminative, diuretic, emmenagogue, stimulant and tonic[4, 21, 165]. An infusion of the leaves is used to relieve flatulence and colic[254]. The plant, especially in the form of the essential oil, is most useful when applied externally in the treatment of acute cases of rheumatism, sciatica, myalgia, sprains, neuralgia and catarrh[4, 238]. The oil is sometimes used in the treatment of cellulitis, a bacterial infection that causes the skin to become inflamed[254]. Some caution is advised, especially if the oil is used internally, since essential oil is toxic in excess, causing liver and kidney damage[4, 238]. It should not be prescribed for patients who are hypersensitive to salicylates (aspirin)[238].

The leaves can be gathered at any time from spring to early autumn, they are dried for use in infusions or distilled to produce the oil[238].

Other Uses

Essential; Ground cover.

An essential oil is obtained from the leaves by steam distillation[2, 14, 57, 213]. In order to obtain the oil, the leaves need to be steeped for 12 - 24 hours in water[4]. The essential oil is used as a food flavouring, medicinally (the original source of Wintergreen oil used as a liniment for aching muscles) and in perfumery and toothpastes. In large doses it can be toxic[165, 244].

A good ground-cover plant for shady positions though it requires weeding for the first year or so[28, 31, 197]. Forming a dense tuft-like carpet, it roots as it spreads and should be spaced about 45cm apart each way[208].

Cultivation details

Prefers a moist but not boggy humus rich soil in shade or semi-shade[11, 182]. A peat and moisture loving species, it requires a lime-free soil[11, 182]. Succeeds in dry soils once it is well established and tolerates considerable drought[208]. Grows well under the thin shade of deciduous shrubs or evergreens[4, 11].

A very cold-hardy plant, tolerating temperatures down to about -35°c[160].

Plants can become invasive when growing in good conditions[182].

Some named forms have been developed for their ornamental value, 'Dart's Red Giant' has specially large berries[182].

All parts of the plant are aromatic, the bruised leaves having the scent of wintergreen[245].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

The seed requires a period of cold stratification. Pre-chill for 4 - 10 weeks and then surface sow in a lime-free compost in a shady part of the greenhouse and keep the compost moist[78]. The seed usually germinates well, usually within 1 - 2 months at 20°c, but the seedlings are liable to damp off. It is important to water them with care and to ensure that they get plenty of ventilation. Watering them with a garlic infusion can also help to prevent damping of[K]. Prick out the seedlings into individual pots when they are about 25mm tall and grow them on in light shade in the greenhouse for at least their first winter[K]. Plant them out in late spring or early summer. The seedlings are susceptible to spring frosts so might need some protection for their first few years outdoors. The leaves remain very small for the first few years[11].

Cuttings of half-ripe wood 3 - 6cm long, July/August in a frame in a shady position. They form roots in late summer or spring[78]. A good percentage usually take.

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Scent

Plant: Crushed

All parts of the plant are aromatic, the bruised leaves having the scent of wintergreen.

Cultivars

'Dart's Red Giant'

This form has specially large berries[182].

Suppliers

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Plants For A Future: Database Search Results

Gaultheria procumbens

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Checkerberry	Family:	Ericaceae
Author:	L.	Botanical references:	11, 43, 200
Synonyms:	Gaultheria repens (Raf.)		
Known Hazards:	The pure distilled essential oil is toxic in large doses[222].		
Range:	Eastern N. America. Introduced and established on one site in Britain, in Scotland.		
Habitat:	Sterile woods (poor acid soils) and clearings[43, 62]. Especially found beneath evergreen trees[213].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Turkey; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

An evergreen shrub growing to 0.15m by 1m at a medium rate. It is hardy to zone 4. It is in leaf all year, in flower from July to August, and the seeds ripen from October to December. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade, Ground Cover.

Edible Uses

Condiment; Fruit; Leaves; Tea.

Fruit - raw or cooked[2, 3, 14, 95, 101]. Pleasant but insipid[11]. The fruit is not at all insipid, it has a very strong spicy taste of germolene, just like being in a hospital waiting room[K]. Best after a frost, the fruit hangs onto the plant until spring if it is not eaten by birds etc[62, K]. The fruits can also be used in pies, or made into jams etc[183]. The fruit is up to 15mm in diameter[200].

Young leaves - raw[62, 102, 106]. A pleasant wayside nibble if used when very young[183]. Dry and powdery according to our taste buds[K].

A very agreeable tea is made from the fresh leaves[3, 95, 183]. A stronger tea can be made by first fermenting the bright red leaves[183].

'Oil of wintergreen' can be distilled from this plant. It is used to flavour beer, sweets, chewing gum etc[183].

Medicinal Uses

Disclaimer

Analgesic; Antiinflammatory; Aromatic; Astringent; Carminative; Diuretic; Emmenagogue; Stimulant; Tonic.

Checkerberry leaves were widely used by the native North American Indians in the treatment of aches and pains and to help breathing whilst hunting or carrying heavy loads[238]. An essential oil (known as 'oil of wintergreen') obtained from the leaves contains methyl salicylate, which is closely related to aspirin and is an effective anti-inflammatory[213]. This species was at one time a major source of methyl salicylate, though this is now mainly synthesized[238].

The leaves, and the oil, are analgesic, anti-inflammatory, aromatic, astringent, carminative, diuretic, emmenagogue, stimulant and tonic[4, 21, 165]. An infusion of the leaves is used to relieve flatulence and colic[254]. The plant, especially in the form of the essential oil, is most useful when applied externally in the treatment of acute cases of rheumatism, sciatica, myalgia, sprains, neuralgia and catarrh[4, 238]. The oil is sometimes used in the treatment of cellulitis, a bacterial infection that causes the skin to become inflamed[254]. Some caution is advised, especially if the oil is used internally, since essential oil is toxic in excess, causing liver and kidney damage[4, 238]. It should not be prescribed for patients who are hypersensitive to salicylates (aspirin)[238].

The leaves can be gathered at any time from spring to early autumn, they are dried for use in infusions or distilled to produce the oil[238].

Other Uses

Essential; Ground cover.

An essential oil is obtained from the leaves by steam distillation[2, 14, 57, 213]. In order to obtain the oil, the leaves need to be steeped for 12 - 24 hours in water[4]. The essential oil is used as a food flavouring, medicinally (the original source of Wintergreen oil used as a liniment for aching muscles) and in perfumery and toothpastes. In large doses it can be toxic[165, 244].

A good ground-cover plant for shady positions though it requires weeding for the first year or so[28, 31, 197]. Forming a dense tuft-like carpet, it roots as it spreads and should be spaced about 45cm apart each way[208].

Cultivation details

Prefers a moist but not boggy humus rich soil in shade or semi-shade[11, 182]. A peat and moisture loving species, it requires a lime-free soil[11, 182]. Succeeds in dry soils once it is well established and tolerates considerable drought[208]. Grows well under the thin shade of deciduous shrubs or evergreens[4, 11].

A very cold-hardy plant, tolerating temperatures down to about -35°c[160].

Plants can become invasive when growing in good conditions[182].

Some named forms have been developed for their ornamental value, 'Dart's Red Giant' has specially large berries[182].

All parts of the plant are aromatic, the bruised leaves having the scent of wintergreen[245].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

The seed requires a period of cold stratification. Pre-chill for 4 - 10 weeks and then surface sow in a lime-free compost in a shady part of the greenhouse and keep the compost moist[78]. The seed usually germinates well, usually within 1 - 2 months at 20°c, but the seedlings are liable to damp off. It is important to water them with care and to ensure that they get plenty of ventilation. Watering them with a garlic infusion can also help to prevent damping of[K]. Prick out the seedlings into individual pots when they are about 25mm tall and grow them on in light shade in the greenhouse for at least their first winter[K]. Plant them out in late spring or early summer. The seedlings are susceptible to spring frosts so might need some protection for their first few years outdoors. The leaves remain very small for the first few years[11].

Cuttings of half-ripe wood 3 - 6cm long, July/August in a frame in a shady position. They form roots in late summer or spring[78]. A good percentage usually take.

Division can be carried out at almost any time of the year, but works best in the spring just before new growth begins[K]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Plant: Crushed

All parts of the plant are aromatic, the bruised leaves having the scent of wintergreen.

Cultivars

'Dart's Red Giant'

This form has specially large berries[182].

Suppliers

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Gaultheria procumbens

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Plant Information

Comment:

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Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Gaultheria procumbens

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Gentiana lutea

Common name:	Yellow gentian	Family:	Gentianaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	C. and S. Europe.		
Habitat:	Grassy alpine and sub-alpine pastures, usually on calcareous soils[9, 50].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bitter Root [H], Bitterwort [H], Centiyane [E], Genciana [E], Gentian [E], Yellow Gentian [P,H],
Epithets:	From a Dictionary of Botanical Epithets
	lutea = yellow;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Gentian family
Other Range Info:	From the Ethnobotany Database
	Europe; India; Spain; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.6m . It is hardy to zone 5 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles and Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The root is sometimes used in the manufacture of gentian bitters[183]. The root contains sugar and mucilage[2] (this is probably a reference to its medicinal properties).

The root was occasionally used as a flavouring in beer before the use of hops (Humulus lupulus) became widespread[4].

Medicinal Uses

Disclaimer

Anthelmintic; Antiinflammatory; Antiseptic; Bitter; Cholagogue; Emmenagogue; Febrifuge; Refrigerant; Stomachic; Tonic.

Gentian root has a long history of use as a herbal bitter in the treatment of digestive disorders and is an ingredient of many proprietary medicines. It contains some of the most bitter compounds known and is used as a scientific basis for measuring bitterness[238]. It is especially useful in states of exhaustion from chronic disease and in all cases of debility, weakness of the digestive system and lack of appetite[4]. It is one of the best strengtheners of the human system, stimulating the liver, gall bladder and digestive system[238], and is an excellent tonic to combine with a purgative in order to prevent its debilitating effects[4].

The root is anthelmintic, anti-inflammatory, antiseptic, bitter tonic, cholagogue, emmenagogue, febrifuge, refrigerant and stomachic[4, 7, 9, 14, 21, 165]. It is taken internally in the treatment of liver complaints, indigestion, gastric infections and anorexia[238]. It should not be prescribed for patients with gastric or duodenal ulcers[238]. The root, which can be as thick as a person's arm and has few branches[239], is harvested in the autumn and dried for later use[4]. It is quite likely that the roots of plants that have not flowered are the richest in medicinal properties[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

In general, gentians require a moist well-drained soil in a sheltered position, a certain minimum of atmospheric humidity, high light intensity but a site where temperatures are not too high[239]. They are therefore more difficult to grow in areas with hot summers and in such a region they appreciate some protection from the strongest sunlight[200, 239]. Most species will grow well in the rock garden[200]. This species is easily grown in any good garden soil so long as it is deep enough to accommodate its roots[187, 239], though it prefers alkaline conditions[238]. It prefers full sun but succeeds in partial shade[111]. A slow-growing plant, it takes many years to reach its full stature[239].

A moisture loving plant, growing well by water, it prefers to grow with full exposure to the sun but with plenty of underground moisture in the summer and it grows better in the north and west of Britain[1].

Plants are very deep-rooted and are intolerant of root disturbance[4, 200]. They are very long lived, to 50 years or more[9].

A very ornamental plant[1], it takes about 3 years to reach flowering size from seed[4].

Cultivated as a medicinal plant in Europe[4, 57].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[200]. It can also be sown in late winter or early spring but the seed germinates best if given a period of cold stratification and quickly loses viability when stored, with older seed germinating slowly and erratically[200, 239]. It is advantageous to keep the seed at about 10°c for a few days after sowing, to enable the seed to imbibe moisture[239]. Following this with a period of at least 5 - 6 weeks with temperatures falling to between 0 and -5°c will usually produce reasonable germination[239]. It is best to use clay pots, since plastic ones do not drain so freely and the moister conditions encourage the growth of moss, which will prevent germination of the seed[239]. The seed should be surface-sown, or only covered with a very light dressing of compost. The seed requires dark for germination, so the pots should be covered with something like newspaper or be kept in the dark[239]. Pot up the seedlings into individual pots as soon as they are large enough to handle and grow on in light shade in the greenhouse for at least their first winter. The seedlings grow on very slowly, taking 2 - 7 years to reach flowering size[239]. When the plants are of sufficient size, place them out into their permanent positions in late spring or early summer.

Cuttings of basal shoots in late spring[238].

Suppliers

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Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
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References for *gentiana lutea* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References for the family Gentianaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[239] **Kohlein. F.** *Gentians.* Christopher Helm. London. 1991 ISBN 0-88192-192-0
A nice readable book, giving details of habitats and cultural needs of all the members of this genus, with brief notes on other members of the family.

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Plants For A Future: Database Search Results

Gentiana lutea

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Synonyms:			
Known Hazards:	None known		
Range:	C. and S. Europe.		
Habitat:	Grassy alpine and sub-alpine pastures, usually on calcareous soils[9, 50].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
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	lutea = yellow;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Gentian family
Other Range Info:	From the Ethnobotany Database
	Europe; India; Spain; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.6m . It is hardy to zone 5 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles and Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

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Other Uses

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[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[239] **Kohlein. F.** *Gentians.* Christopher Helm. London. 1991 ISBN 0-88192-192-0
A nice readable book, giving details of habitats and cultural needs of all the members of this genus, with brief notes on other members of the family.

Readers Comments

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Gentiana+lutea`
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Plants For A Future: Database Search Results

Gentiana lutea

Common name:	Yellow gentian	Family:	Gentianaceae
Author:	L.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	None known		
Range:	C. and S. Europe.		
Habitat:	Grassy alpine and sub-alpine pastures, usually on calcareous soils[9, 50].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bitter Root [H], Bitterwort [H], Centiyane [E], Genciana [E], Gentian [E], Yellow Gentian [P,H],
Epithets:	From a Dictionary of Botanical Epithets
	lutea = yellow;
Systematics:	From a UDSA Plants Database
	Order: Gentianales . Gentian family
Other Range Info:	From the Ethnobotany Database
	Europe; India; Spain; Turkey

Physical Characteristics

Perennial growing to 1.2m by 0.6m . It is hardy to zone 5 and is not frost tender. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies, beetles and Lepidoptera (Moths & Butterflies). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment.

The root is sometimes used in the manufacture of gentian bitters[183]. The root contains sugar and mucilage[2] (this is probably a reference to its medicinal properties).

The root was occasionally used as a flavouring in beer before the use of hops (Humulus lupulus) became widespread[4].

Medicinal Uses

Disclaimer

Anthelmintic; Antiinflammatory; Antiseptic; Bitter; Cholagogue; Emmenagogue; Febrifuge; Refrigerant; Stomachic; Tonic.

Gentian root has a long history of use as a herbal bitter in the treatment of digestive disorders and is an ingredient of many proprietary medicines. It contains some of the most bitter compounds known and is used as a scientific basis for measuring bitterness[238]. It is especially useful in states of exhaustion from chronic disease and in all cases of debility, weakness of the digestive system and lack of appetite[4]. It is one of the best strengtheners of the human system, stimulating the liver, gall bladder and digestive system[238], and is an excellent tonic to combine with a purgative in order to prevent its debilitating effects[4].

The root is anthelmintic, anti-inflammatory, antiseptic, bitter tonic, cholagogue, emmenagogue, febrifuge, refrigerant and stomachic[4, 7, 9, 14, 21, 165]. It is taken internally in the treatment of liver complaints, indigestion, gastric infections and anorexia[238]. It should not be prescribed for patients with gastric or duodenal ulcers[238]. The root, which can be as thick as a person's arm and has few branches[239], is harvested in the autumn and dried for later use[4]. It is quite likely that the roots of plants that have not flowered are the richest in medicinal properties[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

In general, gentians require a moist well-drained soil in a sheltered position, a certain minimum of atmospheric humidity, high light intensity but a site where temperatures are not too high[239]. They are therefore more difficult to grow in areas with hot summers and in such a region they appreciate some protection from the strongest sunlight[200, 239]. Most species will grow well in the rock garden[200]. This species is easily grown in any good garden soil so long as it is deep enough to accommodate its roots[187, 239], though it prefers alkaline conditions[238]. It prefers full sun but succeeds in partial shade[111]. A slow-growing plant, it takes many years to reach its full stature[239].

A moisture loving plant, growing well by water, it prefers to grow with full exposure to the sun but with plenty of underground moisture in the summer and it grows better in the north and west of Britain[1].

Plants are very deep-rooted and are intolerant of root disturbance[4, 200]. They are very long lived, to 50 years or more[9].

A very ornamental plant[1], it takes about 3 years to reach flowering size from seed[4].

Cultivated as a medicinal plant in Europe[4, 57].

Propagation

Seed - best sown as soon as it is ripe in a light position in a cold frame[200]. It can also be sown in late winter or early spring but the seed germinates best if given a period of cold stratification and quickly loses viability when stored, with older seed germinating slowly and erratically[200, 239]. It is advantageous to keep the seed at about 10°c for a few days after sowing, to enable the seed to imbibe moisture[239]. Following this with a period of at least 5 - 6 weeks with temperatures falling to between 0 and -5°c will usually produce reasonable germination[239]. It is best to use clay pots, since plastic ones do not drain so freely and the moister conditions encourage the growth of moss, which will prevent germination of the seed[239]. The seed should be surface-sown, or only covered with a very light dressing of compost. The seed requires dark for germination, so the pots should be covered with something like newspaper or be kept in the dark[239]. Pot up the seedlings into individual pots as soon as they are large enough to handle and grow on in light shade in the greenhouse for at least their first winter. The seedlings grow on very slowly, taking 2 - 7 years to reach flowering size[239]. When the plants are of sufficient size, place them out into their permanent positions in late spring or early summer.

Cuttings of basal shoots in late spring[238].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Gentiana lutea*

Subject:

Gentiana lutea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Gentiana lutea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Geum urbanum

Common name:	Wood avens	Family:	Rosaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, hedge banks, walls etc, usually on damp soils[9, 13].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Avens [H], Benedicte [E], Cariofilada [E], City Avens [H], Clove Root [H], Colewort [H], Common Avens [L], Geel Nagelkruid [D], Goldy Star [H], Hashishat Al Mubarek [E], Herb Bennet [P,H], Herb-bennet [B], Meryemotu [E], Seiyo-Daikon-So [E], Way Bennet [H], Wild Rye [H], Wood Avens [H,L],
Epithets:	From a Dictionary of Botanical Epithets
	urbanum = from the city;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Europe; France; Germany; India; Iraq; Spain; Turkey

Physical Characteristics

Perennial growing to 0.5m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in flower from June to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge, In Walls, In North Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Drink; Leaves; Root.

Young leaves - cooked.

Root - cooked. Used as a spice in soups, stews etc, and also as a flavouring in ale[4, 5, 8, 13, 183]. It is a substitute for cloves with a hint of cinnamon in the flavour[12, 74, 183]. It is best used in spring[12]. The root is also boiled to make a beverage[161]. The root is up to 5cm long[4].

Medicinal Uses

Disclaimer

Antiinflammatory; Antiseptic; Aromatic; Astringent; Diaphoretic; Febrifuge; Skin; Stomachic; Styptic; Tonic.

Wood avens is an astringent herb, used principally to treat problems affecting the mouth, throat and gastro-intestinal tract. It tightens up soft gums, heals mouth ulcers, makes a good gargle for infections of the pharynx and larynx, and reduces irritation of the stomach and gut[254].

All parts of the plant, but especially the root, are anti-inflammatory, antiseptic, aromatic, astringent, diaphoretic, febrifuge, stomachic, styptic and tonic[4, 9, 21, 165, 238]. An infusion is taken internally in the treatment of diarrhoea, intestinal disorders, stomach upsets, irritable bowel syndrome and liver disorders, it is also applied externally as a wash to haemorrhoids, vaginal discharges etc[238, 254] and to treat various skin afflictions - it is said to remove spots, freckles and eruptions from the face[4, 9].

The root is best harvested in the spring, since at this time it is most fragrant[4]. Much of the fragrance can be lost on drying, so the root should be dried with great care then stored in a cool dry place in an airtight container, being sliced and powdered only when required for use[4].

Other Uses

Repellent; Tannin.

The freshly dug root has a clove-like fragrance[4], when dried it is used in the linen cupboard to repel moths[4, 53].

The root contains about 9% tannin[4].

Cultivation details

Easily grown in any moderately good garden soil that is well-drained[1]. Prefers shade[12, 21] and a soil rich in organic matter[200].

This species was widely cultivated as a pot-herb in the 16th century[5]. The bruised or dried root is pleasantly aromatic with a clove-like fragrance[245].

Plants self-sow freely when well-sited[238].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - sow spring or autumn in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer'

Division in spring or autumn. This should be done every 3 - 4 years in order to maintain the vigour of the plant[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Crushed Dried

> The bruised or dried root is pleasantly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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References

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Very interesting reading, giving some details of plant uses and quite a lot of folk-lore.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.
A comprehensive but very terse guide. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Geum urbanum

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Habitats and Possible Locations

Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge, In Walls, In North Wall, In East Wall, In West Wall.

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Other Uses

Repellent; Tannin.

The freshly dug root has a clove-like fragrance[4], when dried it is used in the linen cupboard to repel moths[4, 53].

The root contains about 9% tannin[4].

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Root: Crushed Dried

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Suppliers

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Web References

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[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[53] **De. Bray. L.** *The Wild Garden.*
Interesting reading.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[161] **Yanovsky. E.** *Food Plants of the N. American Indians. Publication no. 237.* U.S. Depf of Agriculture.

A comprehensive but very terse guide. Not for the casual reader.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Geum urbanum

Common name:	Wood avens	Family:	Rosaceae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Woods, hedge banks, walls etc, usually on damp soils[9, 13].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Avens [H], Benedicte [E], Cariofilada [E], City Avens [H], Clove Root [H], Colewort [H], Common Avens [L], Geel Nagelkruid [D], Goldy Star [H], Hashishat Al Mubarek [E], Herb Bennet [P,H], Herb-bennet [B], Meryemotu [E], Seiyo-Daikon-So [E], Way Bennet [H], Wild Rye [H], Wood Avens [H,L],
Epithets:	From a Dictionary of Botanical Epithets
	urbanum = from the city;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Rose family
Other Range Info:	From the Ethnobotany Database
	Europe; France; Germany; India; Iraq; Spain; Turkey

Physical Characteristics

Perennial growing to 0.5m by 0.5m . It is hardy to zone 6 and is not frost tender. It is in flower from June to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Sunny Edge, Dappled Shade, Shady Edge, In Walls, In North Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Drink; Leaves; Root.

Young leaves - cooked.

Root - cooked. Used as a spice in soups, stews etc, and also as a flavouring in ale[4, 5, 8, 13, 183]. It is a substitute for cloves with a hint of cinnamon in the flavour[12, 74, 183]. It is best used in spring[12]. The root is also boiled to make a beverage[161]. The root is up to 5cm long[4].

Medicinal Uses

Disclaimer

Antiinflammatory; Antiseptic; Aromatic; Astringent; Diaphoretic; Febrifuge; Skin; Stomachic; Styptic; Tonic.

Wood avens is an astringent herb, used principally to treat problems affecting the mouth, throat and gastro-intestinal tract. It tightens up soft gums, heals mouth ulcers, makes a good gargle for infections of the pharynx and larynx, and reduces irritation of the stomach and gut[254].

All parts of the plant, but especially the root, are anti-inflammatory, antiseptic, aromatic, astringent, diaphoretic, febrifuge, stomachic, styptic and tonic[4, 9, 21, 165, 238]. An infusion is taken internally in the treatment of diarrhoea, intestinal disorders, stomach upsets, irritable bowel syndrome and liver disorders, it is also applied externally as a wash to haemorrhoids, vaginal discharges etc[238, 254] and to treat various skin afflictions - it is said to remove spots, freckles and eruptions from the face[4, 9].

The root is best harvested in the spring, since at this time it is most fragrant[4]. Much of the fragrance can be lost on drying, so the root should be dried with great care then stored in a cool dry place in an airtight container, being sliced and powdered only when required for use[4].

Other Uses

Repellent; Tannin.

The freshly dug root has a clove-like fragrance[4], when dried it is used in the linen cupboard to repel moths[4, 53].

The root contains about 9% tannin[4].

Cultivation details

Easily grown in any moderately good garden soil that is well-drained[1]. Prefers shade[12, 21] and a soil rich in organic matter[200].

This species was widely cultivated as a pot-herb in the 16th century[5]. The bruised or dried root is pleasantly aromatic with a clove-like fragrance[245].

Plants self-sow freely when well-sited[238].

Hybridizes freely with other members of this genus[200].

Propagation

Seed - sow spring or autumn in a cold frame[200]. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer'

Division in spring or autumn. This should be done every 3 - 4 years in order to maintain the vigour of the plant[200]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Crushed Dried

> The bruised or dried root is pleasantly aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Geum urbanum*

Subject:

Geum urbanum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Geum urbanum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Glechoma hederacea

Common name:	Ground ivy	Family:	Labiatae
Author:	L.	Botanical references:	17
Synonyms:	Nepeta hederacea ((L.)Trevir.), Nepeta glechoma (Benth.)		
Known Hazards:	A report in the medicinal uses says the plant should be used with caution, no reason is given. Another report says that the plant might be toxic to horses[222].		
Range:	Britain.		
Habitat:	Damp waste ground, hedgerows and woodland margins[7].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. hederacea var. hederacea[P] G. hederacea var. micrantha[B] G. hederacea var. parviflora[B] G. hederaceum[E] Glecoma hederacea[Sngs]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chi Hsueh Ts'Ao [E], Gill-over-the-Ground [L], Gill-over-the-ground [H], Ground Ivy [H,L,S], Groundivy [P,E,B], Hiedra Terrestre [E], Hondsdraf [D], Hu Po Ho [E], Ivy, Ground [S], Kaki-Doosi [E], Kakidosi [E], Lien Ch'Ien Ts'Ao [E], Ti Ch'Ien Ts'Ao [E], Yer Sarmasigi [E],
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Argentina; Britain(Wales); China; Japan; Spain; Turkey; Us

Physical Characteristics

An evergreen perennial growing to 0.2m by 1m . It is not frost tender. It is in leaf all year, in flower from March to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

Young leaves - raw or cooked[9]. The leaves have a bitter flavour[5], they can be mixed into salads to add a slight aromatic tang[7]. They can also be cooked like spinach, added to soups etc or used as a flavouring[2, 183]. Available very early in the year.

A herb tea is made from the fresh or dried leaves[2, 177, 183]. It is often used mixed with verbena leaves[7].

The herb has been added to beer in much the same way as hops in order to clear it and also to improve its flavour and keeping qualities[4, 183]. This species was the most common flavouring in beer prior to the use of hops from the 16th century onwards[238].

Medicinal Uses

Disclaimer

Anodyne; Antiphlogistic; Appetizer; Astringent; Digestive; Diuretic; Febrifuge; Miscellany; Pectoral; Stimulant; Tonic; Vermifuge.

Ground ivy is a safe and effective herb that is used to treat many problems involving the mucous membranes of the ear, nose, throat and digestive system[254]. A well-tolerated treatment it can be given to children to clear lingering catarrh and to treat chronic conditions such as glue ear and sinusitis[254]. Throat and chest problems, especially those due to excess catarrh, also benefit from this remedy[254].

The leaves and flowering stems are anodyne, antiphlogistic, appetizer, astringent, digestive, diuretic, febrifuge, pectoral, gently stimulant, tonic and vermifuge[4, 9, 21, 100, 147, 165, 178]. They are best harvested in May whilst still fresh[4], and are dried for later use[238]. The leaves are used in the treatment of hypersensitivity in children and are useful in the treatment of kidney diseases and indigestion[4, 9, 21, 100, 147, 165, 178]. Applied externally, the expressed juice speeds the healing of bruises and black eyes[4]. Use with caution[21].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Ground cover.

A good ground cover plant for shady places. It is rather vigorous though and can swamp smaller plants[197].

Cultivation details

Prefers a heavy soil and dappled shade[17, 31]. Prefers a moist well-drained soil, succeeding in sun or shade[188].

A very invasive plant, spreading freely at the roots[1, 31, 238].

A good bee plant[108].

Propagation

Seed - we have no information for this species but suggest sowing the seed in situ as soon as it is ripe, or in the spring.

Division in spring or autumn[188]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: G
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Glechoma hederacea var. hederacea* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Glechoma hederaceum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Glecoma hederacea* (a possible synonym).

- [S] Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *glechoma hederacea* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*

An excellent small herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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Author:	L.	Botanical references:	17
Synonyms:	Nepeta hederacea ((L.)Trevir.), Nepeta glechoma (Benth.)		
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Range:	Britain.		
Habitat:	Damp waste ground, hedgerows and woodland margins[7].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
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Physical Characteristics

An evergreen perennial growing to 0.2m by 1m . It is not frost tender. It is in leaf all year, in flower from March to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

Young leaves - raw or cooked[9]. The leaves have a bitter flavour[5], they can be mixed into salads to add a slight aromatic tang[7]. They can also be cooked like spinach, added to soups etc or used as a flavouring[2, 183]. Available very early in the year.

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Other Uses

Ground cover.

A good ground cover plant for shady places. It is rather vigorous though and can swamp smaller plants[197].

Cultivation details

Prefers a heavy soil and dappled shade[17, 31]. Prefers a moist well-drained soil, succeeding in sun or shade[188].

A very invasive plant, spreading freely at the roots[1, 31, 238].

A good bee plant[108].

Propagation

Seed - we have no information for this species but suggest sowing the seed in situ as soon as it is ripe, or in the spring.

Division in spring or autumn[188]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: G
- Checklist of plants suitable for ground cover

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Glechoma hederacea var. hederacea* (a possible synonym).

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *Glechoma hederaceum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Glecoma hederacea* (a possible synonym).

- [S] Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *glechoma hederacea* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[5] **Mabey. R.** *Food for Free.* Collins 1974 ISBN 0-00-219060-5
Edible wild plants found in Britain. Fairly comprehensive, very few pictures and rather optimistic on the desirability of some of the plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[31] **Brown.** *Shade Plants for Garden and Woodland.*

[100] **Polunin. O.** *Flowers of Europe - A Field Guide.* Oxford University Press 1969 ISBN 0192176218
An excellent and well illustrated pocket guide for those with very large pockets. Also gives some details on plant uses.

[108] **International Bee Research Association.** *Garden Plants Valuable to Bees.* International Bee Research Association. 1981
The title says it all.

[147] **?** *A Barefoot Doctors Manual.* Running Press ISBN 0-914294-92-X
A very readable herbal from China, combining some modern methods with traditional chinese methods.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*

An excellent small herbal.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[197] **Royal Horticultural Society.** *Ground Cover Plants.* Cassells. 1989 ISBN 0-304-31089-1
A handy little booklet from the R.H.S.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Glechoma+hederacea`
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Plants For A Future: Database Search Results

Glechoma hederacea

Common name:	Ground ivy	Family:	Labiatae
Author:	L.	Botanical references:	17
Synonyms:	Nepeta hederacea ((L.)Trevir.), Nepeta glechoma (Benth.)		
Known Hazards:	A report in the medicinal uses says the plant should be used with caution, no reason is given. Another report says that the plant might be toxic to horses[222].		
Range:	Britain.		
Habitat:	Damp waste ground, hedgerows and woodland margins[7].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	G. hederacea var. hederacea[P] G. hederacea var. micrantha[B] G. hederacea var. parviflora[B] G. hederaceum[E] Glecoma hederacea[Sngs]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chi Hsueh Ts'Ao [E], Gill-over-the-Ground [L], Gill-over-the-ground [H], Ground Ivy [H,L,S], Groundivy [P,E,B], Hiedra Terrestre [E], Hondsdraf [D], Hu Po Ho [E], Ivy, Ground [S], Kaki-Doosi [E], Kakidosi [E], Lien Ch'Ien Ts'Ao [E], Ti Ch'Ien Ts'Ao [E], Yer Sarmasigi [E],
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Argentina; Britain(Wales); China; Japan; Spain; Turkey; Us

Physical Characteristics

An evergreen perennial growing to 0.2m by 1m . It is not frost tender. It is in leaf all year, in flower from March to May. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils and can grow in heavy clay soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedgerow, Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment; Leaves; Tea.

Young leaves - raw or cooked[9]. The leaves have a bitter flavour[5], they can be mixed into salads to add a slight aromatic tang[7]. They can also be cooked like spinach, added to soups etc or used as a flavouring[2, 183]. Available very early in the year.

A herb tea is made from the fresh or dried leaves[2, 177, 183]. It is often used mixed with verbena leaves[7].

The herb has been added to beer in much the same way as hops in order to clear it and also to improve its flavour and keeping qualities[4, 183]. This species was the most common flavouring in beer prior to the use of hops from the 16th century onwards[238].

Medicinal Uses

Disclaimer

Anodyne; Antiphlogistic; Appetizer; Astringent; Digestive; Diuretic; Febrifuge; Miscellany; Pectoral; Stimulant; Tonic; Vermifuge.

Ground ivy is a safe and effective herb that is used to treat many problems involving the mucous membranes of the ear, nose, throat and digestive system[254]. A well-tolerated treatment it can be given to children to clear lingering catarrh and to treat chronic conditions such as glue ear and sinusitis[254]. Throat and chest problems, especially those due to excess catarrh, also benefit from this remedy[254].

The leaves and flowering stems are anodyne, antiphlogistic, appetizer, astringent, digestive, diuretic, febrifuge, pectoral, gently stimulant, tonic and vermifuge[4, 9, 21, 100, 147, 165, 178].

They are best harvested in May whilst still fresh[4], and are dried for later use[238]. The leaves are used in the treatment of hypersensitivity in children and are useful in the treatment of kidney diseases and indigestion[4, 9, 21, 100, 147, 165, 178]. Applied externally, the expressed juice speeds the healing of bruises and black eyes[4]. Use with caution[21].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Ground cover.

A good ground cover plant for shady places. It is rather vigorous though and can swamp smaller plants[197].

Cultivation details

Prefers a heavy soil and dappled shade[17, 31]. Prefers a moist well-drained soil, succeeding in sun or shade[188].

A very invasive plant, spreading freely at the roots[1, 31, 238].

A good bee plant[108].

Propagation

Seed - we have no information for this species but suggest sowing the seed in situ as soon as it is ripe, or in the spring.

Division in spring or autumn[188]. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Glechoma hederacea*

Subject:

Glechoma hederacea

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Glechoma hederacea

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Your Email Address:

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Guizotia abyssinica

Common name:	Niger seed	Family:	Compositae
Author:	(L. f.) Cass.	Botanical references:	17, 200
Synonyms:	Guizotia oleifera		
Known Hazards:	None known		
Range:	Africa - Tropics. An infrequent casual in Britain.		
Habitat:	Casual on tips and waste ground near oil mills, and as a bird-seed alien, in Britain.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Polymnia abyssinica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Gingellikruid [D], Niger [L], Ramtilla [B,P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual growing to 1.8m. . It is in leaf from May to October, in flower from August to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Oil; Seed.

The seed is eaten fried, used as a condiment or dried then ground into a powder and mixed with flour etc to make sweet cakes[22, 46, 177, 183]. Average seed yields in India range from 100 - 200 kg/ha when grown with ragi, and 300 - 400 kg/ha when grown in pure stands[269]. In Kenya, monocultural yields average 600 kg/ha[269]. Seed yields of 1,000 to 1,200 kg/ha have been obtained on fertile Himalayan soils[269]. Oil yields range about 235 kg/ha[269].

The seeds yield about 30% of a clear, excellent, slow-drying edible oil[269]. It is used as a substitute for olive oil, can be mixed with linseed oil, and is used as an adulterant for rape oil, sesame oil etc[269]. The oil is used in cooking as a ghee substitute and can be used in salad dressings etc[183, 269]. A pleasant nutty taste[142].

Medicinal Uses

Disclaimer

Antirheumatic.

The oil from the seeds is used in the treatment of rheumatism[240, 243, 269].

Other Uses

Green manure; Oil.

A drying oil is obtained from the seed[1, 2, 17, 46, 171]. It is used for burning, in making soap, paints etc[57, 132, 269].

The plant can be used as a green manure[61]. It is usually dug in when the plants are about to come into flower[269].

Cultivation details

An easily grown plant, it succeeds in any rich soil[1]. The plant is adapted to a wide range of soils, from sandy to heavy, growth being poor on light sandy or gravelly soils[269]. Niger is often cultivated on very poor acid soils, on hilly slopes, where fertility is low due to leaching and washing away of the plant nutrients by erosion[269]. Niger seed is reported to tolerate an annual precipitation of 66 to 179cm, an annual temperature range of 13.6 to 27.5°C and a pH in the range of 5.5 to 7.5[269].

Niger is often cultivated, especially in Africa, as an oil seed crop[2, 46, 51, 269], it has also been cultivated in Germany[61].

The flowers are very attractive to bees[269].

Several factors lend credence to fears that niger might become a pest if introduced into warm temperate areas - grazing animals do not relish it, the plant tolerates poor soil and drought, it has few serious pests or diseases especially outside its native range, the seeds store for a year or more without deterioration, and the seeds mature 3 - 4.5 months after planting[269]. Arguing against its weed potential are the facts that it is a short day plant and therefore does not flower or set seed until daylight hours average 13 hours or less, it is self-sterile, and requires bees for pollination[269].

Propagation

Seed - sow spring in situ and only just cover the seed. Make sure the soil does not dry out because this would delay germination. In warm weather, germination should take place within 3 - 4 days of sowing the seed. When sowing larger areas, the seed may be broadcast at rate of 10 kg/ha or sown in rows 40 to 50 cm apart at rate of 5 kg/ha[269].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.

- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
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[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

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Plants For A Future: Database Search Results

Guizotia abyssinica

Common name:	Niger seed	Family:	Compositae
Author:	(L. f.) Cass.	Botanical references:	17, 200
Synonyms:	Guizotia oleifera		
Known Hazards:	None known		
Range:	Africa - Tropics. An infrequent casual in Britain.		
Habitat:	Casual on tips and waste ground near oil mills, and as a bird-seed alien, in Britain.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Polymnia abyssinica[G]
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Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Oil; Seed.

The seed is eaten fried, used as a condiment or dried then ground into a powder and mixed with flour etc to make sweet cakes[22, 46, 177, 183]. Average seed yields in India range from 100 - 200 kg/ha when grown with ragi, and 300 - 400 kg/ha when grown in pure stands[269]. In Kenya, monocultural yields average 600 kg/ha[269]. Seed yields of 1,000 to 1,200 kg/ha have been obtained on fertile Himalayan soils[269]. Oil yields range about 235 kg/ha[269].

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Medicinal Uses

Disclaimer

Antirheumatic.

The oil from the seeds is used in the treatment of rheumatism[240, 243, 269].

Other Uses

Green manure; Oil.

A drying oil is obtained from the seed[1, 2, 17, 46, 171]. It is used for burning, in making soap, paints etc[57, 132, 269].

The plant can be used as a green manure[61]. It is usually dug in when the plants are about to come into flower[269].

Cultivation details

An easily grown plant, it succeeds in any rich soil[1]. The plant is adapted to a wide range of soils, from sandy to heavy, growth being poor on light sandy or gravelly soils[269]. Niger is often cultivated on very poor acid soils, on hilly slopes, where fertility is low due to leaching and washing away of the plant nutrients by erosion[269]. Niger seed is reported to tolerate an annual precipitation of 66 to 179cm, an annual temperature range of 13.6 to 27.5°C and a pH in the range of 5.5 to 7.5[269].

Niger is often cultivated, especially in Africa, as an oil seed crop[2, 46, 51, 269], it has also been cultivated in Germany[61].

The flowers are very attractive to bees[269].

Several factors lend credence to fears that niger might become a pest if introduced into warm temperate areas - grazing animals do not relish it, the plant tolerates poor soil and drought, it has few serious pests or diseases especially outside its native range, the seeds store for a year or more without deterioration, and the seeds mature 3 - 4.5 months after planting[269]. Arguing against its weed potential are the facts that it is a short day plant and therefore does not flower or set seed until daylight hours average 13 hours or less, it is self-sterile, and requires bees for pollination[269].

Propagation

Seed - sow spring in situ and only just cover the seed. Make sure the soil does not dry out because this would delay germination. In warm weather, germination should take place within 3 - 4 days of sowing the seed. When sowing larger areas, the seed may be broadcast at rate of 10 kg/ha or sown in rows 40 to 50 cm apart at rate of 5 kg/ha[269].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HEC] Use, Folk Medicine, etc. from Handbook of Energy Crops by James Duke
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[22] **Sholto-Douglas. J.** *Alternative Foods.*
Not very comprehensive, it seems more or less like a copy of earlier writings with little added.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[243] *Medicinal Plants of Nepal* Dept. of Medicinal Plants. Nepal. 1993
Terse details of the medicinal properties of Nepalese plants, including cultivated species and a few imported herbs.

[269] **Duke. J.** *Handbook of Energy Crops* - 1983
Published only on the Internet, excellent information on a wide range of plants.

Readers Comments

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Plants For A Future: Database Search Results

Guizotia abyssinica

Common name:	Niger seed	Family:	Compositae
Author:	(L. f.) Cass.	Botanical references:	17, 200
Synonyms:	Guizotia oleifera		
Known Hazards:	None known		
Range:	Africa - Tropics. An infrequent casual in Britain.		
Habitat:	Casual on tips and waste ground near oil mills, and as a bird-seed alien, in Britain.		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Polymnia abyssinica[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Gingellikruid [D], Niger [L], Ramtilla [B,P],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Annual growing to 1.8m. . It is in leaf from May to October, in flower from August to September, and the seeds ripen from September to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Oil; Seed.

The seed is eaten fried, used as a condiment or dried then ground into a powder and mixed with flour etc to make sweet cakes[22, 46, 177, 183]. Average seed yields in India range from 100 - 200 kg/ha when grown with ragi, and 300 - 400 kg/ha when grown in pure stands[269]. In Kenya, monocultural yields average 600 kg/ha[269]. Seed yields of 1,000 to 1,200 kg/ha have been obtained on fertile Himalayan soils[269]. Oil yields range about 235 kg/ha[269].

The seeds yield about 30% of a clear, excellent, slow-drying edible oil[269]. It is used as a substitute for olive oil, can be mixed with linseed oil, and is used as an adulterant for rape oil, sesame oil etc[269]. The oil is used in cooking as a ghee substitute and can be used in salad dressings etc[183, 269]. A pleasant nutty taste[142].

Medicinal Uses

Disclaimer

Antirheumatic.

The oil from the seeds is used in the treatment of rheumatism[240, 243, 269].

Other Uses

Green manure; Oil.

A drying oil is obtained from the seed[1, 2, 17, 46, 171]. It is used for burning, in making soap, paints etc[57, 132, 269].

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Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Guizotia abyssinica*

Subject:

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Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Guizotia abyssinica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Gynandriris sisyrinchium

Common name:	Spanish nut	Family:	Iridaceae
Author:	(L.) Parl.	Botanical references:	50, 200
Synonyms:	Iris sisyrinchium (L.)		
Known Hazards:	Possibly poisonous[65].		
Range:	Europe - Mediterranean.		
Habitat:	Dry places near the coast[50] and up to 2,000 metres[90].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Perennial growing to 0.2m by 0.1m . It is hardy to zone 8. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Root.

The root is edible raw or cooked and is also used as a spice[2, 105, 177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in a stiff limey soil in full sun[42]. Tolerates some shade[79]. Plants need plenty of moisture whilst in growth in winter and spring, but need a dry soil when they die down in the summer[188].

This species is not very hardy in Britain, tolerating temperatures down to about -5°c[200], and in general does not do well in this country[1]. It requires a summer baking to ripen the roots and ensure good flowering in the following year[200]. It should be planted about 10 - 15cm deep[79]. It is probably best grown in a bulb frame[K].

The flowers usually open in the afternoon and are faded by the morning[90].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[1]. Stored seed should be sown as soon as possible in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Iris sisyrinchium* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

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Deals with many of the plants in the Iris family giving brief details of habitat and notes on

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[90] **Phillips. R. and Rix. M.** *Bulbs* Pan Books 1989 ISBN 0-330-30253-1
Superbly illustrated, it gives brief details on cultivation and native habitat.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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Excellent range of photographs, some cultivation details but very little information on plant uses.

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Common name:	Spanish nut	Family:	Iridaceae
Author:	(L.) Parl.	Botanical references:	50, 200
Synonyms:	Iris sisyrinchium (L.)		
Known Hazards:	Possibly poisonous[65].		
Range:	Europe - Mediterranean.		
Habitat:	Dry places near the coast[50] and up to 2,000 metres[90].		
Plants For A Future Rating (1-5):	1		

Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family

Physical Characteristics

Perennial growing to 0.2m by 0.1m . It is hardy to zone 8. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Root.

The root is edible raw or cooked and is also used as a spice[2, 105, 177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in a stiff limey soil in full sun[42]. Tolerates some shade[79]. Plants need plenty of moisture whilst in growth in winter and spring, but need a dry soil when they die down in the summer[188].

This species is not very hardy in Britain, tolerating temperatures down to about -5°c[200], and in general does not do well in this country[1]. It requires a summer baking to ripen the roots and ensure good flowering in the following year[200]. It should be planted about 10 - 15cm deep[79]. It is probably best grown in a bulb frame[K].

The flowers usually open in the afternoon and are faded by the morning[90].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[1]. Stored seed should be sown as soon as possible in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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	Order: Liliales . Iris family

Physical Characteristics

Perennial growing to 0.2m by 0.1m . It is hardy to zone 8. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in heavy clay soil. The plant prefers neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds.

Edible Uses

Condiment; Root.

The root is edible raw or cooked and is also used as a spice[2, 105, 177]. Some caution is advised, see the notes above on toxicity.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Easily grown in a stiff limey soil in full sun[42]. Tolerates some shade[79]. Plants need plenty of moisture whilst in growth in winter and spring, but need a dry soil when they die down in the summer[188].

This species is not very hardy in Britain, tolerating temperatures down to about -5°c[200], and in general does not do well in this country[1]. It requires a summer baking to ripen the roots and ensure good flowering in the following year[200]. It should be planted about 10 - 15cm deep[79]. It is probably best grown in a bulb frame[K].

The flowers usually open in the afternoon and are faded by the morning[90].

Propagation

Seed - best sown in a cold frame as soon as it is ripe[1]. Stored seed should be sown as soon as possible in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Gynandriris sisyrinchium*

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Gynandriris sisyrinchium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Gynandriris sisyrinchium

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Hedeoma pulegioides

Common name:	American pennyroyal	Family:	Labiatae
Author:	(L.) Pers.	Botanical references:	43
Synonyms:			
Known Hazards:	In large quantities this plant, especially in the form of the extracted essential oil, can be toxic if taken internally[222]. Skin contact with the pure essential oil can cause dermatitis[222]		
Range:	N. America - S. Quebec to Minnesota and S. Dakota, then south to Tennessee and Arkansas.		
Habitat:	Dry soils[43 in open woods and fields[169].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Cunila pulegioides[B,P] Hederoma pulegioides[H] Melissa pulegioides[B,G,P] Ziziphora pulegioides[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American False Pennyroyal [B], American Falsepennyroyal [P], American Pennyroyal [H,E], Amerikaans Polekruid [E], Amerikanische Poleiminze [E], Menthe Pouliot Americain [E], Pennyroyal [E], Squaw Mint [H],
Epithets:	From a Dictionary of Botanical Epithets
	pulegioides = like pennyroyal;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database

	Britain; France; Germany; Netherlands; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

Annual growing to 0.3m by 0.2m . It is hardy to zone 6. It is in flower from July to September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves.

The leaves have a very strong mint-like aroma and taste[171], they can be brewed into a refreshing tea that promotes good digestion, or they can be used as a culinary flavouring[183, 238].

An essential oil from the plant is used by the food industry as a flavouring in beverages, ice cream, baked goods etc[183].

Medicinal Uses

Disclaimer

Abortifacient; Birthing aid; Carminative; Diaphoretic; Rubefacient; Stimulant.

American pennyroyal has a long history of medicinal use by various native North American Indian tribes and has become a traditional household remedy in North America[238]. It is used mainly in the treatment of digestive disorders, colds, whooping cough, painful menstruation and as an aid in childbirth[238]. A tea made from the leaves or flowering stems is carminative, rubefacient, stimulant[46, 61, 171]. It is used to treat colds because it promotes perspiration[207]. A tea with brewers yeast can induce an abortion[213]. The plants are harvested when flowering and can be used fresh or dried[213, 238].

The essential oil is distilled from the plants when they are in flower and used medicinally in the same ways as the leaves. Caution is advised since the pure essential oil is very toxic and ingestion can be lethal whilst skin contact can cause dermatitis[222, 238].

Other Uses

Essential; Repellent.

The essential oil is used as an ingredient in commercial insect repellents and cleaning products[238].

The plant is used as an insect repellent[169, 171]. When rubbed on the body it is said to repel ticks[207].

Cultivation details

Prefers a sunny position in a well-drained acidic soil of low to moderate fertility[169]. Another report says that it prefers a rich sandy soil in sun or partial shade[238].

The plants neat habit and aromatic foliage make it a good candidate for growing in containers or planting near seats[238].

Propagation

Seed - sow in situ in spring or autumn[169].

Scent

Leaves: Crushed

The plant has aromatic foliage.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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A nice read, lots of information on plant uses.

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An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Hedeoma pulegioides

Common name:	American pennyroyal	Family:	Labiatae
Author:	(L.) Pers.	Botanical references:	43
Synonyms:			
Known Hazards:	In large quantities this plant, especially in the form of the extracted essential oil, can be toxic if taken internally[222]. Skin contact with the pure essential oil can cause dermatitis[222]		
Range:	N. America - S. Quebec to Minnesota and S. Dakota, then south to Tennessee and Arkansas.		
Habitat:	Dry soils[43 in open woods and fields[169].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Britain; France; Germany; Netherlands; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

Annual growing to 0.3m by 0.2m . It is hardy to zone 6. It is in flower from July to September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid and neutral soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Leaves.

The leaves have a very strong mint-like aroma and taste[171], they can be brewed into a refreshing tea that promotes good digestion, or they can be used as a culinary flavouring[183, 238].

An essential oil from the plant is used by the food industry as a flavouring in beverages, ice cream, baked goods etc[183].

Medicinal Uses

Disclaimer

Abortifacient; Birthing aid; Carminative; Diaphoretic; Rubefacient; Stimulant.

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Cultivation details

Prefers a sunny position in a well-drained acidic soil of low to moderate fertility[169]. Another report says that it prefers a rich sandy soil in sun or partial shade[238].

The plants neat habit and aromatic foliage make it a good candidate for growing in containers or planting near seats[238].

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Scent

Leaves: Crushed

The plant has aromatic foliage.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hedeoma pulegioides*

Subject:

Hedeoma pulegioides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hedeoma pulegioides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 05:43:54 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Hedychium gracile

Common name:		Family:	Zingiberaceae
Author:	Roxb.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - India.		
Habitat:	Moist places and on forest edges[200].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	gracile = thin, slender;
Systematics:	From a UDSA Plants Database
	Order: Zingiberales . Ginger family

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 9 and is frost tender. It is in flower in September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment.

Used as a spice[177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a rich moist soil and a sunny position[233]. It can be grown in a sunny border as a summer sub-tropical bedding plant[[1].

Plants are not very hardy, they tolerate temperatures down to about -2°c and can be grown at the foot of a south-facing wall in the milder areas of Britain if given a good mulch in the winter[1, 200].

The flowers are sweetly scented, the scent being most pronounced towards evening[245].

Plants seem to be immune to the predations of rabbits[233].

The tubers should be only just covered in soil[233].

Propagation

Seed - best sown as soon as it is ripe in a warm greenhouse at 18°c[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on for at least their first winter in the greenhouse. Plant out in late spring after the last expected frosts.

Division as growth commences in the spring[200]. Dig up the clump and divide it with a sharp spade or knife, making sure that each division has a growing shoot. Larger clumps can be planted out direct into their permanent positions, but it is best to pot up the smaller divisions and grow them on in a greenhouse until they are established. Plant them out in the summer or late in the following spring.

Scent

Flowers: Fresh

The flowers are sweetlyscented, the scent being most pronounced towards evening.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Zingiberaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	
Email Address:	

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Hedychium gracile

Common name:		Family:	Zingiberaceae
Author:	Roxb.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - India.		
Habitat:	Moist places and on forest edges[200].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	gracile = thin, slender;
Systematics:	From a UDSA Plants Database
	Order: Zingiberales . Ginger family

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 9 and is frost tender. It is in flower in September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment.

Used as a spice[177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a rich moist soil and a sunny position[233]. It can be grown in a sunny border as a summer sub-tropical bedding plant[[1].

Plants are not very hardy, they tolerate temperatures down to about -2°c and can be grown at the foot of a south-facing wall in the milder areas of Britain if given a good mulch in the winter[1, 200].

The flowers are sweetly scented, the scent being most pronounced towards evening[245].

Plants seem to be immune to the predations of rabbits[233].

The tubers should be only just covered in soil[233].

Propagation

Seed - best sown as soon as it is ripe in a warm greenhouse at 18°c[200]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on for at least their first winter in the greenhouse. Plant out in late spring after the last expected frosts.

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Scent

Flowers: Fresh

> The flowers are sweetlyscented, the scent being most pronounced towards evening.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Zingiberaceae.

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Author:	Roxb.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	E. Asia - India.		
Habitat:	Moist places and on forest edges[200].		
Plants For A Future Rating (1-5):	1		

Epithets:	From a Dictionary of Botanical Epithets
	gracile = thin, slender;
Systematics:	From a UDSA Plants Database
	Order: Zingiberales . Ginger family

Physical Characteristics

Perennial growing to 0.6m. It is hardy to zone 9 and is frost tender. It is in flower in September. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, By Walls, By South Wall, By West Wall.

Edible Uses

Condiment.

Used as a spice[177]. No more details are given.

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Requires a rich moist soil and a sunny position[233]. It can be grown in a sunny border as a summer sub-tropical bedding plant[[1].

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Scent

Flowers: Fresh

> The flowers are sweetlyscented, the scent being most pronounced towards evening.

Suppliers

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Add a comment on: *Hedychium gracile*

Subject:

Hedychium gracile

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hedychium gracile

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 05:44:53 2004

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Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Helichrysum italicum

Common name:	Curry plant	Family:	Compositae
Author:	(Roth.) G. Don. f.	Botanical references:	50, 200
Synonyms:	Helichrysum angustifolium ((Lam.)DC.)		
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Arid hills, rocks and cliffs[190]		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Gnaphalium angustifolium[G] Gnaphalium italicum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Curry Plant [H], Helichrysum [H], Italian Everlasting [H],
Epithets:	From a Dictionary of Botanical Epithets
	italicum = Italian;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 0.6m by 1m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Condiment; Tea.

Leaves - used as a flavouring in salads and cooked foods[183, 238, 244]. They have a slight flavour of curry, though they do not impart this very well to other foods[K].

An essential oil (from the leaves?) is used as a flavouring to enhance fruit flavours in sweets, ice cream, baked goods, soft drinks and chewing gum[183].

A tea is made from the flower heads[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Plants can be grown as a low hedge, the subspecies H. italicum serotinum(Boiss.)P.Fourn. is normally used[29]. It responds well to trimming.

Cultivation details

Requires a light well-drained soil in a sunny sheltered position[1, 200]. Intolerant of excessive moisture[1]. Established plants are drought resistant[190]. Plants have proved to be fairly wind tolerant in an exposed site in Cornwall[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

Plants can be pruned back to the old wood in spring in order to maintain the shape of the plant and promote lots of new growth[238].

The whole plant smells of curry, especially after rain[238].

The flowering stems are often dried and used as 'everlasting flowers'[238].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow February/March in a greenhouse. The seed usually germinates in 2 - 3 weeks at 20°c. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5cm with a heel, June/July in a frame. Roots in 4 weeks. Good percentage[78].

Scent

Leaves: Crushed

> The whole plant smells of curry, especially after rainor when bruised.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: G-I
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Helichrysum angustifolium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

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A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Arid hills, rocks and cliffs[190]		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Physical Characteristics

An evergreen shrub growing to 0.6m by 1m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Condiment; Tea.

Leaves - used as a flavouring in salads and cooked foods[183, 238, 244]. They have a slight flavour of curry, though they do not impart this very well to other foods[K].

An essential oil (from the leaves?) is used as a flavouring to enhance fruit flavours in sweets, ice cream, baked goods, soft drinks and chewing gum[183].

A tea is made from the flower heads[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Plants can be grown as a low hedge, the subspecies H. italicum serotinum(Boiss.)P.Fourn. is normally used[29]. It responds well to trimming.

Cultivation details

Requires a light well-drained soil in a sunny sheltered position[1, 200]. Intolerant of excessive moisture[1]. Established plants are drought resistant[190]. Plants have proved to be fairly wind tolerant in an exposed site in Cornwall[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

Plants can be pruned back to the old wood in spring in order to maintain the shape of the plant and promote lots of new growth[238].

The whole plant smells of curry, especially after rain[238].

The flowering stems are often dried and used as 'everlasting flowers'[238].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow February/March in a greenhouse. The seed usually germinates in 2 - 3 weeks at 20°c. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5cm with a heel, June/July in a frame. Roots in 4 weeks. Good percentage[78].

Scent

Leaves: Crushed

> The whole plant smells of curry, especially after rainor when bruised.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: G-I
- Checklist of plants suitable for hedging and windbreaks.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Helichrysum angustifolium* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both

the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Helichrysum italicum

Common name:	Curry plant	Family:	Compositae
Author:	(Roth.) G. Don. f.	Botanical references:	50, 200
Synonyms:	Helichrysum angustifolium ((Lam.)DC.)		
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Arid hills, rocks and cliffs[190]		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Gnaphalium angustifolium[G] Gnaphalium italicum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Curry Plant [H], Helichrysum [H], Italian Everlasting [H],
Epithets:	From a Dictionary of Botanical Epithets
	italicum = Italian;
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

An evergreen shrub growing to 0.6m by 1m . It is hardy to zone 8 and is not frost tender. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Sunny Edge.

Edible Uses

Condiment; Tea.

Leaves - used as a flavouring in salads and cooked foods[183, 238, 244]. They have a slight flavour of curry, though they do not impart this very well to other foods[K].

An essential oil (from the leaves?) is used as a flavouring to enhance fruit flavours in sweets, ice cream, baked goods, soft drinks and chewing gum[183].

A tea is made from the flower heads[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Hedge.

Plants can be grown as a low hedge, the subspecies H. italicum serotinum(Boiss.)P.Fourn. is normally used[29]. It responds well to trimming.

Cultivation details

Requires a light well-drained soil in a sunny sheltered position[1, 200]. Intolerant of excessive moisture[1]. Established plants are drought resistant[190]. Plants have proved to be fairly wind tolerant in an exposed site in Cornwall[K].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to about -10°c[200].

Plants can be pruned back to the old wood in spring in order to maintain the shape of the plant and promote lots of new growth[238].

The whole plant smells of curry, especially after rain[238].

The flowering stems are often dried and used as 'everlasting flowers'[238].

Members of this genus are rarely if ever troubled by browsing deer[233].

Propagation

Seed - sow February/March in a greenhouse. The seed usually germinates in 2 - 3 weeks at 20°c. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5cm with a heel, June/July in a frame. Roots in 4 weeks. Good percentage[78].

Scent

Leaves: Crushed

> The whole plant smells of curry, especially after rainor when bruised.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Helichrysum italicum*

Subject:

Helichrysum italicum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Helichrysum italicum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Heracleum sphondylium montanum

Common name:	Cow parsnip	Family:	Umbelliferae
Author:	(Schleich. ex Gaudin.) Briq.	Botanical references:	71, 200
Synonyms:	Heracleum maximum (W.Bartram.), Heracleum lanatum (Michx.), Heracleum cordatum		
Known Hazards:	Many members of this genus, including this species[65], contain furanocoumarins. These have carcinogenic, mutagenic and phototoxic properties. The fresh foliage can cause dermatitis[21]. If the juice and hairs of the outer skin are left on the face and mouth, they can cause blisters[212]. This effect is especially prevalent for people with fair complexions[256].		
Range:	N. America to W. Asia.		
Habitat:	Rich damp soils of prairies and mountains, especially along streams and in open woods in Western N. America[212].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. montanum[G] H. sphondylium ssp. montanum[B,P] H. sphondylium subsp. montanum[G] H. sphondylium var. lanatum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Cow Parsnip [H], American Cow-parsnip [B], Common Cowparsnip [P], Cow Parsnip [H,FEIS], Parsnip,Cow [E],
Epithets:	From a Dictionary of Botanical Epithets
	montanum = of mountains; sphondylium = ;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family

Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Canada(Salish); Us; Us(Amerindian); Us(Blackfoot); Us(Flathead); Us(Nm)

Physical Characteristics

Perennial growing to 2.4m. It is hardy to zone 5 and is not frost tender. It is in flower in July, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Flowers; Leaves; Root; Salt; Stem.

Root - cooked[2, 46, 85, 94]. Tastes like a swede[155, 183]. Used like potatoes, though it is considered to be poisonous by some writers[213].

The peeled stem can be eaten raw but is best cooked[2, 61, 183]. The unpeeled stem can be used when young, or just the inner tissue of older stems can be used, before the plants flower[85, 94]. For people not used to the flavour, they are best cooked in two changes of water when they make a tasty celery-like vegetable[213]. Another report says that, despite the strong odour of the leaves and outer skin, the peeled young stems are mild and sweet, resembling celery in flavour[256]. The stems cannot be eaten raw in large quantities because they give a burning sensation in the mouth[257]. The stems are highly nutritious, containing up to 18% protein[213].

Leaves and young shoots - raw or cooked[55, 85, 94, 118]. Cooked as greens or added to salads[183].

Young flowers[46, 61, 105]. No further details.

The dried seeds are used as a flavouring for soups, stews and potato salads[85, 183].

The dried base of the plant and ashes from the burnt leaves are used as a salt substitute[183].

Medicinal Uses

Disclaimer

Antidandruff; Antirheumatic; Antispasmodic; Carminative; Febrifuge; Odontalgic; Stimulant; TB; Tonic.

Cow parsnip was widely employed medicinally by a large number of native North American Indian tribes who used it to treat a wide variety of complaints, but especially as a poultice on bruises, sores etc[257]. It is little used in modern herbalism, though perhaps it merits further investigation.

All parts of the plant are antirheumatic, antispasmodic, carminative, febrifuge, odontalgic and stimulant[21, 94, 155, 172, 257].

The leaves are tonic[257]. They have been used in the treatment of colds[257]. A soothing drink made from the leaves is used to treat sore throats[257]. A poultice of the heated leaves has been applied to minor cuts, sore muscles etc[257].

An infusion of the fresh young stems has been used in the treatment of diarrhoea[257]. It has also been used as a wash to remove warts[257].

The plant has been used in the treatment of epilepsy[213].

A tea made from the roots is used in the treatment of indigestion, colds, stomach cramps, rheumatism, sore throats, TB etc[222, 257]. Externally, the root is used as a poultice on sores, bruises, swellings, boils, rheumatic joints, VD scabs etc, whilst a bit of root has been held on an aching tooth to reduce the pain[222, 257]. The root can be crushed, mixed with water and used as an antidandruff hair wash[257].

The root contains psoralen, which is being investigated for its use in the treatment of psoriasis, leukaemia and AIDS[222].

The seed has been used to treat severe headaches[257].

Other Uses

Dye; Musical; Packing; Repellent; Straw.

Whistles, flutes, straws etc can be made from the hollow stems[99, 257].

The leaves are used as a covering for baskets of fruit etc[99].

A yellow dye is obtained from the roots[257].

An infusion of the blossoms, rubbed on the body, repels flies and mosquitoes[257].

Cultivation details

Succeeds in any ordinary garden soil, doing best in moist soils or deep woodland[1, 55, 60].

Propagation

Seed - sow mid to late spring or early autumn in situ.

Division in autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Heracleum lanatum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [C] Taxon data. from the CalFlora database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [S]
- [S]
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Heracleum maximum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

References for *Heracleum sphondylium subsp. montanum* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic

database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7

Excellent and readable guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[118] **Gunther. E.** *Ethnobotany of Western Washington.* University of Washington Press 1981 ISBN 0-295-95258-X
A small book, it is a good guide to useful plants in Western N. America.

[155] **Arnberger. L. P.** *Flowers of the Southwest Mountains.* Southwestern Monuments Ass. 1968
A lovely little pocket guide to wild plants in the southern Rockies of America.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[256] **Turner. N. J.** *Food Plants of Coastal First Peoples* UBC Press. Vancouver. 1995 ISBN 0-7748-0533-1
Excellent little handbook about the native food plants of Western Canada. Good descriptions of the plants and their uses with colour photos of most plants.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

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Details:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Heracleum sphondylium montanum

Common name:	Cow parsnip	Family:	Umbelliferae
Author:	(Schleich. ex Gaudin.) Briq.	Botanical references:	71, 200
Synonyms:	Heracleum maximum (W.Bartram.), Heracleum lanatum (Michx.), Heracleum cordatum		
Known Hazards:	Many members of this genus, including this species[65], contain furanocoumarins. These have carcinogenic, mutagenic and phototoxic properties. The fresh foliage can cause dermatitis[21]. If the juice and hairs of the outer skin are left on the face and mouth, they can cause blisters[212]. This effect is especially prevalent for people with fair complexions[256].		
Range:	N. America to W. Asia.		
Habitat:	Rich damp soils of prairies and mountains, especially along streams and in open woods in Western N. America[212].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. montanum[G] H. sphondylium ssp. montanum[B,P] H. sphondylium subsp. montanum[G] H. sphondylium var. lanatum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Cow Parsnip [H], American Cow-parsnip [B], Common Cowparsnip [P], Cow Parsnip [H,FEIS], Parsnip,Cow [E],
Epithets:	From a Dictionary of Botanical Epithets
	montanum = of mountains; sphondylium = ;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Canada(Salish); Us; Us(Amerindian); Us(Blackfoot); Us(Flathead); Us(Nm)

Physical Characteristics

Perennial growing to 2.4m. It is hardy to zone 5 and is not frost tender. It is in flower in July, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Flowers; Leaves; Root; Salt; Stem.

Root - cooked[2, 46, 85, 94]. Tastes like a swede[155, 183]. Used like potatoes, though it is considered to be poisonous by some writers[213].

The peeled stem can be eaten raw but is best cooked[2, 61, 183]. The unpeeled stem can be used when young, or just the inner tissue of older stems can be used, before the plants flower[85, 94]. For people not used to the flavour, they are best cooked in two changes of water when they make a tasty celery-like vegetable[213]. Another report says that, despite the strong odour of the leaves and outer skin, the peeled young stems are mild and sweet, resembling celery in flavour[256]. The stems cannot be eaten raw in large quantities because they give a burning sensation in the mouth[257]. The stems are highly nutritious, containing up to 18% protein[213].

Leaves and young shoots - raw or cooked[55, 85, 94, 118]. Cooked as greens or added to salads[183].

Young flowers[46, 61, 105]. No further details.

The dried seeds are used as a flavouring for soups, stews and potato salads[85, 183].

The dried base of the plant and ashes from the burnt leaves are used as a salt substitute[183].

Medicinal Uses

Disclaimer

Antidandruff; Antirheumatic; Antispasmodic; Carminative; Febrifuge; Odontalgic; Stimulant; TB; Tonic.

Cow parsnip was widely employed medicinally by a large number of native North American Indian tribes who used it to treat a wide variety of complaints, but especially as a poultice on bruises, sores etc[257]. It is little used in modern herbalism, though perhaps it merits further investigation.

All parts of the plant are antirheumatic, antispasmodic, carminative, febrifuge, odontalgic and stimulant[21, 94, 155, 172, 257].

The leaves are tonic[257]. They have been used in the treatment of colds[257]. A soothing drink made from the leaves is used to treat sore throats[257]. A poultice of the heated leaves has been applied to minor cuts, sore muscles etc[257].

An infusion of the fresh young stems has been used in the treatment of diarrhoea[257]. It has also been used as a wash to remove warts[257].

The plant has been used in the treatment of epilepsy[213].

A tea made from the roots is used in the treatment of indigestion, colds, stomach cramps, rheumatism, sore throats, TB etc[222, 257]. Externally, the root is used as a poultice on sores, bruises, swellings, boils, rheumatic joints, VD scabs etc, whilst a bit of root has been held on an aching tooth to reduce the pain[222, 257]. The root can be crushed, mixed with water and used as an antidandruff hair wash[257].

The root contains psoralen, which is being investigated for its use in the treatment of psoriasis, leukaemia and AIDS[222].

The seed has been used to treat severe headaches[257].

Other Uses

Dye; Musical; Packing; Repellent; Straw.

Whistles, flutes, straws etc can be made from the hollow stems[99, 257].

The leaves are used as a covering for baskets of fruit etc[99].

A yellow dye is obtained from the roots[257].

An infusion of the blossoms, rubbed on the body, repels flies and mosquitoes[257].

Cultivation details

Succeeds in any ordinary garden soil, doing best in moist soils or deep woodland[1, 55, 60].

Propagation

Seed - sow mid to late spring or early autumn in situ.

Division in autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Heracleum lanatum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [C] Taxon data. from the CalFlora database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [S]
- [S]
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Heracleum maximum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.

References for *Heracleum sphondylium subsp. montanum* (a possible synonym).

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[55] **Harris. B. C.** *Eat the Weeds.* Pivot Health 1973
Interesting reading.

[60] **Hitchcock. C. L.** *Vascular Plants of the Pacific Northwest.* University of Washington Press 1955
A standard flora for Western N. America with lots of information on habitat etc. Five large volumes, it is not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[71] **Munz.** *A California Flora.* University of California Press 1959
An excellent flora but no pictures. Not for the casual reader.

[85] **Harrington. H. D.** *Edible Native Plants of the Rocky Mountains.* University of New Mexico Press 1967 ISBN 0-8623-0343-9
A superb book. Very readable, it gives the results of the authors experiments with native edible plants.

[94] **Sweet. M.** *Common Edible and Useful Plants of the West.* Naturegraph Co. 1962 ISBN 0-911010-54-8
Useful wild plants in Western N. America. A pocket guide.

[99] **Turner. N. J.** *Plants in British Columbian Indian Technology.* British Columbia Provincial Museum 1979 ISBN 0-7718-8117-7
Excellent and readable guide.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[118] **Gunther. E.** *Ethnobotany of Western Washington.* University of Washington Press 1981 ISBN 0-295-95258-X
A small book, it is a good guide to useful plants in Western N. America.

[155] **Arnberger. L. P.** *Flowers of the Southwest Mountains.* Southwestern Monuments Ass. 1968
A lovely little pocket guide to wild plants in the southern Rockies of America.

[172] **Schofield. J. J.** *Discovering Wild Plants - Alaska, W. Canada and the Northwest.*
A nice guide to some useful plants in that area.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[212] **Craighead. J., Craighead. F. and Davis. R.** *A Field Guide to Rocky Mountain Wildflowers* The Riverside Press 1963 ISBN 63-7093
Excellent little pocket guide to the area, covering 590 species and often giving details of their uses.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[222] **Foster. S. & Duke. J. A.** *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co. 1990 ISBN 0395467225
A concise book dealing with almost 500 species. A line drawing of each plant is included plus colour photographs of about 100 species. Very good as a field guide, it only gives brief details about the plants medicinal properties.

[256] **Turner. N. J.** *Food Plants of Coastal First Peoples* UBC Press. Vancouver. 1995 ISBN 0-7748-0533-1
Excellent little handbook about the native food plants of Western Canada. Good descriptions of the plants and their uses with colour photos of most plants.

[257] **Moerman. D.** *Native American Ethnobotany* Timber Press. Oregon. 1998 ISBN 0-88192-453-9
Very comprehensive but terse guide to the native uses of plants. Excellent bibliography, fully referenced to each plant, giving a pathway to further information. Not for the casual reader.

Readers Comments

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Plants For A Future: Database Search Results

Heracleum sphondylium montanum

Common name:	Cow parsnip	Family:	Umbelliferae
Author:	(Schleich. ex Gaudin.) Briq.	Botanical references:	71, 200
Synonyms:	Heracleum maximum (W.Bartram.), Heracleum lanatum (Michx.), Heracleum cordatum		
Known Hazards:	Many members of this genus, including this species[65], contain furanocoumarins. These have carcinogenic, mutagenic and phototoxic properties. The fresh foliage can cause dermatitis[21]. If the juice and hairs of the outer skin are left on the face and mouth, they can cause blisters[212]. This effect is especially prevalent for people with fair complexions[256].		
Range:	N. America to W. Asia.		
Habitat:	Rich damp soils of prairies and mountains, especially along streams and in open woods in Western N. America[212].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	H. montanum[G] H. sphondylium ssp. montanum[B,P] H. sphondylium subsp. montanum[G] H. sphondylium var. lanatum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	American Cow Parsnip [H], American Cow-parsnip [B], Common Cowparsnip [P], Cow Parsnip [H,FEIS], Parsnip,Cow [E],
Epithets:	From a Dictionary of Botanical Epithets
	montanum = of mountains; sphondylium = ;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Canada(Kwakiutl); Canada(Salish); Us; Us(Amerindian); Us(Blackfoot); Us(Flathead); Us(Nm)

Physical Characteristics

Perennial growing to 2.4m. It is hardy to zone 5 and is not frost tender. It is in flower in July, and the seeds ripen in August. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Flowers; Leaves; Root; Salt; Stem.

Root - cooked[2, 46, 85, 94]. Tastes like a swede[155, 183]. Used like potatoes, though it is considered to be poisonous by some writers[213].

The peeled stem can be eaten raw but is best cooked[2, 61, 183]. The unpeeled stem can be used when young, or just the inner tissue of older stems can be used, before the plants flower[85, 94]. For people not used to the flavour, they are best cooked in two changes of water when they make a tasty celery-like vegetable[213]. Another report says that, despite the strong odour of the leaves and outer skin, the peeled young stems are mild and sweet, resembling celery in flavour[256]. The stems cannot be eaten raw in large quantities because they give a burning sensation in the mouth[257]. The stems are highly nutritious, containing up to 18% protein[213].

Leaves and young shoots - raw or cooked[55, 85, 94, 118]. Cooked as greens or added to salads[183].

Young flowers[46, 61, 105]. No further details.

The dried seeds are used as a flavouring for soups, stews and potato salads[85, 183].

The dried base of the plant and ashes from the burnt leaves are used as a salt substitute[183].

Medicinal Uses

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Cow parsnip was widely employed medicinally by a large number of native North American Indian tribes who used it to treat a wide variety of complaints, but especially as a poultice on bruises, sores etc[257]. It is little used in modern herbalism, though perhaps it merits further investigation.

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An infusion of the fresh young stems has been used in the treatment of diarrhoea[257]. It has also been used as a wash to remove warts[257].

The plant has been used in the treatment of epilepsy[213].

A tea made from the roots is used in the treatment of indigestion, colds, stomach cramps, rheumatism, sore throats, TB etc[222, 257]. Externally, the root is used as a poultice on sores, bruises, swellings, boils, rheumatic joints, VD scabs etc, whilst a bit of root has been held on an aching tooth to reduce the pain[222, 257]. The root can be crushed, mixed with water and used as an antidandruff hair wash[257].

The root contains psoralen, which is being investigated for its use in the treatment of psoriasis, leukaemia and AIDS[222].

The seed has been used to treat severe headaches[257].

Other Uses

Dye; Musical; Packing; Repellent; Straw.

Whistles, flutes, straws etc can be made from the hollow stems[99, 257].

The leaves are used as a covering for baskets of fruit etc[99].

A yellow dye is obtained from the roots[257].

An infusion of the blossoms, rubbed on the body, repels flies and mosquitoes[257].

Cultivation details

Succeeds in any ordinary garden soil, doing best in moist soils or deep woodland[1, 55, 60].

Propagation

Seed - sow mid to late spring or early autumn in situ.

Division in autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Heracleum sphondylium montanum*

Subject:

Heracleum sphondylium montanum

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Heracleum sphondylium montanum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Plants For A Future: Database Search Results

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Hydrangea anomala

Common name:		Family:	Hydrangeaceae
Author:	D. Don.	Botanical references:	11, 200
Synonyms:	Hydrangea altissima (Wall.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Shady ravines to 2100 metres in the Himalayas[158].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Climbing Hydrangea [H,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	anomala = abnormal;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Hydrangea family

Physical Characteristics

A decidious climber growing to 12m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, By Walls, By East Wall, Ground Cover.

Edible Uses

Condiment; Leaves; Sap; Sweetener.

Leaves - cooked. A cucumber taste[183]. The Japanese crush the leaves and use them fresh with miso[177, 183].

A boiled concoction of the leaves is used to make a syrup[177, 183].

The sweet sap is used as a drink[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover; Paper.

The bark is a paper substitute[146, 158].

The sub-species H. anomala petiolaris can be used as a ground cover plant in a shady position[188]. It is best spaced about 1.8 metres apart each way[208].

Cultivation details

Tolerates most soils[200], thriving in a well-drained loamy soil[1], but resenting dryness at the roots[11, 200]. Succeeds in full sun or semi-shade[200], but if it is grown in a low rainfall area then it requires shade at the hottest part of the day[11]. Does well on very acid soils with a pH around 4.5[200]. The colour of the flowers reflects the pH of the soil the plant is growing in, the flowers are pink in a neutral to alkaline soil and blue in an acid soil.

Although the dormant plant is quite hardy in Britain, the young growth in spring can be damaged by late frosts.

A fast-growing self-clinging climbing plant[208], attaching itself by means of aerial roots[200], and growing up walls or tree trunks on any aspect. The plants may need initial support, however[200]. Plants are growing well on a wall at Kew[11]. Grows well on north walls but prefers a sunnier position[208].

Closely related to H. petiolaris[11]. H. petiolaris is normally treated as no more than a sub-species of this species[200].

This species is notably susceptible to honey fungus[200].

Propagation

Seed - surface sow in a greenhouse in spring[113]. Cover the pot with paper until the seed germinates[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 8cm long, July/August in a frame. Overwinter in a greenhouse and plant out in late spring[78].

Cuttings of mature wood in late autumn in a frame[200].

Mound layering in spring. Takes 12 months[78].

Basal softwood cuttings of non-flowering shoots[200].

Leaf-bud cuttings of the current seasons growth in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: H
- Checklist of plants suitable for ground cover

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

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This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Hydrangea+anomala`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Hydrangea+anomala`

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Plants For A Future: Database Search Results

Hydrangea anomala

Common name:		Family:	Hydrangeaceae
Author:	D. Don.	Botanical references:	11, 200
Synonyms:	Hydrangea altissima (Wall.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Shady ravines to 2100 metres in the Himalayas[158].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Climbing Hydrangea [H,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	anomala = abnormal;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Hydrangea family

Physical Characteristics

A decidious climber growing to 12m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, By Walls, By East Wall, Ground Cover.

Edible Uses

Condiment; Leaves; Sap; Sweetener.

Leaves - cooked. A cucumber taste[183]. The Japanese crush the leaves and use them fresh with miso[177, 183].

A boiled concoction of the leaves is used to make a syrup[177, 183].

The sweet sap is used as a drink[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover; Paper.

The bark is a paper substitute[146, 158].

The sub-species H. anomala petiolaris can be used as a ground cover plant in a shady position[188]. It is best spaced about 1.8 metres apart each way[208].

Cultivation details

Tolerates most soils[200], thriving in a well-drained loamy soil[1], but resenting dryness at the roots[11, 200]. Succeeds in full sun or semi-shade[200], but if it is grown in a low rainfall area then it requires shade at the hottest part of the day[11]. Does well on very acid soils with a pH around 4.5[200]. The colour of the flowers reflects the pH of the soil the plant is growing in, the flowers are pink in a neutral to alkaline soil and blue in an acid soil.

Although the dormant plant is quite hardy in Britain, the young growth in spring can be damaged by late frosts.

A fast-growing self-clinging climbing plant[208], attaching itself by means of aerial roots[200], and growing up walls or tree trunks on any aspect. The plants may need initial support, however[200]. Plants are growing well on a wall at Kew[11]. Grows well on north walls but prefers a sunnier position[208].

Closely related to H. petiolaris[11]. H. petiolaris is normally treated as no more than a sub-species of this species[200].

This species is notably susceptible to honey fungus[200].

Propagation

Seed - surface sow in a greenhouse in spring[113]. Cover the pot with paper until the seed germinates[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 8cm long, July/August in a frame. Overwinter in a greenhouse and plant out in late spring[78].

Cuttings of mature wood in late autumn in a frame[200].

Mound layering in spring. Takes 12 months[78].

Basal softwood cuttings of non-flowering shoots[200].

Leaf-bud cuttings of the current seasons growth in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Checklist of plants suitable for ground cover
- Checklist of plants suitable for ground cover: H
- Checklist of plants suitable for ground cover

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology

Deptarments' Tree Fact Sheets.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[113] **Dirr. M. A. and Heuser. M. W.** *The Reference Manual of Woody Plant Propagation.* Athens Ga. Varsity Press 1987 ISBN 0942375009
A very detailed book on propagating trees. Not for the casual reader.

[146] **Gamble. J. S.** *A Manual of Indian Timbers.* Bishen Singh Mahendra Pal Singh 1972
Written last century, but still a classic, giving a lot of information on the uses and habitats of Indian trees. Not for the casual reader.

[158] **Gupta. B. L.** *Forest Flora of Chakrata, Dehra Dun and Saharanpur.* Forest Research Institute Press 1945
A good flora for the middle Himalayan forests, sparsly illustrated. Not really for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
Excellent range of photographs, some cultivation details but very little information on plant uses.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet

also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

Readers Comments

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Plants For A Future: Database Search Results

Hydrangea anomala

Common name:		Family:	Hydrangeaceae
Author:	D. Don.	Botanical references:	11, 200
Synonyms:	Hydrangea altissima (Wall.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Shady ravines to 2100 metres in the Himalayas[158].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Climbing Hydrangea [H,DEN1],
Epithets:	From a Dictionary of Botanical Epithets
	anomala = abnormal;
Systematics:	From a UDSA Plants Database
	Order: Rosales . Hydrangea family

Physical Characteristics

A decidious climber growing to 12m at a fast rate. It is hardy to zone 5 and is frost tender. It is in flower from June to July. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very acid soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge, Deep Shade, By Walls, By East Wall, Ground Cover.

Edible Uses

Condiment; Leaves; Sap; Sweetener.

Leaves - cooked. A cucumber taste[183]. The Japanese crush the leaves and use them fresh with miso[177, 183].

A boiled concoction of the leaves is used to make a syrup[177, 183].

The sweet sap is used as a drink[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Ground cover; Paper.

The bark is a paper substitute[146, 158].

The sub-species H. anomala petiolaris can be used as a ground cover plant in a shady position[188]. It is best spaced about 1.8 metres apart each way[208].

Cultivation details

Tolerates most soils[200], thriving in a well-drained loamy soil[1], but resenting dryness at the roots[11, 200]. Succeeds in full sun or semi-shade[200], but if it is grown in a low rainfall area then it requires shade at the hottest part of the day[11]. Does well on very acid soils with a pH around 4.5[200]. The colour of the flowers reflects the pH of the soil the plant is growing in, the flowers are pink in a neutral to alkaline soil and blue in an acid soil.

Although the dormant plant is quite hardy in Britain, the young growth in spring can be damaged by late frosts.

A fast-growing self-clinging climbing plant[208], attaching itself by means of aerial roots[200], and growing up walls or tree trunks on any aspect. The plants may need initial support, however[200]. Plants are growing well on a wall at Kew[11]. Grows well on north walls but prefers a sunnier position[208].

Closely related to H. petiolaris[11]. H. petiolaris is normally treated as no more than a sub-species of this species[200].

This species is notably susceptible to honey fungus[200].

Propagation

Seed - surface sow in a greenhouse in spring[113]. Cover the pot with paper until the seed germinates[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 8cm long, July/August in a frame. Overwinter in a greenhouse and plant out in late spring[78].

Cuttings of mature wood in late autumn in a frame[200].

Mound layering in spring. Takes 12 months[78].

Basal softwood cuttings of non-flowering shoots[200].

Leaf-bud cuttings of the current seasons growth in a frame[200].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Hydrangea anomala*

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Hydrangea anomala

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hydrangea anomala

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Hyssopus officinalis

Common name:	Hyssop	Family:	Labiatae
Author:	L.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean. Naturalized in Britain.		
Habitat:	Old walls and buildings, stony places[9, 17]. Dry hills and rock ledges to 2200 metres in Turkey[187].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Curdukotu [E], Hastipippili [E], Hisopo [E], Hyssop [H,D,E,B,P,L,S], Yanagi-Hakka [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Europe; India; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 0.6m by 0.6m . It is hardy to zone 7. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall, Ground Cover.

Edible Uses

Condiment; Flowers; Leaves.

Leaves and young shoot tips - raw or used as a flavouring in soups, salads etc[4, 14, 183]. A strongly aromatic flavour, somewhat like a cross between sage and mint, it has fallen out of favour in recent years[4, 238]. It can be used fresh or dried[21].

Flowers - raw. Added to salads[183].

An essential oil from the plant is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antiseptic; Aromatherapy; Astringent; Carminative; Diaphoretic; Emmenagogue; Expectorant; Pectoral; Stimulant; Stomachic; Tonic; Vasodilator.

Hyssop has a long history of medicinal use and was so highly esteemed in the past that it was considered to be a virtual cure-all[254]. Currently an undervalued herb, it is often used as a household remedy, particularly as an expectorant and stomach tonic[4, 254]. It has a positive effect when used to treat bronchitis and respiratory infections, especially where there is excessive mucous production[254]. Hyssop can irritate the mucous membranes, so it is best given after an infection has peaked, when the herb's tonic action encourages a general recovery[254]. The plant should not be used by pregnant women, however, since in large quantities it can induce a miscarriage[7].

The leaves and flowering tops are antiseptic, antitussive, astringent, carminative, diaphoretic, emmenagogue, expectorant, pectoral, sedative, stimulant, stomachic, tonic and vasodilator[4, 7, 9, 21, 165, 238]. The plant can be harvested when in full flower and dried for later use[4]. A tea made from the leaves is used in the treatment of flatulence, stomach-aches, upper respiratory tract infections, coughs in children etc[222, 238]. A poultice made from the fresh herb is used to heal wounds[4, 238].

The essential oil is used in aromatherapy. Its keyword is 'Stability'[210]. This oil should not be used on people who are highly strung as it can cause epileptic symptoms[7, 254]. The essential oil should not be used internally except under professional supervision[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Fungicide; Ground cover; Hedge; Pot-pourri; Repellent; Strewing.

Hyssop can be grown as a dwarf hedge, it responds well to trimming in the spring[14, 52, 182].

The growing plant attracts cabbage white butterflies away from brassicas[14, 18, 20]. Another report says that hyssop attracts cabbage white butterflies and should not be grown near cabbages[201].

An essential oil from the leaves is antiseptic and also used in perfumery and as a food flavouring[200, 201]. It has a particularly fine odour and is much valued by perfumers[4]. Average yields of the oil are about 0.6%[7]. Yields from the blue-flowered variety are 1 - 1.5% essential oil, the red-flowered variety yields about 0.8%, whilst the white-flowered form yields 0.5% essential oil[240].

The plant was formerly used as a strewing herb[4, 200] and is also used in pot-pourri[245].

A tea made from the leaves is useful for controlling bacterial plant diseases[201].

Plants can be grown for ground cover when spaced about 45cm apart each way[208].

Cultivation details

Prefers a light, dry calcareous soil and a sunny position[1, 14, 37, 52].

A very cold-hardy plant, when dormant it can tolerate temperatures down to about -25°c[187].

Hyssop has very aromatic leaves and is commonly grown in the herb garden where it makes a good edging plant to a border[4]. There are some named varieties[183]. The plant needs to be trimmed regularly to keep it in shape, untrimmed plants will soon degenerate. Spring is the best time to trim the plants[238]. It is probably best to replace the plants every few years. The flowers have a rich aromatic fragrance[245].

Hyssop is a very good plant for attracting bees and butterflies to the garden[4, 20]. It is a good companion plant to grow with grapes, but it grows badly with radishes[14, 18, 20].

Propagation

Seed - sow spring in a cold frame and only just cover the seed. Very easy, the seed germinates quickly. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 7 cm with a heel, June/July in a frame[11, 78]. Fairly easy, the cuttings root quite quickly. Grow on the plants in the greenhouse for their first winter and plant out in late spring.

Cuttings of greenwood, 5 - 7 cm with a heel, April/May in a frame[1]. Plant out in the summer.

Division in spring or autumn[1, 4].

Scent

Flowers: Fresh

> The flowers have a rich aromatic fragrance.

Leaves: Crushed

> The bruised leaves are strongly aromatic.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: G-I

- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *hyssopus officinalis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

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[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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Plants For A Future: Database Search Results

Hyssopus officinalis

Common name:	Hyssop	Family:	Labiatae
Author:	L.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	Europe - Mediterranean. Naturalized in Britain.		
Habitat:	Old walls and buildings, stony places[9, 17]. Dry hills and rock ledges to 2200 metres in Turkey[187].		
Plants For A Future Rating (1-5):	4		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Curdukotu [E], Hastipippili [E], Hisopo [E], Hyssop [H,D,E,B,P,L,S], Yanagi-Hakka [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinalis = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Europe; India; Spain; Turkey

Physical Characteristics

An evergreen shrub growing to 0.6m by 0.6m . It is hardy to zone 7. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. The plant is self-fertile. It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall, Ground Cover.

Edible Uses

Condiment; Flowers; Leaves.

Leaves and young shoot tips - raw or used as a flavouring in soups, salads etc[4, 14, 183]. A strongly aromatic flavour, somewhat like a cross between sage and mint, it has fallen out of favour in recent years[4, 238]. It can be used fresh or dried[21].

Flowers - raw. Added to salads[183].

An essential oil from the plant is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antiseptic; Aromatherapy; Astringent; Carminative; Diaphoretic; Emmenagogue; Expectorant; Pectoral; Stimulant; Stomachic; Tonic; Vasodilator.

Hyssop has a long history of medicinal use and was so highly esteemed in the past that it was considered to be a virtual cure-all[254]. Currently an undervalued herb, it is often used as a household remedy, particularly as an expectorant and stomach tonic[4, 254]. It has a positive effect when used to treat bronchitis and respiratory infections, especially where there is excessive mucous production[254]. Hyssop can irritate the mucous membranes, so it is best given after an infection has peaked, when the herb's tonic action encourages a general recovery[254]. The plant should not be used by pregnant women, however, since in large quantities it can induce a miscarriage[7].

The leaves and flowering tops are antiseptic, antitussive, astringent, carminative, diaphoretic, emmenagogue, expectorant, pectoral, sedative, stimulant, stomachic, tonic and vasodilator[4, 7, 9, 21, 165, 238]. The plant can be harvested when in full flower and dried for later use[4]. A tea made from the leaves is used in the treatment of flatulence, stomach-aches, upper respiratory tract infections, coughs in children etc[222, 238]. A poultice made from the fresh herb is used to heal wounds[4, 238].

The essential oil is used in aromatherapy. Its keyword is 'Stability'[210]. This oil should not be used on people who are highly strung as it can cause epileptic symptoms[7, 254]. The essential oil should not be used internally except under professional supervision[254].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under

with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Fungicide; Ground cover; Hedge; Pot-pourri; Repellent; Strewing.

Hyssop can be grown as a dwarf hedge, it responds well to trimming in the spring[14, 52, 182].

The growing plant attracts cabbage white butterflies away from brassicas[14, 18, 20]. Another report says that hyssop attracts cabbage white butterflies and should not be grown near cabbages[201].

An essential oil from the leaves is antiseptic and also used in perfumery and as a food flavouring[200, 201]. It has a particularly fine odour and is much valued by perfumers[4]. Average yields of the oil are about 0.6%[7]. Yields from the blue-flowered variety are 1 - 1.5% essential oil, the red-flowered variety yields about 0.8%, whilst the white-flowered form yields 0.5% essential oil[240].

The plant was formerly used as a strewing herb[4, 200] and is also used in pot-pourri[245].

A tea made from the leaves is useful for controlling bacterial plant diseases[201].

Plants can be grown for ground cover when spaced about 45cm apart each way[208].

Cultivation details

Prefers a light, dry calcareous soil and a sunny position[1, 14, 37, 52].

A very cold-hardy plant, when dormant it can tolerate temperatures down to about -25°c[187].

Hyssop has very aromatic leaves and is commonly grown in the herb garden where it makes a good edging plant to a border[4]. There are some named varieties[183]. The plant needs to be trimmed regularly to keep it in shape, untrimmed plants will soon degenerate. Spring is the best time to trim the plants[238]. It is probably best to replace the plants every few years. The flowers have a rich aromatic fragrance[245].

Hyssop is a very good plant for attracting bees and butterflies to the garden[4, 20]. It is a good companion plant to grow with grapes, but it grows badly with radishes[14, 18, 20].

Propagation

Seed - sow spring in a cold frame and only just cover the seed. Very easy, the seed germinates quickly. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, 5 - 7 cm with a heel, June/July in a frame[11, 78]. Fairly easy, the cuttings root quite quickly. Grow on the plants in the greenhouse for their first winter and plant out in late spring.

Cuttings of greenwood, 5 - 7 cm with a heel, April/May in a frame[1]. Plant out in the summer.

Division in spring or autumn[1, 4].

Scent

Flowers: Fresh

The flowers have a rich aromatic fragrance.

Leaves: Crushed

The bruised leaves are strongly aromatic.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: G-I

- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *hyssopus officinalis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
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See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[52] **Larkcom. J.** *Salads all the Year Round.* Hamlyn 1980
A good and comprehensive guide to temperate salad plants, with full organic details of cultivation.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
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Physical Characteristics

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The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers neutral and basic (alkaline) soils. It cannot grow in the shade. It requires dry or moist soil.

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Essential; Fungicide; Ground cover; Hedge; Pot-pourri; Repellent; Strewing.

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The growing plant attracts cabbage white butterflies away from brassicas[14, 18, 20]. Another report says that hyssop attracts cabbage white butterflies and should not be grown near cabbages[201].

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A very cold-hardy plant, when dormant it can tolerate temperatures down to about -25°c[187].

Hyssop has very aromatic leaves and is commonly grown in the herb garden where it makes a good edging plant to a border[4]. There are some named varieties[183]. The plant needs to be trimmed regularly to keep it in shape, untrimmed plants will soon degenerate. Spring is the best time to trim the plants[238]. It is probably best to replace the plants every few years. The flowers have a rich aromatic fragrance[245].

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Propagation

Seed - sow spring in a cold frame and only just cover the seed. Very easy, the seed germinates quickly. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

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Cuttings of greenwood, 5 - 7 cm with a heel, April/May in a frame[1]. Plant out in the summer.

Division in spring or autumn[1, 4].

Scent

Flowers: Fresh

The flowers have a rich aromatic fragrance.

Leaves: Crushed

The bruised leaves are strongly aromatic.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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Add a comment on: *Hyssopus officinalis*

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Hyssopus officinalis

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Hyssopus officinalis

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Iberis amara

Common name:	Rocket candytuft	Family:	Cruciferae
Author:	L.	Botanical references:	17, 200
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Dry calcareous soils on hillsides and in cornfields[17].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. coronaria[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Annual Candytuft [B,P], Bitter Candytuft [H], Bittere Scheefbloem [D], Carraspique [E], Clown'S Mustard [E], Thalspi Blanc [E], Wild Candytuft [L],
Epithets:	From a Dictionary of Botanical Epithets
	amara = bitter;
Systematics:	From a UDSA Plants Database
	Order: Capparales . Renamed to Brassicaceae -- Mustard family
Other Range Info:	From the Ethnobotany Database
	Britain; France; Spain

Physical Characteristics

Annual growing to 0.3m by 0.15m at a fast rate. It is hardy to zone 7 and is not frost tender. It is in flower from June to July. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils, requires well-drained soil and can grow in nutritionally poor soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil.

Habitats and Possible Locations

Cultivated Beds, Walls.

Edible Uses

Condiment.

The seeds are sometimes used as a source of mustard[61, 177, 183]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238].

Medicinal Uses

Disclaimer

Antiasthmatic; Antirheumatic; Antiscorbutic; Homeopathy.

Little used in modern herbalism, rocket candytuft is a bitter-tasting tonic, aiding digestion and relieving wind and bloating[254]. It is traditionally taken to treat gout, rheumatism and arthritis[254].

All parts of the plant are antirheumatic and antiscorbutic[61]. The seeds are considered very useful in the treatment of asthma, bronchitis and dropsy[4, 240]. The plant is gathered in the summer and can be dried for later use[254]. The seeds are harvested when fully ripe[254].

A common homeopathic remedy is made from the seeds[4].

Other Uses

None known

Cultivation details

Easily grown in a good, well-drained ordinary garden soil in a sunny position[1]. Prefers a calcareous soil but tolerates mildly acid soils[1]. Succeeds in poor soils[200] and on dry walls[1].

A very ornamental plant[1]. A fast growing plant[188], do not grow the plants too close together[1].

The flowers are sweetly scented[245].

Propagation

Seed - sow spring in situ for summer flowering or late summer in situ for a spring flowering[200]. The seed germinates within 3 weeks.

Scent

Flowers: Fresh

> The flowers are sweetly scented.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *iberis amara* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Author:	L.	Botanical references:	17, 200
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Range:	Britain.		
Habitat:	Dry calcareous soils on hillsides and in cornfields[17].		
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	Order: Capparales . Renamed to Brassicaceae -- Mustard family
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Physical Characteristics

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Habitats and Possible Locations

Cultivated Beds, Walls.

Edible Uses

Condiment.

The seeds are sometimes used as a source of mustard[61, 177, 183]. Pungency of mustard develops when cold water is added to the ground-up seed - an enzyme (myrosin) acts on a glycoside (sinigrin) to produce a sulphur compound. The reaction takes 10 - 15 minutes. Mixing with hot water or vinegar, or adding salt, inhibits the enzyme and produces a mild bitter mustard[238].

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Iberis amara*

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Iberis amara

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Iberis amara

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Ilex vomitoria

Common name:	Yaupon holly	Family:	Aquifoliaceae
Author:	Ait.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, at least some members of this genus are slightly toxic so some caution is advised.		
Range:	South-eastern N. America - Virginia to Florida, west to Texas and Arkansas.		
Habitat:	Sandy woods and clearings[43]. Low moist woods, especially near the coast[149]. Often forming dense thickets along streams and pond margins and shallow swamp lands[229].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Appalachian Holly [H], Yaupon [FEIS,B,E,P,DEN1], Yaupon Holly [H],
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Holly family
Other Range Info:	From the Ethnobotany Database
	Mexico; Na; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

An evergreen shrub growing to 6m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from April to May, and the seeds ripen from October to December. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Tea.

A mildly stimulating beverage containing caffeine is made from the dried and roasted leaves[43, 171, 183]. The tea is stimulating and intoxicating[161]. The leaves are first steeped in cold and then in boiling water[183]. They are also used to flavour ice cream and soft drinks[183].

Medicinal Uses

Disclaimer

Emetic.

A decoction of the leaves is emetic[4, 11, 171].

The plant was used ritually by several N. American Indian tribes. The leaves were toasted over a fire and then boiled for several hours. The resulting thick black liquid was then drunk and this was followed by immediate vomiting[213]. This was often used a a purification rite prior to hunting[213].

Other Uses

Hedge; Wood.

This species is occasionally used for hedging in the southern states of America[82].

Wood - hard, heavy, strong, close grained. It weighs 46lb per cubic foot. Too small for commercial exploitation, the wood is used locally for turnery, inlay work, woodenware etc[82, 149, 227, 229].

Cultivation details

Succeeds in most soils so long as they are not water-logged[200].

This species is not fully hardy in Britain, the plants are incapable of withstanding our hardest winters[11].

A slow-growing species in the wild, often forming dense thickets from root suckers[229].

The leaves remain on the plant for 2 - 3 years, falling just before the appearance of new leaves in the spring[82].

Flowers are produced on the current year's growth[229].

Resents root disturbance, especially as the plants get older[11]. It is best to place the plants into their permanent positions as soon as possible, perhaps giving some winter protection for their first year or two[K].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame. It can take 18 months to germinate. Stored seed generally requires two winters and a summer before it will germinate and should be sown as soon as possible in a cold frame. Scarification, followed by a warm stratification and then a cold stratification may speed up the germination time[78, 80]. The seedlings are rather slow-growing. Pot them up into individual pots when they are large enough to handle and grow them on in light shade in a cold frame for their first year. It is possible to plant them out into a nursery bed in late spring of the following year, but they should not be left here for more than two years since they do not like being transplanted. Alternatively, grow them on in their pots for a second season and then plant them out into their permanent positions in late spring or early summer. Give them a good mulch and some protection for their first winter outdoors.

Cuttings of almost ripe wood with a heel, August in a shaded position in a cold frame. Leave for 12 months before potting up.

Layering in October. Takes 2 years[78].

Suppliers

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Ilex vomitoria

bianca kaye (xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx) Sun Nov 23 12:18:26 2003

Link: yellow holly it has yellow bearys and green leafs and the bearys stay yellow

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Plants For A Future: Database Search Results

Ilex vomitoria

Common name:	Yaupon holly	Family:	Aquifoliaceae
Author:	Ait.	Botanical references:	11, 43, 200
Synonyms:			
Known Hazards:	Although no reports of toxicity have been seen for this species, at least some members of this genus are slightly toxic so some caution is advised.		
Range:	South-eastern N. America - Virginia to Florida, west to Texas and Arkansas.		
Habitat:	Sandy woods and clearings[43]. Low moist woods, especially near the coast[149]. Often forming dense thickets along streams and pond margins and shallow swamp lands[229].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Appalachian Holly [H], Yaupon [FEIS,B,E,P,DEN1], Yaupon Holly [H],
Systematics:	From a UDSA Plants Database
	Order: Celastrales . Holly family
Other Range Info:	From the Ethnobotany Database
	Mexico; Na; Us; Us(Amerindian); Us(Appalachia)

Physical Characteristics

An evergreen shrub growing to 6m at a slow rate. It is hardy to zone 7. It is in leaf all year, in flower from April to May, and the seeds ripen from October to December. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Hedge, Woodland, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Tea.

A mildly stimulating beverage containing caffeine is made from the dried and roasted leaves[43, 171, 183]. The tea is stimulating and intoxicating[161]. The leaves are first steeped in cold and then in boiling water[183]. They are also used to flavour ice cream and soft drinks[183].

Medicinal Uses

Disclaimer

Emetic.

A decoction of the leaves is emetic[4, 11, 171].

The plant was used ritually by several N. American Indian tribes. The leaves were toasted over a fire and then boiled for several hours. The resulting thick black liquid was then drunk and this was followed by immediate vomiting[213]. This was often used a a purification rite prior to hunting[213].

Other Uses

Hedge; Wood.

This species is occasionally used for hedging in the southern states of America[82].

Wood - hard, heavy, strong, close grained. It weighs 46lb per cubic foot. Too small for commercial exploitation, the wood is used locally for turnery, inlay work, woodenware etc[82, 149, 227, 229].

Cultivation details

Succeeds in most soils so long as they are not water-logged[200].

This species is not fully hardy in Britain, the plants are incapable of withstanding our hardest winters[11].

A slow-growing species in the wild, often forming dense thickets from root suckers[229].

The leaves remain on the plant for 2 - 3 years, falling just before the appearance of new leaves in the spring[82].

Flowers are produced on the current year's growth[229].

Resents root disturbance, especially as the plants get older[11]. It is best to place the plants into their permanent positions as soon as possible, perhaps giving some winter protection for their first year or two[K].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in the autumn in a cold frame. It can take 18 months to germinate. Stored seed generally requires two winters and a summer before it will germinate and should be sown as soon as possible in a cold frame. Scarification, followed by a warm stratification and then a cold stratification may speed up the germination time[78, 80]. The seedlings are rather slow-growing. Pot them up into individual pots when they are large enough to handle and grow them on in light shade in a cold frame for their first year. It is possible to plant them out into a nursery bed in late spring of the following year, but they should not be left here for more than two years since they do not like being transplanted. Alternatively, grow them on in their pots for a second season and then plant them out into their permanent positions in late spring or early summer. Give them a good mulch and some protection for their first winter outdoors.

Cuttings of almost ripe wood with a heel, August in a shaded position in a cold frame. Leave for 12 months before potting up.

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Plant Information

Comment:

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Optional web-link:

Name of Site:	
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Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Ilex vomitoria

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Illicium anisatum

Common name:	Star anise	Family:	Illiciaceae
Author:	L.	Botanical references:	11, 58, 200
Synonyms:	Illicium religiosum (Siebold.&Zucc.)		
Known Hazards:	The fruit is poisonous in quantity[19, 177].		
Range:	E. Asia - S. China, Japan, Taiwan.		
Habitat:	Thickets and woods in foothills, S. and C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Aniseed Stars [H], Badiana [H], Chinese Anise [H], Star Anise [H],
Systematics:	From a UDSA Plants Database
	Order: Illiciales . Star-anise family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Malaya; Mexico

Physical Characteristics

An evergreen shrub growing to 6m by 6m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from March to May, and the seeds ripen in October. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The fruit is used as a flavouring[2, 132, 177] and is also chewed after meals in order to sweeten the breath[4]. The fruit is about 25mm in diameter[2]. Some caution is advised because it is said to be poisonous in quantity[19, 177].

Medicinal Uses

Disclaimer

Antibacterial; Carminative; Diuretic; Odontalgic; Stimulant; Stomachic.

Diuretic, odontalgic, stimulant[4, 61].

The fruit is carminative, stimulant and stomachic[21, 240]. It is used primarily to promote digestion and the appetite, and to relieve flatulence[21]. It also makes a good additive to other medicines to improve their taste[21].

The leaves and the seeds are antibacterial[240].

Other Uses

None known

Cultivation details

Prefers a light, moist well-drained loam and a sheltered position[1, 11]. Prefers a humus-rich lime-free soil[182, 200]. Succeeds in sun or semi-shade[200]. A slow-growing plant[188].

This species is not very cold-hardy, it tolerates temperatures down to about -10°c but normally requires the protection of a wall in most of Britain[184]. It succeeds outdoors in the mildest areas of the country[59].

Star anise is a very ornamental and aromatic plant that is much planted near Buddhist shrines and temples in Japan[184]. The plants have the scent of anise[219]. All parts of the plant are pleasingly aromatic. The leaves release a powerful aromatic odour when touched and the flowers have a spicy odour[245].

Plants seldom grow larger than about 2 metres in Britain, but are often 10 metres tall in their native habitat[58].

Propagation

Seed - it does not require pre-treatment and can be sown in early spring in a greenhouse[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant out in late spring or early summer, after the last expected frosts, and give some protection from the cold over the winter for the first year or two.

Layering in early spring. Takes 18 months[78].

Cuttings of half-ripe wood, August in a frame[113]. Pot up the cuttings when they start to root and grow them on in the greenhouse for their first winter, planting out after the last expected frosts.

Scent

Plant: Fresh Crushed Dried

All parts of the plant are pleasingly aromatic. The leaves release a powerful aromatic odour when touched and the flowers have a spicy odour.

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF: Edible Trees and Shrubs Hardy in Britain

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Illicium religiosum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *illicium anisatum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

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- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Illiciaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[219] **Grey-Wilson. C. & Matthews. V.** *Gardening on Walls* Collins 1983 ISBN 0-00-219220-0
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
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Plants For A Future: Database Search Results

Illicium anisatum

Common name:	Star anise	Family:	Illiciaceae
Author:	L.	Botanical references:	11, 58, 200
Synonyms:	Illicium religiosum (Siebold.&Zucc.)		
Known Hazards:	The fruit is poisonous in quantity[19, 177].		
Range:	E. Asia - S. China, Japan, Taiwan.		
Habitat:	Thickets and woods in foothills, S. and C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Aniseed Stars [H], Badiana [H], Chinese Anise [H], Star Anise [H],
Systematics:	From a UDSA Plants Database
	Order: Illiciales . Star-anise family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Malaya; Mexico

Physical Characteristics

An evergreen shrub growing to 6m by 6m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from March to May, and the seeds ripen in October. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The fruit is used as a flavouring[2, 132, 177] and is also chewed after meals in order to sweeten the breath[4]. The fruit is about 25mm in diameter[2]. Some caution is advised because it is said to be poisonous in quantity[19, 177].

Medicinal Uses

Disclaimer

Antibacterial; Carminative; Diuretic; Odontalgic; Stimulant; Stomachic.

Diuretic, odontalgic, stimulant[4, 61].

The fruit is carminative, stimulant and stomachic[21, 240]. It is used primarily to promote digestion and the appetite, and to relieve flatulence[21]. It also makes a good additive to other medicines to improve their taste[21].

The leaves and the seeds are antibacterial[240].

Other Uses

None known

Cultivation details

Prefers a light, moist well-drained loam and a sheltered position[1, 11]. Prefers a humus-rich lime-free soil[182, 200]. Succeeds in sun or semi-shade[200]. A slow-growing plant[188].

This species is not very cold-hardy, it tolerates temperatures down to about -10°c but normally requires the protection of a wall in most of Britain[184]. It succeeds outdoors in the mildest areas of the country[59].

Star anise is a very ornamental and aromatic plant that is much planted near Buddhist shrines and temples in Japan[184]. The plants have the scent of anise[219]. All parts of the plant are pleasingly aromatic. The leaves release a powerful aromatic odour when touched and the flowers have a spicy odour[245].

Plants seldom grow larger than about 2 metres in Britain, but are often 10 metres tall in their native habitat[58].

Propagation

Seed - it does not require pre-treatment and can be sown in early spring in a greenhouse[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant out in late spring or early summer, after the last expected frosts, and give some protection from the cold over the winter for the first year or two.

Layering in early spring. Takes 18 months[78].

Cuttings of half-ripe wood, August in a frame[113]. Pot up the cuttings when they start to root and grow them on in the greenhouse for their first winter, planting out after the last expected frosts.

Scent

Plant: Fresh Crushed Dried

> All parts of the plant are pleasingly aromatic. The leaves release a powerful aromatic odour when touched and the flowers have a spicy odour.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
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References for *Illicium religiosum* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *illicium anisatum* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References for the family Illiciaceae.

See the PFAF Links Pages for other sources

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Plants For A Future: Database Search Results

Illicium anisatum

Common name:	Star anise	Family:	Illiciaceae
Author:	L.	Botanical references:	11, 58, 200
Synonyms:	Illicium religiosum (Siebold.&Zucc.)		
Known Hazards:	The fruit is poisonous in quantity[19, 177].		
Range:	E. Asia - S. China, Japan, Taiwan.		
Habitat:	Thickets and woods in foothills, S. and C. Japan[58].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Aniseed Stars [H], Badiana [H], Chinese Anise [H], Star Anise [H],
Systematics:	From a UDSA Plants Database
	Order: Illiciales . Star-anise family
Other Range Info:	From the Ethnobotany Database
	China; Japan; Malaya; Mexico

Physical Characteristics

An evergreen shrub growing to 6m by 6m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from March to May, and the seeds ripen in October. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The fruit is used as a flavouring[2, 132, 177] and is also chewed after meals in order to sweeten the breath[4]. The fruit is about 25mm in diameter[2]. Some caution is advised because it is said to be poisonous in quantity[19, 177].

Medicinal Uses

Disclaimer

Antibacterial; Carminative; Diuretic; Odontalgic; Stimulant; Stomachic.

Diuretic, odontalgic, stimulant[4, 61].

The fruit is carminative, stimulant and stomachic[21, 240]. It is used primarily to promote digestion and the appetite, and to relieve flatulence[21]. It also makes a good additive to other medicines to improve their taste[21].

The leaves and the seeds are antibacterial[240].

Other Uses

None known

Cultivation details

Prefers a light, moist well-drained loam and a sheltered position[1, 11]. Prefers a humus-rich lime-free soil[182, 200]. Succeeds in sun or semi-shade[200]. A slow-growing plant[188].

This species is not very cold-hardy, it tolerates temperatures down to about -10°c but normally requires the protection of a wall in most of Britain[184]. It succeeds outdoors in the mildest areas of the country[59].

Star anise is a very ornamental and aromatic plant that is much planted near Buddhist shrines and temples in Japan[184]. The plants have the scent of anise[219]. All parts of the plant are pleasingly aromatic. The leaves release a powerful aromatic odour when touched and the flowers have a spicy odour[245].

Plants seldom grow larger than about 2 metres in Britain, but are often 10 metres tall in their native habitat[58].

Propagation

Seed - it does not require pre-treatment and can be sown in early spring in a greenhouse[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant out in late spring or early summer, after the last expected frosts, and give some protection from the cold over the winter for the first year or two.

Layering in early spring. Takes 18 months[78].

Cuttings of half-ripe wood, August in a frame[113]. Pot up the cuttings when they start to root and grow them on in the greenhouse for their first winter, planting out after the last expected frosts.

Scent

Plant: Fresh Crushed Dried

> All parts of the plant are pleasingly aromatic. The leaves release a powerful aromatic odour when touched and the flowers have a spicy odour.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Illicium floridanum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Aniseed tree	Family:	Illiciaceae
Author:	Ellis.	Botanical references:	72, 200
Synonyms:			
Known Hazards:	Although no mention of toxicity has been seen for this species, at least one other member of the genus has a fruit that is poisonous in quantity[19, 177].		
Range:	South-eastern N. America - Florida to Louisiana.		
Habitat:	Lowland wet areas, often in sandy soils along streams, swamps and at the head of bays[229], in light woodland and thickets[200].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Florida Anisetree [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	florida = flowering;
Systematics:	From a UDSA Plants Database
	Order: Illiciales . Star-anise family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

An evergreen shrub growing to 2m by 2m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

Said to be used as a spice[105, 177, 183]. No further details are given, but the leaves have a strong aroma of aniseed[245].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a light, moist well-drained loam and a sheltered position[1, 11] Prefers a humus-rich lime-free soil[182, 200]. A plant of woodland shade in its native habitat, in the less sunny British climate it succeeds in sun or semi-shade[200, 260].

This species is not very cold-hardy, it tolerates temperatures down to between -5 and -10°c, only succeeding outdoors in the mildest areas of Britain[1, 11, 166].

A slow-growing tree[229], the whole plant is very aromatic[182]. The bruised leaves have a strong scent of aniseed, whilst the flowers have a powerful spicy odour[245].

Suckers can spring up at some distance from the parent plant[260].

Propagation

Seed - it does not require pre-treatment and can be sown in early spring in a greenhouse[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant out in late spring or early summer, after the last expected frosts, and give some protection from the cold over the winter for the first year or two.

Layering in early spring. Takes 18 months[78].

Cuttings of half-ripe wood, August in a frame[113]. Pot up the cuttings when they start to root and grow them on in the greenhouse for their first winter, planting out after the last expected frosts.

Suckers are sometimes produced at some distance from the parent plant. These suckers can be potted up in early spring, then grown on for a year before planting them out into their permanent positions.

Scent

Flowers: Fresh

The flowers diffuse a powerful spicy odour.

Leaves: Crushed

The bruised leaves have a strong scent of aniseed.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Illiciaceae.

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
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[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[229] **Elias. T.** *The Complete Trees of N. America. Field Guide and Natural History.* Van Nostrand Reinhold Co. 1980 ISBN 0442238622
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[260] **Phillips. R. & Rix. M.** *Conservatory and Indoor Plants Volumes 1 & 2* Pan Books, London. 1998 ISBN 0-330-37376-5
Excellent photos of over 1,100 species and cultivars with habits and cultivation details plus a few plant uses. Many species are too tender for outdoors in Britain though there are many that can be grown outside.

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Plants For A Future: Database Search Results

Illicium floridanum

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Aniseed tree	Family:	Illiciaceae
Author:	Ellis.	Botanical references:	72, 200
Synonyms:			
Known Hazards:	Although no mention of toxicity has been seen for this species, at least one other member of the genus has a fruit that is poisonous in quantity[19, 177].		
Range:	South-eastern N. America - Florida to Louisiana.		
Habitat:	Lowland wet areas, often in sandy soils along streams, swamps and at the head of bays[229], in light woodland and thickets[200].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Florida Anisetree [P,B],
Epithets:	From a Dictionary of Botanical Epithets
	florida = flowering;
Systematics:	From a UDSA Plants Database
	Order: Illiciales . Star-anise family
Other Range Info:	From the Ethnobotany Database
	Mexico

Physical Characteristics

An evergreen shrub growing to 2m by 2m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

Said to be used as a spice[105, 177, 183]. No further details are given, but the leaves have a strong aroma of aniseed[245].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Prefers a light, moist well-drained loam and a sheltered position[1, 11] Prefers a humus-rich lime-free soil[182, 200]. A plant of woodland shade in its native habitat, in the less sunny British climate it succeeds in sun or semi-shade[200, 260].

This species is not very cold-hardy, it tolerates temperatures down to between -5 and -10°c, only succeeding outdoors in the mildest areas of Britain[1, 11, 166].

A slow-growing tree[229], the whole plant is very aromatic[182]. The bruised leaves have a strong scent of aniseed, whilst the flowers have a powerful spicy odour[245].

Suckers can spring up at some distance from the parent plant[260].

Propagation

Seed - it does not require pre-treatment and can be sown in early spring in a greenhouse[113]. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant out in late spring or early summer, after the last expected frosts, and give some protection from the cold over the winter for the first year or two.

Layering in early spring. Takes 18 months[78].

Cuttings of half-ripe wood, August in a frame[113]. Pot up the cuttings when they start to root and grow them on in the greenhouse for their first winter, planting out after the last expected frosts.

Suckers are sometimes produced at some distance from the parent plant. These suckers can be potted up in early spring, then grown on for a year before planting them out into their permanent positions.

Scent

Flowers: Fresh

> The flowers diffuse a powerful spicy odour.

Leaves: Crushed

> The bruised leaves have a strong scent of aniseed.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Illiciaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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Author:	Ellis.	Botanical references:	72, 200
Synonyms:			
Known Hazards:	Although no mention of toxicity has been seen for this species, at least one other member of the genus has a fruit that is poisonous in quantity[19, 177].		
Range:	South-eastern N. America - Florida to Louisiana.		
Habitat:	Lowland wet areas, often in sandy soils along streams, swamps and at the head of bays[229], in light woodland and thickets[200].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below. Florida Anisetree [P,B],
Epithets:	From a Dictionary of Botanical Epithets florida = flowering;
Systematics:	From a UDSA Plants Database Order: Illiciales . Star-anise family
Other Range Info:	From the Ethnobotany Database Mexico

Physical Characteristics

An evergreen shrub growing to 2m by 2m at a slow rate. It is hardy to zone 7 and is frost tender. It is in leaf all year, in flower from May to June, and the seeds ripen in October. The scented flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant

prefers acid and neutral soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

Said to be used as a spice[105, 177, 183]. No further details are given, but the leaves have a strong aroma of aniseed[245].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

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Suckers can spring up at some distance from the parent plant[260].

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Inula crithmoides

Common name:	Golden samphire	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Salt marshes, shingle banks and maritime cliffs[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Golden Samphire [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Leaves.

Young leaves - raw or cooked[61, 105, 177]. They are occasionally used as a potherb[183].

The fleshy leaves and young shoots are pickled and used as a relish in salads etc[2, 66, 115, 183]. They are sometimes used as an adulterant of the true samphire, Crithmum maritimum[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil in a sunny position[1]. One report says that the plant dislikes shade whilst another says that it succeeds in a shady border[37].

The plant needs to be watered frequently and given some salt occasionally[37].

Propagation

Seed - sow spring or autumn in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

If you have sufficient seed, it is worthwhile trying a sowing in situ in the spring or the autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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Author:	L.	Botanical references:	17
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Habitat:	Salt marshes, shingle banks and maritime cliffs[17].		
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Young leaves - raw or cooked[61, 105, 177]. They are occasionally used as a potherb[183].

The fleshy leaves and young shoots are pickled and used as a relish in salads etc[2, 66, 115, 183]. They are sometimes used as an adulterant of the true samphire, Crithmum maritimum[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil in a sunny position[1]. One report says that the plant dislikes shade whilst another says that it succeeds in a shady border[37].

The plant needs to be watered frequently and given some salt occasionally[37].

Propagation

Seed - sow spring or autumn in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

If you have sufficient seed, it is worthwhile trying a sowing in situ in the spring or the autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[17] **Clapham, Tootin and Warburg.** *Flora of the British Isles.* Cambridge University Press 1962
A very comprehensive flora, the standard reference book but it has no pictures.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[66] **Freethy. R.** *From Agar to Zenery.* The Crowood Press 1985 ISBN 0-946284-51-2
Very readable, giving details on plant uses based on the authors own experiences.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[115] **Johnson. C. P.** *The Useful Plants of Great Britain.*
Written about a hundred years ago, but still a very good guide to the useful plants of Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Inula+crithmoides`

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Plants For A Future: Database Search Results

Inula crithmoides

Common name:	Golden samphire	Family:	Compositae
Author:	L.	Botanical references:	17
Synonyms:			
Known Hazards:	None known		
Range:	Britain.		
Habitat:	Salt marshes, shingle banks and maritime cliffs[17].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Golden Samphire [H],
Systematics:	From a UDSA Plants Database
	Order: Asterales . Renamed to Asteraceae -- Aster family

Physical Characteristics

Perennial growing to 1m. . It is in flower from July to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees, flies and beetles. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Leaves.

Young leaves - raw or cooked[61, 105, 177]. They are occasionally used as a potherb[183].

The fleshy leaves and young shoots are pickled and used as a relish in salads etc[2, 66, 115, 183]. They are sometimes used as an adulterant of the true samphire, Crithmum maritimum[183].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Succeeds in an ordinary garden soil in a sunny position[1]. One report says that the plant dislikes shade whilst another says that it succeeds in a shady border[37].

The plant needs to be watered frequently and given some salt occasionally[37].

Propagation

Seed - sow spring or autumn in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and plant them out in the summer.

If you have sufficient seed, it is worthwhile trying a sowing in situ in the spring or the autumn.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Inula crithmoides*

Subject:

Inula crithmoides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Inula crithmoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Date: Sun May 16 05:53:15 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Iris germanica

Common name:	Purple flag	Family:	Iridaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	The original habitat is obscure, it is probably of hybrid origin.		
Habitat:	Dry rocky places[187]		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. x germanica[G,H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Affodillus [E], Bearded Iris [L], Blue Flower De Luce [H], Flag [L], Fleur-de-lis [L], Garden Iris [L], German Iris [L,B,H,P], Iris [H], Lirio [E], Mogadore Orris [H], Mor Susen [E], Morocco Orris [H], Murasaki-Irisu [E], Orris Root [H], Veronese Orris [H],
Epithets:	From a Dictionary of Botanical Epithets
	germanica = of Germany;
Systematics:	From a UDSA Plants Database

	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database
	Egypt; Greece; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 1.5m . It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The root is dried and used as a flavouring[105, 183].

Medicinal Uses

Disclaimer

Diuretic; Emetic; Expectorant; Purgative.

The root is diuretic, emetic, expectorant and mildly purgative[7, 9, 61]. Another report says that the juice of the fresh root is a strong purge of great efficiency in the treatment of dropsy[4]. In the past, sections of the dried root have been given to teething babies to chew on, though this has been discontinued for hygienic reasons[9]. Roots of plants 2 - 3 years old are dug up after flowering and are then dried for later use[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Baby care; Beads; Cosmetic; Dye; Essential.

The root is a source of Orris powder which has the scent of violets[238]. It is obtained by grinding up the dried root[4, 7, 46]. It is much used as a fixative in perfumery and pot-pourri, as an ingredient of toothpastes, breath fresheners etc and as a food flavouring. The root can take several years of drying to fully develop its fragrance, when fresh it has an acrid flavour and almost no smell[4, 168]. An essential oil is obtained from the fresh root, this has the same uses as the root[57, 61].

The juice of the root is sometimes used as a cosmetic and also for the removal of freckles from the skin[4].

A black dye is obtained from the root[168].

A blue dye is obtained from the flowers[168].

The seeds are used as rosary beads[61].

Cultivation details

A very easily grown plant that tolerates considerable neglect[233], it prefers a sunny position in a well-drained soil that contains some lime[1, 79]. Grows well in dry soils in light deciduous shade[187]. Succeeds in full sun or partial shade[79]. Prefers a pH in the range 6 to 7.5 or higher[200].

Many named varieties have been selected for their ornamental value[187]. The plant is also sometimes cultivated for the essential oil in its root[9].

The plant is sterile and does not produce seed[233].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. A sterile plant, it does not produce seed[233].

Division, best done after flowering. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

> The dried root develops a delicious fragrance.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Iris x germanica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[79] **Innes. C.** *The World of Iridaceae*
Deals with many of the plants in the Iris family giving brief details of habitat and notes on cultivation. Well illustrated.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Iris+germanica`

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Plants For A Future: Database Search Results

Iris germanica

Common name:	Purple flag	Family:	Iridaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	The original habitat is obscure, it is probably of hybrid origin.		
Habitat:	Dry rocky places[187]		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. x germanica[G,H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Affodillus [E], Bearded Iris [L], Blue Flower De Luce [H], Flag [L], Fleur-de-lis [L], Garden Iris [L], German Iris [L,B,H,P], Iris [H], Lirio [E], Mogadore Orris [H], Mor Susen [E], Morocco Orris [H], Murasaki-Irisu [E], Orris Root [H], Veronese Orris [H],
Epithets:	From a Dictionary of Botanical Epithets
	germanica = of Germany;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database
	Egypt; Greece; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 1.5m . It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The root is dried and used as a flavouring[105, 183].

Medicinal Uses

Disclaimer

Diuretic; Emetic; Expectorant; Purgative.

The root is diuretic, emetic, expectorant and mildly purgative[7, 9, 61]. Another report says that the juice of the fresh root is a strong purge of great efficiency in the treatment of dropsy[4]. In the past, sections of the dried root have been given to teething babies to chew on, though this has been discontinued for hygienic reasons[9]. Roots of plants 2 - 3 years old are dug up after flowering and are then dried for later use[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Baby care; Beads; Cosmetic; Dye; Essential.

The root is a source of Orris powder which has the scent of violets[238]. It is obtained by grinding up the dried root[4, 7, 46]. It is much used as a fixative in perfumery and pot-pourri, as an ingredient of toothpastes, breath fresheners etc and as a food flavouring. The root can take several years of drying to fully develop its fragrance, when fresh it has an acrid flavour and almost no smell[4, 168]. An essential oil is obtained from the fresh root, this has the same uses as the root[57, 61].

The juice of the root is sometimes used as a cosmetic and also for the removal of freckles from the skin[4].

A black dye is obtained from the root[168].

A blue dye is obtained from the flowers[168].

The seeds are used as rosary beads[61].

Cultivation details

A very easily grown plant that tolerates considerable neglect[233], it prefers a sunny position in a well-drained soil that contains some lime[1, 79]. Grows well in dry soils in light deciduous shade[187]. Succeeds in full sun or partial shade[79]. Prefers a pH in the range 6 to 7.5 or higher[200].

Many named varieties have been selected for their ornamental value[187]. The plant is also sometimes cultivated for the essential oil in its root[9].

The plant is sterile and does not produce seed[233].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. A sterile plant, it does not produce seed[233].

Division, best done after flowering. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

The dried root develops a delicious fragrance.

Cultivars

"

There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Iris x germanica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[79] **Innes. C.** *The World of Iridaceae*
Deals with many of the plants in the Iris family giving brief details of habitat and notes on cultivation. Well illustrated.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990

ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Iris germanica

Common name:	Purple flag	Family:	Iridaceae
Author:	L.	Botanical references:	200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	The original habitat is obscure, it is probably of hybrid origin.		
Habitat:	Dry rocky places[187]		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. x germanica[G,H]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Affodillus [E], Bearded Iris [L], Blue Flower De Luce [H], Flag [L], Fleur-de-lis [L], Garden Iris [L], German Iris [L,B,H,P], Iris [H], Lirio [E], Mogadore Orris [H], Mor Susen [E], Morocco Orris [H], Murasaki-Irisu [E], Orris Root [H], Veronese Orris [H],
Epithets:	From a Dictionary of Botanical Epithets
	germanica = of Germany;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database
	Egypt; Greece; Spain; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds

	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 1.5m . It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Cultivated Beds, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The root is dried and used as a flavouring[105, 183].

Medicinal Uses

Disclaimer

Diuretic; Emetic; Expectorant; Purgative.

The root is diuretic, emetic, expectorant and mildly purgative[7, 9, 61]. Another report says that the juice of the fresh root is a strong purge of great efficiency in the treatment of dropsy[4]. In the past, sections of the dried root have been given to teething babies to chew on, though this has been discontinued for hygienic reasons[9]. Roots of plants 2 - 3 years old are dug up after flowering and are then dried for later use[7].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Baby care; Beads; Cosmetic; Dye; Essential.

The root is a source of Orris powder which has the scent of violets[238]. It is obtained by grinding up the dried root[4, 7, 46]. It is much used as a fixative in perfumery and pot-pourri, as an ingredient of toothpastes, breath fresheners etc and as a food flavouring. The root can take several years of drying to fully develop its fragrance, when fresh it has an acrid flavour and almost no smell[4, 168]. An essential oil is obtained from the fresh root, this has the same uses as the root[57, 61].

The juice of the root is sometimes used as a cosmetic and also for the removal of freckles from the skin[4].

A black dye is obtained from the root[168].

A blue dye is obtained from the flowers[168].

The seeds are used as rosary beads[61].

Cultivation details

A very easily grown plant that tolerates considerable neglect[233], it prefers a sunny position in a well-drained soil that contains some lime[1, 79]. Grows well in dry soils in light deciduous shade[187]. Succeeds in full sun or partial shade[79]. Prefers a pH in the range 6 to 7.5 or higher[200].

Many named varieties have been selected for their ornamental value[187]. The plant is also sometimes cultivated for the essential oil in its root[9].

The plant is sterile and does not produce seed[233].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. A sterile plant, it does not produce seed[233].

Division, best done after flowering. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

> The dried root develops a delicious fragrance.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Iris germanica*

Subject:

Iris germanica

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Iris germanica

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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Iris germanica florentina

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Orris	Family:	Iridaceae
Author:	(L.) Dykes.	Botanical references:	89, 200
Synonyms:	Iris florentina (L.)		
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Europe - Mediterranean.		
Habitat:	Probably an albino form of I. germanica, it is not found in a truly wild situation[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. x germanica var. florentina[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Susen [E], Florentine Iris [H], Florentine Orris [H], Flower De Luce Of Florenc [H], Nioi-Irisu [E], Orris [E,P], Orris Root [H], Pushkarmul [E], White Flower De Luce [H],
Epithets:	From a Dictionary of Botanical Epithets
	germanica = of Germany;

Systematics:	From a UDSA Plants Database Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database China; Europe; India; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.9m by 0.6m . It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment.

The root can be dried, ground into a powder and used as a food flavouring[105]. The root may take several years of drying to develop its full fragrance[168].

Medicinal Uses

Disclaimer

Diuretic; Purgative; Stomachic.

The dried root is diuretic, expectorant and stomachic[21, 238]. It is taken internally in the treatment of coughs, catarrh and diarrhoea[238]. Externally it is applied to deep wounds[238]. The root is harvested in late summer and early autumn and dried for later use[238].

The juice of the fresh root is a strong purge of great efficiency in the treatment of dropsy[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Beads; Cosmetic; Dye; Essential; Ground cover; Incense.

The root is a source of Orris powder which has the scent of violets[238]. It is obtained by grinding up the dried root[4, 7, 46]. It is much used as a fixative in perfumery and pot-pourri, as an ingredient of toothpastes, breath fresheners etc and as a food flavouring. The root can take several years of drying to fully develop its violet-like fragrance, when fresh it has an acrid flavour and almost no smell[4, 168]. An essential oil is obtained from the fresh root, this has the same uses as the root[57, 61].

The root has been burnt in open fires in order to sweeten the smell of a room[245].

The juice of the root is sometimes used as a cosmetic and also for the removal of freckles from the skin[4].

A black dye is obtained from the root[168].

A blue dye is obtained from the flowers[168].

The seeds are used as rosary beads[61].

Plants can be grown for ground cover, the dense mat of roots excluding all weeds[208].

Cultivation details

Prefers a sunny position in a well-drained soil that contains some lime[1, 79]. Grows well in dry soils in light deciduous shade[187]. Succeeds in full sun or partial shade[79]. Prefers a pH in the range 6 to 7.5 or higher[200].

The plant is sometimes cultivated for the essential oil in its root[9, 46].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. A sterile plant, it does not produce seed[233].

Division, best done after flowering though it is usually successful at most times of the year. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

> The dried root develops a delicious violet-like fragrance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Iris florentina* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Iris x germanica var. florentina* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Iris+germanica+florentina`

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Iris germanica florentina

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Author:	(L.) Dykes.	Botanical references:	89, 200
Synonyms:	Iris florentina (L.)		
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Europe - Mediterranean.		
Habitat:	Probably an albino form of I. germanica, it is not found in a truly wild situation[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. I. x germanica var. florentina[G,H,P]
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Epithets:	From a Dictionary of Botanical Epithets germanica = of Germany;
Systematics:	From a UDSA Plants Database Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database China; Europe; India; Turkey

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The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment.

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Medicinal Uses

Disclaimer

Diuretic; Purgative; Stomachic.

The dried root is diuretic, expectorant and stomachic[21, 238]. It is taken internally in the treatment of coughs, catarrh and diarrhoea[238]. Externally it is applied to deep wounds[238]. The root is harvested in late summer and early autumn and dried for later use[238].

The juice of the fresh root is a strong purge of great efficiency in the treatment of dropsy[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that

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Other Uses

Beads; Cosmetic; Dye; Essential; Ground cover; Incense.

The root is a source of Orris powder which has the scent of violets[238]. It is obtained by grinding up the dried root[4, 7, 46]. It is much used as a fixative in perfumery and pot-pourri, as an ingredient of toothpastes, breath fresheners etc and as a food flavouring. The root can take several years of drying to fully develop its violet-like fragrance, when fresh it has an acrid flavour and almost no smell[4, 168]. An essential oil is obtained from the fresh root, this has the same uses as the root[57, 61].

The root has been burnt in open fires in order to sweeten the smell of a room[245].

The juice of the root is sometimes used as a cosmetic and also for the removal of freckles from the skin[4].

A black dye is obtained from the root[168].

A blue dye is obtained from the flowers[168].

The seeds are used as rosary beads[61].

Plants can be grown for ground cover, the dense mat of roots excluding all weeds[208].

Cultivation details

Prefers a sunny position in a well-drained soil that contains some lime[1, 79]. Grows well in dry soils in light deciduous shade[187]. Succeeds in full sun or partial shade[79]. Prefers a pH in the range 6 to 7.5 or higher[200].

The plant is sometimes cultivated for the essential oil in its root[9, 46].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. A sterile plant, it does not produce seed[233].

Division, best done after flowering though it is usually successful at most times of the year. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

The dried root develops a delicious violet-like fragrance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Iris florentina* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Iris x germanica var. florentina* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal*. Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[79] **Innes. C.** *The World of Iridaceae*
Deals with many of the plants in the Iris family giving brief details of habitat and notes on cultivation. Well illustrated.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
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[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
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[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Iris germanica florentina

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Orris	Family:	Iridaceae
Author:	(L.) Dykes.	Botanical references:	89, 200
Synonyms:	Iris florentina (L.)		
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Europe - Mediterranean.		
Habitat:	Probably an albino form of I. germanica, it is not found in a truly wild situation[89].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. I. x germanica var. florentina[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below. Beyaz Susen [E], Florentine Iris [H], Florentine Orris [H], Flower De Luce Of Florenc [H], Nioi-Irisu [E], Orris [E,P], Orris Root [H], Pushkarmul [E], White Flower De Luce [H],
Epithets:	From a Dictionary of Botanical Epithets germanica = of Germany;
Systematics:	From a UDSA Plants Database Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database China; Europe; India; Turkey

Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 0.9m by 0.6m . It is hardy to zone 5 and is not frost tender. It is in flower in May, and the seeds ripen from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Ground Cover.

Edible Uses

Condiment.

The root can be dried, ground into a powder and used as a food flavouring[105]. The root may take several years of drying to develop its full fragrance[168].

Medicinal Uses

Disclaimer

Diuretic; Purgative; Stomachic.

The dried root is diuretic, expectorant and stomachic[21, 238]. It is taken internally in the treatment of coughs, catarrh and diarrhoea[238]. Externally it is applied to deep wounds[238]. The root is harvested in late summer and early autumn and dried for later use[238].

The juice of the fresh root is a strong purge of great efficiency in the treatment of dropsy[4].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that

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Other Uses

Beads; Cosmetic; Dye; Essential; Ground cover; Incense.

The root is a source of Orris powder which has the scent of violets[238]. It is obtained by grinding up the dried root[4, 7, 46]. It is much used as a fixative in perfumery and pot-pourri, as an ingredient of toothpastes, breath fresheners etc and as a food flavouring. The root can take several years of drying to fully develop its violet-like fragrance, when fresh it has an acrid flavour and almost no smell[4, 168]. An essential oil is obtained from the fresh root, this has the same uses as the root[57, 61].

The root has been burnt in open fires in order to sweeten the smell of a room[245].

The juice of the root is sometimes used as a cosmetic and also for the removal of freckles from the skin[4].

A black dye is obtained from the root[168].

A blue dye is obtained from the flowers[168].

The seeds are used as rosary beads[61].

Plants can be grown for ground cover, the dense mat of roots excluding all weeds[208].

Cultivation details

Prefers a sunny position in a well-drained soil that contains some lime[1, 79]. Grows well in dry soils in light deciduous shade[187]. Succeeds in full sun or partial shade[79]. Prefers a pH in the range 6 to 7.5 or higher[200].

The plant is sometimes cultivated for the essential oil in its root[9, 46].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. A sterile plant, it does not produce seed[233].

Division, best done after flowering though it is usually successful at most times of the year. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Root: Dried

The dried root develops a delicious violet-like fragrance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Iris germanica florentina*

Subject:

Iris germanica florentina

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Iris germanica florentina

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Iris pallida

Common name:	Dalmation iris	Family:	Iridaceae
Author:	Lam.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Europe - S. Tyrol from Yugoslavia to the Adriatic.		
Habitat:	Rocky places[45] in limestone hillsides and the sides of gorges[187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. junonia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Iris [H], Mavi Susen [E], Orris [H,E], Orris Root [H], Sausan [E], Sweet Iris [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	pallida = pale;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database

	India; Iraq; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.
Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting.
	Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 1.5m . It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Ground Cover.

Edible Uses

Condiment.

The root can be dried, ground into a powder and used as a food flavouring[46, 171]. The root may take several years of drying to develop its full fragrance[168].

'Orris oil' is an essential oil derived from the dried root, it is used as a flavouring in soft drinks, sweets, chewing gum etc[183].

Medicinal Uses

Disclaimer

Cathartic.

Cathartic[4]. The juice of the fresh root is a strong purge of great efficiency in the treatment of dropsy[4].

Other Uses

Cosmetic; Dye; Essential; Ground cover.

The root is a source of Orris powder which has the scent of violets[238]. It is obtained by grinding up the dried root[4, 7, 46]. It is much used as a fixative in perfumery and pot-pourri, as an ingredient of toothpastes, breath fresheners etc and as a food flavouring. The root can take several years of drying to fully develop its fragrance, when fresh it has an acrid flavour and almost no smell[4, 168]. An essential oil is obtained from the fresh root, this has the same uses as the root[57, 61].

The juice of the root is sometimes used as a cosmetic and also for the removal of freckles from the skin[4].

A black dye is obtained from the root[168].

A blue dye is obtained from the flowers[168].

Plants can be grown for ground cover, the dense mat of roots excluding all weeds[208].

Cultivation details

Requires a sunny position and a well-drained soil containing lime[42]. Easily cultivated in a sunny position in ordinary garden soil[187]. Prefers a pH between 6 and 7.5 or higher[200]. Established plants are drought tolerant[190].

Cultivated, especially in Italy, for the essential oil in its root[4].

The flowers are sweetly scented, reminding some people of orange blossom, others of vanilla and others of civet[245].

A very vigorous species[42]. The rhizome should be planted partly above the soil[1].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division, best done after flowering, though it can be done at almost any time. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

The flowers are sweetly scented, reminding some people of orange blossom, others of vanilla and others of civet.

Root: Dried

The dried root develops a delicious fragrance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951 Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[42] **Grey. C. H.** *Hardy Bulbs.* Williams & Norgate. 1938
Rather dated now, but an immense work on bulbs for temperate zones and how to grow them. Three large volumes.

[45] **Polunin. O.** *Flowers of Greece and the Balkans.* Oxford University Press 1980 ISBN 0-19-217626-9
A good pocket flora, it also lists quite a few plant uses.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
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[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9

Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
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Plants For A Future: Database Search Results

Iris pallida

Common name:	Dalmation iris	Family:	Iridaceae
Author:	Lam.	Botanical references:	50, 200
Synonyms:			
Known Hazards:	Many plants in this genus are thought to be poisonous if ingested, so caution is advised[65]. The roots are especially likely to be toxic[238]. Plants can cause skin irritations and allergies in some people[238].		
Range:	Europe - S. Tyrol from Yugoslavia to the Adriatic.		
Habitat:	Rocky places[45] in limestone hillsides and the sides of gorges[187].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	I. junonia[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Iris [H], Mavi Susen [E], Orris [H,E], Orris Root [H], Sausan [E], Sweet Iris [B,P],
Epithets:	From a Dictionary of Botanical Epithets
	pallida = pale;
Systematics:	From a UDSA Plants Database
	Order: Liliales . Iris family
Other Range Info:	From the Ethnobotany Database
	India; Iraq; Turkey
Noxious, Invasive and Injurious Weeds	From UDSA PLANTS database, Weeds Australia , DEFRA Injurious Weeds
	Listed as noxious/invasive for: Nevada.

Plant Passport required for Trade in UK/EU	From DEFRA Plant passporting. Plant Passport Required for commercial growers in the UK/Europe.

Physical Characteristics

Perennial growing to 1m by 1.5m . It is hardy to zone 5 and is not frost tender. It is in flower from May to June. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Ground Cover.

Edible Uses

Condiment.

The root can be dried, ground into a powder and used as a food flavouring[46, 171]. The root may take several years of drying to develop its full fragrance[168].

'Orris oil' is an essential oil derived from the dried root, it is used as a flavouring in soft drinks, sweets, chewing gum etc[183].

Medicinal Uses

Disclaimer

Cathartic.

Cathartic[4]. The juice of the fresh root is a strong purge of great efficiency in the treatment of dropsy[4].

Other Uses

Cosmetic; Dye; Essential; Ground cover.

The root is a source of Orris powder which has the scent of violets[238]. It is obtained by grinding up the dried root[4, 7, 46]. It is much used as a fixative in perfumery and pot-pourri, as an ingredient of toothpastes, breath fresheners etc and as a food flavouring. The root can take several years of drying to fully develop its fragrance, when fresh it has an acrid flavour and almost no smell[4, 168]. An essential oil is obtained from the fresh root, this has the same uses as the root[57, 61].

The juice of the root is sometimes used as a cosmetic and also for the removal of freckles from the skin[4].

A black dye is obtained from the root[168].

A blue dye is obtained from the flowers[168].

Plants can be grown for ground cover, the dense mat of roots excluding all weeds[208].

Cultivation details

Requires a sunny position and a well-drained soil containing lime[42]. Easily cultivated in a sunny position in ordinary garden soil[187]. Prefers a pH between 6 and 7.5 or higher[200]. Established plants are drought tolerant[190].

Cultivated, especially in Italy, for the essential oil in its root[4].

The flowers are sweetly scented, reminding some people of orange blossom, others of vanilla and others of civet[245].

A very vigorous species[42]. The rhizome should be planted partly above the soil[1].

Members of this genus are rarely if ever troubled by browsing deer or rabbits[233].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. Stored seed should be sown as early in the year as possible in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse or cold frame for their first year. Plant out into their permanent positions in late spring or early summer.

Division, best done after flowering, though it can be done at almost any time. Very easy, larger clumps can be replanted direct into their permanent positions, though it is best to pot up smaller clumps and grow them on in a cold frame until they are rooting well. Plant them out in the spring.

Scent

Flowers: Fresh

The flowers are sweetly scented, reminding some people of orange blossom, others of vanilla and others of civet.

Root: Dried

The dried root develops a delicious fragrance.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Iridaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[42] **Grey. C. H.** *Hardy Bulbs.* Williams & Norgate. 1938
Rather dated now, but an immense work on bulbs for temperate zones and how to grow them. Three large volumes.

[45] **Polunin. O.** *Flowers of Greece and the Balkans.* Oxford University Press 1980 ISBN 0-19-217626-9
A good pocket flora, it also lists quite a few plant uses.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[65] **Frohne. D. and Pfänder. J.** *A Colour Atlas of Poisonous Plants.* Wolfe 1984 ISBN 0723408394
Brilliant. Goes into technical details but in a very readable way. The best work on the subject that I've come across so far.

[168] **Grae. I.** *Nature's Colors - Dyes from Plants.* MacMillan Publishing Co. New York. 1974 ISBN 0-02-544950-8
A very good and readable book on dyeing.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[187] **Phillips. R. & Rix. M.** *Perennials Volumes 1 and 2.* Pan Books 1991 ISBN 0-330-30936-9
Photographs of over 3,000 species and cultivars of ornamental plants together with brief cultivation notes, details of habitat etc.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[208] **Thomas. G. S.** *Plants for Ground Cover* J. M. Dent & Sons 1990 ISBN 0-460-12609-1
An excellent detailled book on the subject, very comprehensive.

[233] **Thomas. G. S.** *Perennial Garden Plants* J. M. Dent & Sons, London. 1990 ISBN 0 460 86048 8
A concise guide to a wide range of perennials. Lots of cultivation guides, very little on plant uses.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Habitats and Possible Locations

Ground Cover.

Edible Uses

Condiment.

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Scent

Flowers: Fresh

The flowers are sweetly scented, reminding some people of orange blossom, others of vanilla and others of civet.

Root: Dried

The dried root develops a delicious fragrance.

Suppliers

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Add a comment on: *Iris pallida*

Subject:

Iris pallida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Iris pallida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Search for

Edible Use: Condiment (548);

Latin Name	Common Name	Description	PFAF Rating
Jasminum humile	Yellow jasmine	Condiment	1
Jasminum odoratissimum		Condiment	1
Jasminum officinale	Jessamine	Condiment	2
Juniperus communis	Juniper	Condiment	4
Juniperus communis nana	Juniper	Condiment	3
Juniperus rigida	Temple juniper	Condiment	2
Juniperus scopulorum	Rocky Mountain juniper	Condiment	3
Lagarostrobus franklinii	Huon pine	Condiment	2
Lagoecia cuminoides		Condiment	1
Larrea tridentata	Creosote bush	Condiment	2
Laser trilobum	Gladich	Condiment	2
Laserpitium latifolium	Laserwort	Condiment	1
Laserpitium siler		Condiment	1
Laurelia sempervirens	Chilean laurel	Condiment	2
Laurus nobilis	Bay tree	Condiment	3
Lavandula angustifolia	Lavender	Condiment	4
Lavandula latifolia	Spike lavender	Condiment	3
Lavandula x intermedia	Lavender	Condiment	2
Ledum columbianum		Condiment	2
Ledum glandulosum	Labrador tea	Condiment	2
Ledum groenlandicum	Labrador tea	Condiment	2
Ledum palustre	Wild rosemary	Condiment	2
Leonurus cardiaca	Motherwort	Condiment	2

Lepidium campestre	Pepperwort	Condiment	2
Lepidium fremontii	Desert pepperweed	Condiment	2
Lepidium intermedium		Condiment	1
Lepidium latifolium	Dittander	Condiment	3
Lepidium nitidum	Shining pepperweed	Condiment	1
Lepidium sativum	Cress	Condiment	3
Lepidium virginicum	Wild pepper-grass	Condiment	2
Levisticum officinale	Lovage	Condiment	3
Ligusticum monnieri		Condiment	1
Ligusticum porteri	Porter's licoriceroot	Condiment	1
Ligusticum scoticum	Scottish lovage	Condiment	3
Lilium brownii	Hong Kong lily	Condiment	3
Lindera benzoin	Spice bush	Condiment	3
Lindera umbellata		Condiment	1
Liriodendron tulipifera	Tulip tree	Condiment	1
Lobularia maritima	Sweet alyssum	Condiment	1
Lomatium triternatum	Nineleaf biscuitroot	Condiment	3
Lunaria annua	Honesty	Condiment	2
Lysimachia clethroides	Gooseneck loosestrife	Condiment	1
Lysimachia fortunei		Condiment	1
Magnolia denudata	Lily tree	Condiment	1
Magnolia grandiflora		Condiment	2
Magnolia hypoleuca		Condiment	2
Magnolia kobus		Condiment	1
Magnolia virginiana	Laurel magnolia	Condiment	1
Marrubium vulgare	White horehound	Condiment	2
Matricaria recutita	German camomile	Condiment	3
Megacarpaea polyandra		Condiment	2
Melilotus albus	White melilot	Condiment	2
Melilotus altissimus	Tall melilot	Condiment	2
Melilotus elegans		Condiment	1
Melilotus officinalis	Melilot	Condiment	2

Melissa officinalis	Lemon balm	Condiment	3
Mentha aquatica	Water mint	Condiment	3
Mentha arvensis	Corn mint	Condiment	3
Mentha arvensis piperascens	Japanese mint	Condiment	3
Mentha arvensis villosa	American wild mint	Condiment	3
Mentha asiatica	Asian mint	Condiment	3
Mentha diemenica		Condiment	2
Mentha longifolia	Horsemint	Condiment	2
Mentha pulegium	Pennyroyal	Condiment	3
Mentha requienii	Corsican mint	Condiment	3
Mentha satureioides	Native pennyroyal	Condiment	2
Mentha spicata	Spearmint	Condiment	4
Mentha suaveolens	Round-leaved mint	Condiment	2
Mentha x gracilis	Ginger mint	Condiment	3
Mentha x piperita citrata	Eau de Cologne mint	Condiment	3
Mentha x piperita officinalis	White peppermint	Condiment	3
Mentha x piperita vulgaris	Black peppermint	Condiment	4
Mentha x smithiana	Red raripila mint	Condiment	3
Mentha x villosa alopecuroides	Apple mint	Condiment	4
Menyanthes trifoliata	Bogbean	Condiment	2
Meum athamanticum	Spignel	Condiment	3
Michelia figo	Banana shrub	Condiment	1
Micromeria juliana	Savory	Condiment	1
Mirabilis jalapa	Marvel of Peru	Condiment	2
Monarda citriodora	Lemon bergamot	Condiment	1
Monarda didyma	Bergamot	Condiment	3
Monarda fistulosa	Wild bergamot	Condiment	3
Monarda pectinata	Plains lemon monarda	Condiment	1
Monarda punctata	Horse mint	Condiment	1
Myrica cerifera	Wax myrtle	Condiment	4
Myrica gale	Bog myrtle	Condiment	2
Myrica heterophylla	Bayberry	Condiment	3

Myrica pensylvanica	Northern bayberry	Condiment	4
Myrsine africana	Cape myrtle	Condiment	1
Myrtus communis	Myrtle	Condiment	3
Nardostachys grandiflora	Spikenard	Condiment	2
Nasturtium microphyllum	Watercress	Condiment	3
Nasturtium officinale	Watercress	Condiment	4
Nepeta cataria	Catmint	Condiment	3
Nepeta tenuifolia japonica		Condiment	1
Nigella arvensis	Wild fennel	Condiment	2
Nigella damascena	Love-in-a-mist	Condiment	3
Nigella orientalis	Yellow fennel flower	Condiment	2
Nigella sativa	Black cumin	Condiment	3
Nothoscordum gracile		Condiment	2

Previous Next List by genus

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Jasminum humile

Common name:	Yellow jasmine	Family:	Oleaceae
Author:	L.	Botanical references:	11, 145, 200
Synonyms:	Jasminum bignoniaceum (Wall.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Scrub and dry valleys, 1500 - 3000 metres in the Himalayas[184]. Also found in forests in Srinagar[145].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. humile var. revolutum[G] J. revolutum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Italian Yellow-f, Jasmine [H], Italian Yellow-flowered J [H], Yellow Jasmine [H], Yellow-flowered Jasmine [H],
Epithets:	From a Dictionary of Botanical Epithets
	humile = low growing;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	Europe

Physical Characteristics

An evergreen shrub growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The leaves are used as a condiment[177, 183].

A tea is made from the leaves and bark[183].

Medicinal Uses

Disclaimer

Astringent; Cardiotonic; Decongestant; Tonic.

The flowers are astringent and a tonic for the heart and bowels[240].

The root is used in the treatment of ringworm[240].

The milky juice of the plant is used for destroying the unhealthy lining walls of chronic sinuses and fistulas[240].

Other Uses

Wood.

Wood - even-grained, moderately hard[146].

Cultivation details

Succeeds in a good well-drained loam in a sunny position[1, 200]. Tolerates light shade[202]. Tolerates most soil types, including dry soils once it is established[202].

This species is not very cold hardy, tolerating temperatures down to about -10°c[184]. It requires some protection such as a warm wall when grown outdoors in Britain[200].

There are some named varieties selected for their ornamental value[188]. The flowers are slightly scented[245].

Plants produce suckers and these can sometimes be invasive[202].

Pruning can be carried out in early to mid spring. Removing one third of the oldest growth down to ground level rejuvenates the plant and encourages greater flowering[202].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

Layering.

Scent

Flowers: Fresh

> The flowers are slightly scented.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this

database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9

Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
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[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Plants For A Future: Database Search Results

Jasminum humile

Common name:	Yellow jasmine	Family:	Oleaceae
Author:	L.	Botanical references:	11, 145, 200
Synonyms:	Jasminum bignoniaceum (Wall.)		
Known Hazards:	None known		
Range:	E. Asia - China to the Himalayas.		
Habitat:	Scrub and dry valleys, 1500 - 3000 metres in the Himalayas[184]. Also found in forests in Srinagar[145].		
Plants For A Future Rating (1-5):	1		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. humile var. revolutum[G] J. revolutum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Italian Yellow-f, Jasmine [H], Italian Yellow-flowered J [H], Yellow Jasmine [H], Yellow-flowered Jasmine [H],
Epithets:	From a Dictionary of Botanical Epithets
	humile = low growing;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	Europe

Physical Characteristics

An evergreen shrub growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The leaves are used as a condiment[177, 183].

A tea is made from the leaves and bark[183].

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Disclaimer

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The root is used in the treatment of ringworm[240].

The milky juice of the plant is used for destroying the unhealthy lining walls of chronic sinuses and fistulas[240].

Other Uses

Wood.

Wood - even-grained, moderately hard[146].

Cultivation details

Succeeds in a good well-drained loam in a sunny position[1, 200]. Tolerates light shade[202]. Tolerates most soil types, including dry soils once it is established[202].

This species is not very cold hardy, tolerating temperatures down to about -10°c[184]. It requires some protection such as a warm wall when grown outdoors in Britain[200].

There are some named varieties selected for their ornamental value[188]. The flowers are slightly scented[245].

Plants produce suckers and these can sometimes be invasive[202].

Pruning can be carried out in early to mid spring. Removing one third of the oldest growth down to ground level rejuvenates the plant and encourages greater flowering[202].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

Layering.

Scent

Flowers: Fresh

> The flowers are slightly scented.

Cultivars

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Suppliers

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Plants For A Future: Database Search Results

Jasminum humile

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Author:	L.	Botanical references:	11, 145, 200
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Range:	E. Asia - China to the Himalayas.		
Habitat:	Scrub and dry valleys, 1500 - 3000 metres in the Himalayas[184]. Also found in forests in Srinagar[145].		
Plants For A Future Rating (1-5):	1		

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Epithets:	From a Dictionary of Botanical Epithets
	humile = low growing;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	Europe

Physical Characteristics

An evergreen shrub growing to 3m by 3m . It is hardy to zone 8. It is in leaf all year, in flower from July to August. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires dry or moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The leaves are used as a condiment[177, 183].

A tea is made from the leaves and bark[183].

Medicinal Uses

Disclaimer

Astringent; Cardiotonic; Decongestant; Tonic.

The flowers are astringent and a tonic for the heart and bowels[240].

The root is used in the treatment of ringworm[240].

The milky juice of the plant is used for destroying the unhealthy lining walls of chronic sinuses and fistulas[240].

Other Uses

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Wood - even-grained, moderately hard[146].

Cultivation details

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This species is not very cold hardy, tolerating temperatures down to about -10°c[184]. It requires some protection such as a warm wall when grown outdoors in Britain[200].

There are some named varieties selected for their ornamental value[188]. The flowers are slightly scented[245].

Plants produce suckers and these can sometimes be invasive[202].

Pruning can be carried out in early to mid spring. Removing one third of the oldest growth down to ground level rejuvenates the plant and encourages greater flowering[202].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

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Scent

Flowers: Fresh

> The flowers are slightly scented.

Cultivars

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Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Jasminum humile*

Subject:

Jasminum humile

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Jasminum humile

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Jasminum odoratissimum

Common name:		Family:	Oleaceae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Madeira.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	True Yellow Jasmine [H],
Epithets:	From a Dictionary of Botanical Epithets
	odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

A decidious shrub. It is hardy to zone 9. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The flowers are used for flavouring or scenting tea[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

An essential oil from the flowers is used in perfumery[46, 61]. The flowers are picked soon after opening each morning and used fresh for oil extraction[238].

Cultivation details

We have almost no information on this species, though one report says that it can succeed outdoors in the mildest areas of Britain[245].

Most members of this genus succeed in a good well-drained loam[1, 200].

The flowers have a heavy sweet perfume[245]. The plant is cultivated in warm temperate areas for the essential oil obtained from the flowers[50, 61].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

Layering.

Scent

Flowers: Fresh

The flowers have a heavy sweet perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of

useful plants from around the world with very brief details of the uses. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Jasminum odoratissimum

Common name:		Family:	Oleaceae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Madeira.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	True Yellow Jasmine [H],
Epithets:	From a Dictionary of Botanical Epithets
	odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

A decidious shrub. It is hardy to zone 9. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The flowers are used for flavouring or scenting tea[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

An essential oil from the flowers is used in perfumery[46, 61]. The flowers are picked soon after opening each morning and used fresh for oil extraction[238].

Cultivation details

We have almost no information on this species, though one report says that it can succeed outdoors in the mildest areas of Britain[245].

Most members of this genus succeed in a good well-drained loam[1, 200].

The flowers have a heavy sweet perfume[245]. The plant is cultivated in warm temperate areas for the essential oil obtained from the flowers[50, 61].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

Layering.

Scent

Flowers: Fresh

The flowers have a heavy sweet perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Jasminum odoratissimum

Common name:		Family:	Oleaceae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Madeira.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	True Yellow Jasmine [H],
Epithets:	From a Dictionary of Botanical Epithets
	odora = fragrant;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family

Physical Characteristics

A decidious shrub. It is hardy to zone 9. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The flowers are used for flavouring or scenting tea[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

An essential oil from the flowers is used in perfumery[46, 61]. The flowers are picked soon after opening each morning and used fresh for oil extraction[238].

Cultivation details

We have almost no information on this species, though one report says that it can succeed outdoors in the mildest areas of Britain[245].

Most members of this genus succeed in a good well-drained loam[1, 200].

The flowers have a heavy sweet perfume[245]. The plant is cultivated in warm temperate areas for the essential oil obtained from the flowers[50, 61].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

Layering.

Scent

Flowers: Fresh

The flowers have a heavy sweet perfume.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Jasminum odoratissimum*

Subject:

Jasminum odoratissimum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Jasminum odoratissimum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Jasminum officinale

Common name:	Jessamine	Family:	Oleaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia to E. Asia.		
Habitat:	Shrubberies and forests, usually on humus-rich soils, 1200 - 3000 metres in the Himalayas[51, 145].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. grandiflorum[B,P] J. officinale var. grandiflorum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common White Jasmine [H], Jessamine [E], Poet's Jasmine [B,H,P], So Hsing [E], Yasamin [E], Yasemin [E], Yeh Hsi Mi [E], Yeh Hsi Ming [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinale = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	China; Europe; Iraq; Spain; Turkey

Physical Characteristics

A decidious climber growing to 10m by 10m at a fast rate. It is hardy to zone 7. It is in flower from June to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Flowers; Tea.

Flowers - fragrant. Eaten or used to flavour or scent tea[183]. The dried flowers are a tea substitute[177].

An essential oil from the flowers is used as a condiment in various foods, especially Maraschino cherries but also baked goods, ice cream, sweets, chewing gum etc[183, 238]. It imparts a bitter-sweet floral tone[183].

Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Aphrodisiac; Aromatherapy; Galactogogue; Parasiticide; Tonic.

The leaf juice is applied to corns and ear discharges[218, 240]. The leaves contain salicylic acid (found also in the bark of Salix species and used as an analgesic, febrifuge etc)[218, 240].

The root is used in the treatment of ringworm[240].

The flowers are aphrodisiac, antiseptic, antispasmodic, galactogogue and tonic[178, 218, 238]. They are mainly used in aromatherapy (see below).

The essential oil is used in aromatherapy. Its keyword is 'Aphrodisiac'[210]. It is used in the treatment of depression, nervous tension, impotence, frigidity, menstrual disorders and weak digestion[238].

Other Uses

Essential.

An essential oil from the flowers is used in perfumery[46, 171, 200]. The flowers are picked soon after opening each morning and used fresh for oil extraction[238].

Cultivation details

Succeeds in a good well-drained loam[200], preferring a sunny position[182]. Very shade tolerant, it succeeds on a north facing wall[200].

Plants are hardy to about -15°c[184]. They require the protection of a wall in northern Britain but are fully hardy in the south[11]. Another report says that they are hardy to about -10°c, and that the stem tips are often killed back in the winter though the plant soon recovers[202].

Climbs by means of twining[182]. It is self-supporting[200] and fast-growing[202]. Any pruning is best carried out in late winter and early spring[202].

A very ornamental plant[1], there are some named varieties[200]. The flowers are very fragrant[202] and the plant is sometimes cultivated for the essential oil in its flowers, the sub-species J. officinale grandiflorum (L.)Kobuski. is used[171]. Flowers are produced on the current year's growth and also on older wood[202].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

Layering.

Scent

Flowers: Fresh

> The flowers are very fragrant with a delicious aroma.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951 Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Jasminum officinale

Common name:	Jessamine	Family:	Oleaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia to E. Asia.		
Habitat:	Shrubberies and forests, usually on humus-rich soils, 1200 - 3000 metres in the Himalayas[51, 145].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. grandiflorum[B,P] J. officinale var. grandiflorum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common White Jasmine [H], Jessamine [E], Poet's Jasmine [B,H,P], So Hsing [E], Yasamin [E], Yasemin [E], Yeh Hsi Mi [E], Yeh Hsi Ming [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinale = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	China; Europe; Iraq; Spain; Turkey

Physical Characteristics

A decidious climber growing to 10m by 10m at a fast rate. It is hardy to zone 7. It is in flower from June to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Flowers; Tea.

Flowers - fragrant. Eaten or used to flavour or scent tea[183]. The dried flowers are a tea substitute[177].

An essential oil from the flowers is used as a condiment in various foods, especially Maraschino cherries but also baked goods, ice cream, sweets, chewing gum etc[183, 238]. It imparts a bitter-sweet floral tone[183].

Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Aphrodisiac; Aromatherapy; Galactogogue; Parasiticide; Tonic.

The leaf juice is applied to corns and ear discharges[218, 240]. The leaves contain salicylic acid (found also in the bark of Salix species and used as an analgesic, febrifuge etc)[218, 240].

The root is used in the treatment of ringworm[240].

The flowers are aphrodisiac, antiseptic, antispasmodic, galactogogue and tonic[178, 218, 238]. They are mainly used in aromatherapy (see below).

The essential oil is used in aromatherapy. Its keyword is 'Aphrodisiac'[210]. It is used in the treatment of depression, nervous tension, impotence, frigidity, menstrual disorders and weak digestion[238].

Other Uses

Essential.

An essential oil from the flowers is used in perfumery[46, 171, 200]. The flowers are picked soon after opening each morning and used fresh for oil extraction[238].

Cultivation details

Succeeds in a good well-drained loam[200], preferring a sunny position[182]. Very shade tolerant, it succeeds on a north facing wall[200].

Plants are hardy to about -15°c[184]. They require the protection of a wall in northern Britain but are fully hardy in the south[11]. Another report says that they are hardy to about -10°c, and that the stem tips are often killed back in the winter though the plant soon recovers[202].

Climbs by means of twining[182]. It is self-supporting[200] and fast-growing[202]. Any pruning is best carried out in late winter and early spring[202].

A very ornamental plant[1], there are some named varieties[200]. The flowers are very fragrant[202] and the plant is sometimes cultivated for the essential oil in its flowers, the sub-species J. officinale grandiflorum (L.)Kobuski. is used[171]. Flowers are produced on the current year's growth and also on older wood[202].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

Layering.

Scent

Flowers: Fresh

> The flowers are very fragrant with a delicious aroma.

Cultivars

''

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the

natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Oleaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is

very terse though and with very little extra information. Not for the casual reader.

[51] **Polunin. O. and Stainton. A.** *Flowers of the Himalayas.* Oxford Universtiy Press 1984
A very readable and good pocket guide (if you have a very large pocket!) to many of the wild plants in the Himalayas. Gives many examples of plant uses.

[145] **Singh. Dr. G. and Kachroo. Prof. Dr. P.** *Forest Flora of Srinagar.* Bishen Singh Mahendra Pal Singh 1976
A good flora of the western Himalayas but poorly illustrated. Some information on plant uses.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[178] **Stuart. Rev. G. A.** *Chinese Materia Medica.* Taipei. Southern Materials Centre
A translation of an ancient Chinese herbal. Fascinating.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985

ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[240] **Chopra. R. N., Nayar. S. L. and Chopra. I. C.** *Glossary of Indian Medicinal Plants (Including the Supplement).* Council of Scientific and Industrial Research, New Delhi. 1986
Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Jasminum officinale

Common name:	Jessamine	Family:	Oleaceae
Author:	L.	Botanical references:	11, 50, 200
Synonyms:			
Known Hazards:	None known		
Range:	W. Asia to E. Asia.		
Habitat:	Shrubberies and forests, usually on humus-rich soils, 1200 - 3000 metres in the Himalayas[51, 145].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	J. grandiflorum[B,P] J. officinale var. grandiflorum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Common White Jasmine [H], Jessamine [E], Poet's Jasmine [B,H,P], So Hsing [E], Yasamin [E], Yasemin [E], Yeh Hsi Mi [E], Yeh Hsi Ming [E],
Epithets:	From a Dictionary of Botanical Epithets
	officinale = sold as an herb;
Systematics:	From a UDSA Plants Database
	Order: Scrophulariales . Olive family
Other Range Info:	From the Ethnobotany Database
	China; Europe; Iraq; Spain; Turkey

Physical Characteristics

A decidious climber growing to 10m by 10m at a fast rate. It is hardy to zone 7. It is in flower from June to September. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained

soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade, Shady Edge.

Edible Uses

Condiment; Flowers; Tea.

Flowers - fragrant. Eaten or used to flavour or scent tea[183]. The dried flowers are a tea substitute[177].

An essential oil from the flowers is used as a condiment in various foods, especially Maraschino cherries but also baked goods, ice cream, sweets, chewing gum etc[183, 238]. It imparts a bitter-sweet floral tone[183].

Medicinal Uses

Disclaimer

Antiseptic; Antispasmodic; Aphrodisiac; Aromatherapy; Galactogogue; Parasiticide; Tonic.

The leaf juice is applied to corns and ear discharges[218, 240]. The leaves contain salicylic acid (found also in the bark of Salix species and used as an analgesic, febrifuge etc)[218, 240].

The root is used in the treatment of ringworm[240].

The flowers are aphrodisiac, antiseptic, antispasmodic, galactogogue and tonic[178, 218, 238]. They are mainly used in aromatherapy (see below).

The essential oil is used in aromatherapy. Its keyword is 'Aphrodisiac'[210]. It is used in the treatment of depression, nervous tension, impotence, frigidity, menstrual disorders and weak digestion[238].

Other Uses

Essential.

An essential oil from the flowers is used in perfumery[46, 171, 200]. The flowers are picked soon after opening each morning and used fresh for oil extraction[238].

Cultivation details

Succeeds in a good well-drained loam[200], preferring a sunny position[182]. Very shade tolerant, it succeeds on a north facing wall[200].

Plants are hardy to about -15°c[184]. They require the protection of a wall in northern Britain but are fully hardy in the south[11]. Another report says that they are hardy to about -10°c, and that the stem tips are often killed back in the winter though the plant soon recovers[202].

Climbs by means of twining[182]. It is self-supporting[200] and fast-growing[202]. Any pruning is best carried out in late winter and early spring[202].

A very ornamental plant[1], there are some named varieties[200]. The flowers are very fragrant[202] and the plant is sometimes cultivated for the essential oil in its flowers, the sub-species J. officinale grandiflorum (L.)Kobuski. is used[171]. Flowers are produced on the current year's growth and also on older wood[202].

Plants in this genus are notably resistant to honey fungus[200].

Propagation

Seed - best sown as soon as it is ripe in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of half-ripe wood, July/August in a frame. Very easy.

Cuttings of mature wood in November.

Layering.

Scent

Flowers: Fresh

> The flowers are very fragrant with a delicious aroma.

Cultivars

"

> There are some named forms for this species, but these have been developed for their ornamental value and not for their other uses. Unless you particularly require the special characteristics of any of these cultivars, we would generally recommend that you grow the

natural species for its useful properties. We have, therefore, not listed the cultivars in this database[K].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Jasminum officinale*

Subject:

Jasminum officinale

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Jasminum officinale

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 05:59:13 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Juniperus rigida

Common name:	Temple juniper	Family:	Cupressaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Juniperus utilis (Koidz.)		
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea, Manchuria.		
Habitat:	Hills and mountains in C. and S. Japan[58]. Dry areas in mountains below 2200 metres in China[266].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Nezu [E],
Epithets:	From a Dictionary of Botanical Epithets
	rigida = rigid;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

An evergreen tree growing to 8m by 8m at a slow rate. It is hardy to zone 5. It is in leaf all year, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[183]. It can also be ground into a powder and used as a spice[105, 177, 183]. The cones are about 7 - 11mm in diameter, they take 2 years to mature[200].

Medicinal Uses

Disclaimer

Diuretic.

The fruit is diuretic[61, 254].

Other Uses

Oil; Wood.

An oil is obtained from the fruit. It is mentioned as being diuretic[61], is this an essential oil?

Wood. Used for construction, agricultural implements, fencing etc[61].

Cultivation details

Succeeds in most soils if they are well drained, preferring a neutral or slightly alkaline soil[11] and succeeding on chalk[200]. Established plants are drought tolerant, succeeding in hot dry positions[200].

A very ornamental plant[1], it thrives in S. England[11].

Trees are very slow growing in Britain, normally averaging only 15cm a year increase in height[185].

Cultivated for its wood in Asia[61].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for the family Cupressaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[58] **Ohwi. G.** *Flora of Japan. (English translation)* Smithsonian Institution 1965
The standard work. Brilliant, but not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[185] **Mitchell. A. F.** *Conifers in the British Isles.* HMSO 1975 ISBN 0-11-710012-9
A bit out of date (first published in 1972), but an excellent guide to how well the various species of conifers grow in Britain giving locations of trees.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

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Readers Comments

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Plants For A Future: Database Search Results

Juniperus rigida

Common name:	Temple juniper	Family:	Cupressaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Juniperus utilis (Koidz.)		
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea, Manchuria.		
Habitat:	Hills and mountains in C. and S. Japan[58]. Dry areas in mountains below 2200 metres in China[266].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Nezu [E],
Epithets:	From a Dictionary of Botanical Epithets
	rigida = rigid;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

An evergreen tree growing to 8m by 8m at a slow rate. It is hardy to zone 5. It is in leaf all year, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[183]. It can also be ground into a powder and used as a spice[105, 177, 183]. The cones are about 7 - 11mm in diameter, they take 2 years to mature[200].

Medicinal Uses

Disclaimer

Diuretic.

The fruit is diuretic[61, 254].

Other Uses

Oil; Wood.

An oil is obtained from the fruit. It is mentioned as being diuretic[61], is this an essential oil?

Wood. Used for construction, agricultural implements, fencing etc[61].

Cultivation details

Succeeds in most soils if they are well drained, preferring a neutral or slightly alkaline soil[11] and succeeding on chalk[200]. Established plants are drought tolerant, succeeding in hot dry positions[200].

A very ornamental plant[1], it thrives in S. England[11].

Trees are very slow growing in Britain, normally averaging only 15cm a year increase in height[185].

Cultivated for its wood in Asia[61].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: H-K
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

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References for the family Cupressaceae.

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[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[81] **Rushforth. K.** *Conifers.* Christopher Helm 1987 ISBN 0-7470-2801-X
Deals with conifers that can be grown outdoors in Britain. Good notes on cultivation and a few bits about plant uses.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996

ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

[266] *Flora of China* 1994
On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

Readers Comments

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Plants For A Future: Database Search Results

Juniperus rigida

Common name:	Temple juniper	Family:	Cupressaceae
Author:	Sieb. & Zucc.	Botanical references:	11, 58, 200
Synonyms:	Juniperus utilis (Koidz.)		
Known Hazards:	None known		
Range:	E. Asia - Japan, Korea, Manchuria.		
Habitat:	Hills and mountains in C. and S. Japan[58]. Dry areas in mountains below 2200 metres in China[266].		
Plants For A Future Rating (1-5):	2		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Nezu [E],
Epithets:	From a Dictionary of Botanical Epithets
	rigida = rigid;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Cypress family
Other Range Info:	From the Ethnobotany Database
	Japan

Physical Characteristics

An evergreen tree growing to 8m by 8m at a slow rate. It is hardy to zone 5. It is in leaf all year, and the seeds ripen in October. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought.

Habitats and Possible Locations

Woodland, Sunny Edge.

Edible Uses

Condiment; Fruit.

Fruit - raw or cooked[183]. It can also be ground into a powder and used as a spice[105, 177, 183]. The cones are about 7 - 11mm in diameter, they take 2 years to mature[200].

Medicinal Uses

Disclaimer

Diuretic.

The fruit is diuretic[61, 254].

Other Uses

Oil; Wood.

An oil is obtained from the fruit. It is mentioned as being diuretic[61], is this an essential oil?

Wood. Used for construction, agricultural implements, fencing etc[61].

Cultivation details

Succeeds in most soils if they are well drained, preferring a neutral or slightly alkaline soil[11] and succeeding on chalk[200]. Established plants are drought tolerant, succeeding in hot dry positions[200].

A very ornamental plant[1], it thrives in S. England[11].

Trees are very slow growing in Britain, normally averaging only 15cm a year increase in height[185].

Cultivated for its wood in Asia[61].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

The seed requires a period of cold stratification. The seed has a hard seedcoat and can be very slow to germinate, requiring a cold period followed by a warm period and then another cold spell, each of 2 - 3 months duration[78, 81]. Soaking the seed for 3 - 6 seconds in boiling water may speed up the germination process[11]. The seed is best sown as soon as it is ripe in a cold frame. Some might germinate in the following spring, though most will take another year. Another possibility is to harvest the seed 'green' (when the embryo has fully formed but before the seedcoat has hardened). The seedlings can be potted up into individual pots when they are large enough to handle. Grow on in pots until large enough, then plant out in early summer. When stored dry, the seed can remain viable for several years[1].

Cuttings of mature wood, 5 - 10cm with a heel, September/October in a cold frame. Plant out in the following autumn[1, 78].

Layering in September/October. Takes 12 months[78].

Suppliers

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Juniperus rigida*

Subject:

Juniperus rigida

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Juniperus rigida

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

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Lagarostrobus franklinii

Common name:	Huon pine	Family:	Podocarpaceae
Author:	(Hook.) Quinn.	Botanical references:	11, 200
Synonyms:	Dacrydium franklinii (Hook.)		
Known Hazards:	None known		
Range:	Australia - S. and W. Tasmania.		
Habitat:	Banks of rivers and swampy flats to 750 metres[11, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below. Lagarostrobos franklinii[G]
Other Common Names:	From various places around the Web, may not be correct. See below. Huon Pine [P],
Epithets:	From a Dictionary of Botanical Epithets strobus = gum yielding;
Systematics:	From a UDSA Plants Database Order: Pinales . Podocarpus family

Physical Characteristics

An evergreen tree growing to 15m at a slow rate. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade.

Edible Uses

Condiment.

The source of an essential oil, called Huon pinewood oil, that has been recommended for the production of vanillin[61, 183]. This can be used as a flavouring in ice creams, confectionery, beverages etc[183]. It is usually obtained by steam distillation of the wood[156].

Medicinal Uses

Disclaimer

None known

Other Uses

Repellent; Resin.

The essential oil (see above) is also used in medicinal soaps, toilet water, as a preservative in casein paints etc[46, 61, 156].

Wood - fairly hard, straight grained, light, soft, strong, aromatic. It is very durable, containing a strongly scented resin that repels insects. Used for construction, furniture etc[61, 156, 167].

Cultivation details

Requires a light, freely draining soil[164] in a sheltered position with protection from cold winds[166]. Requires high rainfall and humidity if it is to succeed[200]. This species tolerates shade and probably requires it in drier areas if the tree is to survive[82, 200]. It requires warm summers if it is to grow well in this country, and even then it is very slow growing[11, 200].

Plants are only hardy in the milder areas of the country[11, 82]. An 80 year old tree at Bodnant was 6 metres tall in 1970[185]. Plants are hardy to at least -7°c in Australian gardens[157] but this cannot be translated directly to British gardens because of our cooler summers and colder, wetter winters.

Propagation

Seed - sow spring in a freely draining compost. Germination usually takes place within 1 - 3 months at 20°c[164]. Another report says that the seed can be very slow to germinate and that it is best sown in a cold frame as soon as it is ripe[200]. Sow stored seed as early in the year as possible.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

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- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for the family Podocarpaceae.

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References

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Known Hazards:	None known		
Range:	Australia - S. and W. Tasmania.		
Habitat:	Banks of rivers and swampy flats to 750 metres[11, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Lagarostrobos franklinii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Huon Pine [P],
Epithets:	From a Dictionary of Botanical Epithets
	strobus = gum yielding;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Podocarpus family

Physical Characteristics

An evergreen tree growing to 15m at a slow rate. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade.

Edible Uses

Condiment.

The source of an essential oil, called Huon pinewood oil, that has been recommended for the production of vanillin[61, 183]. This can be used as a flavouring in ice creams, confectionery, beverages etc[183]. It is usually obtained by steam distillation of the wood[156].

Medicinal Uses

Disclaimer

None known

Other Uses

Repellent; Resin.

The essential oil (see above) is also used in medicinal soaps, toilet water, as a preservative in casein paints etc[46, 61, 156].

Wood - fairly hard, straight grained, light, soft, strong, aromatic. It is very durable, containing a strongly scented resin that repels insects. Used for construction, furniture etc[61, 156, 167].

Cultivation details

Requires a light, freely draining soil[164] in a sheltered position with protection from cold winds[166]. Requires high rainfall and humidity if it is to succeed[200]. This species tolerates shade and probably requires it in drier areas if the tree is to survive[82, 200]. It requires warm summers if it is to grow well in this country, and even then it is very slow growing[11, 200].

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Plants For A Future: Database Search Results

Lagarostrobus franklinii

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Author:	(Hook.) Quinn.	Botanical references:	11, 200
Synonyms:	Dacrydium franklinii (Hook.)		
Known Hazards:	None known		
Range:	Australia - S. and W. Tasmania.		
Habitat:	Banks of rivers and swampy flats to 750 metres[11, 167].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Lagarostrobos franklinii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Huon Pine [P],
Epithets:	From a Dictionary of Botanical Epithets
	strobus = gum yielding;
Systematics:	From a UDSA Plants Database
	Order: Pinales . Podocarpus family

Physical Characteristics

An evergreen tree growing to 15m at a slow rate. It is hardy to zone 8. It is in leaf all year. The flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade.

Edible Uses

Condiment.

The source of an essential oil, called Huon pinewood oil, that has been recommended for the production of vanillin[61, 183]. This can be used as a flavouring in ice creams, confectionery, beverages etc[183]. It is usually obtained by steam distillation of the wood[156].

Medicinal Uses

Disclaimer

None known

Other Uses

Repellent; Resin.

The essential oil (see above) is also used in medicinal soaps, toilet water, as a preservative in casein paints etc[46, 61, 156].

Wood - fairly hard, straight grained, light, soft, strong, aromatic. It is very durable, containing a strongly scented resin that repels insects. Used for construction, furniture etc[61, 156, 167].

Cultivation details

Requires a light, freely draining soil[164] in a sheltered position with protection from cold winds[166]. Requires high rainfall and humidity if it is to succeed[200]. This species tolerates shade and probably requires it in drier areas if the tree is to survive[82, 200]. It requires warm summers if it is to grow well in this country, and even then it is very slow growing[11, 200].

Plants are only hardy in the milder areas of the country[11, 82]. An 80 year old tree at Bodnant was 6 metres tall in 1970[185]. Plants are hardy to at least -7°c in Australian gardens[157] but this cannot be translated directly to British gardens because of our cooler summers and colder, wetter winters.

Propagation

Seed - sow spring in a freely draining compost. Germination usually takes place within 1 - 3 months at 20°c[164]. Another report says that the seed can be very slow to germinate and that it is best sown in a cold frame as soon as it is ripe[200]. Sow stored seed as early in the year as possible.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Lagarostrobus+franklinii`
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`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Lagarostrobus+franklinii`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Lagarostrobus franklinii*

Subject:

Lagarostrobus franklinii

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lagarostrobus franklinii

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 06:01:14 2004

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Add Comment Reset

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Lagoecia cuminoides

Common name:		Family:	Umbelliferae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - South-eastern Portugal and Bulgaria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cardamana [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Arab

Physical Characteristics

Annual growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment.

The seed can be used as a cumin substitute[46, 61, 177]. The uses of cumin seed are as follows:-

Seed - cooked. Hot and aromatic, it is an important ingredient in curries, and is also often used as a flavouring in biscuits, cakes and bread where it also helps in improving the digestion[1, 4, 14, 21, 27, 46, 132, 171, 244]. The seed is harvested when fully ripe and is then dried and stored in airtight jars[244].

An essential oil from the seed is used as a food flavouring[46, 61, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Not known

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[27] **Vilmorin. A.** *The Vegetable Garden.* Ten Speed Press ISBN 0-89815-041-8
A reprint of a nineteenth century classic, giving details of vegetable varieties. Not really that informative though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[132] **Bianchini. F., Corbetta. F. and Pistoia. M.** *Fruits of the Earth.*
Lovely pictures, a very readable book.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952

Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:	

Email Address: ☐

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Lagoecia cuminoides

Common name:		Family:	Umbelliferae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - South-eastern Portugal and Bulgaria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cardamana [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Arab

Physical Characteristics

Annual growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment.

The seed can be used as a cumin substitute[46, 61, 177]. The uses of cumin seed are as follows:-

Seed - cooked. Hot and aromatic, it is an important ingredient in curries, and is also often used as a flavouring in biscuits, cakes and bread where it also helps in improving the digestion[1, 4, 14, 21, 27, 46, 132, 171, 244]. The seed is harvested when fully ripe and is then dried and stored in airtight jars[244].

An essential oil from the seed is used as a food flavouring[46, 61, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Not known

Propagation

Seed -

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

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A good herbal.

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Lovely pictures, a very readable book.

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Readers Comments

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Plants For A Future: Database Search Results

Lagoecia cuminoides

Common name:		Family:	Umbelliferae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe - South-eastern Portugal and Bulgaria.		
Habitat:	Not known		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Cardamana [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Arab

Physical Characteristics

Annual growing to 0.3m. . The flowers are hermaphrodite (have both male and female organs). We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Edible Uses

Condiment.

The seed can be used as a cumin substitute[46, 61, 177]. The uses of cumin seed are as follows:-

Seed - cooked. Hot and aromatic, it is an important ingredient in curries, and is also often used as a flavouring in biscuits, cakes and bread where it also helps in improving the digestion[1, 4, 14, 21, 27, 46, 132, 171, 244]. The seed is harvested when fully ripe and is then dried and stored in airtight jars[244].

An essential oil from the seed is used as a food flavouring[46, 61, 171].

Medicinal Uses

Disclaimer

None known

Other Uses

None known

Cultivation details

Not known

Propagation

Seed -

Suppliers

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Add a comment on: *Lagoecia cuminoides*

Subject:

Lagoecia cuminoides

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lagoecia cuminoides

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 06:02:10 2004

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Larrea tridentata

Common name:	Creosote bush	Family:	Zygophyllaceae
Author:	(DC.) Cov.	Botanical references:	200
Synonyms:	Larrea mexicana (Moric.), Larrea divaricata (Cav.)		
Known Hazards:	None known		
Range:	South-western N. America.		
Habitat:	Desert areas[254].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Covillea tridentata[B,P] L. divaricata auct. non[P] L. glutinosa[B,P] L. tridentata var. tridentata[B,P] Zygophyllum tridentatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chaparral [H,S,E], Chaparral, Gobernadora, Hediondilla, Creosote Bush [S], Creosote Bush [S,H,DEN2,E], Creosote-bush [B], Creosotebush [P,FEIS], Gebernadora [H], Gobernadora [S,E], Greasewood [H], Hediondilla [H,S],
Epithets:	From a Dictionary of Botanical Epithets
	dentata = with teeth; tridentata = 3 toothed;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Creosote-bush family
Other Range Info:	From the Ethnobotany Database
	Mexico; Mexico(Kickapoo); Mexico(Seri); Us

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The flower buds are pickled in vinegar and used as a caper substitute[183].

The stems and leaves are a tea substitute[183].

The twigs are chewed to alleviate thirst[2, 183].

A resin is obtained from the leaves and twigs, it delays or prevents oils and fats from becoming rancid[183].

Medicinal Uses

Disclaimer

Expectorant; Odontalgic.

Creosote bush was widely used by various North American Indian tribes. A decoction of the leaves was used to treat diarrhoea and stomach troubles whilst the young twigs were used to treat toothache and a poultice of the leaves was used to treat chest complaints and as a wash for skin problems[254]. It continued to be widely used as a treatment for rheumatic disease, venereal infections, urinary infections and certain types of cancer, especially leukaemia until its sale was banned in North America due to concern over its potential toxic effect upon the liver[254]. There have been a number of cases of acute or sub-acute hepatitis attributed to the use of this herb and so its internal use is not recommended until further research has been carried out[254].

A tea made from the leaves is used as an expectorant and pulmonary antiseptic[213].

Some N. American Indian tribes heated the shoot tips of this plant and dripped the sap (probably the resin[K]) into tooth cavities to treat toothache[213].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Requires a moderately fertile moisture-retentive soil in full sun or light shade[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

The plant is resinous and aromatic[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse in spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of new growth in spring in a frame[200].

Scent

Leaves: Crushed

> The plant is resinous and aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptaments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Larrea divaricata* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Larrea mexicana* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Larrea tridentata var. tridentata* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *larrea tridentata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Zygophyllaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[213] **Weiner. M. A.** *Earth Medicine, Earth Food.* Ballantine Books 1980 ISBN 0-449-90589-6
A nice book to read though it is difficult to look up individual plants since the book is divided into separate sections dealing with the different medicinal uses plus a section on edible plants. Common names are used instead of botanical.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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---

Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

Email Address:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Larrea tridentata

Common name:	Creosote bush	Family:	Zygophyllaceae
Author:	(DC.) Cov.	Botanical references:	200
Synonyms:	Larrea mexicana (Moric.), Larrea divaricata (Cav.)		
Known Hazards:	None known		
Range:	South-western N. America.		
Habitat:	Desert areas[254].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Covillea tridentata[B,P] L. divaricata auct. non[P] L. glutinosa[B,P] L. tridentata var. tridentata[B,P] Zygophyllum tridentatum[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Chaparral [H,S,E], Chaparral, Gobernadora, Hediondilla, Creosote Bush [S], Creosote Bush [S,H,DEN2,E], Creosote-bush [B], Creosotebush [P,FEIS], Gebernadora [H], Gobernadora [S,E], Greasewood [H], Hediondilla [H,S],
Epithets:	From a Dictionary of Botanical Epithets
	dentata = with teeth; tridentata = 3 toothed;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Creosote-bush family
Other Range Info:	From the Ethnobotany Database
	Mexico; Mexico(Kickapoo); Mexico(Seri); Us

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It

requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The flower buds are pickled in vinegar and used as a caper substitute[183].

The stems and leaves are a tea substitute[183].

The twigs are chewed to alleviate thirst[2, 183].

A resin is obtained from the leaves and twigs, it delays or prevents oils and fats from becoming rancid[183].

Medicinal Uses

Disclaimer

Expectorant; Odontalgic.

Creosote bush was widely used by various North American Indian tribes. A decoction of the leaves was used to treat diarrhoea and stomach troubles whilst the young twigs were used to treat toothache and a poultice of the leaves was used to treat chest complaints and as a wash for skin problems[254]. It continued to be widely used as a treatment for rheumatic disease, venereal infections, urinary infections and certain types of cancer, especially leukaemia until its sale was banned in North America due to concern over its potential toxic effect upon the liver[254]. There have been a number of cases of acute or sub-acute hepatitis attributed to the use of this herb and so its internal use is not recommended until further research has been carried out[254].

A tea made from the leaves is used as an expectorant and pulmonary antiseptic[213].

Some N. American Indian tribes heated the shoot tips of this plant and dripped the sap (probably the resin[K]) into tooth cavities to treat toothache[213].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

None known

Cultivation details

Requires a moderately fertile moisture-retentive soil in full sun or light shade[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

The plant is resinous and aromatic[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse in spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of new growth in spring in a frame[200].

Scent

Leaves: Crushed

> The plant is resinous and aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.

- [S]
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database
- [DEN] Data + Photos (Good Identification info) from the Virginia Tech's Dendrology Deptarments' Tree Fact Sheets.
- [FEIS] Data (Uses, Ecology, Fire Effects) from the UDSA Forestry Service Fire Effects Information System.

References for *Larrea divaricata* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.

References for *Larrea mexicana* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for *Larrea tridentata var. tridentata* (a possible synonym).

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for *larrea tridentata* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Zygophyllaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

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Author:	(DC.) Cov.	Botanical references:	200
Synonyms:	Larrea mexicana (Moric.), Larrea divaricata (Cav.)		
Known Hazards:	None known		
Range:	South-western N. America.		
Habitat:	Desert areas[254].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Other Common Names:	From various places around the Web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
	dentata = with teeth; tridentata = 3 toothed;
Systematics:	From a UDSA Plants Database
	Order: Sapindales . Creosote-bush family
Other Range Info:	From the Ethnobotany Database
	Mexico; Mexico(Kickapoo); Mexico(Seri); Us

Physical Characteristics

An evergreen shrub growing to 4m. It is hardy to zone 8. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It

requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Tea.

The flower buds are pickled in vinegar and used as a caper substitute[183].

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The twigs are chewed to alleviate thirst[2, 183].

A resin is obtained from the leaves and twigs, it delays or prevents oils and fats from becoming rancid[183].

Medicinal Uses

Disclaimer

Expectorant; Odontalgic.

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Other Uses

None known

Cultivation details

Requires a moderately fertile moisture-retentive soil in full sun or light shade[200].

This species is not hardy in the colder areas of the country, it tolerates temperatures down to between -5 and -10°c[200].

The plant is resinous and aromatic[200].

Propagation

Seed - we have no information for this species but suggest sowing the seed in a greenhouse in spring. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Cuttings of new growth in spring in a frame[200].

Scent

Leaves: Crushed

> The plant is resinous and aromatic.

Suppliers

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Larrea tridentata*

Subject:

Larrea tridentata

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Larrea tridentata

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Laser trilobum

Common name:	Gladich	Family:	Umbelliferae
Author:	(L.) Borke.	Botanical references:	50, 74
Synonyms:	Siler trilobum (Crantz.)		
Known Hazards:	None known		
Range:	C. and E. Europe.		
Habitat:	Light forest margins, especially on calcareous soils[74].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	trilobum = 3 lobes;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe

Physical Characteristics

Perennial growing to 1.2m. . The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Drink; Seed; Stem.

The stem[183] and the seed[2, 105, 177] are said to be edible though no further details are known.

The water in which the leaves have been cooked is drunk as a wine and is very refreshing[183].

The seed is used as a condiment[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

An essential oil is obtained from the seed and umbels[74].

Cultivation details

We have very little information on this plant and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most areas of the country.

It is likely to prefer a well-drained calcareous soil.

Propagation

Seed - we have no information on this species but suggest sowing the seed in spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division could be tried in the spring.

Scent

Seed:

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Siler trilobum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

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[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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Readers Comments

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

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Enter your details here:

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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Medicinal Uses

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Propagation

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Seed:

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Suppliers

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References

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[50] **?** *Flora Europaea* Cambridge University Press 1964
An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[74] **Komarov. V. L.** *Flora of the USSR.* Israel Program for Scientific Translation 1968
An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[105] **Tanaka. T.** *Tanaka's Cyclopaedia of Edible Plants of the World.* Keigaku Publishing 1976
The most comprehensive guide to edible plants I've come across. Only the briefest entry for each species, though, and some of the entries are more than a little dubious. Not for the casual reader.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

Readers Comments

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Plants For A Future: Database Search Results

Laser trilobum

Common name:	Gladich	Family:	Umbelliferae
Author:	(L.) Borke.	Botanical references:	50, 74
Synonyms:	Siler trilobum (Crantz.)		
Known Hazards:	None known		
Range:	C. and E. Europe.		
Habitat:	Light forest margins, especially on calcareous soils[74].		
Plants For A Future Rating (1-5):	2		

Epithets:	From a Dictionary of Botanical Epithets
	trilobum = 3 lobes;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe

Physical Characteristics

Perennial growing to 1.2m. . The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment; Drink; Seed; Stem.

The stem[183] and the seed[2, 105, 177] are said to be edible though no further details are known.

The water in which the leaves have been cooked is drunk as a wine and is very refreshing[183].

The seed is used as a condiment[183].

Medicinal Uses

Disclaimer

None known

Other Uses

Essential.

An essential oil is obtained from the seed and umbels[74].

Cultivation details

We have very little information on this plant and do not know if it will be hardy in Britain, though judging by its native range it should succeed outdoors in most areas of the country.

It is likely to prefer a well-drained calcareous soil.

Propagation

Seed - we have no information on this species but suggest sowing the seed in spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division could be tried in the spring.

Scent

Seed:

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Laser trilobum*

Subject:

Laser trilobum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Laser trilobum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

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Laserpitium latifolium

Common name:	Laserwort	Family:	Umbelliferae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe.		
Habitat:	Woods and rocky places in mountains[100].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Centiyane [E], Sermountain [L],
Epithets:	From a Dictionary of Botanical Epithets
	latifolium = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; Turkey

Physical Characteristics

Perennial growing to 1.5m. It is not frost tender. It is in flower from June to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid,

neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

Root - used as a flavouring[2, 105, 177]. It was used by the Romans with cumin in order to season preserved artichokes[183].

A decoction of the seeds is used in beer[183].

Medicinal Uses

Disclaimer

Stomachic; Tonic.

Stomachic, tonic[46, 61].

Other Uses

None known

Cultivation details

An easily satisfied plant, it succeeds in ordinary garden soil[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

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Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

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Readers Comments

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:

URL for Site: http://

Details:

Enter your details here:

Your Name:

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Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Laserpitium latifolium

Common name:	Laserwort	Family:	Umbelliferae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe.		
Habitat:	Woods and rocky places in mountains[100].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Centiyane [E], Sermountain [L],
Epithets:	From a Dictionary of Botanical Epithets
	latifolium = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; Turkey

Physical Characteristics

Perennial growing to 1.5m. It is not frost tender. It is in flower from June to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

Root - used as a flavouring[2, 105, 177]. It was used by the Romans with cumin in order to season preserved artichokes[183].

A decoction of the seeds is used in beer[183].

Medicinal Uses

Disclaimer

Stomachic; Tonic.

Stomachic, tonic[46, 61].

Other Uses

None known

Cultivation details

An easily satisfied plant, it succeeds in ordinary garden soil[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division.

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Plants For A Future: Database Search Results

Laserpitium latifolium

Common name:	Laserwort	Family:	Umbelliferae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	Europe.		
Habitat:	Woods and rocky places in mountains[100].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Beyaz Centiyane [E], Sermountain [L],
Epithets:	From a Dictionary of Botanical Epithets
	latifolium = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; Turkey

Physical Characteristics

Perennial growing to 1.5m. It is not frost tender. It is in flower from June to August, and the seeds ripen from July to September. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

Root - used as a flavouring[2, 105, 177]. It was used by the Romans with cumin in order to season preserved artichokes[183].

A decoction of the seeds is used in beer[183].

Medicinal Uses

Disclaimer

Stomachic; Tonic.

Stomachic, tonic[46, 61].

Other Uses

None known

Cultivation details

An easily satisfied plant, it succeeds in ordinary garden soil[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division.

Suppliers

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Add a comment on: *Laserpitium latifolium*

Subject:

Laserpitium latifolium

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

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URL for Site:	http://
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Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Laserpitium latifolium

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Laserpitium siler

Common name:		Family:	Umbelliferae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	C. and S. Europe.		
Habitat:	Woods and rocky places in mountains[50, 100].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Laserpicio [E], Siseleos [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The roots and seeds are used as a condiment[61, 177, 183].

Medicinal Uses

Disclaimer

Odontalgic.

Odontalgic[61].

Other Uses

None known

Cultivation details

An easily satisfied plant, it succeeds in ordinary garden soil[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in the spring.

Suppliers

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Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

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Plants For A Future: Database Search Results

Laserpitium siler

Common name:		Family:	Umbelliferae
Author:	L.	Botanical references:	50
Synonyms:			
Known Hazards:	None known		
Range:	C. and S. Europe.		
Habitat:	Woods and rocky places in mountains[50, 100].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Laserpicio [E], Siseleos [E],
Systematics:	From a UDSA Plants Database
	Order: Apiales . Renamed to Apiaceae -- Carrot family
Other Range Info:	From the Ethnobotany Database
	Europe; Spain

Physical Characteristics

Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The roots and seeds are used as a condiment[61, 177, 183].

Medicinal Uses

Disclaimer

Odontalgic.

Odontalgic[61].

Other Uses

None known

Cultivation details

An easily satisfied plant, it succeeds in ordinary garden soil[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in the spring.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

See the PFAF Links Pages for other sources

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Author:	L.	Botanical references:	50
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Range:	C. and S. Europe.		
Habitat:	Woods and rocky places in mountains[50, 100].		
Plants For A Future Rating (1-5):	1		

Other Common Names:	From various places around the Web, may not be correct. See below.
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Other Range Info:	From the Ethnobotany Database
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Perennial growing to 1m. . The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. The plant is self-fertile. We rate it 1 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Sunny Edge, Dappled Shade.

Edible Uses

Condiment.

The roots and seeds are used as a condiment[61, 177, 183].

Medicinal Uses

Disclaimer

Odontalgic.

Odontalgic[61].

Other Uses

None known

Cultivation details

An easily satisfied plant, it succeeds in ordinary garden soil[1].

Propagation

Seed - sow spring in a cold frame. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts.

Division in the spring.

Suppliers

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Add a comment on: *Laserpitium siler*

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Laserpitium siler

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

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Details:

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Laserpitium siler

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Laurelia sempervirens

Common name:	Chilean laurel	Family:	Atherospermataceae
Author:	(Ruiz. & Pavon.) Tul.	Botanical references:	11, 200
Synonyms:	Laurelia serrata (Bertero. non Phil.), Laurelia aromatica (non Poir.)		
Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Moist and wet soils in forests, deep gullies and creek beds[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pavonia sempervirens[G]
Epithets:	From a Dictionary of Botanical Epithets
	sempervirens = evergreen; virens = green;

Physical Characteristics

An evergreen tree growing to 15m by 15m . It is hardy to zone 9. It is in leaf all year, in flower in April. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It

requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade.

Edible Uses

Condiment.

The bark and leaves are used as a spice[183]. The fruit and the seed are used[2, 46, 61, 177].

Medicinal Uses

Disclaimer

Nervine; Skin; Stomachic; VD.

Nervine, skin. It is also used in the treatment of colds, paralysis, stomach problems and VD[139].

Other Uses

Wood.

Wood - not durable, malodorous if cut across the grain. Used in construction[139]. It burns well but gives little heat[139].

Cultivation details

Succeeds in sun or semi-shade in any moderately fertile soil, including a limey soil, so long as it does not dry out in the growing season[200]. Requires a warm position sheltered from cold winds[200].

This species is not very hardy in Britain, tolerating temperatures down to about -5°c[200]. It succeeds outdoors in the mildest areas of the country[1], growing well and flowering regularly in Cornwall[11, 59]. Another report says that plants have withstood temperatures down to -11°c[104].

The foliage is very aromatic[188].

Closely related to L. serrata[182]. Another report says that L. serrata is a synonym for this species[200].

Plants are often dioecious, male and female plants will need to be grown if fruit and seed is required.

Propagation

Seed - sow February or March in a warm greenhouse. Germination rates are variable[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter or two outdoors.

Cuttings of half-ripe wood, 5 - 8cm with a heel, July/August in individual pots in sandy soil in a frame. Keep them moist. Fair percentage[78].

Layering in spring[78].

Scent

Leaves: Crushed

> The foliage is very aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

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Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Moist and wet soils in forests, deep gullies and creek beds[200].		
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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade.

Edible Uses

Condiment.

The bark and leaves are used as a spice[183]. The fruit and the seed are used[2, 46, 61, 177].

Medicinal Uses

Disclaimer

Nervine; Skin; Stomachic; VD.

Nervine, skin. It is also used in the treatment of colds, paralysis, stomach problems and VD[139].

Other Uses

Wood.

Wood - not durable, malodorous if cut across the grain. Used in construction[139]. It burns well but gives little heat[139].

Cultivation details

Succeeds in sun or semi-shade in any moderately fertile soil, including a limey soil, so long as it does not dry out in the growing season[200]. Requires a warm position sheltered from cold winds[200].

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Laurelia+sempervirens`
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Plants For A Future: Database Search Results

Laurelia sempervirens

Common name:	Chilean laurel	Family:	Atherospermataceae
Author:	(Ruiz. & Pavon.) Tul.	Botanical references:	11, 200
Synonyms:	Laurelia serrata (Bertero. non Phil.), Laurelia aromatica (non Poir.)		
Known Hazards:	None known		
Range:	S. America - Chile.		
Habitat:	Moist and wet soils in forests, deep gullies and creek beds[200].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	Pavonia sempervirens[G]
Epithets:	From a Dictionary of Botanical Epithets
	sempervirens = evergreen; virens = green;

Physical Characteristics

An evergreen tree growing to 15m by 15m . It is hardy to zone 9. It is in leaf all year, in flower in April. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Insects. The plant not is self-fertile. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Secondary, Dappled Shade.

Edible Uses

Condiment.

The bark and leaves are used as a spice[183]. The fruit and the seed are used[2, 46, 61, 177].

Medicinal Uses

Disclaimer

Nervine; Skin; Stomachic; VD.

Nervine, skin. It is also used in the treatment of colds, paralysis, stomach problems and VD[139].

Other Uses

Wood.

Wood - not durable, malodorous if cut across the grain. Used in construction[139]. It burns well but gives little heat[139].

Cultivation details

Succeeds in sun or semi-shade in any moderately fertile soil, including a limey soil, so long as it does not dry out in the growing season[200]. Requires a warm position sheltered from cold winds[200].

This species is not very hardy in Britain, tolerating temperatures down to about -5°c[200]. It succeeds outdoors in the mildest areas of the country[1], growing well and flowering regularly in Cornwall[11, 59]. Another report says that plants have withstood temperatures down to -11°c[104].

The foliage is very aromatic[188].

Closely related to L. serrata[182]. Another report says that L. serrata is a synonym for this species[200].

Plants are often dioecious, male and female plants will need to be grown if fruit and seed is required.

Propagation

Seed - sow February or March in a warm greenhouse. Germination rates are variable[78]. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts, and consider giving them some protection from the cold for their first winter or two outdoors.

Cuttings of half-ripe wood, 5 - 8cm with a heel, July/August in individual pots in sandy soil in a frame. Keep them moist. Fair percentage[78].

Layering in spring[78].

Scent

Leaves: Crushed

> The foliage is very aromatic.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Laurelia sempervirens*

Subject:

Laurelia sempervirens

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Laurelia sempervirens

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 06:06:14 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Laurus nobilis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Bay tree	Family:	Lauraceae
Author:	L.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Damp rocks and ravines, thickets and old walls[89].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bay [H], Bay Laurel [H], Bay Tree Grecian [H], Defne [E], Gekkei-Zyu [E], Laurel [P,B,E], Lauri Baca [E], Sweet Bay [H], Sweet Bay Tree [H], Sweet Laurel [H],
Epithets:	From a Dictionary of Botanical Epithets
	nobilis = notable, famous;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; Spain; Turkey

Physical Characteristics

An evergreen tree growing to 12m by 10m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from April to May. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade, Shady Edge, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Condiment; Tea.

Leaves - fresh or dried[21]. A spicy, aromatic flavouring, bay leaves are commonly used as a flavouring for soups, stews etc[7, 11, 15, 34, 183] and form an essential ingredient of the herb mix 'Bouquet Garni'[201, 238]. The leaves can be used fresh or are harvested in the summer and dried. The flavour of freshly dried, crushed or shredded leaves is stronger than fresh leaves, but the leaves should not be stored for longer than a year since they will then lose their flavour[238].

The dried fruit is used as a flavouring[142, 177, 183].

The dried leaves are brewed into a herbal tea[183].

An essential oil obtained from the leaves is used as a food flavouring[183]. Yields can vary from 1 - 3% oil[7].

Medicinal Uses

Disclaimer

Abortifacient; Antiseptic; Appetizer; Aromatic; Astringent; Cancer; Carminative; Diaphoretic; Digestive; Diuretic; Emetic; Emmenagogue; Narcotic; Parasiticide; Stimulant; Stomachic.

The bay tree has a long history of folk use in the treatment of many ailments, particularly as an aid to digestion and in the treatment of bronchitis and influenza[244]. It has also been used to treat various types of cancer[218]. The fruits and leaves are not usually administered internally, other than as a stimulant in veterinary practice, but were formerly employed in the treatment of hysteria, amenorrhoea, flatulent colic etc[4]. Another report says that the leaves are used mainly to treat upper respiratory tract disorders and to ease arthritic aches and pains[254]. It is settling to the stomach and has a tonic effect, stimulating the appetite and the secretion of digestive juices[254].

The leaves are antiseptic, aromatic, astringent, carminative, diaphoretic, digestive, diuretic, emetic in large doses, emmenagogue, narcotic, parasiticide, stimulant and stomachic[4, 7, 21, 210, 218].

The fruit is antiseptic, aromatic, digestive, narcotic and stimulant[218]. An infusion has been used to improve the appetite and as an emmenagogue[4]. The fruit has also been used in making carminative medicines and was used in the past to promote abortion[4].

A fixed oil from the fruit is used externally to treat sprains, bruises etc, and is sometimes used as ear drops to relieve pain[4].

The essential oil from the leaves has narcotic, antibacterial and fungicidal properties[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Repellent; Strewing; Wood.

An essential oil from the fruit is used in soap making[7, 46, 61].

The plant is highly resistant to pests and diseases, it is said to protect neighbouring plants from insect and health problems[14]. The leaves are highly aromatic and can be used as an insect repellent, the dried leaves protect stored grain, beans etc from weevils[14]. It is also used as a strewing herb because of its aromatic smell and antiseptic properties[244].

Very tolerant of clipping[11, 200], it can be grown as a screen or hedge in areas suited to its outdoor cultivation[182, 200].

Wood - sweetly-scented, does not wear quickly. Used for marqueterie work, walking sticks and friction sticks for making fires[4, 89].

Cultivation details

Succeeds in any soil of moderate fertility[1], preferring a moisture retentive well-drained fertile soil[200]. Succeeds in dry soils. Prefers full sun but succeeds in light shade[200]. Plants are fairly wind hardy, but they do not like extreme maritime exposure[166] or cold dry winds[202].

The plant is not fully hardy in all areas of Britain and may require protection in severe winters. When dormant it is reliably hardy to about -5°c, with occasional lows to -15°c, these lower temperatures may defoliate the tree but it usually recovers in late spring to summer[200]. Laurus nobilis angustifolia (Syn 'Salicifolia') is somewhat hardier and has the same aromatic qualities[182].

The bay tree is a very ornamental plant[1] that is often cultivated for its leaves which are used as a food flavouring. Some named forms exist[202]. When bruised, the leaves release a sweet aromatic scent[245].

The tree is highly resistant to pests and diseases[14, 201] and is also notably resistant to honey fungus[200].

This species has been held in high esteem since ancient times[244]. It was dedicated to Apollo, the god of light and was also a symbol of peace and victory[244]. It was used to make wreaths for emperors, generals and poets[11, 89, 244].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in early autumn in a greenhouse[200]. Prick out the seedlings into individual pots once they are large enough to handle and grow them on in the greenhouse for at least their first year. Plant them out into their permanent positions in early summer and give them some protection from the cold for at least their first winter outdoors[K].

Cuttings of half-ripe wood, July/August in a frame. Can take 6 months[1, 14].

Cuttings of mature side shoots, 10 - 12cm with a heel, November/December in a cold frame. Leave for 18 months. High percentage[78].

Layering.

Scent

Leaves: Crushed

> When bruised, the leaves release a sweet aromatic scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

Plants For A Future is working with the following groups to try and make these plants easily available. Parts of the proceeds will be donated to Plants For A Future, so please mention us when ordering.

Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove
Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Laurus nobilis* (Bay)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: L-O
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *laurus nobilis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Lauraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

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If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
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Enter your details here:

Your Name:	
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Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Laurus nobilis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Bay tree	Family:	Lauraceae
Author:	L.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Damp rocks and ravines, thickets and old walls[89].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bay [H], Bay Laurel [H], Bay Tree Grecian [H], Defne [E], Gekkei-Zyu [E], Laurel [P,B,E], Lauri Baca [E], Sweet Bay [H], Sweet Bay Tree [H], Sweet Laurel [H],
Epithets:	From a Dictionary of Botanical Epithets
	nobilis = notable, famous;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; Spain; Turkey

Physical Characteristics

An evergreen tree growing to 12m by 10m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from April to May. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade, Shady Edge, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Condiment; Tea.

Leaves - fresh or dried[21]. A spicy, aromatic flavouring, bay leaves are commonly used as a flavouring for soups, stews etc[7, 11, 15, 34, 183] and form an essential ingredient of the herb mix 'Bouquet Garni'[201, 238]. The leaves can be used fresh or are harvested in the summer and dried. The flavour of freshly dried, crushed or shredded leaves is stronger than fresh leaves, but the leaves should not be stored for longer than a year since they will then lose their flavour[238].

The dried fruit is used as a flavouring[142, 177, 183].

The dried leaves are brewed into a herbal tea[183].

An essential oil obtained from the leaves is used as a food flavouring[183]. Yields can vary from 1 - 3% oil[7].

Medicinal Uses

Disclaimer

Abortifacient; Antiseptic; Appetizer; Aromatic; Astringent; Cancer; Carminative; Diaphoretic; Digestive; Diuretic; Emetic; Emmenagogue; Narcotic; Parasiticide; Stimulant; Stomachic.

The bay tree has a long history of folk use in the treatment of many ailments, particularly as an aid to digestion and in the treatment of bronchitis and influenza[244]. It has also been used to treat various types of cancer[218]. The fruits and leaves are not usually administered internally, other than as a stimulant in veterinary practice, but were formerly employed in the treatment of hysteria, amenorrhoea, flatulent colic etc[4]. Another report says that the leaves are used mainly to treat upper respiratory tract disorders and to ease arthritic aches and pains[254]. It is settling to the stomach and has a tonic effect, stimulating the appetite and the secretion of digestive juices[254].

The leaves are antiseptic, aromatic, astringent, carminative, diaphoretic, digestive, diuretic, emetic in large doses, emmenagogue, narcotic, parasiticide, stimulant and stomachic[4, 7, 21, 210, 218].

The fruit is antiseptic, aromatic, digestive, narcotic and stimulant[218]. An infusion has been used to improve the appetite and as an emmenagogue[4]. The fruit has also been used in making carminative medicines and was used in the past to promote abortion[4].

A fixed oil from the fruit is used externally to treat sprains, bruises etc, and is sometimes used as ear drops to relieve pain[4].

The essential oil from the leaves has narcotic, antibacterial and fungicidal properties[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Repellent; Strewing; Wood.

An essential oil from the fruit is used in soap making[7, 46, 61].

The plant is highly resistant to pests and diseases, it is said to protect neighbouring plants from insect and health problems[14]. The leaves are highly aromatic and can be used as an insect repellent, the dried leaves protect stored grain, beans etc from weevils[14]. It is also used as a strewing herb because of its aromatic smell and antiseptic properties[244].

Very tolerant of clipping[11, 200], it can be grown as a screen or hedge in areas suited to its outdoor cultivation[182, 200].

Wood - sweetly-scented, does not wear quickly. Used for marqueterie work, walking sticks and friction sticks for making fires[4, 89].

Cultivation details

Succeeds in any soil of moderate fertility[1], preferring a moisture retentive well-drained fertile soil[200]. Succeeds in dry soils. Prefers full sun but succeeds in light shade[200]. Plants are fairly wind hardy, but they do not like extreme maritime exposure[166] or cold dry winds[202].

The plant is not fully hardy in all areas of Britain and may require protection in severe winters. When dormant it is reliably hardy to about -5°c, with occasional lows to -15°c, these lower temperatures may defoliate the tree but it usually recovers in late spring to summer[200]. Laurus nobilis angustifolia (Syn 'Salicifolia') is somewhat hardier and has the same aromatic qualities[182].

The bay tree is a very ornamental plant[1] that is often cultivated for its leaves which are used as a food flavouring. Some named forms exist[202]. When bruised, the leaves release a sweet aromatic scent[245].

The tree is highly resistant to pests and diseases[14, 201] and is also notably resistant to honey fungus[200].

This species has been held in high esteem since ancient times[244]. It was dedicated to Apollo, the god of light and was also a symbol of peace and victory[244]. It was used to make wreaths for emperors, generals and poets[11, 89, 244].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in early autumn in a greenhouse[200]. Prick out the seedlings into individual pots once they are large enough to handle and grow them on in the greenhouse for at least their first year. Plant them out into their permanent positions in early summer and give them some protection from the cold for at least their first winter outdoors[K].

Cuttings of half-ripe wood, July/August in a frame. Can take 6 months[1, 14].

Cuttings of mature side shoots, 10 - 12cm with a heel, November/December in a cold frame. Leave for 18 months. High percentage[78].

Layering.

Scent

Leaves: Crushed

When bruised, the leaves release a sweet aromatic scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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Cool Temperate Nurseries

philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove

Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: *Laurus nobilis* (Bay)

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- Edible Shrubs
- PFAF: Edible Trees and Shrubs Hardy in Britain
- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: L-O
- Checklist of plants suitable for hedging and windbreaks.
- PFAF: Edible Trees and Shrubs Hardy in Britain

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *laurus nobilis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures
- [HP] PhotoFrom Henriette's plant pictures

References for the family Lauraceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[34] **Harrison. S. Wallis. M. Masefield. G.** *The Oxford Book of Food Plants.* Oxford University Press 1975
Good drawings of some of the more common food plants from around the world. Not much information though.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses

without any details of how to utilize the plants. Not for the casual reader.

[61] **Usher. G.** *A Dictionary of Plants Used by Man.* Constable 1974 ISBN 0094579202
Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[89] **Polunin. O. and Huxley. A.** *Flowers of the Mediterranean.* Hogarth Press 1987 ISBN 0-7012-0784-1
A very readable pocket flora that is well illustrated. Gives some information on plant uses.

[142] **Brouk. B.** *Plants Consumed by Man.* Academic Press 1975 ISBN 0-12-136450-x
Readable but not very comprehensive.

[166] **Taylor. J.** *The Milder Garden.* Dent 1990
A good book on plants that you didn't know could be grown outdoors in Britain.

[177] **Kunkel. G.** *Plants for Human Consumption.* Koeltz Scientific Books 1984 ISBN 3874292169
An excellent book for the dedicated. A comprehensive listing of latin names with a brief list of edible parts.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[202] **Davis. B.** *Climbers and Wall Shrubs.* Viking. 1990 ISBN 0-670-82929-3
Contains information on 2,000 species and cultivars, giving details of cultivation requirements. The text is terse but informative.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993

ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[218] **Duke. J. A. and Ayensu. E. S.** *Medicinal Plants of China* Reference Publications, Inc. 1985 ISBN 0-917256-20-4
Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

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Plants For A Future: Database Search Results

Laurus nobilis

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Bay tree	Family:	Lauraceae
Author:	L.	Botanical references:	11, 200
Synonyms:			
Known Hazards:	None known		
Range:	S. Europe.		
Habitat:	Damp rocks and ravines, thickets and old walls[89].		
Plants For A Future Rating (1-5):	3		

Other Common Names:	From various places around the Web, may not be correct. See below.
	Bay [H], Bay Laurel [H], Bay Tree Grecian [H], Defne [E], Gekkei-Zyu [E], Laurel [P,B,E], Lauri Baca [E], Sweet Bay [H], Sweet Bay Tree [H], Sweet Laurel [H],
Epithets:	From a Dictionary of Botanical Epithets
	nobilis = notable, famous;
Systematics:	From a UDSA Plants Database
	Order: Laurales . Laurel family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; Spain; Turkey

Physical Characteristics

An evergreen tree growing to 12m by 10m at a slow rate. It is hardy to zone 8. It is in leaf all year, in flower from April to May. The scented flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Bees. The plant not is self-fertile. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. It can grow in semi-shade (light

woodland) or no shade. It requires dry or moist soil. The plant can tolerates strong winds but not maritime exposure.

Habitats and Possible Locations

Hedge, Woodland, Secondary, Sunny Edge, Dappled Shade, Shady Edge, By Walls, By South Wall, By East Wall, By West Wall.

Edible Uses

Condiment; Tea.

Leaves - fresh or dried[21]. A spicy, aromatic flavouring, bay leaves are commonly used as a flavouring for soups, stews etc[7, 11, 15, 34, 183] and form an essential ingredient of the herb mix 'Bouquet Garni'[201, 238]. The leaves can be used fresh or are harvested in the summer and dried. The flavour of freshly dried, crushed or shredded leaves is stronger than fresh leaves, but the leaves should not be stored for longer than a year since they will then lose their flavour[238].

The dried fruit is used as a flavouring[142, 177, 183].

The dried leaves are brewed into a herbal tea[183].

An essential oil obtained from the leaves is used as a food flavouring[183]. Yields can vary from 1 - 3% oil[7].

Medicinal Uses

Disclaimer

Abortifacient; Antiseptic; Appetizer; Aromatic; Astringent; Cancer; Carminative; Diaphoretic; Digestive; Diuretic; Emetic; Emmenagogue; Narcotic; Parasiticide; Stimulant; Stomachic.

The bay tree has a long history of folk use in the treatment of many ailments, particularly as an aid to digestion and in the treatment of bronchitis and influenza[244]. It has also been used to treat various types of cancer[218]. The fruits and leaves are not usually administered internally, other than as a stimulant in veterinary practice, but were formerly employed in the treatment of hysteria, amenorrhoea, flatulent colic etc[4]. Another report says that the leaves are used mainly to treat upper respiratory tract disorders and to ease arthritic aches and pains[254]. It is settling to the stomach and has a tonic effect, stimulating the appetite and the secretion of digestive juices[254].

The leaves are antiseptic, aromatic, astringent, carminative, diaphoretic, digestive, diuretic, emetic in large doses, emmenagogue, narcotic, parasiticide, stimulant and stomachic[4, 7, 21, 210, 218].

The fruit is antiseptic, aromatic, digestive, narcotic and stimulant[218]. An infusion has been used to improve the appetite and as an emmenagogue[4]. The fruit has also been used in making carminative medicines and was used in the past to promote abortion[4].

A fixed oil from the fruit is used externally to treat sprains, bruises etc, and is sometimes used as ear drops to relieve pain[4].

The essential oil from the leaves has narcotic, antibacterial and fungicidal properties[218].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Repellent; Strewing; Wood.

An essential oil from the fruit is used in soap making[7, 46, 61].

The plant is highly resistant to pests and diseases, it is said to protect neighbouring plants from insect and health problems[14]. The leaves are highly aromatic and can be used as an insect repellent, the dried leaves protect stored grain, beans etc from weevils[14]. It is also used as a strewing herb because of its aromatic smell and antiseptic properties[244].

Very tolerant of clipping[11, 200], it can be grown as a screen or hedge in areas suited to its outdoor cultivation[182, 200].

Wood - sweetly-scented, does not wear quickly. Used for marqueterie work, walking sticks and friction sticks for making fires[4, 89].

Cultivation details

Succeeds in any soil of moderate fertility[1], preferring a moisture retentive well-drained fertile soil[200]. Succeeds in dry soils. Prefers full sun but succeeds in light shade[200]. Plants are fairly wind hardy, but they do not like extreme maritime exposure[166] or cold dry winds[202].

The plant is not fully hardy in all areas of Britain and may require protection in severe winters. When dormant it is reliably hardy to about -5°c, with occasional lows to -15°c, these lower temperatures may defoliate the tree but it usually recovers in late spring to summer[200]. Laurus nobilis angustifolia (Syn 'Salicifolia') is somewhat hardier and has the same aromatic qualities[182].

The bay tree is a very ornamental plant[1] that is often cultivated for its leaves which are used as a food flavouring. Some named forms exist[202]. When bruised, the leaves release a sweet aromatic scent[245].

The tree is highly resistant to pests and diseases[14, 201] and is also notably resistant to honey fungus[200].

This species has been held in high esteem since ancient times[244]. It was dedicated to Apollo, the god of light and was also a symbol of peace and victory[244]. It was used to make wreaths for emperors, generals and poets[11, 89, 244].

Dioecious. Male and female plants must be grown if seed is required.

Propagation

Seed - best sown as soon as it is ripe in early autumn in a greenhouse[200]. Prick out the seedlings into individual pots once they are large enough to handle and grow them on in the greenhouse for at least their first year. Plant them out into their permanent positions in early summer and give them some protection from the cold for at least their first winter outdoors[K].

Cuttings of half-ripe wood, July/August in a frame. Can take 6 months[1, 14].

Cuttings of mature side shoots, 10 - 12cm with a heel, November/December in a cold frame. Leave for 18 months. High percentage[78].

Layering.

Scent

Leaves: Crushed

When bruised, the leaves release a sweet aromatic scent.

Cultivars

"

No entries have been made for this species as yet.

Suppliers

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philcorbett53@hotmail.com Phone 0115 847 8302 Fax 0115 847 8302
10 Ivy Grove

Nottingham
NG7 7LZ
Distribution: UK
How to order: Direct from Cool Temperate by email/phone
Notes: Many Trees supplied on their own rootstock
Last Updated: April 03
Item: ***Laurus nobilis*** **(Bay)**

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Laurus nobilis*

Subject:

Laurus nobilis

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Laurus nobilis

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Lavandula angustifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Lavender	Family:	Labiatae
Author:	Mill.	Botanical references:	11, 200
Synonyms:	Lavandula vera (DC.), Lavandula spica (L.), Lavandula officinalis (Chaix.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry grassy slopes amongst rocks[9], in exposed, usually parched, hot rocky situations often on calcareous soils[200].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. delphinensis[H] L. fragrans[H] L. latifolia[E,G,H,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alfazema Brava [E], Alhucema [E], Alhucena [E], Broad-leaf Lavender [H], Broadleaved Lavender [P], English Lavender [H,P,B], Espliego [E], Grande Lavande [E], Lavande Aspic [E], Lavando Spigo [E], Lavanta [E], Lavender [E,H], Lavender Vera [H], Spijk Lavendel [E], Spik Lavendel [E], Spike [E], Spike Lavender [H], Spikenard [E], True Lavender [H],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Germany; Italy; Netherlands; Portugal; Spain; Turkey; Us(Az)

Physical Characteristics

An evergreen shrub growing to 1.2m by 1m . It is hardy to zone 5. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Cultivar **'Hidcote'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.
Cultivar **'Munstead'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.
Cultivar **'Sharon Roberts'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Tea.

Leaves, petals and flowering tips - raw. Used as a condiment in salads, soups, stews etc[2, 15, 183]. They provide a very aromatic flavour[7] and are too strong to be used in any quantity[K].

The fresh or dried flowers are used as a tea[183]. The fresh flowers are also crystallized or added to jams, ice-creams, vinegars etc as a flavouring[238].

An essential oil from the flowers is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antihalitosis; Antiseptic; Antispasmodic; Aromatherapy; Aromatic; Carminative; Cholagogue;

Diuretic; Nervine; Sedative; Stimulant; Stomachic; Tonic.

Lavender is a commonly used household herb, though it is better known for its sweet-scented aroma than for its medicinal qualities[254]. However, it is an important relaxing herb, having a soothing and relaxing affect upon the nervous system[254]. The flowering spikes can be dried and used internally in a tincture, though the extracted essential oil is more commonly used. The essential oil is much more gentle in its action than most other essential oils and can be safely applied direct to the skin as an antiseptic to help heal wounds, burns etc[254].

An essential oil obtained from the flowers is antihalitosis, powerfully antiseptic, antispasmodic, aromatic, carminative, cholagogue, diuretic, nervine, sedative, stimulant, stomachic and tonic[4, 7, 9, 21, 165, 238]. It is not often used internally, though it is a useful carminative and nervine[4]. It is mainly used externally where it is an excellent restorative and tonic - when rubbed into the temples, for example, it can cure a nervous headache, and it is a delightful addition to the bath-water[4]. Its powerful antiseptic properties are able to kill many of the common bacteria such as typhoid, diphtheria, streptococcus and Pneumococcus, as well as being a powerful antidote to some snake venoms[244]. It is very useful in the treatment of burns, sunburn, scalds, bites, vaginal discharge, anal fissure etc, where it also soothes the affected part of the body and can prevent the formation of permanent scar tissue[4, 238].

The essential oil is used in aromatherapy. Its keyword is 'Immune system'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Incense; Pot-pourri; Repellent.

The essential oil that is obtained from the flowers is exquisitely scented and has a very wide range of applications, both in the home and commercially. It is commonly used in soap making, in making high quality perfumes (it is also used in 'Eau de Cologne'), it is also used as a detergent and cleaning agent, a food flavouring etc[21, 46, 57, 171, 238] and as an insect repellent[201]. When growing the plant for its essential oil content, it is best to harvest the flowering stems as soon as the flowers have faded[245]. Yields of 0.8 - 1% of the oil are obtained[7].

The aromatic leaves and flowers are used in pot-pourri[238] and as an insect repellent in the linen cupboard etc[14, 18, 20]. They have been used in the past as a strewing herb in order to impart a sweet smell to rooms and to deter insects[244]. The leaves are also added to bath water for their fragrance and therapeutic properties[244]. They are also said to repel mice[20].

The flowering stems, once the flowers have been removed for use in pot-pourri etc, can be tied in small bundles and burnt as incense sticks[245].

Lavender can be grown as a low hedge, responding well to trimming[29]. There are several varieties, such as 'Hidcote Variety', 'Loddon Pink' and 'Folgate Blue' that are suitable for using as dwarf hedges 30 - 50cm tall[245].

Cultivation details

Succeeds in almost any soil so long as it is well-drained and not too acid[1, 200]. Prefers a sunny position in a neutral to alkaline soil[1, 4, 14]. Prefers a light warm dry soil[37]. When grown in rich soils the plants tend to produce more leaves but less essential oils[4]. Established plants are drought tolerant[190]. Plants are very tolerant of salt wind exposure[K]. When growing for maximum essential oil content, the plant must be given a very warm sunny position and will do best in a light sandy soil, the fragrance being especially pronounced in a chalky soil[245].

Plants are hardy to between -10 and -15°c[184].

Lavender is a very ornamental plant that is often grown in the herb garden and is also grown commercially for its essential oil[1, 4]. There are several named varieties[182, 183].

Not a very long-lived plant, it can be trimmed to keep it tidy but is probably best replaced every 10 years[200]. Any trimming is best done in spring and should not be done in the autumn since this can encourage new growth that will not be very cold-hardy[200].

A good bee plant, also attracting butterflies and moths[7, 24, 30].

Lavender makes a good companion for most plants[54], growing especially well with cabbages[14].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed[4]. It usually germinates in 1 - 3 months at 15°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in late spring after the last expected frosts.

Cuttings of half-ripe wood 7 - 10cm with a heel, July/August in a frame. Usually very east, a high percentage will root within a few weeks[78]. Grow them on in the greenhouse for their first winter and plant them out in late spring after the last expected frosts.

Cuttings 7cm with a heel succeed at almost any time of the year[1].

Layering.

Scent

Plant: Fresh Crushed Dried

All parts of the plant are strongly aromatic.

Cultivars

'Sharon Roberts'

Hardy to at least -18°c, it has been known to withstand temperatures down to -23°c[183]. The plant flowers twice each year, once in June and once in September[183].

'Munstead'

A dwarf, compact grower to 60cm tall[183]. It blooms several weeks earlier than other varieties[183].

'Loddon Pink'

A pink-flowered form growing to about 45cm tall[200], it can be grown as a dwarf hedge[245].

'Hidcote'

An early flowering[11], slow, compact grower, to 30cm tall[200], it can be grown as a dwarf hedge[245].

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A very free-flowering compact form, growing only 30cm tall[11], it is suitable for growing as a dwarf hedge[245].

Suppliers

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PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
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- PFAF: Edible Trees and Shrubs Hardy in Britain: L-O
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- PFAF Plant Catalogue (G-L)
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- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
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- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

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- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

References for *Lavandula vera* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *lavandula officinalis* (a possible synonym).

- [HP] PhotoFrom Henriette's plant pictures
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References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[2] **Hedrick. U. P.** *Sturtevant's Edible Plants of the World.* Dover Publications 1972 ISBN 0-486-20459-6
Lots of entries, quite a lot of information in most entries and references.

[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978 ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including

tropical) and where they can be obtained (mainly N. American nurseries but also research institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project with PayPal

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Readers Comments

Lavandula angustifolia

Fri May 30 17:04:18 2003

I love Lavender. It is sooooo sexy......you cn just curl up with a good book and a lavender scented sachet and a nice cup of tea and just relax into an erotic type peaceful state.....i love Lavender. I love it i love it i love it. I also find in quit suthing on my bumps and bruises for extra excertion on my body.after a long day of working the street corners you can just come home and slip into a nice lavender bath and feel relaxed and calm. I owe many fun nights to lavender and its way of making me feel fantastic.

Thanks to Lavender and it's sexiness

*PS........I LOVE LAVENDER!!!!!

Lavandula angustifolia

lavender lover (SHEfansforever@hotmail.com) Tue Mar 30 09:55:21 2004

hi!! i relly like lavender (levendula),but because i need to do project,so if you know the life cycle of it , pls put it on your web!!

Add a comment/link:

Enter your comment about this plant here. (Note this is not the place to get an instant reply. For that, try the our mailing list).

If you know of another site which has good information about this plant fill in the following the details here.

Name of Site:	
URL for Site:	http://
Details:	

Enter your details here:

Your Name:

Email Address:

Submit

Add a longer comment

You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK)
`http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Lavandula+angustifolia`
This page (US)
`http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Lavandula+angustifolia`

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We also ask that you let us know (webmaster@pfaf.org) if you link to, redistribute, make a derived work or do anything groovy with this information.

Plants For A Future: Database Search Results

Lavandula angustifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Lavender	Family:	Labiatae
Author:	Mill.	Botanical references:	11, 200
Synonyms:	Lavandula vera (DC.), Lavandula spica (L.), Lavandula officinalis (Chaix.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry grassy slopes amongst rocks[9], in exposed, usually parched, hot rocky situations often on calcareous soils[200].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. delphinensis[H] L. fragrans[H] L. latifolia[E,G,H,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alfazema Brava [E], Alhucema [E], Alhucena [E], Broad-leaf Lavender [H], Broadleaved Lavender [P], English Lavender [H,P,B], Espliego [E], Grande Lavande [E], Lavande Aspic [E], Lavando Spigo [E], Lavanta [E], Lavender [E,H], Lavender Vera [H], Spijk Lavendel [E], Spik Lavendel [E], Spike [E], Spike Lavender [H], Spikenard [E], True Lavender [H],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Germany; Italy; Netherlands; Portugal; Spain; Turkey; Us(Az)

Physical Characteristics

An evergreen shrub growing to 1.2m by 1m . It is hardy to zone 5. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Cultivar **'Hidcote'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.
Cultivar **'Munstead'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.
Cultivar **'Sharon Roberts'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Tea.

Leaves, petals and flowering tips - raw. Used as a condiment in salads, soups, stews etc[2, 15, 183]. They provide a very aromatic flavour[7] and are too strong to be used in any quantity[K].

The fresh or dried flowers are used as a tea[183]. The fresh flowers are also crystallized or added to jams, ice-creams, vinegars etc as a flavouring[238].

An essential oil from the flowers is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antihalitosis; Antiseptic; Antispasmodic; Aromatherapy; Aromatic; Carminative; Cholagogue; Diuretic; Nervine; Sedative; Stimulant; Stomachic; Tonic.

Lavender is a commonly used household herb, though it is better known for its sweet-scented aroma than for its medicinal qualities[254]. However, it is an important relaxing herb, having a soothing and relaxing affect upon the nervous system[254]. The flowering spikes can be dried and used internally in a tincture, though the extracted essential oil is more commonly used. The essential oil is much more gentle in its action than most other essential oils and can be safely applied direct to the skin as an antiseptic to help heal wounds, burns etc[254].

An essential oil obtained from the flowers is antihalitosis, powerfully antiseptic, antispasmodic, aromatic, carminative, cholagogue, diuretic, nervine, sedative, stimulant, stomachic and tonic[4, 7, 9, 21, 165, 238]. It is not often used internally, though it is a useful carminative and nervine[4]. It is mainly used externally where it is an excellent restorative and tonic - when rubbed into the temples, for example, it can cure a nervous headache, and it is a delightful addition to the bath-water[4]. Its powerful antiseptic properties are able to kill many of the common bacteria such as typhoid, diphtheria, streptococcus and Pneumococcus, as well as being a powerful antidote to some snake venoms[244]. It is very useful in the treatment of burns, sunburn, scalds, bites, vaginal discharge, anal fissure etc, where it also soothes the affected part of the body and can prevent the formation of permanent scar tissue[4, 238].

The essential oil is used in aromatherapy. Its keyword is 'Immune system'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Incense; Pot-pourri; Repellent.

The essential oil that is obtained from the flowers is exquisitely scented and has a very wide range of applications, both in the home and commercially. It is commonly used in soap making, in making high quality perfumes (it is also used in 'Eau de Cologne'), it is also used as a detergent and cleaning agent, a food flavouring etc[21, 46, 57, 171, 238] and as an insect repellent[201]. When growing the plant for its essential oil content, it is best to harvest the flowering stems as soon as the flowers have faded[245]. Yields of 0.8 - 1% of the oil are obtained[7].

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Lavender can be grown as a low hedge, responding well to trimming[29]. There are several varieties, such as 'Hidcote Variety', 'Loddon Pink' and 'Folgate Blue' that are suitable for using as dwarf hedges 30 - 50cm tall[245].

Cultivation details

Succeeds in almost any soil so long as it is well-drained and not too acid[1, 200]. Prefers a sunny position in a neutral to alkaline soil[1, 4, 14]. Prefers a light warm dry soil[37]. When grown in rich soils the plants tend to produce more leaves but less essential oils[4]. Established plants are drought tolerant[190]. Plants are very tolerant of salt wind exposure[K]. When growing for maximum essential oil content, the plant must be given a very warm sunny position and will do best in a light sandy soil, the fragrance being especially pronounced in a chalky soil[245].

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- Checklist of plants suitable for hedging and windbreaks.
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[4] **Grieve.** *A Modern Herbal.* Penguin 1984 ISBN 0-14-046-440-9
Not so modern (1930's?) but lots of information, mainly temperate plants.

[7] **Chiej. R.** *Encyclopaedia of Medicinal Plants.* MacDonald 1984 ISBN 0-356-10541-5
Covers plants growing in Europe. Also gives other interesting information on the plants. Good photographs.

[9] **Launert. E.** *Edible and Medicinal Plants.* Hamlyn 1981 ISBN 0-600-37216-2
Covers plants in Europe. a drawing of each plant, quite a bit of interesting information.

[11] **Bean. W.** *Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement.* Murray 1981
A classic with a wealth of information on the plants, but poor on pictures.

[14] **Holtom. J. and Hylton. W.** *Complete Guide to Herbs.* Rodale Press 1979 ISBN 0-87857-262-7
A good herbal.

[15] **Bryan. J. and Castle. C.** *Edible Ornamental Garden.* Pitman Publishing 1976 ISBN 0-273-00098-5
A small book with interesting ideas for edible plants in the ornamental garden.

[18] **Philbrick H. and Gregg R. B.** *Companion Plants.* Watkins 1979
Details of beneficial and antagonistic relationships between neighbouring plants.

[20] **Riotte. L.** *Companion Planting for Successful Gardening.* Garden Way, Vermont, USA. 1978

ISBN 0-88266-064-0
Fairly good.

[21] **Lust. J.** *The Herb Book.* Bantam books 1983 ISBN 0-553-23827-2
Lots of information tightly crammed into a fairly small book.

[24] **Baines. C.** *Making a Wildlife Garden.*
Fairly good with lots of ideas about creating wildlife areas in the garden.

[29] **Shepherd. F.W.** *Hedges and Screens.* Royal Horticultural Society. 1974 ISBN 0900629649
A small but informative booklet giving details of all the hedging plants being grown in the R.H.S. gardens at Wisley in Surrey.

[30] **Carter D.** *Butterflies and Moths in Britain and Europe.* Pan 1982 ISBN 0-330-26642-x
An excellent book on Lepidoptera, it also lists their favourite food plants.

[37] **Thompson. B.** *The Gardener's Assistant.* Blackie and Son. 1878
Excellent general but extensive guide to gardening practices in the 19th century. A very good section on fruits and vegetables with many little known species.

[46] **Uphof. J. C. Th.** *Dictionary of Economic Plants.* Weinheim 1959
An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[54] **Hatfield. A. W.** *How to Enjoy your Weeds.* Frederick Muller Ltd 1977 ISBN 0-584-10141-4
Interesting reading.

[57] **Schery. R. W.** *Plants for Man.*
Fairly readable but not very comprehensive. Deals with plants from around the world.

[78] **Sheat. W. G.** *Propagation of Trees, Shrubs and Conifers.* MacMillan and Co 1948
A bit dated but a good book on propagation techniques with specific details for a wide range of plants.

[165] **Mills. S. Y.** *The Dictionary of Modern Herbalism.*
An excellent small herbal.

[171] **Hill. A. F.** *Economic Botany.* The Maple Press 1952
Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[182] **Thomas. G. S.** *Ornamental Shrubs, Climbers and Bamboos.* Murray 1992 ISBN 0-7195-5043-2
Contains a wide range of plants with a brief description, mainly of their ornamental value but also usually of cultivation details and varieties.

[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
Excellent. Contains a very wide range of conventional and unconventional food plants (including tropical) and where they can be obtained (mainly N. American nurseries but also research

institutes and a lot of other nurseries from around the world.

[184] **Phillips. R. & Rix. M.** *Shrubs.* Pan Books 1989 ISBN 0-330-30258-2
Excellent photographs and a terse description of 1900 species and cultivars.

[190] **Chatto. B.** *The Dry Garden.* Dent 1982 ISBN 0460045512
A good list of drought resistant plants with details on how to grow them.

[200] **Huxley. A.** *The New RHS Dictionary of Gardening. 1992.* MacMillan Press 1992 ISBN 0-333-47494-5
Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[201] **Allardice.P.** *A - Z of Companion Planting.* Cassell Publishers Ltd. 1993 ISBN 0-304-34324-2
A well produced and very readable book.

[210] **Westwood. C.** *Aromatherapy - A guide for home use.* Amberwood Publishing Ltd 1993 ISBN 0-9517723-0-9
An excellent little pocket guide. Very concise.

[238] **Bown. D.** *Encyclopaedia of Herbs and their Uses.* Dorling Kindersley, London. 1995 ISBN 0-7513-020-31
A very well presented and informative book on herbs from around the globe. Plenty in it for both the casual reader and the serious student. Just one main quibble is the silly way of having two separate entries for each plant.

[244] **Phillips. R. & Foy. N.** *Herbs* Pan Books Ltd. London. 1990 ISBN 0-330-30725-8
Deals with all types of herbs including medicinal, culinary, scented and dye plants. Excellent photographs with quite good information on each plant.

[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

[254] **Chevallier. A.** *The Encyclopedia of Medicinal Plants* Dorling Kindersley. London 1996 ISBN 9-780751-303148
An excellent guide to over 500 of the more well known medicinal herbs from around the world.

Readers Comments

Lavandula angustifolia

Fri May 30 17:04:18 2003

I love Lavender. It is sooooo sexy......you cn just curl up with a good book and a lavender scented sachet and a nice cup of tea and just relax into an erotic type peaceful state.....i love Lavender. I love it i love it i love it. I also find in quit suthing on my bumps and bruises for extra excertion on my body.after a long day of working the street corners you can just come home and slip into a nice lavender bath and feel relaxed and calm. I owe many fun nights to lavender and its way of making me feel fantastic.

Thanks to Lavender and it's sexiness

*PS........I LOVE LAVENDER!!!!!

Lavandula angustifolia

lavender lover (SHEfansforever@hotmail.com) Tue Mar 30 09:55:21 2004

hi!! i relly like lavender (levendula),but because i need to do project,so if you know the life cycle of it , pls put it on your web!!

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Plants For A Future: Database Search Results

Lavandula angustifolia

A photo of this plant will appear in the forthcoming CD-ROM.

Common name:	Lavender	Family:	Labiatae
Author:	Mill.	Botanical references:	11, 200
Synonyms:	Lavandula vera (DC.), Lavandula spica (L.), Lavandula officinalis (Chaix.)		
Known Hazards:	None known		
Range:	Europe - Mediterranean.		
Habitat:	Dry grassy slopes amongst rocks[9], in exposed, usually parched, hot rocky situations often on calcareous soils[200].		
Plants For A Future Rating (1-5):	4		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. delphinensis[H] L. fragrans[H] L. latifolia[E,G,H,HORTIPLEX,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alfazema Brava [E], Alhucema [E], Alhucena [E], Broad-leaf Lavender [H], Broadleaved Lavender [P], English Lavender [H,P,B], Espliego [E], Grande Lavande [E], Lavande Aspic [E], Lavando Spigo [E], Lavanta [E], Lavender [E,H], Lavender Vera [H], Spijk Lavendel [E], Spik Lavendel [E], Spike [E], Spike Lavender [H], Spikenard [E], True Lavender [H],
Epithets:	From a Dictionary of Botanical Epithets
	angustifolia = narrow leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Germany; Italy; Netherlands; Portugal; Spain; Turkey; Us(Az)

Physical Characteristics

An evergreen shrub growing to 1.2m by 1m . It is hardy to zone 5. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 4 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Cultivar **'Hidcote'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.
Cultivar **'Munstead'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.
Cultivar **'Sharon Roberts'**: Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Tea.

Leaves, petals and flowering tips - raw. Used as a condiment in salads, soups, stews etc[2, 15, 183]. They provide a very aromatic flavour[7] and are too strong to be used in any quantity[K].

The fresh or dried flowers are used as a tea[183]. The fresh flowers are also crystallized or added to jams, ice-creams, vinegars etc as a flavouring[238].

An essential oil from the flowers is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antihalitosis; Antiseptic; Antispasmodic; Aromatherapy; Aromatic; Carminative; Cholagogue; Diuretic; Nervine; Sedative; Stimulant; Stomachic; Tonic.

Lavender is a commonly used household herb, though it is better known for its sweet-scented aroma than for its medicinal qualities[254]. However, it is an important relaxing herb, having a soothing and relaxing affect upon the nervous system[254]. The flowering spikes can be dried and used internally in a tincture, though the extracted essential oil is more commonly used. The essential oil is much more gentle in its action than most other essential oils and can be safely applied direct to the skin as an antiseptic to help heal wounds, burns etc[254].

An essential oil obtained from the flowers is antihalitosis, powerfully antiseptic, antispasmodic, aromatic, carminative, cholagogue, diuretic, nervine, sedative, stimulant, stomachic and tonic[4, 7, 9, 21, 165, 238]. It is not often used internally, though it is a useful carminative and nervine[4]. It is mainly used externally where it is an excellent restorative and tonic - when rubbed into the temples, for example, it can cure a nervous headache, and it is a delightful addition to the bath-water[4]. Its powerful antiseptic properties are able to kill many of the common bacteria such as typhoid, diphtheria, streptococcus and Pneumococcus, as well as being a powerful antidote to some snake venoms[244]. It is very useful in the treatment of burns, sunburn, scalds, bites, vaginal discharge, anal fissure etc, where it also soothes the affected part of the body and can prevent the formation of permanent scar tissue[4, 238].

The essential oil is used in aromatherapy. Its keyword is 'Immune system'[210].

We have a more details factsheet on the history and medicinal use of this plant.See medicinal factsheets for details and email webmaster@pfaf.org for details.Please note I am snowed under with email and it can take over a month to get back to you.The harsh realities of life mean that Friends of PFAF and those who make a donation to the project receive things quicker! You can make a credit card donation with PayPal

Other Uses

Essential; Hedge; Incense; Pot-pourri; Repellent.

The essential oil that is obtained from the flowers is exquisitely scented and has a very wide range of applications, both in the home and commercially. It is commonly used in soap making, in making high quality perfumes (it is also used in 'Eau de Cologne'), it is also used as a detergent and cleaning agent, a food flavouring etc[21, 46, 57, 171, 238] and as an insect repellent[201]. When growing the plant for its essential oil content, it is best to harvest the flowering stems as soon as the flowers have faded[245]. Yields of 0.8 - 1% of the oil are obtained[7].

The aromatic leaves and flowers are used in pot-pourri[238] and as an insect repellent in the linen cupboard etc[14, 18, 20]. They have been used in the past as a strewing herb in order to impart a sweet smell to rooms and to deter insects[244]. The leaves are also added to bath water for their fragrance and therapeutic properties[244]. They are also said to repel mice[20].

The flowering stems, once the flowers have been removed for use in pot-pourri etc, can be tied in small bundles and burnt as incense sticks[245].

Lavender can be grown as a low hedge, responding well to trimming[29]. There are several varieties, such as 'Hidcote Variety', 'Loddon Pink' and 'Folgate Blue' that are suitable for using as dwarf hedges 30 - 50cm tall[245].

Cultivation details

Succeeds in almost any soil so long as it is well-drained and not too acid[1, 200]. Prefers a sunny position in a neutral to alkaline soil[1, 4, 14]. Prefers a light warm dry soil[37]. When grown in rich soils the plants tend to produce more leaves but less essential oils[4]. Established plants are drought tolerant[190]. Plants are very tolerant of salt wind exposure[K]. When growing for maximum essential oil content, the plant must be given a very warm sunny position and will do best in a light sandy soil, the fragrance being especially pronounced in a chalky soil[245].

Plants are hardy to between -10 and -15°c[184].

Lavender is a very ornamental plant that is often grown in the herb garden and is also grown commercially for its essential oil[1, 4]. There are several named varieties[182, 183].

Not a very long-lived plant, it can be trimmed to keep it tidy but is probably best replaced every 10 years[200]. Any trimming is best done in spring and should not be done in the autumn since this can encourage new growth that will not be very cold-hardy[200].

A good bee plant, also attracting butterflies and moths[7, 24, 30].

Lavender makes a good companion for most plants[54], growing especially well with cabbages[14].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed[4]. It usually germinates in 1 - 3 months at 15°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in late spring after the last expected frosts.

Cuttings of half-ripe wood 7 - 10cm with a heel, July/August in a frame. Usually very east, a high percentage will root within a few weeks[78]. Grow them on in the greenhouse for their first winter and plant them out in late spring after the last expected frosts.

Cuttings 7cm with a heel succeed at almost any time of the year[1].

Layering.

Scent

Plant: Fresh Crushed Dried

All parts of the plant are strongly aromatic.

Cultivars

'Sharon Roberts'

> Hardy to at least -18°c, it has been known to withstand temperatures down to -23°c[183]. The plant flowers twice each year, once in June and once in September[183].

'Munstead'

> A dwarf, compact grower to 60cm tall[183]. It blooms several weeks earlier than other varieties[183].

'Loddon Pink'

> A pink-flowered form growing to about 45cm tall[200], it can be grown as a dwarf hedge[245].

'Hidcote'

> An early flowering[11], slow, compact grower, to 30cm tall[200], it can be grown as a dwarf hedge[245].

'Folgate Blue'

> A very free-flowering compact form, growing only 30cm tall[11], it is suitable for growing as a dwarf hedge[245].

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Lavandula angustifolia*

Subject:

Lavandula angustifolia

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Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:	
URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lavandula angustifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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Lavandula latifolia

Common name:	Spike lavender	Family:	Labiatae
Author:	Medik.	Botanical references:	11, 50, 200
Synonyms:	Lavandula spica latifolia (L.f.), Lavandula spica (DC. and many other authors.)		
Known Hazards:	None known		
Range:	Europe - W. Mediterranean.		
Habitat:	Arid hillsides, especially on limestone[184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. angustifolia[B,E,G,H,HORTIPLEX,P] L. delphinensis[H] L. fragrans[H] L. officinalis[G,H,P] L. officinalis spica[H] L. officinalis var. spica[H] L. vera[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alfazema Brava [E], Alhucema [E], Alhucena [E], Broad-leaf Lavender [H], Broadleaved Lavender [P], English Lavender [H,B,P], Espliego [E], Grande Lavande [E], Lavande Aspic [E], Lavando Spigo [E], Lavanta [E], Lavender [E,H], Lavender Vera [H], Spijk Lavendel [E], Spik Lavendel [E], Spike [E], Spike Lavender [H], Spikenard [E],
Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Other Range Info:	From the Ethnobotany Database	
	Britain; Europe; France; Germany; Italy; Netherlands; Portugal; Spain; Turkey; Us(Az)	

Physical Characteristics

An evergreen shrub growing to 0.35m. It is hardy to zone 7. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment.

Leaves - raw[2, 15]. Used as a condiment in salads[177]. Very aromatic[7], they cannot be eaten in quantity[K].

An essential oil from the flowers is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Abortifacient; Antibacterial; Antiseptic; Antispasmodic; Aromatherapy; Carminative; Emmenagogue.

Spike lavender has similar medicinal properties to common lavender (L. angustifolia). It yields more essential oil than that species but is of inferior quality[254].

The flowering stems, and the essential oil obtained from them, is abortifacient, antibacterial, antiseptic, antispasmodic, carminative and emmenagogue[46, 61, 254]. They can be used in all the ways that common lavender is used, externally to treat wounds, burns, insect stings etc and internally to treat digestive disorders[254].

The essential oil is used in aromatherapy. Its keyword is 'Immune system'[210].

Other Uses

Essential; Incense; Pot-pourri; Repellent.

An essential oil is obtained from the flowers - used in soap making, perfumery, food flavouring, veterinary medicines, porcelain painting etc[46, 61]. This species yields up to three times the quantity of essential oil than is obtained from L. angustifolia, but the quality is inferior to that species[4, 11, 171]. When growing the plant for its essential oil content, it is best to harvest the flowering stems as soon as the flowers have faded[245].

The aromatic leaves and flowers are used as an insect repellent in the linen cupboard etc[46, 61]. They are also used in pot-pourri[245] and are said to repel mice[20].

The flowering stems, once the flowers have been removed for use in pot-pourri etc, can be tied in small bundles and burnt as incense sticks[245].

Cultivation details

Succeeds in almost any soil so long as it is well-drained and not too acid[1, 200]. Prefers a sunny position in a neutral to alkaline soil[14, 200]. Prefers a light warm dry soil[37]. When grown in rich soils the plants tend to produce more leaves but less essential oils[4]. Very tolerant of salt wind exposure. Established plants are drought tolerant[190]. When growing for maximum essential oil content, the plant must be given a very warm sunny position and will do best in a light sandy soil, the fragrance being especially pronounced in a chalky soil[245].

This species of lavender is cultivated for its essential oil in S. France and England[46, 61]. It is very closely related to L. angustifolia but perhaps not so hardy, tolerating temperatures down to about -10°c[11, 200].

Plants are not very long-lived and soon become straggly unless pruned. Any trimming of the plant is best done in spring and should not be done in the autumn since this can encourage new growth that will not be very cold-hardy[200].

A good bee plant[7, 24], also attracting butterflies and moths[30].

A good companion for most plants[54], growing well with cabbages[14].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed[4]. It usually germinates in 1 - 3 months at 15°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in late spring after the last expected frosts.

Cuttings of half-ripe wood 7 - 10cm with a heel, July/August in a frame. Usually very east, a high percentage will root within a few weeks[78]. Grow them on in the greenhouse for their first winter and plant them out in late spring after the last expected frosts.

Cuttings 7cm with a heel succeed at almost any time of the year[1].

Layering.

Scent

Leaves: Crushed

The foliage has a strong scent of lavender.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: L-O
- PFAF Plant Catalogue (G-L)
- Checklist of plants suitable for hedging and windbreaks.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Lavandula angustifolia* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Lavandula officinalis var. spica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database

References for *Lavandula spica* (a possible synonym).

- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [PHARM] Phytochemical Data (common names, uses, countries) from Dr Duke's Phytochemical Database.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[K] **Ken Fern**
Notes from observations, tasting etc at Plants For A Future and on field trips.

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Plants For A Future: Database Search Results

Lavandula latifolia

Common name:	Spike lavender	Family:	Labiatae
Author:	Medik.	Botanical references:	11, 50, 200
Synonyms:	Lavandula spica latifolia (L.f.), Lavandula spica (DC. and many other authors.)		
Known Hazards:	None known		
Range:	Europe - W. Mediterranean.		
Habitat:	Arid hillsides, especially on limestone[184].		
Plants For A Future Rating (1-5):	3		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. angustifolia[B,E,G,H,HORTIPLEX,P] L. delphinensis[H] L. fragrans[H] L. officinalis[G,H,P] L. officinalis spica[H] L. officinalis var. spica[H] L. vera[G,H,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Alfazema Brava [E], Alhucema [E], Alhucena [E], Broad-leaf Lavender [H], Broadleaved Lavender [P], English Lavender [H,B,P], Espliego [E], Grande Lavande [E], Lavande Aspic [E], Lavando Spigo [E], Lavanta [E], Lavender [E,H], Lavender Vera [H], Spijk Lavendel [E], Spik Lavendel [E], Spike [E], Spike Lavender [H], Spikenard [E],
Epithets:	From a Dictionary of Botanical Epithets
	latifolia = broad leaved;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family
Other Range Info:	From the Ethnobotany Database
	Britain; Europe; France; Germany; Italy; Netherlands; Portugal; Spain; Turkey; Us(Az)

Physical Characteristics

An evergreen shrub growing to 0.35m. It is hardy to zone 7. It is in leaf all year. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in saline soil. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment.

Leaves - raw[2, 15]. Used as a condiment in salads[177]. Very aromatic[7], they cannot be eaten in quantity[K].

An essential oil from the flowers is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Abortifacient; Antibacterial; Antiseptic; Antispasmodic; Aromatherapy; Carminative; Emmenagogue.

Spike lavender has similar medicinal properties to common lavender (L. angustifolia). It yields more essential oil than that species but is of inferior quality[254].

The flowering stems, and the essential oil obtained from them, is abortifacient, antibacterial, antiseptic, antispasmodic, carminative and emmenagogue[46, 61, 254]. They can be used in all the ways that common lavender is used, externally to treat wounds, burns, insect stings etc and internally to treat digestive disorders[254].

The essential oil is used in aromatherapy. Its keyword is 'Immune system'[210].

Other Uses

Essential; Incense; Pot-pourri; Repellent.

An essential oil is obtained from the flowers - used in soap making, perfumery, food flavouring, veterinary medicines, porcelain painting etc[46, 61]. This species yields up to three times the quantity of essential oil than is obtained from L. angustifolia, but the quality is inferior to that species[4, 11, 171]. When growing the plant for its essential oil content, it is best to harvest the flowering stems as soon as the flowers have faded[245].

The aromatic leaves and flowers are used as an insect repellent in the linen cupboard etc[46, 61]. They are also used in pot-pourri[245] and are said to repel mice[20].

The flowering stems, once the flowers have been removed for use in pot-pourri etc, can be tied in small bundles and burnt as incense sticks[245].

Cultivation details

Succeeds in almost any soil so long as it is well-drained and not too acid[1, 200]. Prefers a sunny position in a neutral to alkaline soil[14, 200]. Prefers a light warm dry soil[37]. When grown in rich soils the plants tend to produce more leaves but less essential oils[4]. Very tolerant of salt wind exposure. Established plants are drought tolerant[190]. When growing for maximum essential oil content, the plant must be given a very warm sunny position and will do best in a light sandy soil, the fragrance being especially pronounced in a chalky soil[245].

This species of lavender is cultivated for its essential oil in S. France and England[46, 61]. It is very closely related to L. angustifolia but perhaps not so hardy, tolerating temperatures down to about -10°c[11, 200].

Plants are not very long-lived and soon become straggly unless pruned. Any trimming of the plant is best done in spring and should not be done in the autumn since this can encourage new growth that will not be very cold-hardy[200].

A good bee plant[7, 24], also attracting butterflies and moths[30].

A good companion for most plants[54], growing well with cabbages[14].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed[4]. It usually germinates in 1 - 3 months at 15°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in late spring after the last expected frosts.

Cuttings of half-ripe wood 7 - 10cm with a heel, July/August in a frame. Usually very east, a high percentage will root within a few weeks[78]. Grow them on in the greenhouse for their first winter and plant them out in late spring after the last expected frosts.

Cuttings 7cm with a heel succeed at almost any time of the year[1].

Layering.

Scent

Leaves: Crushed

The foliage has a strong scent of lavender.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

PFAF Web Pages

This plant is mentioned in the following web pages

- PFAF Catalogue: Checklist of plants
- Checklist of plants suitable for hedging and windbreaks.
- Checklist of plants suitable for hedging and windbreaks: L-O
- PFAF Plant Catalogue (G-L)
- Checklist of plants suitable for hedging and windbreaks.

Web References

- Details of Medicinal Uses, Habitats, etc. in M. Grieve A Modern Herbal (1931) [4]
- [H] Details of Scandanavian and European Common names in Henriette's names database
- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.
- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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References for *Lavandula angustifolia* (a possible synonym).

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- [V] Images from the Vascular Plant Image Gallery of the Texas A&M Bioinformatics Working Group.
- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
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See the PFAF Links Pages for other sources

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Layering.

Scent

Leaves: Crushed

The foliage has a strong scent of lavender.

Suppliers

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This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Lavandula latifolia

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Please use the first word of the Latin Names of the plants as specified in this database, one per line.

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You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

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Plants For A Future: Database Search Results

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Lavandula x intermedia

Common name:	Lavender	Family:	Labiatae
Author:	Lois.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	A hybrid species of garden origin, L. angustifolia x L. latifolia.		
Habitat:	Not known in the wild,		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. hortensis[H] L. x burnatii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Lavandin [P], Provence Lavender [H],
Epithets:	From a Dictionary of Botanical Epithets
	intermedia = intermediate; media = intermediate;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

An evergreen shrub growing to 1.2m by 1m . It is hardy to zone 5. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Tea.

The following uses are for L. angustifolia, they should also apply to this hybrid:-

Leaves, petals and flowering tips - raw. Used as a condiment in salads, soups, stews etc[2, 15, 183]. They provide a very aromatic flavour[7] and are too strong to be used in any quantity[K].

The fresh or dried flowers are used as a tea[183]. The fresh flowers are also crystallized or added to jams, ice-creams, vinegars etc as a flavouring[238].

An essential oil from the flowers is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antihalitosis; Antiseptic; Antispasmodic; Aromatherapy; Aromatic; Carminative; Cholagogue; Diuretic; Nervine; Sedative; Stimulant; Stomachic; Tonic.

The following uses are for L. angustifolia, they should also apply to this hybrid:-

Lavender is a commonly used household herbal remedy. An essential oil obtained from the flowers is antihalitosis, antiseptic, antispasmodic, aromatic, carminative, cholagogue, diuretic, nervine, sedative, stimulant, stomachic and tonic[4, 7, 9, 21, 165, 238]. It is not often used internally, though it is a useful carminative and nervine[4]. It is mainly used externally where it is an excellent restorative and tonic - when rubbed into the temples, for example, it can cure a nervous headache, and it is a delightful addition to the bath-water[4]. Its antiseptic properties also make it useful in the treatment of burns, sunburn, scalds, bites, vaginal discharge, anal fissure etc, where it also soothes the affected part of the body and can prevent the formation of permanent scar tissue[4, 238].

The essential oil is used in aromatherapy. Its keyword is 'Immune system'[210].

Other Uses

Essential; Hedge; Incense; Pot-pourri; Repellent.

The following uses are for the closely related L. angustifolia, they should also apply to this hybrid:-

The essential oil that is obtained from the flowers is exquisitely scented and has a very wide range of applications, both in the home and commercially. It is commonly used in soap making, in making high quality perfumes (it is also used in 'Eau de Cologne'), it is also used as a detergent and cleaning agent, a food flavouring etc[21, 46, 57, 171, 238] and as an insect repellent[201]. Yields of 0.8 - 1% of the oil are obtained[7]. When growing the plant for its essential oil content, it is best to harvest the flowering stems as soon as the flowers have faded[245].

The aromatic leaves and flowers are used in pot-pourri[238] and as an insect repellent in the linen cupboard etc[14, 18, 20]. They are also said to repel mice[20].

The flowering stems, once the flowers have been removed for use in pot-pourri etc, can be tied in small bundles and burnt as incense sticks[245].

Can be grown as a low hedge, responding well to trimming[29].

Cultivation details

Succeeds in almost any soil so long as it is well-drained and not too acid[1, 200]. Prefers a sunny position in a neutral to alkaline soil[1, 4, 14]. Prefers a light warm dry soil[37]. When grown in rich soils the plants tend to produce more leaves but less essential oils[4]. Established plants are drought tolerant[190]. Very tolerant of salt wind exposure[K]. When growing for maximum essential oil content, the plant must be given a very warm sunny position and will do best in a light sandy soil, the fragrance being especially pronounced in a chalky soil[245].

Plants are hardy to between -10 and -15°c[184].

Lavender is a very ornamental plant that is often grown in the herb garden and is also grown commercially for its essential oil[1, 4]. This species is a very variable hybrid between the two main species of lavender, L. angustifolia and L. latifolia[200], There are several named varieties[200, 238].

Not a very long-lived plant, it can be trimmed to keep it tidy but is probably best replaced every 10 years[200]. Any trimming is best done in spring and should not be done in the autumn since this can encourage new growth that will not be very cold-hardy[200].

A good bee plant, also attracting butterflies and moths[7, 24, 30].

Lavender makes a good companion for most plants[54], growing especially well with cabbages[14].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed[4]. It usually germinates in 1 - 3 months at 15°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in late spring after the last expected frosts. This species is a hybrid and will not come true from seed.

Cuttings of half-ripe wood 7 - 10cm with a heel, July/August in a frame. Usually very east, a high percentage will root within a few weeks[78]. Grow them on in the greenhouse for their first winter and plant them out in late spring after the last expected frosts.

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Layering.

Scent

Leaves: Crushed

> The foliage is strongly aromatic.

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> No entries have been made for this species as yet.

Suppliers

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Plants For A Future: Database Search Results

Lavandula x intermedia

Common name:	Lavender	Family:	Labiatae
Author:	Lois.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	A hybrid species of garden origin, L. angustifolia x L. latifolia.		
Habitat:	Not known in the wild,		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
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Epithets:	From a Dictionary of Botanical Epithets
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Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

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Habitats and Possible Locations

Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Tea.

The following uses are for L. angustifolia, they should also apply to this hybrid:-

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Can be grown as a low hedge, responding well to trimming[29].

Cultivation details

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Layering.

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Leaves: Crushed

> The foliage is strongly aromatic.

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Suppliers

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Plants For A Future: Database Search Results

Lavandula x intermedia

Common name:	Lavender	Family:	Labiatae
Author:	Lois.	Botanical references:	200
Synonyms:			
Known Hazards:	None known		
Range:	A hybrid species of garden origin, L. angustifolia x L. latifolia.		
Habitat:	Not known in the wild,		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. hortensis[H] L. x burnatii[G]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Lavandin [P], Provence Lavender [H],
Epithets:	From a Dictionary of Botanical Epithets
	intermedia = intermediate; media = intermediate;
Systematics:	From a UDSA Plants Database
	Order: Lamiales . Renamed to Lamiaceae -- Mint family

Physical Characteristics

An evergreen shrub growing to 1.2m by 1m . It is hardy to zone 5. It is in leaf all year, in flower from July to September, and the seeds ripen from August to October. The scented flowers are hermaphrodite (have both male and female organs) and are pollinated by Bees and Lepidoptera (Moths & Butterflies). It is noted for attracting wildlife. We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils. It cannot grow in the shade. It requires dry or moist soil and can tolerate drought. The plant can tolerate maritime exposure.

Habitats and Possible Locations

Hedge, Cultivated Beds, In Walls, In South Wall, In East Wall, In West Wall.

Edible Uses

Condiment; Tea.

The following uses are for L. angustifolia, they should also apply to this hybrid:-

Leaves, petals and flowering tips - raw. Used as a condiment in salads, soups, stews etc[2, 15, 183]. They provide a very aromatic flavour[7] and are too strong to be used in any quantity[K].

The fresh or dried flowers are used as a tea[183]. The fresh flowers are also crystallized or added to jams, ice-creams, vinegars etc as a flavouring[238].

An essential oil from the flowers is used as a food flavouring[183].

Medicinal Uses

Disclaimer

Antihalitosis; Antiseptic; Antispasmodic; Aromatherapy; Aromatic; Carminative; Cholagogue; Diuretic; Nervine; Sedative; Stimulant; Stomachic; Tonic.

The following uses are for L. angustifolia, they should also apply to this hybrid:-

Lavender is a commonly used household herbal remedy. An essential oil obtained from the flowers is antihalitosis, antiseptic, antispasmodic, aromatic, carminative, cholagogue, diuretic, nervine, sedative, stimulant, stomachic and tonic[4, 7, 9, 21, 165, 238]. It is not often used internally, though it is a useful carminative and nervine[4]. It is mainly used externally where it is an excellent restorative and tonic - when rubbed into the temples, for example, it can cure a nervous headache, and it is a delightful addition to the bath-water[4]. Its antiseptic properties also make it useful in the treatment of burns, sunburn, scalds, bites, vaginal discharge, anal fissure etc, where it also soothes the affected part of the body and can prevent the formation of permanent scar tissue[4, 238].

The essential oil is used in aromatherapy. Its keyword is 'Immune system'[210].

Other Uses

Essential; Hedge; Incense; Pot-pourri; Repellent.

The following uses are for the closely related L. angustifolia, they should also apply to this hybrid:-

The essential oil that is obtained from the flowers is exquisitely scented and has a very wide range of applications, both in the home and commercially. It is commonly used in soap making, in making high quality perfumes (it is also used in 'Eau de Cologne'), it is also used as a detergent and cleaning agent, a food flavouring etc[21, 46, 57, 171, 238] and as an insect repellent[201]. Yields of 0.8 - 1% of the oil are obtained[7]. When growing the plant for its essential oil content, it is best to harvest the flowering stems as soon as the flowers have faded[245].

The aromatic leaves and flowers are used in pot-pourri[238] and as an insect repellent in the linen cupboard etc[14, 18, 20]. They are also said to repel mice[20].

The flowering stems, once the flowers have been removed for use in pot-pourri etc, can be tied in small bundles and burnt as incense sticks[245].

Can be grown as a low hedge, responding well to trimming[29].

Cultivation details

Succeeds in almost any soil so long as it is well-drained and not too acid[1, 200]. Prefers a sunny position in a neutral to alkaline soil[1, 4, 14]. Prefers a light warm dry soil[37]. When grown in rich soils the plants tend to produce more leaves but less essential oils[4]. Established plants are drought tolerant[190]. Very tolerant of salt wind exposure[K]. When growing for maximum essential oil content, the plant must be given a very warm sunny position and will do best in a light sandy soil, the fragrance being especially pronounced in a chalky soil[245].

Plants are hardy to between -10 and -15°c[184].

Lavender is a very ornamental plant that is often grown in the herb garden and is also grown commercially for its essential oil[1, 4]. This species is a very variable hybrid between the two main species of lavender, L. angustifolia and L. latifolia[200], There are several named varieties[200, 238].

Not a very long-lived plant, it can be trimmed to keep it tidy but is probably best replaced every 10 years[200]. Any trimming is best done in spring and should not be done in the autumn since this can encourage new growth that will not be very cold-hardy[200].

A good bee plant, also attracting butterflies and moths[7, 24, 30].

Lavender makes a good companion for most plants[54], growing especially well with cabbages[14].

Propagation

Seed - sow spring in a greenhouse and only just cover the seed[4]. It usually germinates in 1 - 3 months at 15°c. When large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse or cold frame for their first winter, planting them out in late spring after the last expected frosts. This species is a hybrid and will not come true from seed.

Cuttings of half-ripe wood 7 - 10cm with a heel, July/August in a frame. Usually very east, a high percentage will root within a few weeks[78]. Grow them on in the greenhouse for their first winter and plant them out in late spring after the last expected frosts.

Cuttings 7cm with a heel succeed at almost any time of the year[1].

Layering.

Scent

Leaves: Crushed

> The foliage is strongly aromatic.

Cultivars

"

> No entries have been made for this species as yet.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Lavandula x intermedia

Group:
Plant Information

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Enter your comment about this plant here.

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URL for Site:	http://
Details:	

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

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Lavandula x intermedia

Please use the exact Latin Names of the plants as specified in this database, one per line.

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Ledum columbianum

Common name:		Family:	Ericaceae
Author:	Piper.	Botanical references:	11, 60, 200
Synonyms:	Ledum glandulosum columbianum ((Piper.)Hitchk.)		
Known Hazards:	Plants contain a narcotic toxin called Ledel. This toxin only causes problems if the leaves are cooked for a long period in a closed container[172].		
Range:	Western N. America - Washington to California.		
Habitat:	Near the coast in wet peaty places and open pine and redwood forests below 1000 metres[184].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. columbiarum[E] L. glandulosum ssp. australe[B,P] L. glandulosum ssp. columbianum[B,,P] L. glandulosum ssp. olivaceum[B,P] L. glandulosum var. columbianum[B,G,P] L. x columbianum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Coast Labradortea [P], Pacific Labrador Tea [E],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

An evergreen shrub growing to 1m. . It is in leaf all year, in flower in May. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Tea.

A tea is made from the leaves[172, 257]. Some caution is advised, see the notes above on toxicity. It would be better to brew the tea in cold water by leaving it in a sunny place, or to make sure that it is brewed for a short time only in an open container.

The leaves are used as a flavouring, they are a bayleaf substitute[172].

Medicinal Uses

Disclaimer

Astringent; Diaphoretic; Diuretic; Laxative; Stomachic.

The leaves and young flowering shoots re astringent, diaphoretic, diuretic, laxative and stomachic[172].

Other Uses

Repellent.

The leaves are used to repel moths, mice, rats etc[172].

Cultivation details

Requires a lime-free loam or peaty soil[1, 11]. Prefers a moist humus-rich acid soil in shade or semi-shade[200]. Plants grow better if they have certain fungal associations in the soil. The best way of providing this is to incorporate some soil from around well-growing established plants into the soil for the new plant[200].

Plants are hardy to about -15°c[200].

The leaves are covered in tiny spots or glands from which a strong, resinous scent is given off[245]. The flowers also have an aromatic perfume[245].

Very closely related to L. glandulosum[1], and considered to be no more than a sub-species of it by some botanists[200].

Plants benefit from removing the dead flowers before they set seed[188]. This prevents them putting too much energy into seed production at the expense of more flowers and leaves.

Propagation

Seed - surface sow in a shady part of the greenhouse in February or March[78, 113]. Another report says that the seed is best sown in the autumn as soon as it is ripe[188]. Germination is variable and can be quite slow. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow the pots on in a shady frame for 18 months before planting them out into their permanent positions[78].

Cuttings of half-ripe wood, 5 - 8cm with a heel, July/August in a frame. Plant out in spring. Fair percentage[78].

Cuttings of mature wood, November/December in a frame[113].

Layering in the autumn. Takes 12 months[78].

Division.

Scent

Flowers: Fresh

> The flowers have an aromatic perfume.

Leaves: Crushed

> The leaves are covered in tiny spots or glands from which a strong, resinous scent is given off.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [G] Data (Common Names, Uses, Distribution) from the USDA/ARS NPGS's GRIN taxonomic database.
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- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.

References for the family Ericaceae.

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References

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Author:	Piper.	Botanical references:	11, 60, 200
Synonyms:	Ledum glandulosum columbianum ((Piper.)Hitchk.)		
Known Hazards:	Plants contain a narcotic toxin called Ledel. This toxin only causes problems if the leaves are cooked for a long period in a closed container[172].		
Range:	Western N. America - Washington to California.		
Habitat:	Near the coast in wet peaty places and open pine and redwood forests below 1000 metres[184].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. columbiarum[E] L. glandulosum ssp. australe[B,P] L. glandulosum ssp. columbianum[B,,P] L. glandulosum ssp. olivaceum[B,P] L. glandulosum var. columbianum[B,G,P] L. x columbianum[B,P]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Coast Labradortea [P], Pacific Labrador Tea [E],
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Us

Physical Characteristics

An evergreen shrub growing to 1m. . It is in leaf all year, in flower in May. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils and can grow in very acid soil. It can grow in full shade (deep woodland) or semi-shade (light woodland). It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Tea.

A tea is made from the leaves[172, 257]. Some caution is advised, see the notes above on toxicity. It would be better to brew the tea in cold water by leaving it in a sunny place, or to make sure that it is brewed for a short time only in an open container.

The leaves are used as a flavouring, they are a bayleaf substitute[172].

Medicinal Uses

Disclaimer

Astringent; Diaphoretic; Diuretic; Laxative; Stomachic.

The leaves and young flowering shoots re astringent, diaphoretic, diuretic, laxative and stomachic[172].

Other Uses

Repellent.

The leaves are used to repel moths, mice, rats etc[172].

Cultivation details

Requires a lime-free loam or peaty soil[1, 11]. Prefers a moist humus-rich acid soil in shade or semi-shade[200]. Plants grow better if they have certain fungal associations in the soil. The best way of providing this is to incorporate some soil from around well-growing established plants into the soil for the new plant[200].

Plants are hardy to about -15°c[200].

The leaves are covered in tiny spots or glands from which a strong, resinous scent is given off[245]. The flowers also have an aromatic perfume[245].

Very closely related to L. glandulosum[1], and considered to be no more than a sub-species of it by some botanists[200].

Plants benefit from removing the dead flowers before they set seed[188]. This prevents them putting too much energy into seed production at the expense of more flowers and leaves.

Propagation

Seed - surface sow in a shady part of the greenhouse in February or March[78, 113]. Another report says that the seed is best sown in the autumn as soon as it is ripe[188]. Germination is variable and can be quite slow. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow the pots on in a shady frame for 18 months before planting them out into their permanent positions[78].

Cuttings of half-ripe wood, 5 - 8cm with a heel, July/August in a frame. Plant out in spring. Fair percentage[78].

Cuttings of mature wood, November/December in a frame[113].

Layering in the autumn. Takes 12 months[78].

Division.

Scent

Flowers: Fresh

> The flowers have an aromatic perfume.

Leaves: Crushed

> The leaves are covered in tiny spots or glands from which a strong, resinous scent is given off.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ledum columbianum*

Subject:

Ledum columbianum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ledum columbianum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

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Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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Plants For A Future: Database Search Results

Back to: Plant For A Future home page, Main Search Page Help Bibliography Printable Version: Long Short

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Ledum glandulosum

Common name:	Labrador tea	Family:	Ericaceae
Author:	Nutt.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	Plants contain a narcotic toxin called Ledel. This toxin only causes problems if the leaves are cooked for a long period in a closed container[172].		
Range:	Western N. America.		
Habitat:	Wet montane meadows and open woods[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. glandsulosum[E] L. glandulosum var. californicum[B,P] L. groenlandicum ssp. glandulosum[B]
Other Common Names:	From various places around the Web, may not be correct. See below.
	Glandular Labrador-tea [B], Labrador Tea [S], Western Labrador Tea [E], Western Labradortea [P],
Epithets:	From a Dictionary of Botanical Epithets
	glandulosum = glandular;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Flathead)

Physical Characteristics

An evergreen shrub growing to 1.5m. . It is in leaf all year, in flower in May. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils and can grow in very acid soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves; Tea.

An aromatic tea is made from the fresh or dried leaves[172, 183, 257]. The dried leaves are often mixed with non-aromatic leaves such as comfrey[183]. Some caution is advised, see the notes above on toxicity. It would be better to brew the tea in cold water by leaving it in a sunny place, or to make sure that it is brewed for a short time only in an open container.

The leaves are used as a flavouring, they are a bayleaf substitute[172].

The fresh leaves can be chewed[183].

Medicinal Uses

Disclaimer

Astringent; Diaphoretic; Diuretic; Laxative; Stomachic.

The leaves and young flowering shoots re astringent, diaphoretic, diuretic, laxative and stomachic[172].

Other Uses

Repellent.

The leaves are used to repel moths, mice, rats etc[172].

Cultivation details

Requires a lime-free loam or peaty soil[1, 11]. Prefers a moist humus-rich acid soil in shade or semi-shade[200]. Plants flower more freely when grown in a sunny position. Plants grow better if they have certain fungal associations in the soil. The best way of providing this is to incorporate some soil from around well-growing established plants into the soil for the new plant[200].

Hardy to at least -15°c[200].

The leaves are covered in tiny spots or glands from which a strong, resinous scent is given off[245]. The flowers also have an aromatic perfume[245].

Plants benefit from removing the dead flowers before they set seed[188]. This prevents them putting too much energy into seed production at the expense of more flowers and leaves.

Propagation

Seed - surface sow in a shady part of the greenhouse in February or March[78, 113]. Another report says that the seed is best sown in the autumn as soon as it is ripe[188]. Germination is variable and can be quite slow. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow the pots on in a shady frame for 18 months before planting them out into their permanent positions[78].

Cuttings of half-ripe wood, 5 - 8cm with a heel, July/August in a frame. Plant out in spring. Fair percentage[78].

Cuttings of mature wood, November/December in a frame[113].

Layering in the autumn. Takes 12 months[78].

Division.

Scent

Flowers: Fresh

> The flowers have an aromatic perfume.

Leaves: Crushed

> No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Web References

- [B] Data (Latin & Common names, other references) from the BONAP's Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands.
- [S] SW USA Dist. Maps from the Southwest School of Botanical Medicine
- [S] Image from the Southwest School of Botanical Medicine
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- [C] Taxon data. from the CalFlora database.
- Images from the CalPhoto database.
- [P] Data. (uses, distribution, wetland) from the UDSA'a Plants database.
- [HP] Links, Photos, Suppliers from Hortiplex Plant Database

References for *Ledum glandsulosum* (a possible synonym).

- [E] Ethnobotany Data (common names, uses, countries) from the Ethnobotany Database.

References for the family Ericaceae.

See the PFAF Links Pages for other sources

Also try Photos and info from the The Plants Database which has 14,000 images.

References

[1] **F. Chittendon.** *RHS Dictionary of Plants plus Supplement. 1956* Oxford University Press 1951
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[183] **Facciola. S.** *Cornucopia - A Source Book of Edible Plants.* Kampong Publications 1990 ISBN 0-9628087-0-9
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[188] **Brickell. C.** *The RHS Gardener's Encyclopedia of Plants and Flowers* Dorling Kindersley Publishers Ltd. 1990 ISBN 0-86318-386-7
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[245] **Genders. R.** *Scented Flora of the World.* Robert Hale. London. 1994 ISBN 0-7090-5440-8
An excellent, comprehensive book on scented plants giving a few other plant uses and brief cultivation details. There are no illustrations.

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Readers Comments

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If you know of another site which has good information about this plant fill in the following the details here.

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URL for Site: http://

Details:

Enter your details here:

Your Name:

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You can also add a more extensive comment which has better cross referencing or a general comment on the whole database.

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Plants For A Future: Database Search Results

Ledum glandulosum

Common name:	Labrador tea	Family:	Ericaceae
Author:	Nutt.	Botanical references:	11, 60, 200
Synonyms:			
Known Hazards:	Plants contain a narcotic toxin called Ledel. This toxin only causes problems if the leaves are cooked for a long period in a closed container[172].		
Range:	Western N. America.		
Habitat:	Wet montane meadows and open woods[60].		
Plants For A Future Rating (1-5):	2		

Other Possible Synonyms:	From various places across the web, may not be correct. See below.
	L. glandsulosum[E] L. glandulosum var. californicum[B,P] L. groenlandicum ssp. glandulosum[B]
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Epithets:	From a Dictionary of Botanical Epithets
	glandulosum = glandular;
Systematics:	From a UDSA Plants Database
	Order: Ericales . Heath family
Other Range Info:	From the Ethnobotany Database
	Us; Us(Flathead)

Physical Characteristics

An evergreen shrub growing to 1.5m. . It is in leaf all year, in flower in May. The scented flowers are hermaphrodite (have both male and female organs). We rate it 2 out of 5 for usefulness.

The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils and can grow in very acid soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves; Tea.

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The leaves are used as a flavouring, they are a bayleaf substitute[172].

The fresh leaves can be chewed[183].

Medicinal Uses

Disclaimer

Astringent; Diaphoretic; Diuretic; Laxative; Stomachic.

The leaves and young flowering shoots re astringent, diaphoretic, diuretic, laxative and stomachic[172].

Other Uses

Repellent.

The leaves are used to repel moths, mice, rats etc[172].

Cultivation details

Requires a lime-free loam or peaty soil[1, 11]. Prefers a moist humus-rich acid soil in shade or semi-shade[200]. Plants flower more freely when grown in a sunny position. Plants grow better if they have certain fungal associations in the soil. The best way of providing this is to incorporate some soil from around well-growing established plants into the soil for the new plant[200].

Hardy to at least -15°c[200].

The leaves are covered in tiny spots or glands from which a strong, resinous scent is given off[245]. The flowers also have an aromatic perfume[245].

Plants benefit from removing the dead flowers before they set seed[188]. This prevents them putting too much energy into seed production at the expense of more flowers and leaves.

Propagation

Seed - surface sow in a shady part of the greenhouse in February or March[78, 113]. Another report says that the seed is best sown in the autumn as soon as it is ripe[188]. Germination is variable and can be quite slow. Prick out the seedlings into individual pots as soon as they are large enough to handle and grow the pots on in a shady frame for 18 months before planting them out into their permanent positions[78].

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Layering in the autumn. Takes 12 months[78].

Division.

Scent

Flowers: Fresh

The flowers have an aromatic perfume.

Leaves: Crushed

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

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Habitat:	Wet montane meadows and open woods[60].		
Plants For A Future Rating (1-5):	2		

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The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant prefers acid soils and can grow in very acid soil. It can grow in full shade (deep woodland) semi-shade (light woodland) or no shade. It requires moist soil.

Habitats and Possible Locations

Woodland, Dappled Shade, Shady Edge, Deep Shade.

Edible Uses

Condiment; Leaves; Tea.

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The leaves and young flowering shoots re astringent, diaphoretic, diuretic, laxative and stomachic[172].

Other Uses

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Cultivation details

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Layering in the autumn. Takes 12 months[78].

Division.

Scent

Flowers: Fresh

The flowers have an aromatic perfume.

Leaves: Crushed

No details on scent.

Suppliers

For more details of plant suppliers please see our Suppliers Page which lists many more places to look.

Have you found this information useful? You can help keep our project going by joining Friends of Plants For A Future or making a donation to the project.

Plant information taken from the Plants For A Future - Species Database. Copyright (c) 1997-2003.
WEB search engine by Rich Morris - Home Page- Contact Info
Plants for a Future, Blagdon Cross, Ashwater, Beaworthy, Devon, EX21 5DF, UK.
Website: www.pfaf.org Phone: 0845 458 4719/+44(0) 1208 872963

This page (UK) `http://www.comp.leeds.ac.uk/cgi-bin/pfaf/arr_html?Ledum+glandulosum`
This page (US) `http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Ledum+glandulosum`

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Plants For A Future - Readers Comments

These comments will be added to the corresponding webpages/database pages. There a good place if you have extra information about a plant or want to express an opinion. However, if you have a general question you can use our Mailing List or email webmaster@pfaf.org (note we don't have the time to answer individual plant related queries).

Add a comment on: *Ledum glandulosum*

Subject:

Ledum glandulosum

Group:
Plant Information

Comment:

Enter your comment about this plant here.

You can use <I>*Italic text*<I> to put a Latin plant name in italics. You can also use the <A HREF="http://host/file">Link Text</A> syntax to add a hyper link. Paragraphs can be be marked by a <P>. Empty lines are also treated as paragraph marks. No other html codes is allowed.

Optional web-link:

Name of Site:

URL for Site: http://

Details:

Details of Location and growing conditions:

This could help other readers know if your comment applies to their bio-region. Details such as country you live in or your hardyness zone could go here.

Plant names you would like this comment to be added to:

Ledum glandulosum

Please use the exact Latin Names of the plants as specified in this database, one per line.

Plant Genera you would like this comment to be added to:

Please use the first word of the Latin Names of the plants as specified in this database, one per line.

Pages in the PFAF site you would like this comment to be added to:

You can either use the full url i.e. http://www.scs.leeds.ac.uk/pfaf/onions.html or just the ending i.e. onions.html. Please specify one per line. For security reasons the comments will only be added to web pages on a daily basis.

Your Name:

Your Email Address:

Date: Sun May 16 06:11:21 2004

Plants For A Future reserve the right to edit or delete comments. We may also use these comments in copies of the database we may distribute.

Add Comment Reset

For various boring reasons comments only appear on web-pages and the Australian and US mirrors on an approximatly daily basis. Comments do appear automatically in the UK database and the index of comments.

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